



**DEFENCE
CAPABILITY
PLAN
2019**



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MINISTER OF DEFENCE FOREWORD

Hon Ron Mark
Minister of Defence

I am pleased to announce the release of the *Defence Capability Plan 2019*. The release of this Plan concludes a series of foundational reviews which align defence policy and planned investments with the Coalition Government's priorities, including the Pacific Reset, and its commitment to safeguarding and providing resilience for the nation's wellbeing.

The capabilities set out here maintain the indicative planned investment in Defence signaled by the *Defence Capability Plan 2016*. However this Plan goes further, prioritising new investments to better address New Zealand's strategic environment, and highlighting investments which will be required in the longer term. The Plan will be delivered in a fiscally responsible manner, with the indicative capabilities and costs outlined here being subject to robust scrutiny prior to Cabinet consideration of business cases, and funding being available through the Budget process.

Together with the *Strategic Defence Policy Statement 2018*, this Plan sets the foundation of Defence for the Coalition Government. The *Strategic Defence Policy Statement 2018* outlined how the Defence Force provides value to the community, nation and world, and raised the priority placed on the Defence Force's ability to operate in the South Pacific to the same level as New Zealand's territory, the Southern Ocean and Antarctica; this Plan provides a vision for the capabilities that will deliver on the Policy Statement, and for an enhanced and sustainable Defence Force.

The *Defence Capability Plan 2019* comes at a critical point in time, with anticipated decisions likely to shape the Defence Force for the next thirty years or more. The significance of this undertaking is substantial; however its value to New Zealand, as outlined in this document, is greater than the investment required. To realise that value, this plan maintains the \$20 billion in capital investment out to 2030, first signalled in the *Defence White Paper 2016*. This includes \$5.8 billion invested in Defence Capabilities since 2014, with \$2.4 billion being committed to the P-8A Poseidon maritime patrol aircraft.

The decision by the Coalition Government to purchase four P-8A Poseidon aircraft to replace the aging P-3K2 Orion fleet has laid a strong foundation. This purchase demonstrates a strong commitment to acquire combat-capable, flexible capabilities that can support security for New Zealand and the South Pacific, whilst also contributing to efforts to reinforce the international rules-based order.

Other major platforms which underpin the Defence Force are now reaching the end of their service lives. The C-130H Hercules fleet and the New Zealand Army's vehicle fleet have provided significant value in operations ranging from Antarctica and East Timor, to the Middle East. Preserving these vital contributions through investment in modern, contemporary capabilities is the highest priority for delivering this Plan.

The range of operations conducted by the New Zealand Defence Force in relation to its size will require innovative capability solutions. This will necessitate pairing proven technologies with unique ways of operating suited to New Zealand's specific strategic environment. This will include responding to the impacts of climate change, which will continue to test the security and resilience of our community, our nation, the South Pacific, and the world. These challenges were highlighted in the 2018 Defence Assessment – *The Climate Crisis: Defence Readiness and Responsibilities*. Early thinking on an enhanced sealift capability to replace HMNZS *Canterbury* will mean that New Zealand is well placed to respond and will enhance New Zealand's resilience against risks to our national wellbeing.

Significantly, capability decisions will need to consider the fundamental changes to the ways in which militaries operate across the world. As the rate of technological change accelerates, so too will the complexity of our strategic environment. Staying in line with these technologies will be crucial to ensuring our Defence Force remains properly resourced and positioned.

For these reasons the Plan includes planned investment in space-based systems, analytical intelligence capabilities, and semi-autonomous and remotely operated technologies. The Plan also reinforces the importance of digital capabilities as critical enablers across operations, with greater investment in cyber capabilities.

This Plan also gives greater emphasis to the sustainability of the Defence Force than previous versions. Capabilities have been prioritised to provide value for money, and wide ranging support to other agencies, delivering a broad range of outcomes to New Zealand. The recently purchased dive and hydrographic vessel, HMNZS *Manawanui*, has demonstrated that the delivery of defence capabilities can be undertaken in a fiscally responsible manner, while also enhancing those capabilities to better meet the demands of the future.

I am confident that New Zealand's Defence agencies will rise to the challenge of delivering this Capability Plan. The review of Defence's procurement practices, completed by Sir Brian Roche in May 2018, demonstrates the considerable success of Defence's commitment towards improvements to investment delivery. These improvements are an explicit recognition of the scale and importance of the capital portfolio.

We have an obligation to ensure that New Zealand remains secure and prosperous, that we meet our commitments to our partners, uphold and represent our nation's values globally, and that we are prepared to address the challenges that face our future generations. The *Defence Capability Plan 2019* delivers on that obligation, and will ensure that the Defence Force is able to deliver value to the community, nation, and the world for decades to come.



CHAPTER

1

Executive Summary

Air Force crew from No. 3 Squadron prepare to depart from Westport during Exercise Southern Katipo 17.

1. The *Defence Capability Plan 2019* sets out the indicative planned investments in the New Zealand Defence Force out to 2030, while further identifying potential investments to be made after 2030. Delivering on these investments will provide the Defence Force with the capabilities required to give effect to the Government's policy intentions, outlined in the *Strategic Defence Policy Statement 2018*.
2. The *Defence Capability Plan 2019* has been jointly prepared by the Ministry of Defence and the New Zealand Defence Force. A broad range of other Government agencies have provided input and assurance. This Capability Plan builds on earlier versions, including the *Defence Capability Plan 2016*, incorporating changes necessary to deliver the *Strategic Defence Policy Statement 2018*.
3. The planned investments signalled here maintain the \$20 billion programme of capital investment out to 2030, while improving the overall ability of the Defence Force to respond to the strategic environment. Furthermore, for the first time potential investments have been identified to provide for the next generation change to the Defence Force, beginning in 2030. These initiatives, informed by long-term planning and development, will be explored in detail in the Defence White Paper planned for 2022.
4. Extending long-term planning in Defence allows for sustainable, high-value investments to be considered. Taken alongside recent commitments, the *Defence Capability Plan 2019* provides for the replacement and regeneration of all major Defence capabilities.
5. The *Strategic Defence Policy Statement 2018* described the value that the Defence Force provides for the community, the nation, and the world, delivered through the current and future capabilities it maintains. The nature of these contributions, and how capabilities are used to fulfil New Zealand's Defence policy, is outlined in the following chapter. Either independently or with partners, the New Zealand Defence Force is able to respond to events which impact New Zealand's wellbeing, from civil defence emergencies at home, to global threats to the international rules-based order that we rely on for our way of life.

Delivering on Government policy

6. Consistent with the Coalition Government's Pacific Reset, key changes to this *Defence Capability Plan* are focused on increasing the effectiveness of the Defence Force to operate in the South Pacific. Foremost in these changes is increasing New Zealand's capacity to respond as the demand for assistance grows, with improved capabilities to move personnel, stores and equipment.
7. The means by which these priorities will be delivered are outlined in Chapter Three, alongside plans for new capabilities needed to address the challenges identified in the *Strategic Defence Policy Statement 2018*. Central to this is the inclusion of capabilities to improve New Zealand's maritime domain awareness; a vital component of New Zealand's security and prosperity. This will be achieved through improved and dedicated surveillance capabilities that provide a broad appreciation of maritime activities, from the Southern Ocean to the South Pacific.

Preparing for the future

8. By 2030 the environment within which the New Zealand Defence Force is expected to respond will have changed considerably. Driven by climate change and competing national interests, the frequency and diversity of security events are expected to have increased. New Zealand will require a Defence Force which can provide Government with a broad range of options, including undertaking its roles concurrently if required.
9. In keeping with the Government's expectations of Defence, this includes being able to respond independently to events in the South Pacific if required. However, the need to continue to operate with our partners to further common interests will continue. The response options, including enhanced sealift and airlift capabilities, and growth in the size of the New Zealand Army, provided through the delivery of this plan are detailed in Chapter Four.
10. To meet the principles of the *Strategic Defence Policy Statement 2018*, while balancing cost, viability of delivery and operational needs, the integration of modern technologies and practices have been outlined in Chapters Six and Seven. Cyber, intelligence, semi-autonomous and space-centred technologies will provide New Zealand with a Defence Force that is resourced and prepared to operate in a modern strategic environment. These technologies will also lower risk to New Zealand Defence personnel, and improve the efficiency and effectiveness of the Force as a whole.
11. To ensure the long-term sustainability of the New Zealand Defence Force, improvements will continue to be made to the way Defence manages its logistics and its workforce. Furthermore, new approaches to delivering essential services will be considered, including working with commercial partners to deliver information technologies necessary for the operation of the New Zealand Defence Force.

Planned investment in Defence capabilities

12. The specific investments planned for major capabilities, within the air, maritime, land and information domains are outlined in Chapter Seven. Providing the purpose, timing and estimated cost range of each investment, the *Defence Capability Plan 2019* offers a transparent, informative indication of Defence priorities to the New Zealand public, and to our Defence partners overseas. Providing an outline of planned investments also ensures that Defence is well situated to work with industry to deliver on this Plan.
13. The timing, description, and cost of capability investments provided in this plan are indicative, and subject to approval by Cabinet. Investment intentions out to 2030 are subject to individual business cases justifying the investment, and funding being available through the budget process, taking into account other Government priorities. Indicative investments planned for commitment between 2030 and 2035 have been included to allow for considered, long-term planning for the Defence Force's future needs. These capabilities will be reassessed ahead of the 2022 Defence White Paper.



CHAPTER 2

Community, Nation and World

An Army soldier of 2/1 Battalion RNZIR during a platoon quick attack exercise in the Waiouru Military Training Area.

14. The *Strategic Defence Policy Statement 2018* set out the Coalition Government's strategic policy for Defence. Through an assessment of the global strategic environment and its implications for New Zealand, the Policy Statement defined the roles, priorities and principles expected of the New Zealand Defence Force. This Plan sets out the capabilities required to fulfil these expectations.

Defence outcomes: Delivering value to the Community, Nation and World

15. Defence supports New Zealand's security, resilience and wellbeing across a broad range of activities. In particular, Defence:

Community

Supports New Zealand's community and environmental wellbeing and resilience.

Nation

Promotes a safe, secure, and resilient New Zealand, including on its borders and approaches.

Contributes to maintaining New Zealand's prosperity via secure air, sea and electronic lines of communication, and secure access to space-based services.

World

Contributes to the maintenance of the international rules-based order.

Contributes to New Zealand's network of strong international relationships.

Principles underpinning New Zealand's Defence policy

16. The *Strategic Defence Policy Statement 2018* articulated several fundamental high-level expectations of the Defence Force. The delivery, introduction and operation of the capabilities in this Capability Plan will be undertaken in a manner that ensures the following principles are adhered to:

16.1 **Defence is combat-capable, flexible and ready:** The core purpose of the Defence Force is to deliver military effects. Combat capabilities are of fundamental importance. The Defence Force forms a core component of New Zealand's broader national resilience, typically operating alongside and in support of other agencies. The Defence Force's capabilities enable it to deliver a broad range of activities that support New Zealand's overall wellbeing.

- 16.2 **Defence personnel are highly trained professionals:** Whether in regular force, reserve or civilian roles, Defence Force personnel are professionally trained and skilled to succeed.
- 16.3 **Defence has the resources to meet the Government's operational and strategic priorities:** The Defence Force is equipped and resourced to meet the operational requirements placed on it by the Government, and Defence is positioned to respond to the changing strategic environment.
- 16.4 **Defence operates in ways that maintain public trust and confidence:** Defence Force activities are subject to civilian control, exercised through the Minister of Defence and the Cabinet more generally. Defence must be transparent and open with the New Zealand public.
- 16.5 **Defence embodies and promotes New Zealand's values:** Domestically and offshore, Defence promotes New Zealand's enduring values. Defence also operates in accordance with these values. Internationally, Defence must be an agent of New Zealand's independent foreign policy, act to promote New Zealand as a good international citizen, and support the international rules-based order. Defence operates in accordance with both domestic and international law, including the Law of Armed Conflict and International Humanitarian Law.
- 16.6 **Defence is a credible and trusted international partner:** In supporting New Zealand's interests, Defence makes valued, credible contributions to New Zealand's international security partnerships. This includes meeting New Zealand's commitment as an ally of Australia. The Defence Force adds value to international coalitions and other joint operations, and is interoperable with New Zealand's key security partners.

17. The priorities and principal roles of the *Strategic Defence Policy Statement 2018* describe the Coalition Government's expectations for the Defence Force. Equally, capability provides the means through which the Defence Force meets these expectations, as described below.

Community

18. The Coalition Government is committed to putting wellbeing at the heart of its policies, including its Defence policies. The New Zealand Defence Force is a major contributor to safeguarding and providing resilience to the nation's wellbeing.
19. The capabilities of the Defence Force are unique within New Zealand. Given this, they must also be complementary to, and ready to support, other Government agencies towards all-of-Government objectives. This includes the New Zealand Police, Ministry for Primary Industries, Ministry of Civil Defence and Emergency Management, Customs New Zealand, the Department of Conservation, the Ministry of Health and others as needed.

Contribute to national, community and environmental wellbeing and resilience, and whole-of-Government security objectives

20. Following civil emergencies, the New Zealand Defence Force's sealfit, airlift and land transport capabilities allow rapid responses through the provision of supplies and personnel. Where necessary, these capabilities are able to evacuate at risk populations. Medical and engineering capabilities can also provide relief, particularly in the critical early phases of an operation.
21. Air surveillance and dive and hydrographic capabilities allow for the inspection of critical infrastructure on land and at sea, including in isolated or inaccessible locations. Defence infrastructure, including high frequency and satellite communication capabilities, also provides resilience to systems of national importance, allowing for emergency services to maintain communications during crises.
22. These same capabilities, with the naval patrol force, are able to provide the Department of Conservation with the means to protect the environment, including in environmentally sensitive areas such as Fiordland, the sub-Antarctic Islands and the Kermadec Islands.
23. The New Zealand Army provides counter-explosive and counter-terrorist responses domestically. In environmental disasters, land forces also support displaced populations and assist with managing natural hazards, such as flood waters, debris and landslides. First response emergency services are provided through rural and aviation firefighting capabilities, deployable health task groups and temporary accommodation.
24. The New Zealand Defence Force also contributes to community wellbeing through the use of its people and its estate. These capabilities are utilised to deliver the Limited Service Volunteer scheme, to provide motivational, skills-based education to young at risk New Zealanders.

Nation

25. Government's highest priority for the Defence Force is its ability to operate and undertake tasks in New Zealand's territory, including its Exclusive Economic Zone, and neighbourhood from the South Pole to the Equator.

Defend New Zealand's sovereignty and territory, and contribute to protecting New Zealand's critical lines of communication

26. New Zealand's territory and sovereign rights extend from the heart of our nation to the boundaries of our Exclusive Economic Zone and extended continental shelf claims. Defending sovereignty across these areas ensures not only the protection of our national resources, but also that New Zealand's national values are upheld.
27. Patrol capabilities at sea and in the air help ensure that marine protected areas remain untouched, and that our fisheries remain sustainable. They also work collectively to identify, intercept, board and inspect vessels of interest, and assist those in distress. These capabilities draw on intelligence support to ensure the efficient and targeted use of Defence resources.
28. The Defence Force protects New Zealand's critical lines of communication through the safeguarding of those who use them. Maritime search and rescue, monitoring of our borders, and participation in constabulary operations provide for the safety of maritime trade and the many recreational users of the waters around New Zealand and in the region. Capabilities including HMNZS *Manawanui* are also able, where necessary, to provide monitoring of sea lanes, ports and harbours.
29. Capabilities introduced under this plan will also provide greater resilience for New Zealand's digital and space-based lines of communication, by increasing our awareness of space-based activities in our region.

Conduct a broad range of operations in the South Pacific, including leading operations when necessary, to protect and promote regional peace, security and resilience

30. The *Strategic Defence Policy Statement 2018* recognised that, as a Pacific nation, New Zealand's security and wellbeing is intrinsically bound to the peace and stability of the South Pacific. Importantly, the Statement also raised the priority placed on the Defence Force's ability to operate in the South Pacific to the same level as New Zealand's territory, the Southern Ocean and Antarctica.
31. High-readiness contingent capabilities are maintained by the Defence Force to respond to events in the Pacific, from humanitarian and disaster relief to security and stability operations.
32. Being prepared to operate independently or to lead peace and security operations in the Pacific requires a Defence Force that is able to operate effectively within the air, maritime, land and information domains. This force needs to act cohesively within potentially high-risk environments, inserting and sustaining diverse capabilities, preventing or minimising conflict, and supporting local communities to build security.
33. Capabilities must be ready to gain access to islands via the sea. This may require maritime mine counter-measures, inspection of infrastructure, and the surveying of sea routes. Air surveillance capabilities also provide situational awareness, identifying the scale and impact of an event, movements of people and the state of critical infrastructure, including roads, ports and airfields.
34. Once established, access allows amphibious forces to operate. Landing craft and helicopter forces operating from sealift vessels, as well as airlift capabilities, can supply a high-readiness land combat company, and if required, special operations forces into the region to secure and stabilise the event.
35. Once a presence is established, New Zealand's sealift, sustainment and air transport capabilities will transport equipment, stores, and rotating medium-readiness land forces to support nations until stability is restored.

Support New Zealand's presence in the Ross Dependency of Antarctica, and work with other agencies to monitor and respond to activity in the Southern Ocean

36. New Zealand has strong ties to Antarctica. While maintaining our claim in the region, New Zealand supports the Antarctic Treaty System, including the use of the region for peaceful purposes, and works to improve scientific and environmental endeavours in the region.

37. The skills of the personnel of the Defence Force, including field engineering, logistics management, and the operation of ships and aircraft in challenging environments, mean the Defence Force is ideally suited to support New Zealand's interests in the region. This is achieved by undertaking non-military tasks to support other Government agencies and the international scientific community.
38. The New Zealand Defence Force's airlift capabilities provide the transportation of personnel and supplies to the continent, including Defence personnel who repair and replace infrastructure and maintain supply lines.
39. Fishing vessels and vessels in distress are able to be monitored by air surveillance capabilities. Using intelligence gained through surveillance, the naval patrol force undertakes fisheries patrols on behalf of the Convention for the Conservation of Antarctic Marine Living Resources, and search and rescue activities in support of New Zealand's search and rescue obligations.
40. HMNZS *Aotearoa* will further support the civilian presence on the continent, including scientific research, through the provision of supplies on behalf of the Joint Logistics Pool.
41. The delivery of a specialised Southern Ocean Patrol Vessel will allow for fisheries patrols to monitor a greater area of the Southern Ocean. With the ability to refuel at sea from HMNZS *Aotearoa*, this vessel will also improve the ability of the Defence Force to maintain fisheries patrol throughout the fishing season.

Work with other agencies to monitor and understand New Zealand's strategic environment

42. The activities outlined above demonstrate how Defence Force capabilities regularly support other agencies in New Zealand and the Pacific.
43. These activities provide significant intelligence regarding our national and regional security. Specialist intelligence, cyber and surveillance capabilities are maintained to allow this intelligence to be analysed, informing the strategic environment for Defence and other New Zealand Government agencies.
44. Effective monitoring of the strategic environment allows New Zealand to anticipate sudden changes, and to observe and plan for long-term changes. The capabilities required to achieve this outcome will be enhanced under this *Defence Capability Plan 2019*.
45. New Zealand's national security and interests also depend on events further afield. It is important that New Zealand can contribute Defence capabilities in support of Asia-Pacific regional security. Similarly, New Zealand must be able to contribute globally to support the maintenance of the international rules-based order.

World

Meet New Zealand's commitments to its allies and partners

46. Working with our partners, New Zealand maintains a number of high-end combat-capable, flexible capabilities that can be used in support of peace and security within the region and the world.
47. Three core capabilities comprise New Zealand's high-end capabilities:
 - 47.1 The decision in July 2018 to procure four P-8A Poseidon maritime patrol aircraft means New Zealand will retain a common strategic air surveillance capability with key Defence partners following the withdrawal from service of the P-3 Orion fleet;
 - 47.2 The naval combat capabilities provided by the ANZAC frigates, and recently modernised through the Frigate Systems Upgrade project to retain world class combat systems and interoperability with New Zealand's key defence partners. With HMNZS *Aotearoa*, the frigates will also provide a global response option for long duration operations; and
 - 47.3 New Zealand's Special Operation Force, providing very high readiness counter-terrorism, special reconnaissance, and combat capabilities.
48. Other Defence Force capabilities are able to provide valuable contributions to operations with our partners. This may be through the provision of niche capabilities such as rapid environmental assessment to support amphibious operations or the use of ports about which little is known, or through contributions that supplement partner forces.
49. As an integrated Defence Force, the contribution of combat capabilities to our partners is reliant on support capabilities. This includes the delivery of capabilities into an area of operations through air or sealift, and sustainment of the capability for the duration of the operation.
50. The nature of these capabilities offers Government a high level of discretion as to the size and nature of New Zealand's contributions to operations outside of New Zealand's immediate neighbourhood. Each is able to be deployed individually, or as a joint task group, towards coalition operations.
51. Maintaining these capabilities' interoperability will ensure they remain a valued contribution which will complement our partners' forces, while also strengthening New Zealand's force when it is operating independently.

Protect New Zealand's wider interests by contributing to international peace and security and the international rules-based order

52. New Zealand's contributions to the international rules-based order usually comprise individual capabilities, or small task groups of capabilities working as part of a broader international effort.
 53. Contributions towards the rules-based order will continue to include a mix of capabilities:
 - 53.1 International efforts to combat piracy, transnational crime including the transshipment of narcotics, and maritime security operations will continue to be supported by naval combat and air surveillance capabilities; and
 - 53.2 United Nations peacekeeping operations and capacity building missions will be primarily supported by land forces, with a wide variety of deployable capabilities available to offer value to these operations.
 54. Future contributions to the international rules-based order will also require capabilities suitable for New Zealand's place within the digital world. Space and cyber capabilities, described in this *Defence Capability Plan 2019*, will enable New Zealand to expand its contribution in this area.
- ### Make a credible contribution in support of peace and security in the Asia-Pacific region, including in support of regional security arrangements
55. The collective capabilities of the New Zealand Defence Force offer Government a broad range of options for contributions in support of peace and security in the Asia-Pacific Region.
 56. Choices on the size and nature of deployments will ultimately depend on the event in question. This may require immediate, short-term responses to events such as natural disasters or conflict, or may involve long-term commitments.

A sunset view across an azimuth compass on the bridge of a Navy ship. The sun is low on the horizon, casting a golden glow over the sea and sky. The compass is in the foreground, with its various components and a vertical scale visible. The overall scene is serene and evocative of naval operations.

CHAPTER 3

Delivering the Strategic Defence Policy Statement 2018 and Supporting the Pacific Reset

Sunset view across an azimuth compass on the bridge of a Navy ship.

57. The *Strategic Defence Policy Statement 2018* anticipates an increase in the frequency of responses the Defence Force will be required to undertake in New Zealand's neighbourhood. Our ability to respond across this area, which reaches from Antarctica to the South Pacific, requires that we can monitor events and trends as they unfold, and lead the responses to them.
58. This Plan responds to the requirements outlined in the Policy Statement, by improving New Zealand's overall capacity to respond, and providing greater ability to respond to multiple events concurrently.
59. Capabilities have been prioritised to provide the greatest value to New Zealand, and New Zealand's interests in the Pacific. The capability needs identified in the Policy Statement have been addressed, with investments planned to improve our awareness of, and response to what is occurring within our maritime domain, to develop and maintain sophisticated cyber capabilities, and to provide Defence contributions to the security of space-based systems.
60. Recognising the value the Defence Force contributes to the community and the nation through all-of-Government objectives, this Plan also gives increased emphasis to inter-agency cooperation.

Defence supporting the Pacific Reset

61. New Zealand is committed to long-term support to the Pacific, which is based on understanding, friendship, mutual benefit, collective ambition and sustainability. This has been reinforced by the Coalition Government's Pacific Reset. Defence has an active role to play in this, filling the need for capabilities with which our Pacific partners are not equipped.
62. New Zealand is a Pacific nation through geography, identity, and values. Our nation's security and wellbeing are intrinsically bound to the peace and stability of the Pacific. Growing competition in the region will challenge New Zealand and Australia's ability to maintain influence, protect our security, and have a more positive impact in line with our values.
63. The Pacific Islands region is also disproportionately affected by the impacts of climate change, at the same time that it faces other intensifying complex disruptors, such as transnational crime and resource competition. Together, these challenges could test Pacific nations, and will likely require increased levels of assistance, including humanitarian and disaster response operations.
64. The *Strategic Defence Policy Statement 2018* increased the priority for the New Zealand Defence Force to be able to operate in the Pacific to the highest level, equal with New Zealand's own territory, our Exclusive Economic Zone, and the Southern Ocean and Ross Dependency. This reflects the importance of the Pacific to New Zealand's national security. New Zealand's defence role in the Pacific is non-discretionary, and the New Zealand Defence Force already maintains a robust programme of engagements across the region, which is being further enhanced in the context of the Pacific Reset.
65. As the *Strategic Defence Policy Statement 2018* recognises, the Defence Force will have to act in new ways and at new levels to protect New Zealand's interests. The *Defence Capability Plan 2019* delivers the required lift in capability for New Zealand to support the Pacific into the future. It provides for long-term, sustainable efforts in the Pacific, as well as immediate responses to potential shocks and fast-moving events in the region.
66. New Zealand has unique strengths to draw from when providing Defence support to the Pacific region. Cooperation among Pacific Island nations will be most successful when it leverages respective strengths and coordinates complementary approaches to meet Pacific security needs, in fostering a secure, stable and resilient region.

Increasing our capacity to respond

67. This Plan refocuses and improves Defence's airlift and sealift capabilities, to better support challenges in the Pacific region. The demand placed on HMNZS *Canterbury* has highlighted the criticality of effective sealift. Experience over the last ten years has highlighted the operational and environmental limits of HMNZS *Canterbury*, as well as the risks inherent in maintaining a sole vessel of this type. Similarly, the C-130H Hercules are among the most Pacific orientated capabilities of the Defence Force, and are crucial to transporting New Zealand Defence Force people and equipment to operations around the region, including areas of high risk, or those which have limited accessibility for other aircraft.
68. The C-130H Hercules will be replaced within the next five years, ensuring that this vital capability is maintained for decades to come. The replacement of the C-130H will provide for the full regeneration of existing Royal New Zealand Air Force capabilities. Immediate, high-readiness responses in the Pacific, from humanitarian and disaster relief to potential conflict or security incidents, will require a flexible and versatile tactical airlift capability. For this reason, replacement of the C-130H is the highest priority for this plan.
69. Recognising the high value of sealift to humanitarian and disaster relief, and the sustainment of deployed forces, in the mid-2020s an additional sealift vessel will be acquired. Operating alongside HMNZS *Canterbury*, this acquisition will provide two sealift vessels, and will greatly improve the effectiveness of the Defence Force, and the resilience of the nation, and the region.
70. The enhanced sealift vessel will have greater lift capacity than HMNZS *Canterbury*. The capability will provide a highly flexible military asset, including hospital facilities, planning spaces, and self-defence capabilities. It will also provide support for the deployment of a range of capabilities, including Special Forces, Unmanned Aerial Vehicles and NH90 helicopters. The enhanced sealift capability will also improve the New Zealand Defence Force's amphibious operations. Through the provision of a well dock, it will be able to conduct operations in a wider range of sea conditions, and will have the size and capacity to carry large equipment, and sufficient aviation capacity to allow extended, long duration operations. Its size will also provide for the transport of a larger number of personnel, allowing for the value of the increased size of the New Zealand Army to be realised.
71. Collectively, these enhancements will significantly increase our ability to respond to humanitarian and security events in the Pacific region. While a future project will determine detailed requirements for this capability, a Landing Platform Dock is an example of the type of vessel that will be considered.
72. Following 2030, HMNZS *Canterbury* will be withdrawn from service. At this time an investment will be made to further improve the Defence Force's sealift capability with an additional vessel. Options will be explored against the composition of the fleet, the wider Defence Force and the prevailing strategic environment.

Sustaining our presence in the community

73. People are the foundation from which the Defence Force is able to support the community, both at home and in the Pacific region. Defence people provide the connection between the Defence Force and the communities to which they belong. They represent our collective values and cultures, our whakapapa and whānau, and are New Zealand's single greatest defence asset in the South Pacific.
74. Defence Force people, operating from sea, air, and land, provide security and stability, and relief from natural disasters in the same way that they do throughout the region and beyond.
75. Community-based support from Defence Force people contributes to the building of resilience in ways ranging from air and sea based search and rescue, response to natural disasters, and support to conservation efforts. The connection between Defence people and the communities of New Zealand and our Pacific partners is also deeply imbued in our national identity, providing ceremony and solemnity to occasions of national significance.
76. This Plan delivers foremost on these values and connections by growing the Defence Force by a total of approximately 1500 service personnel. To focus on providing better and more sustainable services to the nation and the Pacific, this will include increasing the size of the New Zealand Army to 6000 personnel by 2035.

Improving our maritime domain awareness and response

Enhanced air surveillance capabilities

77. New Zealand will face an increasing challenge in coming years to identify, characterise and respond to activity within its expansive maritime domain. Addressing this challenge will ensure New Zealand is better placed to protect our natural resources, respond to irregular migration while protecting the safety of those involved, and prevent the impacts of transnational crime from reaching our nation.
78. The purchase of four Boeing P-8A Poseidon maritime patrol aircraft, announced in July 2018, provides a substantial commitment towards meeting this challenge. The P-8A Poseidon will replace the six P-3K2 Orion aircraft, which will be progressively retired from 2023. This replacement will guarantee the continuation of the maritime patrol function available to the Government.
79. The P-8As provide a sophisticated, technologically advanced military capability that is of value to New Zealand and our partners. A commitment will also be made for an enhanced air surveillance capability, potentially utilising long range unmanned aerial vehicles. This capability will be dedicated to civil surveillance tasks, supporting the New Zealand Police, Customs, Immigration, the Department of Conservation, Maritime New Zealand and the Ministry for Primary Industries.
80. This approach will provide greater availability of the P-8A for high-end tasks in support of our defence partners and the international rules-based order, while also providing other agencies with readily available surveillance capabilities that meet New Zealand's national requirements.

Preserving the Southern Ocean and New Zealand's marine living resources

81. In the coming years it is likely that a range of factors will lead to an increase in resource competition, impacting on access to and sustainability of marine resources in New Zealand, the Pacific, and the Southern Ocean.
82. An opportunity exists for New Zealand to better support the sustainability of marine resources in the Southern Ocean and in New Zealand's Exclusive Economic Zone. Monitoring and mitigating the effects of climate change will also require continued support to New Zealand's civilian presence in Antarctica and the Southern Ocean.
83. Towards these ends this *Defence Capability Plan 2019* includes the delivery of a dedicated Southern Ocean Patrol Vessel. The capabilities of this vessel will be primarily for use towards supporting other agencies in the Southern Ocean and around New Zealand. Built to commercial specifications, the vessel will have minimal specialist military capabilities.
84. This vessel will be used by Defence alongside other Government agencies in the Southern Ocean and the waters of New Zealand, allowing the Otago Class offshore patrol vessels, and their eventual replacements, to focus on the South Pacific.
85. While the operation of this vessel will be Defence-led, it will be able to support non-Defence functions including the gathering of scientific data.

Replacement of key capabilities

86. The *Defence Capability Plan 2019* will see investment in all the core capabilities that have provided the foundation for New Zealand's Defence Force for the last two decades. These high-end capabilities offer significant value to New Zealand's security and our defence relationships.
87. The Plan has been developed to ensure that each capability is able to be sustained to provide the necessary resources to our Defence personnel. Replacement of capabilities have been planned in a manner that is both financially and operationally achievable, to prevent capability gaps while maintaining affordability.

Maintaining our high value air capabilities

88. The purchase of the P-8A will bring enhanced capability to the roles performed by the P-3K2 Orions over many decades such as contributing to the international rules-based order through peace and security operations, search and rescue, and as a contribution toward coalition operations with our defence partners.
89. The P-8A will enable New Zealand to continue to carry out a wide range of surveillance operations independently, and when required, work effectively with partners including Australia, the United Kingdom, and the United States, who will all be operating the aircraft at the time of delivery to New Zealand. Extending this commitment to the Royal New Zealand Air Force's fleet of C-130H aircraft is the highest priority included in this *Defence Capability Plan*.

Extending the life of the ANZAC Frigates

90. The Government has already made a significant investment in the ANZAC frigates, *Te Mana* and *Te Kaha*. These upgrades have been undertaken to ensure that the frigates remain world-class maritime combat capabilities for the full duration of their service, and include:
 - 90.1 The maintenance of a discrete defensive close-in weapons system on the frigates that provides a final layer of protection against in-bound missile and fast inshore attack craft threats;
 - 90.2 A Platform Systems Upgrade, focused on the replacement of propulsion diesel engines, upgraded cooling systems, and new platform management and integrated bridge systems;
 - 90.3 The acquisition of the SH-2G(I) Seasprite maritime helicopter, to provide an embarked helicopter for the vessels that can provide rotary wing surveillance, warfare and airlift; and
 - 90.4 The Frigate Systems Upgrade, currently being delivered, which will maintain the surveillance, combat and self-defence capabilities of the frigates. This includes replacement of the combat management systems and a number of sensor and weapon systems.
91. A further upgrade to the ships' communications system will ensure continued interoperability with our key Defence partners. These upgrades will be completed in the early 2020s, at which point the ANZAC frigates will provide a greater capability to the New Zealand Defence Force than at any time since their introduction in the 1990s.
92. To realise the full value of these upgrades, the frigates' expected service life will be extended past 2030. This decision has been supported by independent analysis of the vessels, which has demonstrated that they are supportable for a greater period of time than previously anticipated.

Replacing the maritime helicopter fleet

93. The maritime helicopter fleet provides a critical combat element of the ANZAC frigates, while also increasing the effectiveness of other naval capabilities when embarked in patrol, sustainment and sealift ships.
94. To support the improved maritime capabilities in this plan, the maritime helicopter fleet will be replaced by 2027, preventing a capability gap arising from the end of service life of the SH-2G(I) Seasprite.



CHAPTER 4

Responding to the Climate Crisis

Army combat engineers assist Downer Construction in rebuilding the Waiho Bridge near Fox Glacier township.

95. *The Climate Crisis: Defence Readiness and Responsibilities* describes how climate change will be one of the greatest security challenges for New Zealand defence in the coming decades. The Pacific region, including New Zealand, will continue to be impacted by the intensifying impacts of climate change.
96. The dramatic climate effects the Pacific region is facing, stemming from rising temperatures, include continued sea level rise, increased frequency and intensity of extreme weather events such as storm surges, increased intensity of tropical cyclones, and more variable rainfall patterns and prolonged droughts. The implications of these effects include a range of environmental impacts, all of which have flow-on economic, cultural and social consequences.
97. The assessment demonstrates that when the effects of climate change intersect with a complex array of environmental and social issues, these can be significant contributors to both low-level and more violent conflict. Security implications can be further magnified by weak governance and corruption.
98. With current warming rates, the links between climate change and security are on course to intensify, and without prioritisation the New Zealand Defence Force, as well as those of our partners, will be stretched with a growing number of tasks in response to climate-induced impacts globally.
99. Higher levels of readiness will be required to ensure New Zealand is able to respond to events of decreasing predictability. Greater capacity will also be required as events become more frequent, which will result in concurrent operational requirements becoming more likely. Furthermore, the environmental impacts of climate change on the ocean and marine life, particularly in the Pacific and in the Southern Ocean, could see fishing vessels operating in new areas, including in international waters and New Zealand's expansive search and rescue area of responsibility in the coming years.
100. Key implications for New Zealand Defence as a result of climate change will include:
- 100.1 An increase in the number of humanitarian assistance and disaster relief operations;
 - 100.2 An increased likelihood of stability operations; and
 - 100.3 A larger number of search and rescue missions occurring across a broader geographical area.
101. The *Defence Capability Plan 2019* has been developed with full recognition of these challenges. The improved capacity provided through the planned sealift and airlift capabilities, as well as the increase in the size of the New Zealand Army to 6000 personnel, will ensure that the New Zealand Defence Force is prepared to respond as required. Improved aerial surveillance and maritime domain awareness, in the Pacific and Southern Ocean, will also ensure that New Zealand is better informed about the impacts and implications of climate changes as they unfold.

Security impacts of climate change

Climate effects

- Rising temperatures
- Melting ice
- Sea level rise
- Ocean acidification
- Intensifying cyclones
- More or less rainfall
- Floods / droughts
- Heatwaves

Environmental impacts

- Coral bleaching
- Decreasing fish stocks and marine life
- Coastal erosion
- Increase in soil salinity
- Unproductive land (non cultivable and eventually uninhabitable land)

Social impacts*

- Loss of livelihood
- Water and food scarcity
- Increase in malnutrition
- Loss of jobs / education opportunities
- Loss of cultural identity
- Damage to community infrastructure
- Climate migration

Security implications

- Human security challenges
 - Health-related crises
 - Resource competition (food and water security)
 - Violence from mismanaged adaptation or migration
 - Land disputes
- Magnified by weak governance**

The impacts of climate change will become more pronounced as time goes on

*Social Impacts are often interconnected with economic and political factors



CHAPTER 5

**Improving our Ability
to Respond**

An Army emergency responder assists in the response to the Richmond fires near Nelson.

102. The *Defence Capability Plan 2019* represents a commitment to provide New Zealand with a Defence Force that can deliver the outcomes required by the *Strategic Defence Policy Statement 2018*.
103. The Policy Statement identified various factors that will influence New Zealand's strategic environment over the coming decade. As our strategic environment evolves, the contributions of different capabilities towards the defence and resilience of New Zealand's communities and interests can also be expected to change.
104. Capabilities that have been sufficient in past years will be under increased pressure, challenging the ability of the Defence Force to respond. Increasing extreme weather events and transnational crime in the Pacific will require greater involvement in the region. The Defence Force will also need to retain the ability to contribute globally in support of the international rules-based order.

A Force that can operate independently

105. Government's highest priority for the Defence Force is its ability to operate and undertake tasks in New Zealand's territory, including its Exclusive Economic Zone, and its neighbourhood from the South Pacific through to Antarctica. The Defence Force must be prepared to operate independently, or lead combined operations, in these areas if required.
106. Independent operations require a broad range of capabilities that are able to operate as an integrated force across all domains. These capabilities are required to operate across the full spectrum of possible scenarios, from humanitarian relief to those with a significant threat level, including armed conflict.
107. Leading an operation or acting independently presents a high level of complexity. It requires the delivery, sustainment and support of personnel, equipment and stores, potentially operating at great distances from New Zealand. Each capability in this plan plays a part in delivering this collective outcome.

Delivering other Defence priorities

108. Defence deployments beyond New Zealand's immediate region will most likely continue to be as part of operations led by New Zealand's security partners, or as part of United Nations-mandated peace support operations. The Defence Force must be able to operate effectively with New Zealand's key security partners, in particular with our ally Australia.
109. In addition to providing an independent force, the capabilities outlined in this Plan will provide Government with options to meet all of the priorities of the Policy Statement. This includes capabilities that offer wide support to our partners, as well as several niche capabilities required to address security challenges unique to New Zealand.
110. Air, land and maritime capabilities will each provide possible contributions in support of Asia-Pacific regional security, towards United Nations mandated peacekeeping operations, and as commitments in support of the maintenance of the international rules-based order.
111. These same capabilities, along with cyber capabilities, and a range of maritime surveillance capabilities, will monitor New Zealand's neighbourhood, and provide the means for Defence to support other agencies to respond to events in and around New Zealand.
112. In supporting collective outcomes, these capabilities may be deployed individually, or collectively, as part of a wider force. They include an array of capabilities that can act in combat or support roles. This ensures a high level of discretion as to the size and nature of New Zealand's contributions to such operations outside New Zealand's immediate neighbourhood.

How the Defence Force will undertake its principal roles

113. All force elements must be organised, trained and supported to allow for four potential ways of operating:
- 113.1 As **independent elements**;
 - 113.2 As a **Joint Task Force** to provide an independent response option;
 - 113.3 As a military contribution to a **broader New Zealand response**; and
 - 113.4 As a New Zealand contribution to **coalition operations**.
114. The nature of operations and the maintenance of capability can be considered within three distinct types of operations:
- 114.1 Current **Military Operations**, involving the employment of New Zealand's armed forces overseas at the Government's direction;

- 114.2 **Standing Commitments**, ongoing services provided by Defence domestically. These often incorporate the delivery of services to other Government agencies. Standing commitments reflect the role of the Defence Force in protecting New Zealand's sovereignty and community wellbeing; and
- 114.3 **Contingent capabilities**, maintained in order to deploy in response to national risks or sudden changes to the strategic environment, contingent capabilities relate to Defence's role in managing the risk to New Zealand's wellbeing.

Prepared to respond to sudden shifts in the strategic environment

115. Defence is often required to respond to events that cannot be anticipated, and which require an immediate and significant response.
116. To achieve this, contingent capabilities require forces to be kept at agreed levels of readiness:
- 116.1 **Very High Readiness** forces enable rapid response to events in the South Pacific, and to natural disasters; and
- 116.2 **Medium Readiness** forces provide the means to sustain large-scale deployments, including preparing follow on forces and the regeneration of forces following deployments.

A more resilient Defence Force

117. Defence must be able to respond to incidents that arise concurrently. Capabilities that provide a wide range of response options have therefore been prioritised for investment. Where capabilities are currently under pressure to provide sufficient capacity, options have been assessed to determine where their roles can be complemented.
118. Over past decades, the Defence Force has been reliant on a number of capabilities based on either a single or very small number of platforms, including:
- 118.1 HMNZS *Canterbury* – the single sealift vessel of the New Zealand Defence Force is essential to large scale and timely responses in the Pacific region, particularly during cyclone season. However, the ship is also a critical component of any response to domestic civil defence management, and acts as a deployed headquarters for military operations;
- 118.2 Offshore Patrol Vessels – the coincidence of the summer fishing season in the Southern Ocean, and the cyclone season in the Pacific creates demands on the two Offshore Patrol Vessels that often exceed the capacity of a two ship fleet; and

- 118.3 Land Forces – the ongoing deployment of land forces requires training and respite for those being deployed, as well as significant support structures working domestically to enable the deployment. Existing personnel numbers in the New Zealand Army impose a limit of one large-scale deployment at any one time, despite the diversity of roles our land forces play in the community, nation and world.

119. In addition to this, the need for certain capabilities to cover a wide range of roles reduces their overall availability. This can be illustrated by existing air surveillance capabilities provided by the P-3K2 Orion, which are required to concurrently support domestic air surveillance, search and rescue operations, and international partnerships, such as counter-piracy missions.
120. The changes outlined in Chapter Three will significantly enhance Defence's capacity for concurrent operations with additional sealift, patrol, and people. Furthermore, improved aerial surveillance with a greater diversity of response options will improve the efficiency with which capabilities are deployed.

Concurrency

121. With the changes described in Chapter Three, the force outlined in this *Defence Capability Plan 2019* provides sufficient capabilities to ensure Defence is able to deliver its **standing commitments**, including domestic and Southern Ocean operations, while also delivering one of the following:
- 121.1 Contribute a single independent Joint Task Force to a high-risk operation in the South Pacific, including land, air, maritime and support capabilities;
- 121.2 Respond to a low threat security event or provide humanitarian assistance and disaster relief within the South Pacific, while also contributing a small number of capabilities to coalition operations globally; and
- 121.3 Contribute multiple capabilities, individually or collectively, to a range of short duration operations globally.
122. In practice, the operations being undertaken at a given time will be dependent on the needs of New Zealand and the Pacific region, the nature of the events requiring a response, and the decisions of Government as to the type of response provided.

A satellite with four large solar panels is shown in space. The satellite's body is on the right, and the solar panels extend towards the left. The background is a view of Earth from space, showing a blue sky and white clouds. The sun is visible on the right side, creating a bright glow.

CHAPTER

6

Positioning our Defence Force for the Future

Space is of high and growing strategic importance globally, with space based systems becoming increasingly relied on.

123. Flexibility and adaptability will remain key attributes of the capabilities delivered under this Capability Plan. To deliver a force that meets the principles of the *Strategic Defence Policy Statement 2018*, an increasing range of modern technologies and resources will be introduced to the New Zealand Defence Force.
124. The speed and effectiveness with which the Defence Force is able to respond to events is dependent on its ability to collect, analyse, distribute and exploit the immense quantities of information generated by modern information technologies. The effectiveness of all defence capabilities are now dependent on information capabilities. Major investments included in this plan will be unable to provide their full benefits without the corresponding investment in information technologies.
125. Information domain capabilities are critical to Defence Force interoperability and support our defence partnership. The ability to protect, exchange and exploit information to an agreed common standard forms an essential part in our ability to operate with partners, including Australia.
126. This chapter outlines how non-traditional and enabling capabilities will be adapted to provide for the Defence Force and New Zealand into the future.
127. Delivering the information capabilities described in this plan will require Defence to work with other Government agencies. The challenges of keeping pace with technological change and maintaining an appropriately skilled workforce, while also ensuring that agencies retain complementary levels of capability to allow them to work together, will require an all-of-Government solution within the Information Domain.
128. Investments in these capabilities will be informed over the course of delivering the Plan through continued cross agency development on delivery options. This will determine how best to integrate these capabilities into the existing structure of New Zealand's national security system. Consideration will be given to sharing responsibilities and resources between agencies, and will include consideration of the following capabilities.

Technologies for the modern era

Space-centred capabilities

129. Space is of high and growing strategic importance globally, with space-based systems becoming increasingly relied on for communication, commerce, navigation and transport, the management of infrastructure, and the observation of weather movements and human activity. The influence of these systems in everyday life is inescapable, supporting community growth, national prosperity and connectedness, as well as both enhancing and challenging national security objectives.
130. This reliance extends to military capabilities. Space-based systems are essential for communications, information exchange and navigation. They are a prerequisite to maintaining a **professional, combat-capable and flexible force**.
131. New Zealand is now amongst a small number of nations hosting space launches, and has an associated obligation to support international rules and norms regarding the use of space. Furthermore, New Zealand's relative geographic isolation increases the benefits derived from space-based infrastructure.
132. This Plan will deliver satellite surveillance systems, drawing from improved space-based technologies to provide maritime domain awareness to an extent that cannot be achieved through traditional means. This will allow for a greater level of risk identification and more directed utilisation of resources.
133. The specific role of the New Zealand Defence Force in delivering these capabilities will be confirmed during the investment case process. However this role will include the utilisation of space-based systems both to achieve military effects, and also to support all-of-Government outcomes within our Exclusive Economic Zone, our neighbourhood, and the Southern Ocean.

Enhanced cyber capabilities

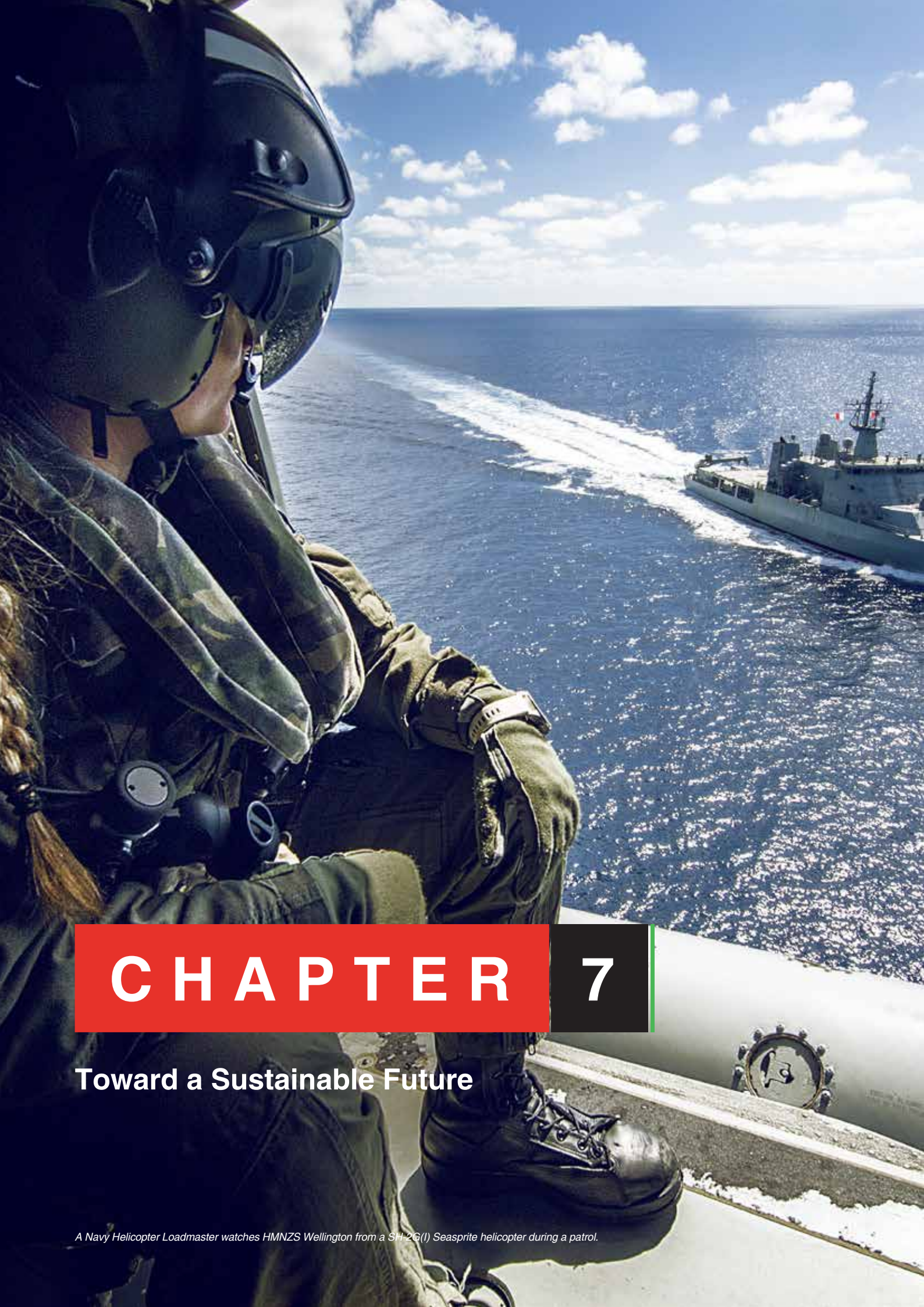
134. To maintain relevant combat capabilities, including interoperability with close partners, the Defence Force needs to be able to conduct a range of cyber operations.
135. In keeping with the commitment made under previous Capability Plans, the New Zealand Defence Force will deliver defensive cyber capabilities, to keep pace with the evolving threat to information security. This capability will ensure we remain a **credible and trusted partner**, and protect information that is central to our national security.
136. Additionally, cyber capabilities will now be developed to include deployable teams capable of generating a range of military effects. These capabilities will offer greater force protection, reduce risks to personnel, and enable military objectives to be met through a greater range of approaches.
137. This cyber capability will have **highly trained, professional personnel** at its core. The Defence Force will expand on the cyber capability committed under the *Defence White Paper 2016*, and progressively build on this capability over the timelines of this Plan.
138. Protection of information and interoperability will also drive the requirement for the upgrade of several communications systems. These upgrades will ensure that existing capabilities keep pace with advancing technological trends in encrypted and high bandwidth communication systems.
139. Where appropriate, new capabilities will be purchased with plans in place for progressive, spiral upgrades, eliminating capability degradation over time and the need for single, high cost upgrades during their service lives.

Long endurance unmanned aerial systems

140. The provision of continuous, real time information is a key determinant in the effectiveness of military operations. Unmanned aerial systems provide a means for commanders to maintain and sustain awareness of their operating environment. This plan includes the delivery of long endurance unmanned aerial systems for intelligence, surveillance and reconnaissance tasks to support land and maritime military forces.
141. Manned aircraft will remain New Zealand's primary air capabilities in the foreseeable future. However, some operations may see it preferable to use unmanned aircraft over crewed aircraft; these include the ability to maintain sustained surveillance over long missions, provide a range of mission support roles to deployed forces, and reduce the risk to personnel in high risk situations.

An information led Defence Force

142. The introduction of space-based capabilities, the P-8A Poseidon, upgrades to the ANZAC frigates, improved cyber capabilities and complementary air surveillance capabilities will result in an unprecedented collection of data. This presents a significant opportunity to improve the effectiveness and value of New Zealand's Defence Force, and the overall achievement of New Zealand's wider national security objectives.
143. 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.
144. This includes the technologies used to process, share and protect information that enables the Defence Force to understand, plan, control, coordinate and effectively direct operations. Current capabilities will benefit greatly from increased investment in intelligence and a more systematic approach across the Defence Force and the national security system more broadly.
145. Improvements in these areas will improve awareness of our Exclusive Economic Zone, support operations overseas by providing actionable intelligence to military commanders, and enable Defence to share actionable information with other agencies.
146. An improved intelligence capability will also enable more efficient decision making by commanders. For example, real time analysis of intelligence collected through space-based systems will allow for targeted use of naval vessels, which will be able to be directed to intercept, board and inspect vessels of interest in support of partners and other agencies.



CHAPTER 7

Toward a Sustainable Future

A Navy Helicopter Loadmaster watches HMNZS Wellington from a SH-2G(I) Seasprite helicopter during a patrol.

147. The investment intentions included in this plan are substantial. It is therefore important that Defence spending is approached in a way that ensures that capability can be sustained over time. Recognising that Defence is but one part of the Coalition Government's goal of improving, sustaining and protecting intergenerational wellbeing, this Plan seeks to balance cost, viability of delivery and operational needs.
148. The *Defence Capability Plan 2019* extends the planning horizon for Defence, while maintaining the planned level of capital investment out to 2030. Maintaining this level of funding has been achieved alongside planning for new capabilities not provided for by previous *Defence Capability Plans*. Indicative capabilities that will ensure the Defence Force is prepared for the strategic environment following 2030 have also been identified, and will be explored in depth in the Defence White Paper planned for 2022. These capabilities and the value they offer are outlined in the following chapters.
149. Learning from recent challenges, replacements for major Defence capabilities have been planned in a staggered approach, allowing for funding and resources to be utilised consistently and efficiently. Similarly, increases in the Defence Force's work force and asset management processes as capabilities are delivered are being planned to ensure a long-term sustainable approach.

Rationalised, efficient services

Modernised logistics

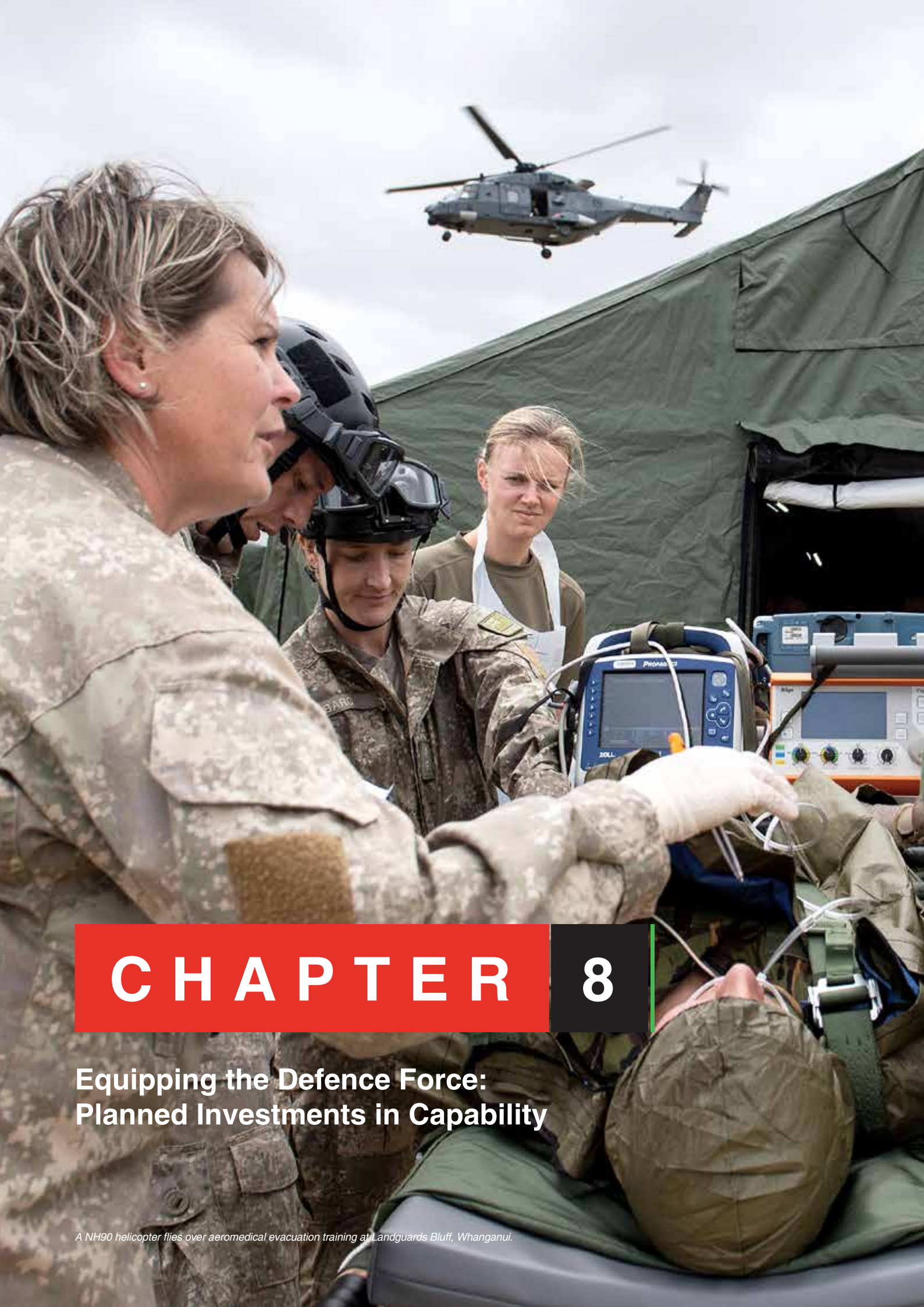
150. Defence is seeking to enhance and rationalise the management of its asset base through the Consolidated Logistics Project that is now in delivery. The Project delivers business change that will provide the logistic organisations necessary for the Defence Force to deliver required military output in a more flexible, adaptable and efficient manner.
151. The core principle of the Consolidated Logistics Project is 'equip the force'. This principle will see the management and holding of equipment rationalised and regionally managed, moving away from unit level resourcing. Through the application of the 'equip the force' principle, the Consolidated Logistics Project will enable significant cost savings over the period of this Plan.
152. Equipping the force will be achieved through four key work streams that will deliver a refreshed logistics organisation, improved information management and analytics, and the development of regional logistic pools including the provision of enhanced regional infrastructure. Anticipated benefits include:
- 152.1 Improved equipment accessibility, utilisation and availability;
 - 152.2 Improved ability to undertake logistic activities and training;
 - 152.3 Contribution to improved equipment safety assurance;
 - 152.4 Improved strategic equipment and material management; and
 - 152.5 Contribution to capital cost avoidance opportunity.

Intelligent delivery for information and communication technology

153. Recognising the increasingly central role information and communication technologies play in the delivery of Defence outcomes, the Defence Force has embarked on the Communications and Information Systems Change and Transformation Project.
154. The project will deliver a tailored organisational IT model to the Defence Force. Through innovative solutions, this will provide increased capacity and capability, improved integration of technologies, and greater oversight of initiatives to ensure rationalised and fully considered investment. Taken together, these changes will result in a significant reduction in organisational risk.
155. Working in partnership with commercial providers, the Defence Force will look to introduce secure cloud-based information management, simplified support arrangements, and a more sustainable and efficient information and communication model.

Sustainable, long-term workforce planning

156. Maintaining and growing a force of highly trained professionals requires careful long-term planning. Without the external resource pools or training providers available to other agencies, investment in the skills needed for military operations necessitates developing individuals within the force over time. Delivering improved capabilities out to 2030 requires the military workforce to start preparing for growth and development of personnel now.
157. The Defence Force and Ministry of Defence, in consultation with the Central Agencies, are undertaking work focused on the Defence Force's workforce structure, with the aim of providing assurance on long-term cost pressures, and improving the sustainability of the Defence Force's operating costs. This has included the development of a model that will deliver improved accuracy and identify where changes in management practice, or internal policy could improve performance.
158. The implementation of this model will provide the personnel required for the continued operation of the capabilities outlined in this plan. It will also provide for the necessary support such capabilities require, growing a professional Defence Force to serve New Zealand.



CHAPTER 8

Equipping the Defence Force: Planned Investments in Capability

A NH90 helicopter flies over aeromedical evacuation training at Landguards Bluff, Whanganui.

159. This chapter outlines the intended capital investments planned by Government to achieve the objectives of this plan, and the *Strategic Defence Policy Statement 2018*. These investment intentions maintain the \$20 billion in investment in the New Zealand Defence Force out to 2030.
160. Investment intentions are categorised within their respective domains, and are ordered according to the year in which the Government expects to make a decision on the eventual capability solution.
161. The timing and description of capability investments provided here are indicative. Options for each intended investment will be tested as broadly as possible against policy, including different models of delivery where appropriate.
162. Investment intentions out to 2030 are subject to individual business cases justifying the investment, and funding being available through the Budget process, taking into account other Government priorities. Indicative investments planned for commitment between 2030 and 2035 have been included to allow for considered, long-term planning for the Defence Force's future needs. These capabilities will be reassessed ahead of the 2022 Defence White Paper. Detailed assessment at this time will allow for a greater appreciation of improvement to military and commercial technologies, as well as the requirements of New Zealand in the prevailing strategic environment at that time. A greater understanding of these factors will allow for indicative dates and costs to be provided.
164. Indicative timings for decisions on Implementation Business Cases have been included in this plan for major capability projects, for public transparency and to give industry greater awareness of when information will be sought.
165. The process of working towards an implementation business cases can take between two and five years depending on the scale and complexity of the investment.

Gaining approval on the investments outlined in this plan

163. Business cases for major capability projects are built progressively, and follow a three pass approval process to Cabinet:
- 163.1 **Indicative Business Case** – tests whether there is an acceptable level of benefit from a proposed investment, the likely costs, and provides a range of options that could deliver the benefits required;
 - 163.2 **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; and
 - 163.3 **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.
166. A business case approach encourages early engagement, including with industry, to confirm:
- 166.1 The fit with strategy, and the need to invest;
 - 166.2 That all options are considered, including different models of delivery where appropriate; and
 - 166.3 That preferred options are affordable and deliverable.
167. Industry days and other opportunities for direct engagement will be held in support of requests for information and tenders, which will be undertaken through the business case project.
168. 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.
169. 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.
170. Cabinet approval of the Detailed Business Case will be followed by a Request for Proposals or Tenders. The outcome of this process is the identification of a preferred supplier.
171. 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.

Early engagement



AIR

Planned Investments in Air Capabilities

The new fleet of Air Force KA350s on the flight line at RNZAF Base Ohakea.

172. The primary focus for investments in Defence capabilities will be the replacement of the air surveillance and air transport fleets. These fleets are among the highest value capabilities to New Zealand, with the movement of personnel and equipment, both regionally and globally, being reliant on air assets. For many of the roles of the New Zealand Defence Force, it is these aircraft that allow for a high-readiness first response.
173. Following the replacement of the air transport aircraft, the Royal New Zealand Air Force will have replaced the majority of its capabilities with effective, proven, modern aircraft. The focus for investments will then be on delivering greater effectiveness to all-of-Government objectives, including through the enhanced maritime awareness capability.
174. Investments are subject to Cabinet approval of individual business cases justifying the investment, and funding being available through the budget process, taking into account other government priorities.

Investment decisions planned for 2020

Future Tactical Air Mobility

175. Preserving the tactical airlift capability of the New Zealand Defence Force is the highest priority of the *Defence Capability Plan 2019*. A Future Air Mobility Capability project has confirmed Defence's requirements for a tactical airlift capability to replace the existing C-130H Hercules. The five existing Hercules will be replaced with modern aircraft.
176. The capability will be able to move personnel and cargo within the South Pacific, to Antarctica, and in support of coalition operations further afield, supporting missions from humanitarian and disaster relief to operations in high-risk conflict zones.

Indicative dates:
Introduction into Service – 2023

Indicative capital cost:

More than \$1b

Enhanced Maritime Awareness Capability

177. The Enhanced Maritime Awareness Capability project will support the Government's civil maritime security strategy, providing air surveillance capabilities that enhance all-of-Government maritime domain awareness in New Zealand and the Southern Ocean. The capabilities delivered through this investment will be dedicated to civil surveillance requirements, with Defence support for their delivery and operation. This will free up the new P-8A maritime patrol aircraft fleet to fly more missions in the South Pacific and further afield. Investment in a range of capabilities will be considered, including satellite surveillance, unmanned aerial vehicles and traditional fixed-wing surveillance.

Indicative dates:
Industry engagement commences – Currently underway
Request for tender – 2020
Introduction into Service – 2023

Indicative capital cost:
From \$300m–\$600m

Operational and Regulatory Aviation Compliance Sustainment

178. A number of regulatory changes will come into effect during the 2020s which will improve aviation safety and effectiveness. This includes improvements to navigation systems in civil airspace, and changes to military communication requirements. A project is currently assessing the impact of these changes on the Royal New Zealand Air Force, and will progressively implement changes as required to ensure continued compliant operations and interoperability with partner air forces.

Indicative dates:
Industry engagement commences – Currently underway
Request for tender – 2020
Introduction into Service – 2022

Indicative capital cost:
From \$100m–\$300m

Investment decisions planned for 2026

Future Strategic Air Mobility

179. Operations in the Pacific and globally will require an air transport option for the movement of personnel, equipment and stores over long ranges. The eventual withdrawal from service of the current Boeing 757 fleet will allow for the procurement of a strategic airlift capability that meets capability requirements across a range of tasks.

Indicative dates:

Industry engagement commences – 2021

Request for tender – 2024

Introduction into Service – 2028

Indicative capital cost:

From \$300m–\$600m

Investment decisions planned for 2027

Future Air Crew Training Capability

180. The recently acquired King Air 350 have allowed the New Zealand Defence Force to conduct air crew training domestically, improving Defence's resilience and sustainability. The leased aircraft will require replacement in the mid-2020s with a training platform that reflects the Royal New Zealand Air Force's modern fleet of aircraft, following the introduction of the P-8A Poseidon, C-130H replacement, and strategic airlift capability.

Indicative dates:

Industry engagement commences – 2024

Request for tender – 2026

Introduction into Service – 2028

Investment decisions after 2030

181. Indicative investments planned between 2030 and 2035 have been included to allow for considered, long-term planning for the Defence Force's future needs. These capabilities will be reassessed ahead of the 2022 Defence White Paper.

P-8A Poseidon Upgrades

182. In order to retain the full operational capability and interoperability of the P-8A Poseidon maritime patrol aircraft, projects will be undertaken to install upgraded systems and equipment on the aircraft as they become available from the late 2020s.

Long Endurance Unmanned Aerial Vehicles

183. A long-range unmanned aerial vehicle will be acquired to support land and maritime forces with improved, continuous intelligence and surveillance. The capability will provide a greater range and coverage of operational areas, while also reducing risk posed to personnel in collecting intelligence.



MARITIME

Planned Investments in Maritime Capabilities

Aotearoa on the water for the first time following her launch at the Hyundai Heavy Industries shipyard in Ulsan, South Korea.

184. In the ten years between 2012 and 2022, the Royal New Zealand Navy will have decommissioned three vessels, and will have introduced the new fleet tanker HMNZS *Aotearoa*, the dive and hydrographic vessel HMNZS *Manawanui*, and the refurbished ANZAC class frigates. Each of these new capabilities will be world class, providing a strong foundation for the Navy out to 2030.
185. Focus for maritime investments will move to the patrol and sealift forces, with each vessel requiring replacement within the timeframe of this Capability Plan. These ships have made significant contributions domestically and in the South Pacific. Moving to more specialised vessels, including enhanced sealift and an ice-strengthened patrol vessel, will provide the Defence Force with the capability needed to meet future challenges.
186. Investments are subject to Cabinet approval of individual business cases justifying the investment, and funding being available through the budget process, taking into account other government priorities.

Investment decisions planned for 2020

Patrol and Sealift Communication Upgrades

187. By 2022, upgrades to communications systems on-board HMNZS *Canterbury*, HMNZS *Otago* and HMNZS *Wellington* will be complete. These upgrades will enable the ships to operate to the full extent of their capabilities until the end of their service lives.
188. Upgraded communications will allow the HMNZS *Canterbury* to act as a base for deployed amphibious operations, address obsolescence, and will provide sufficient capacity to simultaneously communicate with maritime, air and land forces.
189. Upgraded communications on the offshore patrol vessels will address obsolescence, and support interoperability with partners and recently acquired capabilities.

Indicative dates:

Industry engagement commences – Currently underway
Request for tender – 2019
Introduction into Service – 2022

Indicative capital cost:

From \$25m–\$50m

Investment decisions planned for 2021

ANZAC Frigate Life Extension

190. The major upgrades currently being undertaken on the ANZAC frigates combat systems will not be fully completed until 2023. In order to maximise the value of these upgrades, the service lives of the ANZAC frigates will be extended until after 2030. To support this life extension additional work will be completed on the vessels, including an enhanced maintenance and repair package to ensure appropriate upkeep until the end of the ships' service lives.
191. Delaying the replacement of the frigates improves the affordability of the *Defence Capability Plan 2019* by de-conflicting the replacement of the most significant Defence capabilities.

ANZAC Communication Upgrade

192. Communications systems will also be upgraded on-board the frigates, following the completion of the Frigates System Upgrade. Upgraded communications will address obsolescence of equipment, and support interoperability with partners and other capabilities recently acquired for the New Zealand Defence Force, such as the P-8A Poseidon and Network Enabled Army.

Indicative dates:

Industry engagement commences – Currently underway
Request for tender – 2019
Introduction into Service – 2024

Indicative capital cost:

From \$50m–100m

Investment decisions planned for 2023

Southern Ocean Patrol Vessel

193. The Navy's existing patrol capabilities are not able to meet the changing requirements of New Zealand's maritime domain. The inshore and offshore patrol vessel have provided significant value during their service lives, but are increasingly operationally limited as the ships age and regulations evolve. With expectations to operate with increasing frequency in the South Pacific and the Southern Ocean, the existing vessels do not provide the optimal fleet for our maritime domain.
194. Acquisition of a Southern Ocean Patrol Vessel will occur in the mid-2020s. The new vessel will provide dedicated patrol capabilities to other Government agencies within New Zealand's sovereign waters and the Southern Ocean. Built to commercial standards, the vessel will significantly increase the level of capability and safety for operations in the Southern Ocean, allowing for a broader patrol area and the ability to stay within fishing grounds for greater durations. This will allow the remaining offshore patrol vessels greater capacity to respond in the Pacific.

Indicative dates:

Industry engagement commences – 2020
Request for tender – 2022
Introduction into Service – 2027

Indicative capital cost:

From \$300–\$600m

Future of the Inshore Patrol Vessels

195. Operational experience has confirmed that specific tasks required of the naval patrol force are better conducted by offshore patrol vessels than inshore patrol vessels, particularly in the South Pacific, due to their longer range, endurance and embarked aviation capability.
196. Two inshore patrol vessels will be withdrawn from service and disposed of immediately, leaving two vessels to meet the demands of domestic patrols within the exclusive economic zone. Prior to the Southern Ocean Patrol Vessel coming into service, which will give greater capacity to the offshore patrol fleet, the future of the remaining two inshore patrol vessels will be reassessed.

Indicative dates:

Initial two vessels withdrawn from service – 2020

Investment decisions planned for 2026**Enhanced Sealift Capability**

197. Acquisition of an enhanced multi-role sealift vessel to complement HMNZS *Canterbury* will occur in the late-2020s. The ship will be able to carry more people, stores and equipment, and will include a docking well, allowing the ship to be able to operate in a greater range of sea states, including those typically encountered around New Zealand and in the Pacific. It will also support the same or a greater number of embarked helicopters as HMNZS *Canterbury*. An example of the class of vessel that could be considered under this project is a Landing Platform Dock.
198. The new sealift vessel will provide greater support and sustainment of humanitarian and disaster relief and security operations in the Pacific, and increased support to civil defence and emergency management domestically.

Indicative dates:

Industry engagement commences – 2022
Request for tender – 2024
Introduction into Service – 2029

Indicative capital cost:

More than \$1b

Maritime Helicopter Replacement

199. The eight existing Seasprite SH-2G(I), the last of their type, will reach the end of their service lives in the late 2020s. A new fleet of maritime helicopters will be acquired in order to support the naval patrol, sealift and combat capabilities.
200. Maritime helicopters offer surveillance, air transport and combat capabilities. Initial thinking on the replacement helicopters will need to determine the primary role of the aircraft, to ensure they are appropriately suited to complement planned replacements for the patrol, sealift and combat capabilities.

Indicative dates:

Industry engagement commences – 2020
Request for tender – 2024
Introduction into Service – 2028

Indicative capital cost:

More than \$1b

Investment decisions planned for 2028**Offshore Patrol Vessel Replacement**

201. The Otago Class Offshore Patrol Vessels, HMNZS *Otago* and HMNZS *Wellington*, are expected to reach the end of their service lives in the early 2030s. The vessels offer patrol capabilities in New Zealand and the South Pacific. The replacement vessels will maintain the Royal New Zealand Navy's existing offshore patrol capabilities.

Indicative dates:

Industry engagement commences – 2024
Request for tender – 2027
Introduction into Service – 2032

Indicative capital cost:

From \$600m–\$1b

Investment decisions after 2030

202. Indicative investments planned between 2030 and 2035 have been included to allow for considered, long-term planning for the Defence Force's future needs. These capabilities will be reassessed ahead of the 2022 Defence White Paper.

Additional Enhanced Sealift Capability

203. HMNZS *Canterbury* will be replaced in the mid-2030s, at the end of its service life. The capability acquired will be determined during the business case process, but will improve the Defence Force's sealift capability at the time HMNZS *Canterbury* is retired, complementing the enhanced sealift vessel procured in the late 2020s. Options will be explored against the composition of the fleet, the wider Defence Force and the prevailing strategic environment.

Future Surface Combatant

204. The ANZAC Frigates are scheduled to be replaced with modern surface combatants relevant to New Zealand's prevailing strategic environment in the mid-2030s. Introduction of the new ships will be phased with the withdrawal from service of the existing ANZAC frigates.

Dive and Hydrographic Capability

205. HMNZS *Manawanui* will enter service in 2020, providing a substantial uplift in littoral capability. Once in service, HMNZS *Manawanui* will support underwater search and recovery, hydrographic survey, explosive ordnance disposal, mine counter-measures capability, training and maritime presence, rapid environmental assessment and route survey.

206. Purchased second hand, HMNZS *Manawanui* has an expected service life of 15 years. The vessel will be replaced with a similar vessel in the mid-2030s, in order to retain the Royal New Zealand Navy's dive and hydrographic capabilities.

Other maritime investments

207. In addition to the major investments outlined in this chapter, a variety of other investments will maintain and enhance the maritime capabilities of the New Zealand Defence Force. These include:

- 207.1 Acquisition of littoral warfare systems to support HMNZS *Manawanui*, including littoral manoeuvre craft and a remotely operated underwater vehicle to support marine survey;
- 207.2 Upgrade to the Phalanx Close-In Weapons system on board the ANZAC frigates in the early 2020s;
- 207.3 Replacement of the ship-launched torpedo on board the ANZAC frigates;
- 207.4 Upgrades to the current fleet of SH-2G(I) Seasprite helicopters, addressing hardware and software obsolescence of aircraft components, to ensure they are fit for purpose for the remainder of their service lives; and
- 207.5 Upgrades to the machinery spaces, navigation systems and other essential capabilities will be completed on the Offshore Patrol Vessels to ensure the vessels remain fit-for-purpose until they are replaced in the late-2020s.



LAND

Planned Investments in Land Capabilities

Army soldiers and a military working dog from 2 Field Squadron conduct an exercise at Waiouru Military Training Area alongside an Air Force NH90 helicopter and crew.

208. Recent investments in land capabilities have provided improved combat capabilities to New Zealand's land forces. This has included improved tactical vehicles for the New Zealand Special Operations Forces, and the introduction of the MARS-L rifle as the standard individual weapon of the New Zealand Defence Force.
209. The vehicle fleets of the New Zealand Army are reaching the end of their operational service at the same time as digital technologies are dramatically changing the nature of warfare. Investments in land capabilities out to 2030 will focus on replacing vehicle fleets with those more suited to the threats of a modern battlefield, integrating digital capabilities into new and existing platforms, and rolling these capabilities out across all aspects of the New Zealand Army. Following 2030, New Zealand Army equipment will be required to increase to support the increase of the Service to 6000 people by 2035. This will ensure that land forces will maximise the increased capacity and sustainability required to meet the challenges of the future.
210. Investments are subject to Cabinet approval of individual business cases justifying the investment, and funding being available through the budget process, taking into account other government priorities.

Investment decisions planned for 2019

Network Enabled Army – Intelligence, Surveillance and Reconnaissance

211. The first phase of the Network Enabled Army programme has made significant progress towards providing the New Zealand Army with digitised command and communication technology, battlefield management systems and secure satellite communications. This second phase further extends the communications networks and will introduce improved surveillance and reconnaissance capabilities, integrating them into the systems already delivered under phase one. Collectively, phase one and two will provide real time situational awareness to commanders.

Indicative dates:

Industry engagement commences – Continuous
Introduction into Service – Progressive rollout of capabilities

Indicative capital cost:

From \$100m–\$300m

Investment decisions planned for 2020

Protected Mobility

212. A variety of land mobility vehicles will be required to ensure that the New Zealand Army is able to operate across diverse environments. This includes vehicles that provide adequate protection from explosive devices, and those that can operate in rugged and hostile terrain.

213. The Protected Mobility project will replace the army's fleet of armoured Pinzgauer, providing New Zealand troops with improved armoured, high-mobility and tactical transport options. Undertaken in stages, the capabilities of the highest priority will be introduced, ensuring that New Zealand's land forces remain suitably resourced for operations anticipated in the future.

Indicative dates:

Industry engagement commences – Currently underway
Introduction into Service – 2024

Indicative capital cost:

From \$300m–\$600m

Land Force Protection

214. As the sophistication of improvised explosive devices continues to evolve, the New Zealand Army will be provided with an enduring solution to counter such devices. This project will focus on counteracting remotely operated devices, reducing the threat to soldiers on modern, networked battlefields.

Indicative dates:

Industry engagement commences – Currently underway
Introduction into Service – From 2023

Indicative capital cost:

From \$25m–\$50m

Investment decisions planned for 2021

Garrison and Training Support Vehicles

215. The Garrison and Training Support vehicles investment will provide the New Zealand Defence Force with vehicles required to fulfil domestic requirements. This includes vehicles necessary for the training and transport of New Zealand Defence Force personnel, support vehicles such as aircraft refuelling vehicles, and fire appliances for domestic first response. The project will be delivered in phases, beginning in 2021.

Indicative dates:

Industry engagement commences – Currently underway
Request for tender – 2021
Introduction into Service – From 2022

Indicative capital cost:

From \$100m–\$300m

Network Enabled Army – Combined Arms Task Group

216. Following the successful integration of networked capabilities into New Zealand Army front line combat capabilities, the Network Enabled Army will be integrated across the full scope of a Combined Arms Task Group, including light armoured vehicles and support units such as artillery, engineers and logisticians.

Indicative dates:

Industry engagement commences – Continuous
Introduction into Service – Progressive rollout of Capabilities

Indicative capital cost:

From \$100m–\$300m

Investment decisions planned for 2023

Tactical Mobility

217. Investment in modern tactical mobility capabilities, from heavy engineering plant through to small militarised all-terrain vehicles, will provide land forces with the ability to move freely around their area of operation. These capabilities will also enhance force protection through the control of the movement of adversarial forces.

Indicative dates:

Industry engagement commences – 2020

Request for tender – 2023

Introduction into Service – 2024

Indicative capital cost:

Less than \$25m

Network Enabled Army – Sustained Combined Arms Task Group

218. The final phase of the Network Enabled Army completes the communications network and sensor systems development so that a Combined Arms Task Group can be sustained and supported on a long-term deployment.

Indicative dates:

Industry engagement commences – Continuous

Introduction into Service – Progressive rollout of Capability

Indicative capital cost:

From \$300m–\$600m

Investment decisions planned for 2024

Domestic Counter Explosives

219. An improved Domestic Counter Explosives capability has been delivered, providing response options able to address explosive threats at short notice throughout the country. These capabilities have improved equipment, and upgraded facilities in Auckland and Wellington. In the late-2020s these capabilities will be refreshed, ensuring that the New Zealand Army remains able to protect New Zealand communities from possible threats.

Indicative dates:

Industry engagement commences – 2027

Request for tender – 2028

Introduction into Service – 2031

Indicative capital cost:

From \$25m–\$50m

Investment decisions planned for 2026

Primary Combat Vehicle

220. The New Zealand Light Armoured Vehicle has acted as the primary land combat vehicle of the New Zealand Defence Force since its introduction in 2003. The NZLAV

has provided light armoured transport and combat capabilities. Following the introduction of protected mobility capability, a project will be initiated to consider how best to replace the NZLAV. The capability delivered will provide modern armoured projection and directed firepower to the New Zealand Army.

Indicative dates:

Industry engagement commences – 2024

Request for tender – 2025

Introduction into Service – 2033

Indicative capital cost:

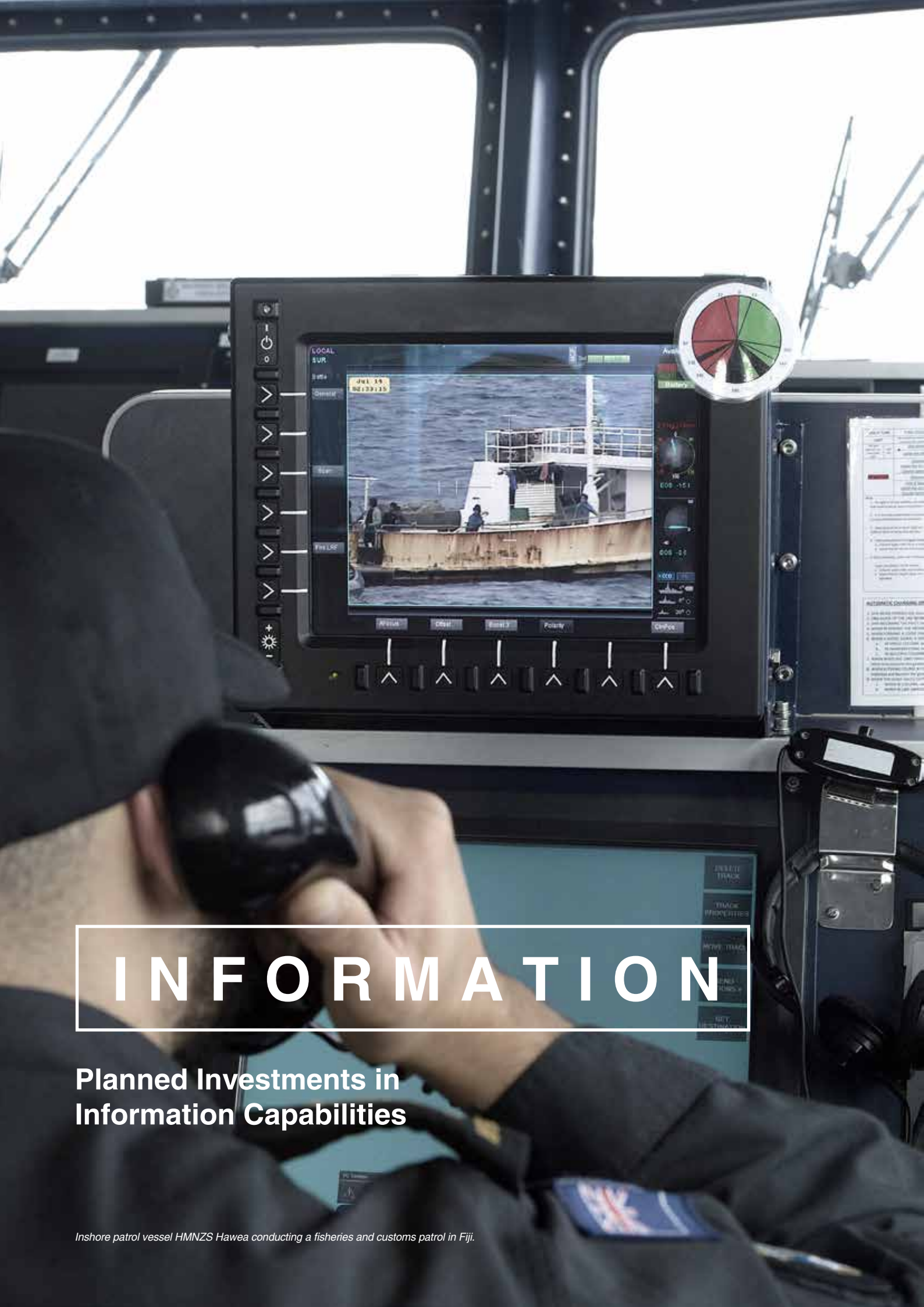
From \$300m–\$600m

Investments after 2030

221. Indicative investments planned between 2030 and 2035 have been included to allow for considered, long term planning for the Defence Force's future needs. These capabilities will be reassessed ahead of the 2022 Defence White Paper.
222. Land investments after 2030 will focus on the ongoing sustainment and refreshment of capabilities introduced through this plan.
223. Investments will include continued refreshment and upgrade of Network Enabled Army and night vision equipment. Capabilities will be updated to incorporate new technologies and to take advantage of ongoing developments in communications and surveillance systems, and other hardware and software.
224. The MARS-L rifle will also be replaced following 2030, while other support weapons, such as artillery, will require reappraisal to ensure they remain technologically and tactically suited to our requirements.
225. Equipment for the New Zealand Army will also need to be increased to ensure that the Army remains suitably resourced as it increases to a size of 6000 personnel.

Other land investments

226. In addition to the major investments outlined in this chapter, a variety of other investments will maintain and enhance the land capabilities of the New Zealand Defence Force. These include:
- 226.1 A contemporary replacement or upgrade for the New Zealand Army's anti-armour weapon, the FGM-148 Javelin missile;
- 226.2 Further investment in specialised Special Operations Forces combat vehicles in the late 2020s; and
- 226.3 Various refreshes of minor New Zealand Army equipment, including soldier systems, to ensure that the New Zealand Army remains a properly resourced land combat force.



INFORMATION

**Planned Investments in
Information Capabilities**

Inshore patrol vessel HMNZS Hawea conducting a fisheries and customs patrol in Fiji.

227. As recognised by the *Strategic Defence Policy Statement 2018*, the growth and use of technology has increased significantly for the Defence Force. Information and communications technology represents a critical component of new capabilities. Enhancing situational awareness, response, information fidelity and command and control ability, the information domain is essential to ensuring military capabilities are enhanced and remain credible within a global context.
228. As discussed in Chapter Six, investments in the Defence information domain will be informed by cross-agency work on how best to deliver and resource these capabilities. The initiatives below will require investment in order to preserve the interoperability of the Defence Force, and improve the effectiveness and efficiency with which traditional capabilities are deployed.
229. Investments are subject to Cabinet approval of individual business cases justifying the investment, and funding being available through the budget process, taking into account other government priorities.

Investment decisions planned for 2019

Cryptographic Refresh

230. Additional investment in cryptographic technology will ensure that secure information remains protected on classified networks, and that security requirements for interoperability with our defence partners are met.

Indicative capital cost:

Less than \$25m

Electronic Warfare Capability

231. The Electronic Warfare project will seek to implement an enduring solution that will improve the security and overall combat capability of our primary defence platforms, including the ANZAC Frigates.

Defence Intelligence Uplift

232. A Joint Intelligence Programme is underway to raise the performance of operationally focused intelligence, including an increased capacity to process and analyse data. The initiative will involve organisational change within the New Zealand Defence Force, as well as increases to the number of dedicated intelligence personnel.

High Frequency Radio Network

233. High frequency radio provides a critically important option for communication with ships and aircraft within or near New Zealand, especially for operations in the Southern Ocean. It also provides communication resilience for ships and aircraft deployed further afield, in potentially satellite-denied environments. The existing infrastructure, based around New Zealand, is projected to become unsupportable, requiring replacement to ensure it remains available for Defence platforms, and for use by other emergency agencies if necessary.

Indicative dates:

Introduction into Service – 2026

Indicative capital cost:

From \$25m–\$50m

Investment decisions planned for 2021

Maritime Satellite Surveillance

234. Surveillance from space through the procurement of specific coordinated services from operators of satellite systems will provide broad coverage of our expansive maritime domain, allowing for improved situational awareness, and more targeted and efficient use of surface vessels and aircraft. Information provided from satellite communications will be used to identify activities and vessels of interest in the Southern and South Pacific Oceans. This will allow aircraft and ships to be directed, assisting in interceptions of criminal activity at sea, resource and border patrols, and assistance to vessels in distress. In operations in support of our Pacific partners, surveillance may also be used to inform decision makers of the state of critical infrastructure and the movement of people. This will ensure that stability and security, and humanitarian and disaster relief operations can be undertaken with relevant, up-to-date information.

Indicative dates:

Introduction into Service – 2025

Cyber Security and Support Capability

235. Reflecting its increasing importance to the wider military force, cyber capabilities provide utility across the full range of Defence outcomes by supporting the resilience and security of Defence networks. The Cyber Security and Support Project will deliver capability to for cyber security for defence networks, deployed platforms, and deployed operations.

Indicative capital cost:

Less than \$25m

Tactical Remotely Piloted Aircraft

236. A project is underway to deliver small scale remotely piloted aircraft, limited in their capability to provide direct tactical or operational level intelligence and surveillance. These aircraft will be able to be deployed and operated organically by small task groups or ships, in support of operations in the maritime, littoral and land environments.

Indicative dates:

Introduction into Service – 2025

Indicative capital cost:

From \$25m–\$50m

Investments after 2030

237. Indicative investments planned between 2030 and 2035 have been included to allow for considered, long-term planning for the Defence Force's future needs. These capabilities will be reassessed ahead of the 2022 Defence White Paper.
238. The current Wideband Global Satellite system used by the New Zealand Defence Force as part of its global defence communications network, will require replacement after 2030. The current satellite constellation will reach the end of its life and be replaced with a new capability. The means through which this service is provided, along with the exact capability requirements, will be assessed at that time and will draw on technological advances from the intervening years.

Other capital investments in Defence

239. In addition to the major investments outlined in the proceeding sections, the New Zealand Defence Force will undertake a large number of small scale projects. These projects, totalling over \$150 million out to 2030, will focus on replacing and refreshing essential pieces of equipment which can be acquired on a small scale and with lower risk.
240. Investments in the near term may include small boats, soldier systems such as night vision equipment, information and communication solutions, and minor modifications to platforms including ships, aircraft and vehicles.
241. Such investments are a primary avenue for New Zealand industry to engage with Defence, and provide opportunities for innovative solutions and adaptive delivery. Feedback from industry has indicated that a more robust and detailed indication of planned projects would allow for more responsive, valuable engagement. To achieve this the New Zealand Defence Force is committing to making its Annual Procurement Plan more detailed and transparent.



CHAPTER 9

Working with Industry

Dive Hydro Vessel, HMNZS Manawanui in dry dock for painting.

242. Defence industry is a key partner and a fundamental input in the successful implementation of this *Defence Capability Plan 2019* and the future operations of the Defence Force. It is by working closely with industry that the Defence Force, through its operations, provides value to the community, nation and world. In turn, Defence industry supports the well-being of New Zealand communities as a source of employment, revenue, and innovation.
243. Defence currently spends around \$900 million annually on the purchase of goods and services. The partnership this creates with industry is wide-ranging and includes the purchase of military equipment, the provision of long-term maintenance and support services, camp and base management, and the supply of professional services. The depth and breadth of this partnership will grow with the investment forecast in this capability plan.
244. Industry is also a critical supplier to Defence of commercial knowledge, innovation, and engineering and scientific expertise. Inclusion of universities where suitable, can provide added access to scientific expertise and innovation in future-proofing Defence capability solutions.
245. The values and behaviours underpinning Defence's partnership with industry are set out in two key documents: the *Defence Engagement Strategy*, *Smart Customers and Smart Suppliers*, and the *New Zealand Defence Force Framework for External and Industry Engagement*. Both documents put a priority on setting expectations early, getting the right two-way communications, fostering early engagement, respecting each other's culture, and understanding the constraints that each party operates under.
246. These behaviours support a robust Capability Management System that will deliver goods and services that are modern, relevant, proven and reliable. The Ministry of Defence and the New Zealand Defence Force currently work with both national and international companies so that the Defence Force can deliver value to the community, nation and world. Maintaining and enhancing the commitment, understanding and trust between Defence and industry will ensure this continues into the future.

Driving concepts

247. Defence industry has access to commercial and industrial information, the infrastructure and personnel to contribute effectively and to inform Defence procurement options.
248. As a source of commercial knowledge and engineering and scientific expertise, Defence industry works with Defence to reduce project risk and improve system performance.
249. Defence engages and partners with capable suppliers with the capacity to support the achievement of Defence outputs and outcomes and deliver value to the community, nation and world.
250. Value for money is enhanced when international prime suppliers partner with New Zealand-based companies and, when relevant, local scientific and tertiary institutions when delivering and supporting military capability.
251. Improvements in Defence processes for early engagement will harness innovation in supplying products and services, as well as reducing risk.
252. Effective partnerships with industry are developed to support the full capability life-cycle that contributes directly or indirectly to the delivery of Defence outputs and outcomes.

Industry engagement

Early engagement

253. The review of Defence's procurement, completed in May 2018, identified an area of opportunity for greater engagement with industry. This area is in the capability definition phase of the project life-cycle between project initiation and formally approaching the market with a Request for Tenders.
254. Defence-led projects initiated under this capability plan will be required to have at least two structured engagements with the market during this early phase and prior to releasing a Request for Tenders. The aim is to engage industry to reduce risk and uncertainty in capital procurements and to ensure Defence understands and can leverage the market.
255. Engaging early with industry will mean fewer surprises and better quality solutions. It will allow the Government to make informed investment decisions, based on the best information available as early in the process as possible.

Transparency and ease of business

- 256. Defence will ensure that industry is as informed as possible on plans for future defence spending. This includes provisional estimates of cost and schedule for Defence-led and infrastructure projects, along with indicative dates for engaging with industry.
- 257. Defence will work to ensure that the tender debrief process is robust, informed and adds value to suppliers. Defence has also developed tools and information portals to enable industry to keep up to date with developments within Defence and industry. Started in 2016, an annual customer survey measures industry satisfaction with their engagements with Defence. The findings are published, along with the steps taken by Defence in responding to industry feedback and suggestions for improvement.
- 258. Defence will continue to work on improving the Defence procurement and acquisition processes. This includes clarity of documentation, to reduce workload for industry responding to Requests for Information and Tenders.

A focus on New Zealand industry

- 259. The Government's expectation that the Defence Force is flexible and is held at high levels of readiness means that value for money is enhanced when New Zealand-based suppliers are engaged in the supply and support of military capability.
- 260. International prime companies submitting proposals to provide the capabilities outlined in this capability plan will be required to provide activity reports setting out the steps they have taken to identify and use New Zealand industry to supply goods and services as part of their proposal. Activity reports will specify the names and addresses of the New Zealand companies approached, describe the goods and services to be supplied over the life of the proposed contract, and quantify the value of those goods and services.
- 261. Defence will use this information when considering whether the proposal provides best value for money over the life of the contracts, including taking into account any savings in time, money and labour, and enhanced responsiveness or resilience.

System integration

- 262. The unprecedented influx of data delivered by the investment priorities detailed in this capability plan will need to be processed and shared across multiple platforms and units, ranging from ships to individual soldiers on the ground. The aim is for every ship, aircraft, vehicle and soldier to be connected and able to share meaningful information.
- 263. The complex and 'system of systems' nature of modern Defence projects represents a considerable challenge, particularly in the Land Domain. For industry, this represents an opportunity to help Defence understand and address the gaps in its technical and managerial capability to oversee systems integration, and ensure that the overall capability delivers what Defence needs, is robust, and is sustainable over time.
- 264. For suppliers of equipment it also means considering how the various sub-systems can be integrated into the wider Defence Force architecture with the least risk and the least burden on the end-user.

New Zealand Defence Industry Advisory Council, Minister of Defence Awards

- 265. The interests of Defence and Industry are represented by the New Zealand Defence Industry Advisory Council and the New Zealand Defence Industry Association. The New Zealand Defence Industry Advisory Council is appointed by, and reports directly to, the Minister of Defence. It has a wide brief to provide advice relating to developments, issues, and opportunities in the national and international defence industry sectors.
- 266. The New Zealand Defence Industry Association is the preeminent body representing the commercial interests of Defence industry and its individual members. It is industry's main conduit into Defence and vice versa.
- 267. Defence will continue to coordinate the New Zealand Defence Industry Advisory Council and support the New Zealand Defence Industry Association. This includes continued support of the annual Minister of Defence Awards of Excellence to Industry and Defence Industry Association meetings and forums. Given the level of investment forecast in this capability plan activities where Defence can engage with industry, build relationships, and recognise excellence in capability service delivery are vital.

