DEFENCE LONG-TERM DEVELOPMENT PLAN

UPDATE

November 2004

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1 INTRODUCTION

1.1 First released on 11 June 2002, and updated in June 2003, the Long-Term Development Plan (LTDP) is a planning tool to enable decisions on defence acquisitions to be taken in the context of the Government's defence policy, the priority of projects and affordability. The LTDP links the Government's defence policy objectives, which were set out in the Defence Policy Framework released in June 2000, with the capability requirements announced in the Defence Statement of 8 May 2001. This LTDP contains a comprehensive list of projects, with preliminary costing, timings, and priorities. The LTDP has a rolling forward focus over 10 years and was constructed as an active document, to be updated regularly. This is the second updated version of the LTDP.

1.2 The LTDP:

a. describes major acquisition projects required to provide military capabilities that meet the Government's defence policy objectives;

b. reflects relative priorities of the projects, measured against the Government's defence policy and security needs and interests;

c. works within agreed financial limitations; and

d. sets out planning and decision-making processes incorporating management of both operational and financial risks to ensure that investment in defence provides best value for money.

Funding Parameters

1.3 The LTDP will be managed within approved financial parameters. These are:

a. up to $1 billion, in nominal terms, in capital injections over 10 years commencing in 2002;

b. any inflationary pressure to be managed within these constraints until 2005/06; and

c. leasing options may be considered where there is a neutral trade-off between capital and operating expenditure.

1.4 Funding amounts in the LTDP are the capital cost of bringing the asset into service and exclude GST. They do not include operating costs such as depreciation, personnel, maintenance, and consumables.

Project Summary Sheets

1.5 A project summary sheet for each project on the LTDP can be found in sections 5 to 10. Each summary sheet describes the project, how it contributes to the Government's defence policy, links to other capabilities, timing issues, costs and possible options where these are known. Options and trade-offs for defence acquisitions will be properly investigated, costed and presented to Ministers as projects are brought forward for approval.

2 THE LONG-TERM DEVELOPMENT PLAN AND DEFENCE POLICY

2.1 The LTDP sets out the defence acquisition projects that will enable the New Zealand Defence Force (NZDF) to implement the Government's defence policy.

2.2 In its 8 May 2001 Defence Statement, the Government stated that it:

> is building a modern, professional and well-equipped Defence Force with the necessary military capabilities across all three services to meet New Zealand's objectives… the New Zealand Defence Force is being reconfigured so that it is sustainable and affordable over the long-term. It will be able both to meet New Zealand's own defence and security needs, and to make a useful contribution when it is deployed.[1]

2.3 The Government's defence policy objectives are:

- to defend New Zealand and to protect its people, land, territorial waters, EEZ, natural resources and critical infrastructure;
- to meet our alliance commitments to Australia by maintaining a close defence partnership in pursuit of common security interests;
- to assist in the maintenance of security in the South Pacific and to provide assistance to our Pacific neighbours;
- to play an appropriate role in the maintenance of security in the Asia-Pacific region, including meeting our obligations as a member of the FPDA; and
- to contribute to global security and peacekeeping through participation in the full range of UN and other appropriate multilateral peace support and humanitarian relief operations.[2]

Prioritising the LTDP

2.4 The LTDP prioritisation is reviewed regularly to ensure continuity with defence policy and strategic circumstances. In this updated version, a new category 'Projects Approved and in Acquisition Phase', is included as several projects have been approved for the commitment of funds and for purchases of equipment to proceed. This includes the Boeing 757 purchase and modification, Medium Range Anti-Armour Weapon, Very Low Level Air Defence cueing, Light Operational Vehicles, Project Protector vessels, Special Operations equipment and the P-3 Systems Upgrades. The NZDF Helicopter Capability and Army Engineering Equipment have shifted into the category of 'Projects Approved in Principle by Government'. The Ohakea Consolidation project and the new Defence Headquarters Building have also been added to the category of 'Projects Approved in Principle by Government'. A project to address disposal of improvised explosive devices has been added to the category of 'Projects Necessary to Avoid the Failure of Policy'. No other projects have been reprioritised.

2.5 The first step in the reprioritisation process was a gap analysis. It identified those areas where, over the next 10 years, a capability gap will impact on the NZDF's ability to meet the roles and tasks set out in the Defence Policy Framework under each policy

[1] Government Defence Statement, 8 May 2001, A Modern, Sustainable Defence Force Matched to New Zealand's Needs, p.2.
[2] Defence Policy Framework, June 2000, para.19.

objective. This gap analysis demonstrated that acquisition projects to meet the capability gaps fell into three broad categories:

a. Projects that are critical to avoiding failure to achieve policy objectives. The projects consist of "enabling capabilities" that are necessary to facilitate operational missions (for example, joint command and control system, airfield infrastructure maintenance), and operational capabilities that are fundamental to meet defence policy objectives.

b. Projects that are necessary to avoid significant policy risks. These projects affect the degree to which policy objectives can be achieved and the manner in which they are fulfilled.

c. Projects that carry a lower level of risk affecting the degree to which policy objectives are met and the manner in which they are fulfilled.

2.6 The gap analysis considered the five defence policy objectives to be equally important. A sensitivity analysis assessed the impact of weighting the importance of each objective. It demonstrated that the projects within the top category remained constant, and confirmed their importance to avoid policy failure.

2.7 As a further check, the list of high priority projects was compared with the priorities set out in the Defence Policy Framework, which states that:

> A capital investment programme will concentrate defence resources in a range of affordable and sustainable military capabilities that contribute to meeting our objectives. Priority will be given to the acquisition and maintenance of essential equipment. Our core requirement is for well-equipped, combat trained land forces which are also able to act as effective peacekeepers, supported by the Navy and Air Force.[3]

2.8 To be consistent with this statement, higher priority was accorded to a number of projects that are necessary to provide well-equipped, combat trained land forces, which are also able to act as effective peacekeepers.

2.9 Projects approved in principle by the Government are treated in the prioritisation as a separate category. Other considerations that affect the sequencing of high priority projects were also taken into account. These include the projected end-of-life of current equipment and the amount of pre-acquisition work that is required.

[3] Defence Policy Framework, June 2000, para. 31.

Long-Term Development Plan Priorities

2.10 The projects under each category are:

Projects Approved and in Acquisition Phase
- Boeing 727 Replacement
- Medium Range Anti-Armour Weapon
- Very Low Level Air Defence Cueing
- Light Operational Vehicle
- Multi-Role Vessel
- Patrol Vessels
- Special Operations Capability
- P-3 Mission Systems Upgrade
- P-3 Communications and Navigation Systems Upgrade
- New Defence Headquarters Building

Projects Approved in Principle by Government
- C-130 Life Extension
- C-130 Communications and Navigation Systems Upgrade
- Direct Fire Support Weapon – Area
- NZDF Helicopter Capability
- Ohakea Consolidation
- Army Engineering Equipment

Projects Necessary to Avoid the Failure of Policy
- Joint Command and Control System
- Improvised Explosive Device Disposal

Projects Necessary to Provide a Well-Equipped Land Force
- Land Intelligence Surveillance Reconnaissance
- Combat Service Support Vehicles
- Army Tactical Trunk Communications
- Army In-Service Weapon Replacement
- General Service Vehicle Fleet Replacement

Projects Necessary to Avoid Significant Risks to Policy
- ANZAC Self-defence Upgrade
- NZDF Torpedo Replacement
- C-130 Self-Protection
- P-3 Self-Protection
- Anti-Ship Missiles
- Joint Communications Modernisation

Projects that have Benefit but are Less Critical to Achieving Policy Objectives
- High Readiness Infantry Company
- Short to Medium Range Aerial Surveillance
- Remote Mine Detection
- Army Manoeuvre Range
- Indirect Fire Support Weapon
- Infrastructure Projects

2.11 The list does not indicate the order in which projects will be completed.

3 FUNDING

Funding Guidelines

3.1 Following a review of the financial effects caused by revaluation of the NZDF's assets on the LTDP (CAB Min (03) 11/4), the Government directed the following financial parameters:

a. up to $1 billion, in nominal terms, in capital injections over 10 years commencing 2002;

b. any inflationary pressure to be managed within these constraints until 2005/06; and

c. leasing options may be considered where there is a neutral trade-off between capital and operating expenditure.

Affordability, Options and Trade-Offs

3.2 Funding constraints, cash flow management (both from depreciation and new capital) and defence industry considerations will also affect priorities, timing and the overall affordability of the LTDP. Trade-offs within and between projects are necessary. The projects presented in the LTDP take into account the Government's existing funding parameters. Solutions have been developed to provide capabilities within the financial parameters that are appropriate for New Zealand's circumstances and will deliver the Government's policy. For most projects, however, accurate costing information cannot be determined until tender responses are received. It is acknowledged that in order to determine the affordability of the LTDP, Defence needs to improve the individual costing data on which the plan is based, on a project-by-project basis.

3.3 In order to provide more robust decision-making information the costing options for acquisition projects are modelled through the Defence Resource Allocation Model (DRAM). This modelling considers all elements of defence capital expenditure, including acquisition costs, through-life costs and cost/risk mitigation as they become available. The model is regularly updated when projects are integrated into the plan, accurate costs become available or when depreciation funding changes due to asset revaluations. Life cycle costing policy is being developed and through-life costs are being obtained for projects currently at the acquisition phase. The full introduction of life cycle costing into long-term development will take some time to be completed. NZDF and Treasury officials are continuing to work on strategies to minimise financial risks.

3.4 By changing the model to examine different levels of capability, cost and policy compliance it is possible to identify options within projects. These options, which can be investigated for each project, could include phasing projects to spread the cash flow or reducing the size and/or scope of a project. Reducing the level of capability acquired could affect the NZDF's ability to deliver outputs designed to achieve the Government's policy objectives.

Financial Risks

3.5 There are several financial risks associated with the LTDP that will have to be managed to ensure the plan remains affordable.

a. Inflation. Estimated costs need to reflect the potential impact of inflation.

b. Foreign Exchange Movements. The majority of the project costs included in the revised LTDP have been converted from USD into NZD using exchange rate

projections advised by Treasury (below). Any change to these projections will result in changes to project costs.

FY 04/05	FY 05/06	FY 06/07 Onwards
0.55	0.53	0.52

c. Upgrades. Military equipment requires regular upgrades to ensure that it is able to provide the required capability. Upgrades are also important to keep pace with technological changes and to maintain interoperability with other defence forces. Known upgrades have been included in the LTDP. Other unpredicted upgrades may be required during the life of the equipment.

d. Personnel and Operating Costs. Operating baseline changes will need to be managed to take account of pay increases and changes in NZDF personnel numbers, training requirements, maintenance and operating resulting from new equipment.

e. Asset Revaluations. The majority of procurement funding is derived from depreciation of the current defence asset base, much of which is purchased in US dollars. Significant reductions in the valuation of the asset base, most likely triggered by a high NZ dollar value, result in less depreciation funding. This in turn requires increased use of direct capital injection to cover planned expenditure.

Projects Currently 'Below the Funding Line'

3.6 The LTDP contains those projects currently deemed necessary to deliver the capability required by the Government, and which are being processed by the NZDF. Given the current financial parameters, however, projects in the category of those *that have benefit but are less critical to achieving policy objectives* are unlikely to be funded. This underlines the importance of reviewing projects that are 'above the line' in order to realise potential savings. These projects will still require work to clarify their scope, utility across the policy objectives and cost, and will be included in future reviews of the LTDP. Changing strategic circumstances could result in reprioritisation of projects.

4 MANAGING THE LTDP

4.1 Several processes have been developed to ensure that the LTDP will be a core decision-making tool for the Government.

Updating the LTDP

4.2 It is important that the LTDP is updated regularly to provide the best information possible to inform decisions on defence acquisitions and the budget cycle. The following processes will, therefore, be a feature of managing the LTDP:

a. An updated LTDP and accompanying report from officials will be submitted to Ministers to inform their considerations during the strategic phase of the budget process.

b. The LTDP will be treated as a dynamic, evolutionary document and updated on a regular basis as warranted by the availability of new and more accurate information.

c. The LTDP will be updated whenever there is a significant change in the Government's financial circumstances, a change in policy, or to support the financial impact of NZDF asset revaluations.

d. An updated LTDP will be made available whenever acquisition proposals are submitted for government consideration and approval. This will permit Ministers to consider each project within the overall context of total planned acquisitions and with a clear view of priorities, risks and trade-offs.

4.3 It is also important that Ministers have confidence that projects are well managed and that acquisition activity is consistent with the LTDP and government direction. This has been achieved by the use of the following processes by the Ministry of Defence and the NZDF:

a. Government approval will be sought to proceed with acquisition activity for each project.

b. The Minister of Defence will be consulted prior to commencing major project definition studies.

c. The Minister of Defence will be consulted prior to documentation being made available to commercial suppliers.

d. The Minister of Defence will be advised of the outcome of the evaluation of the responses from commercial suppliers.

e. The Minister of Defence will be consulted prior to documentation being made available to short-listed suppliers, and on the criteria to be used for evaluating the responses.

f. The Minister of Defence will be advised of the outcome of the tender evaluation, including an analysis of the ability of the equipment to be acquired to meet the capability, and on contract negotiations with the preferred supplier(s).

g. On completion of the contract negotiations, Ministerial approval will be sought to enter into contract with the preferred supplier(s) and for the appropriation of funds.

Capability Management Framework

4.4 Defence has developed a Capability Management Framework setting out governance arrangements and procedures to provide a robust and sustainable basis for the NZDF/Ministry of Defence to progress capability development and implementation. The Framework ensures that the projects on the LTDP are defined, costed and presented to Ministers in a timely manner. The Framework also allows HQ NZDF, single Services, and the Ministry of Defence to plan for, and allocate appropriate resources to, those projects that have a higher priority on the LTDP.

5 PROJECTS APPROVED AND IN ACQUISITION PHASE

Boeing 727 Replacement

Description

5.1 This project replaced the Boeing 727 aircraft with Boeing 757 aircraft with greater range and payload capacity. A modification programme, including freight capability, engine enhancements and upgraded communications and navigation equipment, will configure the aircraft to meet the strategic airlift capability required by the NZDF.

Policy Value

5.2 In addition to the C-130s, New Zealand requires a strategic airlift capability provided by jet transport aircraft. This was previously provided by two Boeing 727 aircraft. Strategic airlift is an enabler for the same roles and tasks as the C-130, particularly the deployment and sustainment of NZDF forces on overseas deployments and the evacuation of New Zealand citizens.

Capability Gaps

5.3 For some cargo tasks the Boeing 757 aircraft provides greater flexibility and economy.

5.4 The conversion of the Boeing 757 aircraft for cargo, while still maintaining the ability to accommodate and carry passengers, will provide the NZDF with the required level of capability to meet fixed wing transport requirements.

Links to other Capabilities

5.5 This project has links to the following projects and capabilities:

- C-130 Life Extension
- Deployment of other NZDF capabilities

Timing

5.6 Project expected to be complete mid-2006.

Current Status

5.7 On 18 November 2002 Cabinet agreed to purchase two Boeing 757 aircraft, including necessary modifications, and authorised the Ministry of Defence to proceed with the acquisition process. The two Boeing 757 aircraft, purchased in a passenger configuration, have been in service since mid-2003. Modifications necessary to meet the full capability requirements, are scheduled to be completed by mid-2006.

Medium Range Anti-Armour Weapon

Description

5.8 This project proposes to provide protection for our land forces from armoured threats.

Policy Value

5.9 The Medium Range Anti-Armour Weapon (MRAAW) provides land forces with a medium-range capability against armoured vehicles and other targets. It is a critical part of any contribution to peace enforcement operations where land forces may face an armoured vehicle threat. The MRAAW also has some utility in peacekeeping operations in the Asia-Pacific region and globally for self-protection in the event of an escalation in the threat to ground forces.

Capability Gap

5.10 New Zealand land forces are currently very vulnerable to threats from tanks, armoured vehicles or anti-armour weapons. There is a need for a capability to engage these threats at the greatest distance practicable.

5.11 The Army currently has a short-range anti-armour weapon. It is, however, limited in range and lethality. A medium-range anti-armour weapon is required to defeat threats at a greater range (2,300 metres) than the current weapon.

Links to other Capabilities

5.12 This project has links to the following projects and capabilities:

- Light Armoured Vehicle
- Light Operational Vehicle
- Direct Fire Support Weapon
- Land Intelligence Surveillance Reconnaissance

Timing

5.13 Delivery is expected mid-2006.

Current Status

5.14 Orders have been placed, through the United States Foreign Military Sales (FMS), for the purchase of Javelin missiles and associated support equipment.

Very Low Level Air Defence Cueing

Description

5.15 This project proposes to purchase additional equipment to bring the Mistral air defence system up to operational standard.

Policy Value

5.16 An air defence capability is necessary to protect critical land force elements from air threats such as low flying aircraft and armed helicopters.

Capability Gap

5.17 The current system is not fully operational. Target detection, identification and tracking rely on visual observation. To be fully effective and minimise risk to friendly aircraft, the system requires improved radar detection and an auto target cueing and identification friend or foe (IFF) capability.

Timing

5.18 Delivery is expected mid-2006.

Current Status

5.19 A contract has been signed with Indra of Spain for the supply of radar systems, and a separate contract has been entered into with Thales France for the supply of the IFF equipment.

Light Operational Vehicle (LOV)

Description

5.20 This project provides the Army and Special Forces with a modern, light operational, military vehicle.

Policy Value

5.21 The LOV provides an essential capability to enable the Army and Special Forces to train and to participate in operations in the South Pacific, Asia-Pacific region and globally. LOVs are the primary means of transport used by the Army and Special Forces in peacekeeping operations and also in peace enforcement operations, including in support of the light armoured vehicle. In addition, the LOVs may provide support for evacuation operations in the South Pacific.

Capability Gap

5.22 Part of the Army's military mobility needs are currently met by the obsolete fleet of Land Rovers. The Land Rovers have reached the end of their economic life.

Links to other Capabilities

5.23 This project has links to the following projects and capabilities:

- Light Armoured Vehicle
- Multi-Role Vessel
- Land Intelligence Surveillance Reconnaissance
- Medium Range Anti-Armour Weapon
- Direct Fire Support Weapon – (Area)

Timing

5.24 The project will be completed in the first half of 2006.

Current Status

5.25 A contract was signed with Automotive Technik Ltd in 2004 for the supply of 321 Pinzgauer vehicles. Deliveries have commenced with acceptance of the first of the vehicles, by the Ministry of Defence, being achieved on 7 October 2004.

Multi-Role Vessel

Description

5.26 This project involves the purchase of a Multi-Role Vessel (MRV) to provide tactical sealift for the NZDF, to support disaster relief and peace support operations, to conduct resource protection patrols, to provide diplomatic/military presence, and for training. The vessel will replace HMNZS *Canterbury*.

Policy Value

5.27 The MRV will be used in the South Pacific and Asia-Pacific region for contributing to peace support operations, evacuation of personnel during civil emergencies, and disaster relief. A tactical sealift capability, to off-load people and equipment without access to a port facility, will be particularly useful in meeting the Government's policy objectives in the South Pacific. The MRV will also be able to undertake patrol and presence operations in New Zealand's EEZ and the South Pacific, and provide the Government with an additional option for global deployments (or allow the ANZAC frigates to be deployed for global tasks). The MRV will provide additional berths for sea training purposes.

Capability Gap

5.28 The NZDF has no tactical sealift capability and cannot easily deploy land force personnel and equipment into areas without port facilities. Tactical sealift vessels cannot be chartered. Without a MRV, New Zealand will continue to rely on the tactical sealift capabilities of our allies and friends in the region for deploying to peace support operations and evacuating our nationals from trouble spots.

5.29 The MRV, in conjunction with the frigates and the offshore patrol vessels, will provide additional capacity for tasks such as defence diplomacy, support to land operations, patrol and disaster relief, and for training.

Links to Other Capabilities

5.30 This project has links to the following projects and capabilities:

- Light Armoured Vehicle
- Light Operational Vehicle
- Patrol Vessels
- NZDF Helicopter Capability
- P-3 Mission Systems Upgrade

Timing

5.31 Delivery is expected by the end of 2006.

Current Status

5.32 A contract has been signed with Tenix Defence Pty Ltd for the supply of the MRV.

Patrol Vessels

Description

5.33 This project proposes the acquisition of patrol vessels to meet inshore and offshore requirements for maritime surface surveillance in New Zealand's Exclusive Economic Zone (EEZ) and the South Pacific.

Policy Value

5.34 Patrol vessels are an important element in the surveillance of New Zealand's EEZ and other maritime areas of interest. They work in conjunction with maritime patrol aircraft to protect our natural resources and detect and deter maritime transnational threats. Patrol vessels will meet many government agencies' needs, including the Ministry of Fisheries, the New Zealand Customs Service, the Department of Conservation, the Police, the Maritime Safety Authority and others. Offshore patrol vessels will also be able to support maritime counter-terrorism, and provide a presence in the South Pacific to support peace and stability and help with disaster relief.

Capability Gap

5.35 New Zealand currently has a very limited maritime surface patrol capability, provided by three frigates (and by 2005, two ANZAC class frigates). The largest gap is in New Zealand's ability to patrol the inshore zone around New Zealand where the majority of civilian patrol requirements, (which are primarily overseen by the Ministry of Fisheries and Customs) are situated. There is also very limited capacity to undertake counter-terrorism operations at sea.

Links to other Capabilities

5.36 This project has links to the following projects and capabilities:

- Multi-Role Vessel
- P-3 Mission Systems Upgrade
- NZDF Helicopter Capability
- Special Operations Capabilities

Timing

5.37 Deliveries are expected during 2006 – 2007.

Current Status

5.38 A contract has been signed with Tenix Defence Pty Ltd for the supply of two offshore and four inshore patrol vessels.

Special Operations Capability

Description

5.39 This project will provide Special Forces with equipment to undertake special operations.

Policy Value

5.40 Army special operations capabilities have utility in meeting a range of the Government's defence policy objectives and also in supporting policing operations in New Zealand and the South Pacific.

Links to Other Capabilities

5.41 This project has links to the following capabilities:

- Light Operational Vehicle (Special Forces variant)
- Land Intelligence Surveillance Reconnaissance
- NZDF Helicopter Capability
- C-130 Life Extension

Current Status

5.42 The Army has commenced purchase of the equipment.

P-3 Mission Systems Upgrade

Description

5.43 This project proposes to upgrade the sensors and mission management systems required for the P-3 Orion maritime patrol aircraft to conduct surface surveillance tasks.

Policy Value

5.44 The capability provided by the P-3 is central to meeting a broad range of civilian roles and tasks and for many functions required of the NZDF across the range of the Government's five defence policy objectives. The P-3 undertakes surveillance of New Zealand's EEZ and the Southern Ocean, meets our South Pacific search and rescue obligations, and provides surveillance assistance to South Pacific nations. The P-3 has a high utility for a wide range of civilian and military operations. It is one of the primary force elements contributing to our defence relationships with Australia and Five Power Defence Arrangement (FPDA) partners.

Capability Gap

5.45 The obsolescent mission systems onboard the P-3 are limiting availability for surveillance flights and other missions due to repeated equipment failures. Without an upgrade, the Government may be faced with policy failure in meeting its objectives for EEZ and Southern Ocean surveillance and assisting South Pacific countries with surveillance of their EEZs. The Government would also have difficulty meeting commitments to Australia and the FPDA.

Associated Projects

5.46 The P-3 communications and navigation systems also need to be upgraded to address equipment obsolescence, meet operational requirements, and comply with evolving international air traffic regulations. The requirements for this project are covered in the following project sheet.

5.47 The P-3 lacks self-protection capability against man-portable, infrared missiles. This deficiency is also addressed in a separate project.

Links to other Capabilities

5.48 This project has links to the following projects and capabilities:

- Patrol Vessels
- Multi-Role Vessel
- Land Intelligence Surveillance Reconnaissance
- Joint Command and Control System
- NZDF Torpedo Replacement
- Anti-Ship Missile
- P-3 Self-Protection
- P-3 Communications and Navigation Systems Upgrade
- ANZAC frigates

Timing

5.49 The first upgraded aircraft is expected to be in service in 2008, with fleet modernisation complete in 2010.

Current Status

5.50 A contract has been signed with L-3 Communications Integrated Systems for the upgrade of the P-3 Orion's mission systems.

P-3 Communications and Navigation Systems Upgrade

Description

5.51 This project involves the upgrade of the P-3 communications and navigation systems to address equipment obsolescence, meet operational requirements and comply with evolving international air traffic regulations. This project has been separated from the previous combined C-130/P-3 Communications and Navigation Systems Upgrade project due to the differing requirements of the P-3 and C-130.

Policy Value

5.52 The capability provided by the P-3 is central to meeting a broad range of civilian roles and tasks and for many functions required of the NZDF across the range of the Government's five defence policy objectives. The P-3 undertakes surveillance of New Zealand's EEZ and the Southern Ocean, meets our South Pacific search and rescue obligations and provides surveillance assistance to South Pacific nations. The P-3 has a high utility for peace support operations, particularly peace enforcement, both regionally and globally. It is one of the primary force elements contributing to our defence relationships with Australia and FPDA partners.

Capability Gap

5.53 The global air traffic system is being progressively upgraded to increase system capacity and improve flight efficiency within required flight safety standards. This upgrade is designed to enable greater use of automated systems, with less reliance on human input and ground-based systems.

5.54 The P-3s have systems designed for an earlier generation. They are not compliant with the new air traffic regulations. They also have limited ability to exchange operational information and will not adequately interface with modernised NZDF and defence partner capabilities. Without upgrading the P-3 communication and navigation systems, the Government will be faced with policy failure in meeting its objectives relating to aerial surveillance.

Links to Other Capabilities

5.55 This project has links to the following projects and capabilities:

- P-3 Mission Systems Upgrade
- P-3 Self-Protection

Timing

5.56 The first upgraded aircraft is expected to be in service in 2008, with fleet modernisation complete in 2010.

Current Status

5.57 A contract has been signed with L-3 Communications Integrated Systems for the upgrade of the P-3 Orion's communication and navigation systems.

New Defence Headquarters Building

Description

5.58 The Chief of Defence Force (CDF) on behalf of the NZDF, Ministry of Defence and the New Zealand Security Intelligence Service (NZSIS), has negotiated development and lease agreements with Capital Properties Limited, for the construction of a 18300m2 commercial standing office building, modified to accommodate tenant specific requirements. The NZDF, in conjunction with the Ministry of Defence and the NZSIS is to fund tenant specific requirements for the building and fit out.

Policy Value

5.59 The new Defence Building will accommodate NZDF strategic headquarters and the Ministry of Defence in modern accommodation.

Capability Gap

5.60 The lease on the current Defence accommodation will expire in March 2006, and the NZDF, the Ministry of Defence and the NZSIS are required to relocate.

Other Links

5.61 The new Defence Building is linked to the Review of Accountabilities and Structural Arrangements between the Ministry of Defence and the New Zealand Defence Force (RASA).

Timing

5.62 The relocation to the new leased accommodation will be completed by February 2007.

Current Status

5.63 Approval has been given by Cabinet to proceed with the signature of development and lease agreements with Capital Properties Limited.

Costs

5.64 The estimated cost to the NZDF of fitting out the new building is $15 million.

6 PROJECTS APPROVED IN PRINCIPLE BY GOVERNMENT

C-130 Life Extension

Description

6.1 This project proposes to extend the life of the C-130 aircraft by upgrading the avionics and aircraft systems and undertaking some structural refurbishment work.

Policy Value

6.2 The C-130 is a critical enabler for many NZDF operations. It provides essential air transport for the deployment of NZDF personnel and equipment, within New Zealand, to the South Pacific, Australia, the Asia-Pacific region and globally. Air transport is a critical capability for a number of roles and tasks, including: supporting counter-terrorist operations; peace support operations; evacuations of New Zealanders from trouble spots; disaster relief and humanitarian operations; undertaking tasks within New Zealand; and supporting New Zealand's Antarctic programme. The C-130 has particular utility where runways are short or in poor condition.

Capability Gaps

6.3 The declining availability of C-130 air transport is a major capability gap that will increasingly impinge on the NZDF's ability to deploy and support personnel. This is due to the age of the airframe and systems. There is a risk of policy failure, particularly in the New Zealand, South Pacific and Asia-Pacific contexts, if this project is not carried out, as the NZDF would not have sufficient air transport to support deployments and perform other tasks.

Associate Projects

6.4 The C-130 communications and navigation systems also need to be upgraded to address equipment obsolescence and comply with evolving international air traffic regulations. The communications and navigation upgrade requirements for the C-130 are covered in a separate project.

6.5 The C-130 also lacks an adequate self-protection system against man-portable infrared missiles. This deficiency is also addressed in a separate project.

Links to Other Capabilities

6.6 This project has links to the following projects and capabilities:

- Boeing 727 Replacement
- Light Armoured Vehicle
- Light Operational Vehicle
- Special Forces Capabilities
- C-130 Self-Protection
- C-130 Communications and Navigation Systems Upgrade
- Deployment of other capabilities

Timing

6.7 The first upgraded aircraft is expected to be in service in 2007, with fleet modernisation complete in 2009.

Current Status

6.8 The Ministry of Defence is currently negotiating a contract for the upgrade with the preferred tenderer.

Costs

6.9 This project is expected to cost $100 million - $170 million.

C-130 Communications and Navigation Systems Upgrade

Description

6.10 This project involves the upgrade of the C-130 communications and navigation systems to address equipment obsolescence and comply with evolving international air traffic regulations. This project has been separated from the previous combined C-130/P-3 Communications and Navigation Systems Upgrade project due to the differing requirements of the P-3 and the C-130.

Policy Value

6.11 The C-130 is a critical enabler for many NZDF operations. It provides essential air transport for the deployment of NZDF personnel and some equipment, within New Zealand, to the South Pacific, Australia, the Asia-Pacific region and globally. Air transport is a critical capability for a number of roles and tasks, including: supporting counter-terrorist operations; peace support operations; evacuations of New Zealanders from trouble spots; disaster relief and humanitarian operations; undertaking tasks within New Zealand and supporting New Zealand's Antarctic programme. The C-130 has particular utility where runways are short or in poor condition.

Capability Gap

6.12 The global air traffic system is being progressively upgraded to increase system capacity and improve flight efficiency within required flight safety standards. This upgrade is designed to enable greater use of automated systems, with less reliance on human input and ground-based systems.

6.13 The C-130s have systems designed for an earlier generation. They are not compliant with the new air traffic regulations. As more stringent rules and procedures are implemented, the C-130s will be increasingly restricted in their operation, and ultimately will be unable to operate.

6.14 Without upgrading the C-130 communication and navigation systems, the Government will be faced with policy failure in meeting its objectives relating to air transport.

Links to Other Capabilities

6.15 This project has links to the following projects and capabilities:

- C-130 Life Extension
- C-130 Self-Protection

Timing

6.16 The first upgraded aircraft is expected to be in service in 2007, with fleet modernisation complete in 2009.

Current Status

6.17 The Ministry of Defence is currently negotiating a contract for the upgrade with the preferred tenderer.

Costs

6.18 This project is expected to cost $100 million - $150 million.

Direct Fire Support Weapon – Area

Description

6.19 The area direct fire support weapon - area (DFSW-A) project will provide land forces with the ability to engage opposing forces at a range of up to two kilometres.

Policy Value

6.20 The DFSW-A forms an element of any significant land force contribution to peace enforcement operations in the Asia-Pacific region and globally where land forces may face a threat on the ground. The DFSW-A is also important in peacekeeping operations for self-protection and as a deterrent to escalation. The weapon may have some utility in higher-threat situations in the South Pacific.

Capability Gap

6.21 The New Zealand Army presently lacks this capability. This limits the effectiveness and self-protection capability of land forces, particularly during peace enforcement operations in the Asia-Pacific region and globally.

Links to other Capabilities

6.22 This project has links to the following projects and capabilities:

- Light Armoured Vehicle
- Light Operational Vehicle
- Medium Range Anti-Armour Weapon
- Land Intelligence Surveillance Reconnaissance

Timing

6.23 Delivery is expected in 2006.

Current Status

6.24 On 9 December 2002, Cabinet authorised the Ministry of Defence to seek proposals from industry. Further information from industry will be called for in early 2005.

Costs

6.25 This project is expected to cost $15 million.

NZDF Helicopter Capability

Description

6.26 This project proposes to replace the Iroquois utility and Sioux training helicopters with a capability that meets the NZDF's contemporary needs.

Policy Value

6.27 Utility helicopters provide essential support to the Army, particularly in the South Pacific and in peace support operations. Helicopters are important for supporting police operations in New Zealand. In addition, utility helicopters are able to provide a range of support functions within New Zealand and the South Pacific, such as search and rescue and disaster relief.

6.28 The introduction into service of the MRV will create an additional role for utility helicopters in supporting the Army ashore, especially in the South Pacific.

Capability Gap

6.29 The Iroquois can no longer provide the capability required by a modern, mobile land force. These aircraft are becoming increasingly difficult to support because of their age. With helicopters assuming greater importance for mobility and tasks in peace support operations, there is a risk that the Army will be unable to adequately perform its policy roles and tasks if the Iroquois is not upgraded or replaced to meet current requirements.

6.30 The Sioux training helicopter is of 1950s vintage and is inadequate to meet training needs. It does not provide an adequate step in pilot training progression from the Airtrainer aircraft to operational utility and maritime helicopters.

Links to other Capabilities

6.31 This project has links to the following projects and capabilities:

- Special Operations Capabilities
- Multi-Role Vessel
- Army capabilities

Timing

6.32 A replacement for the Iroquois is expected to enter service after 2008. There is some urgency to replace the Sioux training helicopter, and this is expected to occur during 2006.

Current Status

6.33 An Invitation to Register interest in supplying a medium utility helicopter to replace the Iroquois is being evaluated.

Costs

6.34 Replacement of the Iroquois and Sioux is expected to cost $400 - 550 million.

Ohakea Consolidation

Description

6.35 The Ohakea consolidation project will lead to the consolidation of the RNZAF's operational capability at RNZAF Base Ohakea.

Policy Value

6.36 The consolidated base will be a core enabler for all RNZAF operations.

Capability Gap

6.37 Ohakea will require extensive improvements to existing infrastructure and additional buildings to accommodate the personnel and functions transferring from Whenuapai. Units transferring to Ohakea include No. 40 Squadron (fixed wing transport), No. 5 Squadron (maritime surveillance), 485 Wing (Force Element management), Operational Support Squadron, and a range of technical and administrative support units and elements.

Links to Other Capabilities

6.38 The consolidation at Ohakea is linked to:

- Helicopter replacement project
- P-3 systems upgrade
- C-130 life extension

Timing

6.39 The timing and duration of the move to Ohakea will be explored during the preparation of options for consolidation.

Current Status

6.40 Consultants have reported on possible options for consolidation which are currently being considered.

Costs

6.41 Costs have yet to be determined.

Army Engineering Equipment

Description

6.42 This project will improve the Army's engineering equipment and therefore its ability to support the mobility of the motorised land force. Equipment includes:

- Combat engineering tractors
- Rapid gap crossing system
- Water purification/storage

Policy Value

6.43 Additional engineering equipment will enable LAVs and LOVs to cross obstacles that may be encountered. Some engineering equipment may also be necessary to enable landing operations from the MRV.

6.44 The policy utility of this equipment will be in supporting the LAVs when deployed on peace support operations in the Asia-Pacific region and globally.

Capability Gap

6.45 Current engineering capabilities are very limited and not oriented towards motorisation. Additional capabilities are necessary to provide for the increase in the scale of mobility requirements associated with the increased number of vehicles in the motorised battalion. This also includes providing for the crossing of gaps and broken or soft ground, potentially including beach crossing from the MRV.

6.46 The Army lacks water purification and storage capacity.

Links to other Capabilities

6.47 This project has links to the following projects and capabilities:

- Light Armoured Vehicle
- Light Operational Vehicle
- Multi-Role Vessel

Timing

6.48 The engineering equipment is expected to enter service in 2006/07.

Current Status

6.49 Proposals will be sought from industry with recommendations for government consideration expected late 2005.

Costs

6.50 This project is expected to cost around $15 million.

7 PROJECTS NECESSARY TO AVOID THE FAILURE OF POLICY

Joint Command and Control System

Description

7.1 The Joint Command and Control System (JCCS) project is designed to implement an automated command and control system for the NZDF. This information technology (IT) based system will collect, collate, process, display, store, disseminate and protect command and control information in near real-time.

Policy Value

7.2 A JCCS is an enabling capability for all of the policy roles and tasks required of the NZDF. A JCCS enables elements from all three services to work together efficiently and effectively by enhancing decision-making processes.

Capability Gap

7.3 The NZDF's current command and control systems are largely manual and paper based. Experience in recent operations and exercises has shown that the NZDF system is dated and inefficient. This has impacted on the effectiveness of the Joint Force Headquarters. The slower and less accurate decision making cycle currently available to commanders is likely to lead to policy failure as it becomes increasingly difficult for the NZDF to plan operations and effectively co-ordinate its own operations.

Links to Other Capabilities

7.4 The JCCS is an overarching capability that contributes to all NZDF outputs. While the JCCS will give the NZDF the ability to manage command and control information, the project does not provide the ability to communicate data. The JCCS will therefore depend on a suitable communications infrastructure.

Timing

7.5 The JCCS is expected to be implemented in 2006.

Current Status

7.6 The JCCS project is being managed under State Services Commission and Treasury guidelines for major IT projects. A proposal seeking approval to canvas proposals from industry is expected to be brought forward to Cabinet by the end of 2004.

Costs

7.7 This project is expected to cost $15 million - $30 million.

Improvised Explosive Device Disposal

Description

7.8 This project proposes to enhance the New Zealand Defence Force's Improvised Explosive Device Disposal (IEDD) capability and develop a credible Improvised Explosive Device Disposal – Chemical, Biological (IEDD-CB) and possibly a Radiological capability.

Policy Value

7.9 An IEDD and IEDD-CB capability is part of the NZDF's role to counter any threat posed by terrorism or acts of sabotage. The NZDF is an essential component of the wider whole-of-government approach to an IEDD or IEDD-CB emergency with the New Zealand Police managing such an occurrence. The potential consequences of IEDD incidents range from limited, but costly, inconvenience and disruption of activities through to loss of life if an explosive device was to detonate.

Current Status

7.10 A proposal is currently being developed for Cabinet consideration.

Costs

7.11 This project is expected to cost around $25 million.

8 PROJECTS NECESSARY TO PROVIDE A WELL-EQUIPPED LAND FORCE

Land Intelligence Surveillance Reconnaissance

Description

8.1 This project proposes to equip the Army with an improved land Intelligence Surveillance Reconnaissance (ISR) capability.

Policy Value

8.2 An improved land ISR capability will provide land forces with the ability to detect threats at greater distances and with greater certainty. An improved land ISR capability is an important element in operations where land forces face a demanding threat environment and need to know what is happening around them.

Capability Gap

8.3 Land forces require integral capabilities to identify personnel and vehicles, both static and moving. Current ISR capabilities are limited to foot, vehicle and motorcycle patrols and include night vision and some ground sensors. A significantly larger area, up to 100 by 60 square kilometres, will need to be observed when the LAV is introduced into service.

Links to other Capabilities

8.4 This project has links to the following projects and capabilities:

- Special Operations Capability
- Light Operational Vehicle
- Light Armoured Vehicle
- P-3 Upgrade
- NZDF Helicopter Capability

Timing

8.5 Implementation is expected in 2006 - 2007.

Current Status

8.6 Preliminary work has been completed to determine how the land ISR needs fit within the broader NZDF ISR requirements. Work will now commence on developing options to meet specific land ISR requirements.

Costs

8.7 This project is expected to cost $25 million - $52 million.

Combat Service Support Vehicles

Description

8.8 This project proposes to provide additional combat service support vehicles and associated equipment to support the LAV. LAV support vehicles include fuel, water and bulk-handling equipment (moving containers/pallets over rough terrain).

Policy Value

8.9 Combat service support vehicles are a critical enabler for the LAVs. They sustain and resupply the LAVs with fuel, personnel and spares and provide maintenance support. They have utility in meeting policy objectives in peace support operations in the Asia-Pacific region and globally.

Capability Gap

8.10 The introduction of the LAV has created an additional requirement for combat service support vehicles beyond the Army's current capabilities.

Links to other Capabilities

8.11 This project has links to the following projects and capabilities:

- Light Armoured Vehicle
- Light Operational Vehicle
- Multi-Role Vessel
- General Service Vehicle Fleet Replacement

Timing

8.12 The introduction into service of the additional combat service support capabilities is expected in 2005/2006.

Current Status

8.13 Options are being developed for government consideration mid-2005.

Costs

8.14 This project is expected to cost $10 million.

Army Tactical Trunk Communications

Description

8.15 This project proposes to replace and/or upgrade existing Army short-range communications systems to provide a high bandwidth (high capacity) digital theatre communication system to support command and control requirements of the NZDF Battalion Group operations.

Policy Value

8.16 The Army Tactical Trunk Communications system will provide an enhanced capability to exercise command and control over an NZDF battalion group, as well as communicate with allied forces. It forms an important component of any battalion group deployment, particularly in peace enforcement operations where good command, control and communications enhance the safety and effectiveness of land forces.

Capability Gap

8.17 Current Army tactical trunk communications systems are voice oriented, technologically old, and are comprised of ad hoc and short-term systems. This limits the Army's ability to exchange information between deployed Army sub-units. An upgraded system would provide short-range communications that interface between medium/long range communications and the tactical units. This system needs to be military specification equipment.

Links to Other Capabilities

8.18 The Army tactical trunk communications system will need to be interoperable with other NZDF communications systems and the Joint Command and Control System.

Timing

8.19 This capability needs to be implemented following the outcome of the JCCS project and on completion of a separate study to determine the work required to achieve an integrated communications infrastructure.

Current Status

8.20 Awaiting decisions on JCCS.

Costs

8.21 This project is expected to cost up to $10 million.

Army In-Service Weapon Replacement

Description

8.22 This project proposes to replace the following in-service weapons when they become due for replacement around 2007-2009:

- 1000 C9 light machine guns
- Special Forces miscellaneous weapons
- Carl Gustav light anti-armour weapons

Policy Value

8.23 The above small arms are integral to the full range of land force operations and have applications in a host of policy roles.

Capability Gap

8.24 Current weapons are serviceable but will require replacement around 2007–2009.

Timing

8.25 The weapons do not require replacement until 2007-2009.

Current Status

8.26 No action required at this stage.

Costs

8.27 This project is expected to cost around $8 million.

General Service Vehicle Fleet Replacement

Description

8.28 This project proposes to replace the Army's general service vehicle fleet including medium and heavy vehicles, trailers and mechanical handling equipment.

Policy Value

8.29 The general service fleet is a critical enabler for land force operations. This fleet sustains and resupplys forces with fuel, ammunition, rations, personnel and spares and provides maintenance support. The fleet has utility in meeting a wide range of policy objectives.

Capability Gap

8.30 The current fleet of general service vehicles and trailers are approaching the end of their economic life and will require replacement.

Links to other Capabilities

8.31 This project has links to the following projects and capabilities:

- Light Armoured Vehicle
- Light Operational Vehicle
- Multi-Role Vessel
- Combat Service Support Vehicles

Timing

8.32 The bulk of the general service fleet will need to be replaced from around 2010.

Current Status

8.33 The NZDF is investigating possible collaborative opportunities with the Australian Overlander project, which aims to replace a range of general service vehicles and trailers.

Costs

8.34 The total cost of this project has yet to be determined.

9 PROJECTS NECESSARY TO AVOID SIGNIFICANT RISKS TO POLICY

ANZAC Self-Defence Upgrade

Description

9.1 This project proposes to upgrade the ANZAC frigates' self-defence systems to protect the Naval Combat Force against increasingly sophisticated anti-ship systems and to address equipment obsolescence.

Policy Value

9.2 The role of the Naval Combat Force is to meet military tasks, particularly in support of the Government's regional and global objectives. The ANZACs are critical to the protection of New Zealand/Australian territorial sovereignty, for participating in FPDA activities, supporting our relationships with regional partners, and undertaking peace support operations in the Asia-Pacific region and beyond. These environments contain significantly higher threats to surface vessels than exist in New Zealand's immediate area, including air and sub-surface threats. To continue operating in these environments, and therefore meet the Government's policy requirements, the ANZACs will require an upgrade to their defensive systems to meet the changing threat levels in these areas.

Capability Gap

9.3 By the end of the decade, the increase in air, surface and sub-surface threats, and the sophistication of these threats, within the Australia/Asia-Pacific region and beyond will mean that the defensive systems onboard the ANZACs will become increasingly ineffective. Consequently, the operational capability of the ANZACs will decline to the point where their ability to operate in these environments would carry serious risks.

9.4 The design of the majority of self-defence equipment on the ANZACs will be approaching 25 years of age by 2010. Support will become increasingly difficult and operating costs will rise. In some cases, such as the anti-air missile, existing systems are becoming increasingly difficult to support.

Links to other Capabilities

9.5 This project has links to the following projects and capabilities:

- NZDF Torpedo Replacement
- Multi-Role Vessel
- Anti-Ship Missiles
- P-3 Mission Systems Upgrade

Timing

9.6 This project needs to be implemented from around the end of this decade.

Current Status

9.7 Preliminary work is underway to scope the project and determine the best way to implement the package of required work. This includes investigating possible options to align with the Australian project to upgrade ANZAC self-defence systems.

Costs

9.8 This project is expected to cost around $300 million.

NZDF Torpedo Replacement

Description

9.9 This project proposes to replace the torpedoes for the ANZAC frigates, P-3 Orions and SH-2G Seasprite helicopters to maintain the ANZAC's basic self-defence capability against sub-surface threats and the P-3's area anti-submarine capability.

Policy Value

9.10 The role of the Naval Combat Force is to meet military tasks, particularly in support of the Government's regional and global objectives. The ANZACs are critical to the protection of New Zealand/Australia territorial sovereignty, for participating in FPDA activities, supporting our relationships with regional partners, and undertaking peace support operations in the Asia-Pacific and beyond. These environments contain significantly higher threats to surface vessels than exist in New Zealand's immediate environs, including air and sub-surface threats. Torpedoes provide a basic self-defence capability against sub-surface threats, and enable the ANZACs to be safely deployed in these environments.

9.11 The P-3s require a torpedo replacement to maintain their current capability to fulfil the above policy roles.

Capability Gap

9.12 The current torpedoes will reach the end of their life around 2007, limiting the ability of the ANZACs to be deployed to areas beyond the South Pacific where sub-surface threats may be encountered. This would impact most significantly on the ability of the ANZACs to provide support for peace enforcement operations. It would also limit the utility of the ANZACs as a contribution to the protection of New Zealand/Australia territorial sovereignty.

9.13 The absence of a torpedo capability will mean that the P-3 aircraft will be unable to provide area protection for New Zealand naval vessels against submarine threats.

Links to other Capabilities

9.14 This project has links to the following projects and capabilities:

- ANZAC Self-Defence Upgrade
- Multi-Role Vessel
- Anti-Ship Missiles
- P-3 Mission Systems Upgrade

Timing

9.15 The current Mark 46 Mod 2 torpedo will not be supportable beyond about 2008/9. A replacement will need to be in service before the current torpedoes become unsupportable.

Current Status

9.16 Work is underway to consider options to replace the current torpedo.

Costs

9.17 This project is expected to cost around $30 million.

C-130 Self-Protection

Description

9.18 This project proposes to upgrade the C-130 self-protection system to provide the ability to detect and counter likely threats, primarily man-portable infrared (IR) missiles.

Policy Value

9.19 The C-130 is a critical enabler for many NZDF operations. It provides essential air transport for a number of roles and tasks, including: supporting counter-terrorist operations; peace support operations; evacuations of New Zealanders from trouble spots; disaster relief and humanitarian operations; supporting the civil power; and supporting New Zealand's Antarctic programme.

9.20 C-130s are expensive assets and moreover carry a significant number of people. It is important therefore to protect those assets and minimise the risks to people onboard.

Capability Gaps

9.21 The current C-130 self-protection fit was installed in the early 1990s. Since that time there has been a significant increase in the sophistication and availability of missiles. The current system is no longer appropriate for today's threat environment.

9.22 In the last 15 years, 90 percent of all aircraft lost in combat have been attributed to infrared IR guided missiles. Specifically, these aircraft have fallen to man-portable missile systems. These shoulder-launched systems are widespread globally. Lack of a self-protection capability could limit the use of our C-130s in humanitarian or peace support operations globally.

Links to Other Capabilities

9.23 This project has links to the following projects and capabilities:

- C-130 Life Extension
- C-130 Communications and Navigation Systems Upgrade

Timing

9.24 Recent operations have highlighted the need to consider the option of an early self-protection upgrade. It may, however, be more practicable to undertake the upgrade during the C-130 life extension project.

Current Status

9.25 Work is underway to determine the appropriate self-protection requirement and the most suitable time to equip the aircraft.

Costs

9.26 This project is expected to cost around $12 million.

P-3 Self-Protection

Description

9.27 This project proposes to equip the P-3 with a self-protection capability to counter likely threats, primarily man-portable infrared (IR) missiles.

Policy Value

9.28 The capability provided by the P-3 is critical to meeting many of the roles and tasks required of the NZDF across the range of the Government's five defence policy objectives. The P-3 is critical for the surveillance of New Zealand's EEZ and the Southern Ocean. It is also critical to meeting our South Pacific obligations. The P-3 is one of the primary capabilities that contributes to our defence relationships with Australia and FPDA partners, and is of high utility for peace support operations.

9.29 P-3s are expensive assets and moreover carry a significant number of people. It is important therefore to protect those assets and minimise the risks to people onboard.

Capability Gaps

9.30 The P-3 currently has no dedicated self-protection equipment. The aircraft's sensors inherently provide protection from long-range and/or obvious threats. Man-portable missiles are easy to conceal, however, and detection may not be possible before the aircraft has closed within range of the weapon. It is therefore necessary to be able to detect the missile launch and use countermeasure techniques to defeat it.

9.31 In the last 15 years, 90 percent of all aircraft lost in combat have been attributed to infrared IR guided missiles. Specifically, these aircraft have fallen to man-portable missile systems. These shoulder-launched systems are widespread globally. Lack of a self-protection capability could limit the use of our P-3s in peace support operations globally.

Links to Other Capabilities

9.32 This project has links to the following projects and capabilities:

- P-3 Mission Systems Upgrade
- P-3 Communications and Navigation Systems Upgrade

Timing

9.33 The most practicable time to complete this project is likely to be during the P-3 upgrade project. Ideally, a self-protection capability would be available as the upgraded aircraft return to service.

Current Status

9.34 Work is underway to determine the appropriate self-protection requirement and the most suitable time to equip the aircraft.

Costs

9.35 This project is expected to cost around $18 million.

Anti-Ship Missiles

Description

9.36 This project proposes to equip the P-3 aircraft with an anti-ship missile capability.

Policy Value

9.37 Equipping the P-3 aircraft with an anti-ship missile capability would significantly enhance the value of these aircraft in fulfilling policy roles relating to the territorial sovereignty of New Zealand and Australia, playing an appropriate role in the maintenance of security in the Asia-Pacific region, and participating in the FPDA.

Capability Gap

9.38 Disbanding the Air Combat Force has resulted in the loss of the maritime strike capability. The P-3s provide targeting information but do not have an anti-ship capability. The inability to take immediate action against surface threats limits the P-3's ability to provide force protection for New Zealand naval vessels, particularly the frigates and, in future, the MRV.

Links to other Capabilities

9.39 This project has links to the following projects and capabilities:

- P-3 Mission Systems Upgrade
- Multi-Role Vessel
- ANZAC frigates

Timing

9.40 The timing of this project is dependent on the completion of the P-3 mission systems upgrade. The modification required to enable the P-3 to launch anti-ship missiles is relatively straightforward and could be done during routine maintenance. Before a missile capability is added, the mission systems upgrade would be necessary to provide sensors capable of locating and properly identifying targets.

Current Status

9.41 A study will be conducted in due course to determine the appropriate weapons for the P-3.

Costs

9.42 This project is expected to cost $20 million - $25 million.

Joint Communications Modernisation

Description

9.43 This project proposes to modernise the NZDF's long-range and medium-range communications capability to ensure that the NZDF maintains a reliable, integrated, world-wide communications infrastructure. This communications infrastructure will support NZDF deployed forces, ships and aircraft operating outside short-range radio coverage and enable communications between force elements deployed to different parts of a theatre of operations.

9.44 The modernisation will support higher data transfer rates and modern communication protocols, with a mix of military and commercial communications services.

Policy Value

9.45 As communications are critical in almost all roles, the modernisation of the communications infrastructure is important in the achievement of defence policy objectives in New Zealand's environs, the South Pacific, the Asia-Pacific region and, potentially, in contributions to global security and peacekeeping.

Capability Gap

9.46 Current communications systems are single Service oriented, technologically dated, and comprise ad hoc and short-term systems. Communications between the Joint Force Headquarters and units deployed or operating beyond short-range radio coverage will not meet requirements, resulting in an inability to exchange information between NZDF units and allies. Deferral of this project will limit the type and timeliness of information that can be exchanged and thus will limit the ability of the NZDF to develop a modern, integrated command control communications and intelligence capability.

Links to Other Capabilities

9.47 Long-range and medium-range communication systems form an essential part of the NZDF communications infrastructure and contribute to all NZDF outputs. This project is dependent on the completion of the JCCS project definition study and is linked to the Army Tactical Communications System.

Timing

9.48 Modernisation of this capability needs to be started around 2005 to fully realise the benefits of the JCCS and the enhanced communications systems being introduced with other projects such as the P-3 mission systems upgrade and the MRV. To provide a fully effective command, control, communications and intelligence capability, the communications infrastructure must match the capability of the JCCS.

Current Status

9.49 A study is underway to determine the programme of work required to achieve an integrated communications infrastructure. This study, along with input from the JCCS project, will assist in developing a strategy to implement this project.

Costs

9.50 This project is expected to cost $20 million - $40 million.

10 PROJECTS THAT HAVE BENEFIT BUT ARE LESS CRITICAL TO ACHIEVING POLICY OBJECTIVES

High Readiness Infantry Company

10.1 The Army does not maintain a high readiness infantry company that can undertake many short-notice tasks. This represents a policy gap and affects deployment times.

Short to Medium Range Aerial Surveillance

10.2 The Maritime Patrol Review identified a need for a short-medium range air patrol capability to complement the long range P-3. Options include provision of patrol services by a commercial contractor or by the Air Force. The Ministry of Fisheries is undertaking a study of coastal and mid-range air patrol capabilities and this work will consider the options available, including RNZAF aircraft and commercial service providers amongst others, and assess their cost-effectiveness. A report to the Government is expected early 2005.

Remote Mine Detection

10.3 The Maritime Forces Review identified a requirement to protect New Zealand's major ports by developing a capacity to detect and dispose of mines and other explosives underwater. The Review concluded that the mine countermeasures role should be retained. The capability of the Navy to detect mine-like objects is becoming increasingly difficult as current equipment reaches the end of its economical life. Upgrading this capability would significantly improve the safety of personnel and ships over the current inadequate, emergency only, systems.

Army Manoeuvre Range

10.4 A moving target range enables soldiers and commanders to practice skills necessary to conduct motorised operations. The range would allow the practice of low level manoeuvre (up to platoon level) while engaging static and moving targets.

Indirect Fire Support Weapon

10.5 Army currently has 81mm mortars and the 105mm artillery howitzer. Based on current usage and firing wear and tear, both weapons are expected to require replacement around 2012. A study will be conducted in due course to determine the appropriate indirect fire support weapon capability.

Infrastructure projects

10.6 There are a range of infrastructure requirements that will need to be addressed over the next ten years. These projects will upgrade or replace existing facilities and may reduce infrastructure and operating costs.