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**REVIEW OF THE OPTIONS
FOR
AN AIR COMBAT CAPABILITY**

FEBRUARY 2001

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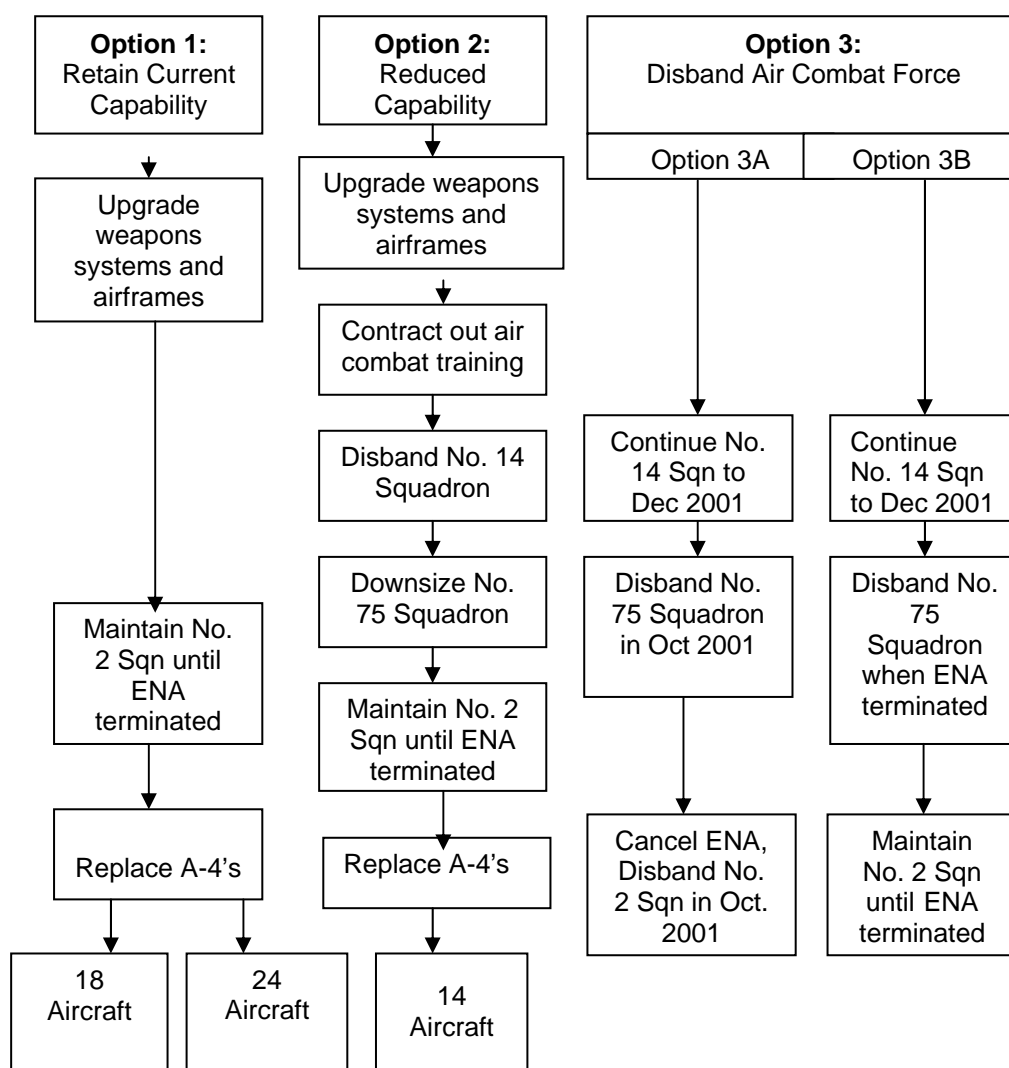
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1. SUMMARY

1.1 The Government's Defence Policy Framework states that the NZDF must be able to offer a range of capabilities which are realistically sustainable in order to meet defence policy objectives. This review of the options for New Zealand's air combat capability assesses the value of that capability in meeting Government's policy objectives in a fiscally sustainable manner. The review identifies the strategic, military operational, foreign policy and financial consequences of three broad options.

- A: Retention of the force at the current level of capability.
- B: Retention of a reduced air combat capability, involving a smaller operational force and/or outsourcing flying training.
- C: Disbanding the air combat force.

1.2 The decision paths for these options are as follows:



The implications of the options are summarised on the next page.

IMPLICATIONS	OPTION 1 RETAIN AIR COMBAT	OPTION 2 REDUCED AIR COMBAT	OPTION 3 ELIMINATE AIR COMBAT
Strategic/Foreign Policy	<p>Air combat force available to respond to local, regional and global security challenges.</p> <p>No foreign policy implications.</p> <p>ENA could continue as long as needed by Australia.</p> <p>Air combat force continue to participate in FPDA. This would be welcomed by FPDA partners, particularly Australia, as a demonstration of New Zealand commitment to regional security.</p>	<p>A limited but effective capability retained which could be expanded if there is a deterioration in New Zealand's security situation.</p> <p>No major foreign policy implications.</p> <p>Air combat force could still take part in FPDA and provide support to Australians under ENA.</p>	<p>Remove choice of committing air combat force in response to future security challenges.</p> <p>Our participation in FPDA activities would be reduced.</p> <p>Unable to continue to provide training support to Australians under ENA. Australian's concern would be heightened if support was terminated before they could replace us with their new Hawk trainer.</p> <p>Could be perceived by Australians as a sign that New Zealand is backing away from defence responsibilities.</p> <p>Likely to be unwelcome news in the United States.</p> <p>FPDA partners would regret the elimination of our air combat force.</p>
Military Operational	<p>The favourable reaction would help secure training and exercise support from our defence partners.</p> <p>Retention of an indigenous capacity to provide essential training support for the Navy and Army.</p>	<p>Retention of air combat expertise that provides a base to build on in the future.</p> <p>Retention of an indigenous capacity to provide essential training support for the Navy and Army.</p> <p>Savings would be generated to address operational deficiencies in other areas.</p>	<p>Air combat training support for the Navy and Army would have to be acquired from others at a cost.</p> <p>Loss of indigenous air combat expertise.</p> <p>Negative impact on recruitment and retention.</p> <p>Air Force may be able to be consolidated on one base in the North Island.</p> <p>Considerable resources would be freed up to address operational deficiencies in other areas.</p>
Financial	<p>The NZDF baseline would have to be increased by \$293-\$329 million over the next 10 years to accommodate the rising cost of maintaining the air combat force.</p> <p>Capital investment in the region of \$840-1,100 million would be required to replace the A-4s.</p> <p>No savings would be generated for rebuilding the rest of the NZDF.</p>	<p>Baseline savings of about \$128 million a year commencing in 2002/3 until the A-4s are replaced in 2010/11.</p> <p>Air Force personnel reduced by about 340.</p> <p>Capital investment in the region of about \$680 million would be required to replace A-4s with 14 aircraft.</p> <p>Savings would be generated, but insufficient for rebuilding the NZDF unless accompanied by major cuts elsewhere.</p>	<p>There would be an immediate baseline saving of \$39 million, rising to \$96 million per year from 2004/05. Total savings over 10 years of \$870 million.</p> <p>Air Force personnel reduced by around 700.</p> <p>These savings and the avoidance of capital investments in the air combat force would assist in rebuilding the NZDF, significantly reducing the need for additional funding.</p> <p>Possible impact on ability to generate export earnings of some of the major contractors involved in supporting the air combat force.</p>

Key Considerations

1.3 The air combat force equipped with the A-4 Skyhawk in its current state would be a marginal asset to any multinational coalition, and its operational utility will continue to decline. Should the Government wish to retain an air combat capability with some useful operational utility, then it would have to make a significant investment in new aircraft, more modern weapons, and improved combat systems.

1.4 In the absence of a foreseeable military threat, it is unlikely a New Zealand government would use the air combat force to respond to a low level security challenge around New Zealand or the South Pacific.

1.5 The air combat force plays a useful role in confidence building in the Asia-Pacific region through its involvement in FPDA activities and bilateral exercises. This is part of the architecture that helps maintain stability in the region. These activities also contribute to our foreign policy objectives. A New Zealand government, however, has not used the air combat force in response to a security challenge in the region for over 25 years. The outlook in *Strategic Assessment 2000* makes it difficult to visualise a situation where a government might do so in the foreseeable future.

1.6 The foreign policy impact of disbanding the air combat force needs to be cast in the wider context of the other decisions the Government will be making on our defence effort. The Australians will want to see New Zealand maintain a range of capabilities needed to continue to play a role in the region and to be able to work jointly with Australia. In the absence of air combat, these would include naval and land combat forces and maritime surveillance. If a decision to eliminate the air combat force was taken, they would wish to see it timed so that it would not leave them with a gap until they were able to have their new Hawks take over from our A-4s in providing training support for the RAN.

1.7 For Singapore and Malaysia, as well as other South-East Asian partners, the key will be maintaining capabilities that can effectively contribute to FPDA activities and bilateral exercises. Our major contributions are the air combat force, the P-3 Orions and our frigates. The effect of eliminating the air combat force could be dampened by assurances that the other force elements will continue to participate.

1.8 The air combat force supports the RNZN and New Zealand Army in maintaining their operational standards, as well as contributing important expertise to the joint force environment. There are other options for meeting these requirements satisfactorily if an air combat force was not part of the NZDF force structure. These would require the cooperation of our defence partners and there would be costs involved.

1.9 Because of the uncertainty of the security environment in the medium to longer term a decision to eliminate the air combat force carries with it the risk that New Zealand may not have a force structure that is able to cope with future challenges. But it is hard to visualise any circumstance where New Zealand would face a future serious threat on its own; we would do so as part of a multinational grouping.

1.10 In these circumstances, each country would contribute what it could and smaller countries like New Zealand would not be expected to have a full spectrum of capabilities available. What would be expected was that our contributions would be relevant, well trained and well equipped and thus able to play a useful part. It would not be in anybody's interest for us to maintain a breadth of capabilities that could not be properly developed and sustained.

Option 1 – Retain the Air Combat Force

1.11 Retaining the air combat force at its current level of capability would not carry any strategic, foreign policy or military operational risks. It would be available to respond to security challenges and participate in FPDA activities and bilateral exercises. Training support could be provided to the Australians as long as it was needed. This would require baseline increases over the next 10 years totalling in the region of \$300 million. Capital investment about \$840-1,100 million would also be required.

Option 2 – Retain a Reduced Air Combat Force

1.12 Retaining a reduced air combat capability would balance the strategic and foreign policy risks of eliminating the capability with the financial risks of maintaining air combat as part of the NZDF structure.

Option 3 – Disband the Air Combat Force

1.13 Elimination of the air combat force entirely carries strategic, foreign policy and military operational risks. Disbanding the air combat force would free up considerable resources and avoid the need for significant capital investment. These cost reductions would go a long way to achieving a fiscally sustainable defence effort within the Government's financial setting.

1.14 The cost of the Air Combat Force Output is about \$150 million annually, excluding capital charge. This is about 13.5% of the cost of NZDF Outputs (excluding capital charge). The \$870 million reduction in operating expenses over the next ten years that would be realised if the air combat force was disbanded, and the avoidance of between \$680 million and \$1 billion in capital investment over the same period, could be used to address the needs of the rest of the force structure within the level of resources that are likely to be available for defence in the current financial setting.

1.15 It is to be expected that recruitment and retention problems could arise in the RNZAF as a result of a decision to disband the air combat force. The impact could be reduced if the decision were seen in the wider context of using scarce resources wisely in those areas of the RNZAF where there is a demonstrable need, such as utility helicopters and strategic airlift. This would require an assessment that those capabilities we choose to retain in the force structure would be properly resourced to maintain professional standards and operational readiness.

1.16 If it were decided to eliminate the air combat force, there is a choice as to timing. The choices would involve, on one hand, how soon cost reductions are achieved; and on the other, accommodating the Australian wish to retain our training support.

2. INTRODUCTION

Background

2.1 The Government's Defence Policy Framework (DPF) states that to meet the Government's defence policy objectives the New Zealand Defence Force (NZDF) must be able to offer an adequate range of capabilities which are fiscally sustainable.¹ The DPF also expressed the view that NZDF resources are spread thinly across a range of capabilities, not all of which can be sustained. The Government has therefore directed that a series of capability reviews be undertaken from which a re-prioritised long-term capital equipment plan will be developed. Reviews of land forces and sealift have been completed and a review of maritime patrol will be completed by 28 February 2001.

2.2 In its 1999 report on the Inquiry Into Defence Beyond 2000, the Foreign Affairs, Defence and Trade Committee of Parliament questioned the value to New Zealand of the air combat force and recommended that the Government reconsider its place in the NZDF force structure. In his independent review of the lease of F-16 aircraft to replace the A-4 Skyhawks², the Hon. Derek Quigley recommended as a matter of urgency that all defence projects be reviewed with a view to prioritising and funding them on the basis of their capacity – judged from an NZDF-wide perspective – to advance New Zealand's national interests.

2.3 It is within this context that the Prime Minister asked the Chief Executive, Department of Prime Minister and Cabinet, for advice on the options for the air combat force. In response to this direction, this review assesses and reports on the strategic, military operational, foreign policy and financial consequences, over Defence's 10-year planning horizon, associated with three broad options:

- Retention of the air combat force at the current level of capability;
- Retention of a reduced air combat capability, involving a smaller operational force and/or outsourcing flying training associated with the air combat function; and
- Disbanding the air combat force.

Structure of the Review

2.4 This paper will set out the context for the evaluation of the air combat force by reviewing the strategic and financial setting in which the decision is to be made. The current air combat force is briefly reviewed in terms of structure, roles, current capability and contribution to current policy.

¹ The defence policy objectives are set out at Annex A.

² Review of the lease of F-16 aircraft for the Royal New Zealand Air Force, 6 March, 2000.

Scope of Analysis

2.5 The air combat capability has been the subject of a number of reviews in recent years. These include:

- 1992 Review of New Zealand's Combat Air Power Requirements
- 1993 Combat Air Enhancement Study
- 1998 Air Combat Capability Policy Study (Whineray Review)
- 1998 Australian/New Zealand Augmentation Studies
- 1998 MOD Evaluation of NZDF Output 11 – Air Attack Force
- 1999 Defence Beyond 2000 Inquiry
- 2000 Review of F-16 Lease (Quigley Review)

This report is based largely on that material, using updated data where appropriate.

2.6 The review will consider air combat as a military capability. A capability consists of more than just the aircraft by itself. It also includes the weapons and other systems fitted to the airframe; personnel, both air and ground crew; maintenance, logistic and administrative support, including infrastructure costs; and the associated command and control and training overheads directly related to the existence of the air combat force.

Assessment Measures

2.7 Judgments about the options presented in this review should look at the utility of the air combat force using four key measures:

- Strategic – how important is the capability in meeting the objectives of the Government's Defence Policy Framework?
- Foreign Policy – how important is the capability in securing benefit for New Zealand through enhancing our international relations, particularly with our closest defence partners?
- Operational – how important is the capability in providing the NZDF with the capacity to meet the requirements of the Government's Defence Policy Framework? and
- Financial – what are the costs of the capability and how does this fit within the Government's financial setting?

3. THE SETTING FOR THE REVIEW

Strategic Setting

3.1 New Zealand's view of the strategic setting over the next five years was set out in the Strategic Assessment 2000 undertaken by the External Assessment Bureau.

- New Zealand is unlikely to be directly threatened by any other country or be involved in widespread armed conflict. The strategic environment in the Asia-Pacific region, however, contains a number of challenges:
 - Global competition for marine resources;
 - Problems arising from weak governments in the region; and
 - Challenges to, or shifts in, the balance of power in the region.
- Australia plays a unique role in New Zealand's security. As a prosperous and benign neighbour, it makes a major contribution to the stability of New Zealand's immediate region.
- In the wider world the multilateral system for managing international peace and security issues of crucial importance to New Zealand are in a reasonable state.
- Inter-state conflict is increasingly rare but conflict resulting from communal tensions (linguistic, racial or religious) within states is all too common. The international community may be drawn into such conflicts because they are seen to pose a wider threat to international peace and security.

Security Implications

3.2 The implications of this strategic setting were addressed in the MFAT publication, New Zealand's Foreign Policy and Security Challenges, released at the same time as the DPF. It stated that the key tests for defence resourcing and capability decisions should be:

- the ability to perform core 'sovereignty' tasks around New Zealand;
- capabilities that allow an effective response to a variety of emergencies in the South Pacific;
- the capacity to play a constructive role in security relationships and processes in the Asia-Pacific region;
- capabilities that allow New Zealand to make an effective military contribution to multilateral coalition responses in the region or further afield, noting that some, including peacekeeping, may involve a high level of risk; and
- the ability to work effectively with others, in particular, the Australians.

3.3 The document went on to elaborate on some of the points of reference for developing future NZDF capabilities.

- In the absence of a direct threat to New Zealand's security, it is likely that contributions to collective security efforts, including peacekeeping, under UN auspices will remain a primary role for the NZDF – and a principal point of reference for force development.
- Army capabilities and associated naval and air support, including maritime surveillance, would form the core of a New Zealand response in most plausible South Pacific scenarios.
- Although it is possible that New Zealand would again face a decision to commit forces to a combat role in Asia, it is not easy to envisage a situation where a New Zealand government would do so. This limits the value of scenarios involving war in Asia as a point of reference for the development of the NZDF's force structure.
- The capabilities New Zealand can maintain at current funding levels will not be a major factor in regional military calculations, but they are useful in the context of the Five Power Defence Arrangements (FPDA) and the ASEAN Regional Forum.
- New Zealand is more likely to participate where there is a peacekeeping role, rather than a requirement to impose peace. Capabilities would not be developed specifically for a role in the region; rather participation would be based on capabilities developed for the NZDF's full spectrum of roles and tasks.

The Financial Setting

3.4 It is the DPMC/Treasury view that given competing priorities, it is unlikely the Government will be able to afford to commit significant amounts of additional expenditure on defence in the near future. While Defence is recognised as a capital-intensive area, often the operating costs are the main constraint on spending.

3.5 Current NZDF baseline funding is insufficient to retain the current set of outputs and capabilities in either the short or long term. The Government has recently allocated an additional \$25 million to cover anticipated shortfalls this financial year, and the air combat force has already been reduced to a basic level of capability [reduced readiness, training and maintenance] as a cost cutting measure. Next year a shortfall of \$95 million in baseline funding is predicted, excluding the cost of the East Timor deployment and pay increases.

3.6 The short and long term budget constraints mean that current and future investment in Defence needs to be prioritised. Future investment in defence will need to be targeted at those capabilities that are of highest utility to deliver the best value for money at an acceptable level of risk.

4. THE AIR COMBAT FORCE

Structure

4.1. The air combat force is currently made up of three squadrons. No. 14 Squadron, based at Ohakea, provides lead-in jet training on 17 Aermacchis (purchased 1991). No. 75 Squadron, also based at Ohakea, provides the operational output using 12 A-4 Skyhawks. No. 2 Squadron is based at Nowra, New South Wales, Australia with a squadron of six A-4s. No. 2 Squadron provides air defence support training for the Royal Australian Navy (RAN) under the terms set out in the Enhanced Nowra Agreement (ENA) between the NZDF and the Australian Defence Force (ADF). No. 2 Squadron also provides fighter lead-in flying training for pilots assigned operational roles in No. 75 Squadron.

Flying Personnel Associated with the Air Combat Force (current staffing)

	No. of Aircraft	No. of Pilots (excl trainees)	No. of Ground Trades	TOTAL
14 SQN	17 Aermacchi MB-339CB	11	63	84 (includes 10 trainee pilots)
75 SQN	12 A-4k Skyhawk	9	62	71
2 SQN	4 TA-4k Skyhawk 2 A-4k Skyhawk	6	41	47
SUB-TOTAL		26	166	202

Support Personnel Associated with the Air Combat Force (current staffing)

Base	Function	TOTAL
Ohakea	Air Base Wing	113
	Logistics	351
	Other	34
SUB-TOTAL		498
TOTAL		700

The A-4 Skyhawk

4.2 The A-4 Skyhawk was designed almost 50 years ago to provide the US Navy and US Marine Corps with a carrier-based lightweight attack and ground support aircraft. The New Zealand Government purchased 14 aircraft in 1970 and a second batch of ten second-hand aircraft from the Royal Australian Navy (RAN) in 1984. The aircraft was re-winged in the late 1980s, and the navigation/attack system was upgraded over the same period.

4.3 The New Zealand air combat force now has 18 A-4 aircraft, after the tragic accident on 16 February of this year at Nowra resulting in the death of Squadron Leader Murray Neilson. The 1997 Defence White Paper stated that the critical mass for the air combat force was 18 operational aircraft.

Roles, Tasks and Activities

4.4 The three roles of the New Zealand air combat force are:

Close Air Support (CAS) - This role involves support of ground forces against hostile targets that are in close proximity to friendly forces in conventional war and the higher end of peace support operations;

Maritime Strike - This role involves the targeting and attacking of naval and other surface vessels; and

Air Interdiction - This involves the use of aircraft to destroy, disrupt, neutralise or delay the enemies' military potential before it can be brought to bear effectively against friendly forces.

Air Combat Force Outputs

4.5 The air combat force provides the following outputs.

- At the Operational Level of Capability (OLOC), ten A-4s are to be available for deployment for military tasks, with the force sustainable for 12 months. At the current state of a Basic Level of Capability (BLOC), a force of eight A-4s could be deployed with 60 days notice.
- The provision of air defence support flying for the ADF in accordance with the ENA³.
- Provide services to the Government, including ceremonial and representational support and responding to EEZ infringements.

³ This agreement provides for 1,080 hours of Air Defence Support Flying for the ADF consisting of 800 hours in tasking and 280 hours in transit.

Enhanced Nowra Agreement

4.6 The provision of air defence training assistance by the RNZAF to the RAN commenced in 1991. The Australians are planning to use the newly acquired Hawk fighter lead-in trainer to take over this task.

Training and Other Activities

4.7 In 1999/00 the A-4s flew 3,819 hours, of which 2,564 contributed to maintaining an operational level of capability and 1,122 hours for training support to the ADF.

4.8 The air combat force takes part in a range of training activities associated with its operational roles and outputs. In 1999/00, the air combat force participated in the following major exercises.

- Exercise KAKADU - An exercise to practice maritime strike operations from a deployment base in Australia.
- Exercise VANGUARD 99 – An exercise to practice deploying rapidly over long distances; in this case to Malaysia.
- Exercise MALAY-KIWI 99 - A bilateral exercise with the Malaysian Air Force to practice air combat skills and demonstrate interoperability.
- Exercise STARDEX 99 - A major FPDA maritime and air defence exercise involving contributions from all member countries.
- Exercise WILLOH - A bilateral exercise with the Royal Australian Air Force (RAAF) to practice interdiction and air combat skills in a combined environment during a deployment of RAAF F/A-18s to New Zealand.

4.9 The air combat force also supports the RNZN and New Zealand Army by practising their skills for maintaining operational readiness. This included participation in the Navy's Fleet Concentration Period, Forward Air Controller training for the Army and training support for the Army's air defence troop. RNZAF figures show that historically the RNZN has vessels involved in about 20% of the support provided to the RAN under ENA. RNZAF data also shows that training support for the RNZN, excluding that provided by No. 2 Squadron at Nowra, amounted to a total of 560 hours. Training support for the Army runs in the vicinity of 300 hours each year from No. 75 Squadron, while the Aermacchi trainers provide a small amount of miscellaneous support. Training support is also provided during foreign ship visits, enhancing training value associated with such visits to New Zealand.

4.10 The air combat force also provides services to the community. In 1999/00 this included participation in the Millennium Celebrations, ANZAC Day parades and air shows at Whenuapai, Auckland and Wanaka.

Costs

4.11 The operating cost of the Air Combat Force Output is about \$150 million, GST inclusive, but excluding Capital Charge. The book value of the assets of the air combat force, as of 30 June 2000, is approximately \$370 million.

Current Capability

4.12 The Evaluation Division of the Ministry of Defence undertook an independent evaluation of the air combat output in 1998. It found that the A-4s met current needs, but are limited by the lack of an airborne laser target designator, a medium range anti-shiping missile, improved navigation and communication equipment and improved self defence systems. The evaluation report states that:

“The Air Attack Force could have deployed and made a useful, if limited, contribution to collective or regional security operations in a relatively benign operating environment.”⁴

“In the NZDF’s own assessment the Air Attack Force would have required additional resources in order to generate OLOC (operational level of capability), would have needed to have had restrictions placed on its designated missions or tasks, or would have only been able to sustain operations independently for a reduced time.”⁵

4.13 The current capability of the A-4s was described in the Quigley Report of the F-16 lease. Quigley highlighted the need for capital expenditure of \$35 million on the A-4’s between now and 2005 to maintain reliability and supportability. This covers most of the structural work as well as that on avionics, the fuel system, ejection seats and cockpit displays. Variable maintenance costs were also expected to increase because of the deferral of all work following the expected leasing of F-16’s⁶.

Suitability of A-4 Skyhawk

4.14 The A-4 was designed as a lightweight attack and ground support aircraft, the aerodynamic and engine performance being suited to a low altitude environment. However, the increased threat from small arms, anti-aircraft artillery and infrared portable surface-to-air missiles, makes low altitude operation high risk. For high-intensity coalition operations, the A-4 is relatively slow and unmanoeuvrable making it vulnerable to radar guided missile attack. It lacks the aerodynamic and engine performance to carry useful weapons loads, and a navigation/attack system upgrade

⁴ Evaluation of NZDF Output 11: Air Attack Force, Opening Letter.

⁵ Evaluation of NZDF Output 11: Air Attack Force, p.29.

⁶ The Air Force have advised that, based on more current information, the extent and cost of the work required would be less than what is mentioned in the Quigley report because replacement ejection seats are no longer available. The move to BLOC will also reduce maintenance costs.

would be required to enable the aircraft to guide precision weapons. The A-4 has no growth potential to accommodate the sort of electronic self-protection necessary to counter modern threats.

4.15 In addition to the work to maintain reliability and supportability mentioned in paragraph 4.13, expenditure would be required to acquire targeting pods and Electronic Counter Measure (ECM) Systems in order to deploy into anything other than benign environments. The estimated additional cost is about \$70 million.

Contribution to Defence Policy Objectives

4.16 The Whineray Review in 1998 concluded that the air combat capability had high policy value in protecting and promoting New Zealand's local, regional and global security interests. It was considered to be fundamental to demonstrate that New Zealand is serious about its own defence, and to send a clear message about our commitment to broader security.

4.17 The Foreign Affairs, Defence and Trade Select Committee did not share this view. The Defence Beyond 2000 Report stated that:

“ The A-4 Skyhawks which New Zealand has possessed for nearly 30 years have never been used by the RNZAF in a combat role, and almost certainly never will be.”⁷

“In what circumstances short of war would the New Zealand Government consider sending aircraft to sink ships?”⁸

“We see air combat forces as being of lesser utility, given competing demands for scarce NZDF resources than the other force elements maintained by the NZDF.”⁹

4.18 The MOD evaluators also had difficulty identifying the contribution made by air combat.

“The Defence Assessment 1997, the 1997 White Paper and related documents provided insufficient guidance as to the capabilities required of the Air Attack Force. In addition, guidance on where the Air Attack Force might be deployed and how it might be employed was limited.”

⁷ Inquiry into Defence Beyond 2000. p. 94.

⁸ Inquiry into Defence Beyond 2000. p. 97.

⁹ Inquiry into Defence Beyond 2000. p. 99:

4.19 The Quigley Review of the F-16 lease agreed in part with the Whineray report, expressing the view that the need to maintain an air combat force seemed to be based on: demonstrating that New Zealand is serious about its own defence; sending a clear message that New Zealand is committed to broader regional and global security; and, importantly, having an operational capability that can be expanded should strategic circumstances deteriorate significantly at some point in the future.

4.20 The Quigley review reported that it is questionable whether the New Zealand air combat force would be deployed in direct support of New Zealand Navy or Army contingents in an operational situation. In a submission to the review, the Navy expressed the view that RNZN ships would normally be deployed as part of a larger force with access to layers of defence and support. It saw the provision of air support in these circumstances coming from the air combat assets of a coalition rather than a dedicated New Zealand air combat component. The Army had a similar view about their operational circumstances. Notwithstanding this, both the Navy and Army require training support from the air combat force in order to achieve their operational readiness states.

4.21 The air combat force equipped with the A-4 Skyhawk in its current state would be a marginal asset to any multinational coalition, and its operational utility will continue to decline. Should the Government wish to retain an air combat capability with some useful operational utility, then it would have to make a significant investment in new aircraft, more modern weapons, and improved combat systems.

4.22 In the absence of a foreseeable military threat, it is unlikely a New Zealand government would use the air combat force to respond to a low level security challenge around New Zealand or the South Pacific.

4.23 The air combat force plays a useful role in confidence building in the Asia-Pacific region through its involvement in FPDA activities and bilateral exercises. This is part of the architecture that helps maintain stability in the region. These activities also contribute to our foreign policy objectives. A New Zealand government, however, has not used the air combat force in response to a security challenge in the region for over 25 years. The outlook in Strategic Assessment 2000 makes it difficult to visualise a situation where a government might do so in the foreseeable future.

5. DESCRIPTION OF THE OPTIONS

Option 1 – Retain Current Level of Capability

5.1 This option would preserve the current capability to deploy and sustain an operational force of 10 aircraft. Training support for the ADF under the ENA could continue as long as required. When the ENA commitment ends, No. 2 Squadron would return to New Zealand and be absorbed into No. 75 Squadron. The A-4s would be brought up to the minimum necessary level of capability. When the A-4s reached the end of their life, they would be replaced, most likely by used aircraft.

5.2 The A-4s would be replaced when they reach the end of their life. The Whineray report stated that 24 airframes should be acquired to maintain an operational level of capability through the airframe's expected life. A lesser number could be acquired if the consequential risks were considered acceptable. The primary risks are associated with an eventual inability to sustain an operational force because of the loss of aircraft over time. According to the Whineray Report, the minimum number that should be acquired is 18. Costings for both 24 and 18 replacement aircraft have been done.

Option 2 – Retain a Reduced Level of Capability

5.3 This option would preserve an air combat capability as part of the NZDF. No. 2 Squadron would disband at the expiry of the ENA. No. 75 Squadron would progressively be reduced to 14 aircraft. The remaining A-4s would be used for parts. When the A-4s reached the end of their life they would be replaced, most likely by used aircraft. There would be a limited capacity to deploy an operational force, although it could not be sustained for a prolonged period. Personnel levels would be reduced by about 340.

5.4 An air combat training capacity would not be retained in New Zealand. The Aermacchis would be disposed of and this training would be purchased from another country, possibly Australia, Singapore or Canada. For example, the Australians have recently indicated they could accommodate a small number of New Zealand pilots in their training programme.

5.5 There may be a case to retain a reduced air combat flying training capacity in conjunction with a smaller air combat force. The case would be based on the need to provide an indigenous capacity to build up an air combat capability in response to future security challenges. A reduced air combat flying capability would require nine of the 17 Aermacchis to be retained. This variation of Option 2 has not been costed.

Option 3 – Disband the Air Combat Force

5.6 Option 3A The air combat force would disband as soon as practicable. No. 2 Squadron would disband in October 2001, at the end of the six months notice required by the ENA. No. 75 Squadron would reduce operations immediately to that required to sustain No. 2 Squadron, and all other air combat force commitments would be cancelled. No. 14 Squadron would continue until the end of 2001 to enable present students to graduate.

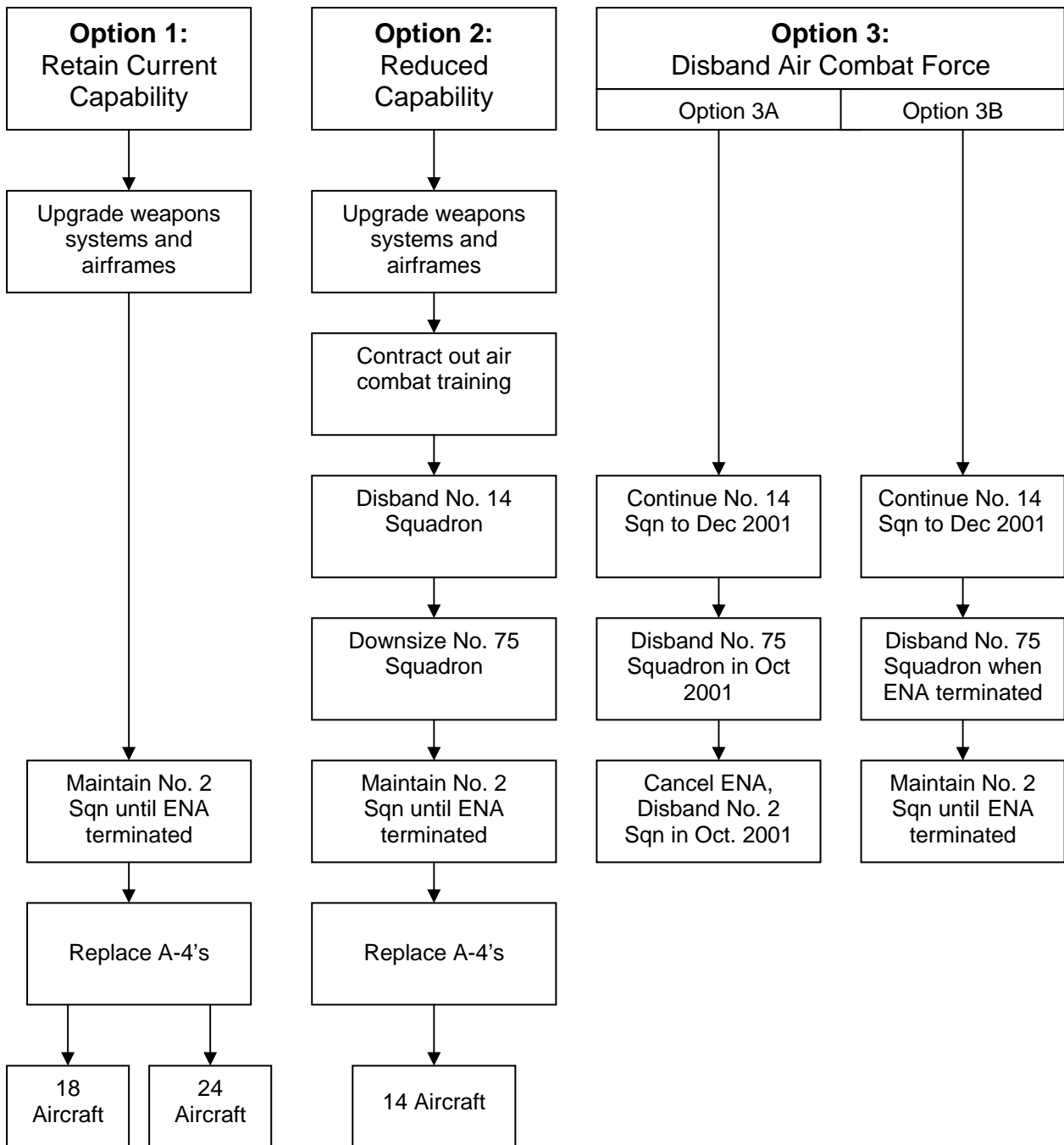
5.7 Option 3B The air combat force would disband when the ENA is terminated. No. 75 Squadron would reduce operations immediately to that required to sustain No. 2 Squadron, and all other air combat force commitments would be cancelled. No. 14 Squadron would continue until the end of 2001 to enable present students to graduate.

5.8 In the view of HQ NZDF and Treasury, a conservative estimate of personnel reductions associated with disbanding the air combat force is around 700. Further cost reductions may be possible later in the ten year period once the RNZAF has adjusted to the elimination of a major capability. The RNZAF's view is that this level of personnel reductions is overstated. The Air Force is concerned that a reduction of this magnitude might not leave sufficient personnel to deploy and sustain the remaining force elements. There was insufficient time to undertake further analysis to verify the impact on personnel numbers of disbanding the air combat force. The costings in the financial section of this review are based on a reduction of 700 personnel. If this option was adopted, further detailed analysis will be required on the change in personnel requirements.

5.9 The NZDF does not have a redundancy provision for military personnel so it would take a number of years to reduce personnel levels, based on the present attrition rate of 9%. This timeframe could be accelerated if a redundancy package was created for military personnel.

5.10 Under Option 3 there would be a case for consolidating the Air Force at one base in the North Island, closing either Whenuapai or Ohakea. From an operational perspective the NZDF's preference would be to retain Ohakea, but more detailed analysis would be required to determine the best option. There would be relocation costs associated with reducing to one base.

Decision Paths for the Air Combat Force



6. THE STRATEGIC AND FOREIGN POLICY IMPLICATIONS

Option 1: Continuation at Present Levels of Capability

6.1 The maintenance of the status quo would allow the Government to retain the option of using air combat forces to respond to local, regional and global security challenges. Although there is no discernible direct military threat to New Zealand's sovereignty, there is an ongoing threat of low-level incursions by foreign vessels involved in fishing, smuggling, illegal migration and other transnational crime activities. The Defence Beyond 2000 report expressed doubts that a government would use the air combat force in response to these non-military challenges.

6.2 The maintenance of the air combat force would enable it to be deployed on a sustainable basis to a peace support operation or other multinational operation, regionally or globally, in pursuit of Government objectives. It would also allow New Zealand to continue to provide an air combat element in FPDA exercises.

6.3 The Australians are aware that New Zealand is reviewing the continuation of its air combat capability, and a decision to continue with this capability would be welcomed and seen as a demonstration of New Zealand's ongoing commitment to Closer Defence Relations (CDR). There would be no foreign policy implications of the continuation option for our relations with the South Pacific.

6.4 FPDA partners are aware that New Zealand is reviewing the air combat capability, and a decision to retain the capability would be the preferred outcome for our FPDA partners, as well as Thailand.

Option 2: Reduction in Capability

6.5 New Zealand would retain a limited but effective capability to commit an air combat element to a multinational operation for a short duration. It would also have a base on which to build up an air combat capability should there be a significant deterioration in our strategic circumstances.

6.6 A reduced air combat capability would allow New Zealand to continue to contribute combat aircraft to FPDA exercises, and to continue, albeit at a lower level, joint exercising with Thailand, Singapore and Malaysia. This would contribute to New Zealand demonstrating its commitment to playing a role in the security and stability of the Asia-Pacific region.

6.7 As with the first option, there are not likely to be any significant foreign policy implications for relations with the South Pacific. A smaller number of combat aircraft would enable New Zealand to continue to cooperate with Australia under CDR through augmentation of the overall Australia/New Zealand air combat capability, though at a lower level than before, and through continuation of the ENA.

Option 3: Disbandment of the Air Combat Force

6.8 Disbandment of the air combat force would trigger a number of strategic and foreign policy implications. The NZDF would not be able to provide the Government with the choice of committing an air combat force to a multinational operation or in response to a security situation close to New Zealand.

6.9 The impact of disbanding the air combat force would be most significant in terms of our bilateral defence relationship with Australia. New Zealand defence policy has established Australia as its most important defence ally, with the objective of maintaining a close defence partnership in pursuit of common security interests. The NZDF operates with the ADF to protect the sovereignty and territorial integrity of both New Zealand and Australia, and to work together in the pursuit of a secure and peaceful region.

6.10 The new Australian White Paper states that they would regret any decision by New Zealand not to maintain at least some capable air and naval combat capabilities.

6.11 In the absence of an air combat capability, New Zealand would still be able to contribute to regional security and to the defence of both New Zealand and Australia, albeit with fewer options. These would include elements which the Australians greatly appreciate, such as naval and land combat forces and maritime surveillance. The Australian reaction to disbanding the air combat force would, however, depend on what decisions are taken across the whole range of defence capabilities.

6.12 In the end, what Australia wants to see is New Zealand maintaining a range of capabilities necessary to continue to play an effective role in the region and to be able to work jointly with Australia.

6.13 If it were decided to disband the air combat force, the timing of a decision would be important for Australia. The Australians have an expectation that our A-4s would be available until June 2002.

6.14 A decision to disband the air combat force is likely to be unwelcome news in Washington, as the new Administration is strong on defence and wants to devolve responsibility for regional stability to countries in the region.

6.15 In the DPF, the Government has committed to playing a role consistent with New Zealand's interests and capabilities in long-term efforts to build security and stability in the wider Asia-Pacific region. Although the Asia-Pacific region is relatively stable, it does face some security challenges. Given the level of our interests in the region, New Zealand would be expected to contribute to crisis management, peacekeeping or multilateral operations in the region. In general, such deployments would be in the nature of peacekeeping and peace enforcement rather than conventional war operations. While we can never rule out the possibility of having to again face a decision to commit forces to combat in the Asia-Pacific, Strategic Assessment 2000 considers this to be most unlikely. A New Zealand government has not utilised the air combat force in response to a security challenge in the region for over 25 years. The outlook in Strategic Assessment 2000 makes it difficult to visualise circumstances where they would do so in the foreseeable future.

6.16 The FPDA is also an important consideration. The Arrangements are based on maritime and air defence, although a land force dimension has been added to improve joint and combined operational procedures and understanding.

6.17 Our air combat force is considered by our FPDA partners to be of high value because its multi-role capability is flexible. If we did not contribute air combat assets, another country would have to increase its effort and pay a higher cost for its participation. The effect of disbanding our air combat force would be dampened as long as some sort of maritime contribution was maintained. To our FPDA partners, meaningful participation is the key.

6.18 Our close defence partners in the Asia-Pacific, Singapore and Malaysia, will look closely at New Zealand's continuing overall contribution to the stability and security of the region and to the FPDA exercises. In particular, they will be interested in what New Zealand does with its naval combat and maritime surveillance capabilities.

6.19 Participation in multilateral peacekeeping operations is an expression of New Zealand's intention to uphold fundamental commitments under the United Nations (UN) Charter. The NZDF needs to be structured, equipped and trained for combat, in both UN and other collective security activities. The New Zealand air combat force, however, has not played a direct role in any peace support operation. The reality is that New Zealand's strike aircraft are unlikely to be called upon by a New Zealand Government to play a role in peace support operations. While it has played a role in collective security in the past, the chances of New Zealand's air combat force being needed or used in this way by a New Zealand government in the future is not considered likely.

Summary of Strategic and Foreign Policy Implications

Option 1 – Retain the Current Level of Capability

- The air combat force would continue to be available as a response on a sustainable basis to local, regional and global security challenges.
- There would be no foreign policy implications.
- The air combat force could continue to participate in FPDA activities and bilateral exercises with regional partners. Both Australia and our FPDA partners would welcome the retention of this capability as a demonstration of New Zealand's commitment to regional security.

Option 2 – Reduced Capability

- There are not expected to be any major foreign policy implications.
- A limited but effective capability would be retained providing a base from which an air combat force could be developed should there be a significant deterioration in our strategic environment.

- A reduced capability would still allow New Zealand to contribute to FPDA activities and bilateral exercises, albeit at a lower level.

Option 3A – Disband the Air Combat Force Immediately

- A New Zealand government would not have the choice of committing an air combat force in response to a future security challenge.
- Any negative perceptions of this decision would be mitigated by ensuring that any financial savings are redirected into rebuilding the remaining force elements of the NZDF that are valued by our defence partners.
- Disbanding the air combat force is likely to be negatively perceived by the United States, which is expecting regional countries to play a greater role in regional stability.
- The Australian concern would be heightened if our training support under the ENA was terminated before they were able to replace our A-4s with their new Hawk trainer.
- Concerns on the part of our defence partners in the Asia-Pacific, especially Singapore and Malaysia, could be dampened by continued participation in FPDA activities by other New Zealand force elements, particularly naval combat and maritime surveillance.

7. MILITARY OPERATIONAL IMPLICATIONS

7.1 Because of its size and limited military capability, the NZDF must exercise and train with the military forces of other countries, especially Australia, to reach a level of capability from which it can be safely committed to operations. One of the underlying issues is therefore the extent to which the NZDF depends on other forces and how it manages expectations with respect to what it puts in to and takes out of the relationship. New Zealand has a long history of participating in air combat operations and exercises as an equal partner. Eliminating a capability that is considered in military circles as basic for a modern multi-tasked military would alter perceptions among our military colleagues of the value of New Zealand as a defence partner.

7.2 Australia's training is centred on interoperability with the US and thus its exercise programme is heavily focused on US participation. Because there are limitations on the NZDF exercising with US forces, Australia schedules a separate series of bilateral exercises with New Zealand. This imposes a burden for Australia, but they also benefit as it enhances our ability to work together on operations, such as Bougainville, Solomon Islands and East Timor.

7.3 The new Australian Defence White Paper reinforces a focus on maritime and air operations in the air/sea gap to the north of Australia. It states that air combat is the most important single capability for the defence of Australia, because control of the air over Australian territory and maritime approaches is critical to all other types of operations in the defence of Australia. They have set a capability goal of having an air combat capability at a level at least comparable qualitatively to any in the region, and with a sufficient margin of superiority to provide an acceptable likelihood of success in combat. They are planning on spending \$(AUD) 5.6 billion over the next 10 years enhancing air combat. It is most unlikely New Zealand could afford the kind of investment that would be required to maintain an air combat capability of a comparable quality. New Zealand could, however, provide an air combat force that would be considered by the Australians to be a useful adjunct.

7.4 The RNZAF's ability to provide joint training for the RNZN and New Zealand Army for operations in an air-threatened environment is an important ingredient of operational readiness. This is demonstrated by the importance the Australians have placed on the continuation of our A-4s providing support for the RAN until they are able to do this training themselves with the introduction of the Hawk. If the air combat force were eliminated, New Zealand would need to rely on others to provide this type of training and we would have to bear the cost.

7.5 The existence of the air combat force within the NZDF provides air combat expertise that is important from a joint perspective. Navy and Army military planners need to understand the role of combat air power and its control, management and linkages with surface forces. The lack of expertise in this area will limit the effectiveness of operational and strategic level military planning for New Zealand's participation in multinational joint operations. That is not to say that the continued existence of an air combat force is a necessary condition to have this expertise available. Other countries could agree to provide suitably qualified personnel on attachment to the NZDF for this purpose. Another possibility is having some New

Zealanders train and work with others to keep the skills and knowledge alive in the NZDF.

7.6 It is generally accepted that no security situation is predictable. Defence is a long-term business and it takes time to acquire a new capability and prepare it to a level at which it can be safely deployed. This can be as long as fifteen years for a significant capability such as an air combat force. It is conceivable that New Zealand may face a security situation beyond our horizon for making informed predictions that will have to be dealt with using the capabilities immediately at hand. A decision to eliminate the air combat force would need to take into account the risks of an uncertain future security environment.

7.7 Intangible factors will need to be considered. It is possible that downsizing or eliminating the air combat force could impact on RNZAF recruiting and retention. There could also be impact on the other Services. In isolation from other announcements, such a decision could be perceived as a diminution of New Zealand's defence effort and a lessening of the stature of the NZDF. It can be expected that the first to act on such a perception would be aircrew and technicians who have skills that are readily marketable. They are also the individuals that the NZDF has invested the most in and those that will be the most expensive to replace.

7.8 Eliminating the air combat force would free up considerable resources that could be applied to address deficiencies in other capability areas within the NZDF. It may also be possible to reduce support costs over the long-term by consolidating the RNZAF in the North Island to one base.

Summary of Military Operational Implications

Option 1 - Retain Current Level of Capability

- The retention of an air combat capability would be viewed favourably by our key partners and thus help secure their cooperation in training and exercising with the NZDF.
- The air combat force could provide essential training for the RNZN and New Zealand Army and provide the necessary air combat power expertise for joint planning and operations.

Option 2 – Reduced Capability

- The NZDF would retain air combat expertise and have a base to build on in the future.
- The air combat force could still provide essential training for the Navy and Army and provide the necessary air combat power expertise for joint planning and operations.
- Savings would be made that could be used to overcome operational deficiencies in other capability areas.

Option 3A – Disband the Air Combat Force Immediately

- The NZDF would have to secure air combat training support for the Navy and Army.

- We would lose an indigenous air combat expertise for joint planning and joint operations.
- There could be a negative impact on recruitment and retention of skilled service personnel.
- Considerable resources would be freed up to address operational deficiencies in other capability areas and the smaller force structure of the NZDF would be more likely to be fiscally sustainable over the long term.
- It may be possible to reduce support costs by consolidating the RNZAF to one base on the North Island.

Option 3B – Disband the Air Combat Force When ENA is Terminated

- The difference with this option is that the Government could decide to continue providing training support to the Australians until their Hawk fleet was able to take over this task. Any cost reductions resulting from the elimination of the air combat force would be delayed.

8. FINANCIAL IMPLICATIONS

Costing Assumptions

8.1 All costs are indicative only and are intended only for comparing the given Options. The financial assumptions used in this paper are found in Annex B.

Total Financial Implications

8.2 The cost of the air combat force for FY 00/01 is \$150 million, GST inclusive, but excluding Capital Charge. This cost reflects the recent decision to move the air combat force to BLOC. Increasing the force to a normal level of readiness in FY 01/02 would require an additional \$16 million.

8.3 The financial impact of the options over the next ten years range between cost increases of \$334 million to cost decreases of \$870 million compared with the current baseline. These impacts arise through a combination of changes to; the personnel structure of the RNZAF, the annual expenses operating the aircraft flown in this role, and differing depreciation costs. The total costs on a year by year basis are shown in Table 1, with the components that make up these costs detailed in the sections below and supporting tables.

**Table 1 – Total Costs
(NZ \$million, GST inclusive)**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	TOTAL CHANGE OVER 10 YEARS
Current Funding	150											
Option 1 (24 aircraft)		166	171	173	171	171	171	171	205	212	220	334
Option 1 (18 aircraft)		166	171	173	171	171	171	171	194	200	207	297
Option 2 (14 aircraft)		166	153	129	122	122	122	122	141	146	152	(124)
Option 3A ¹⁰		111	71	62	54	54	54	54	54	54	54	(870)

¹⁰ Option 3B would result in a slippage of the figures to the right, depending when the ENA was terminated.

8.4 Under Option 3, although the air combat force is disbanded, the total costs that remain represent the overhead or indirect component of the Air Combat Force Output costs. There may be further reductions in these overheads if a base were to be closed, or if the RNZAF were reorganised to reflect the removal of the air combat force role.

Personnel Implications

8.5 At present, the annual personnel cost associated with the delivery of the air combat force output is \$60 million. This figure represents a combination of: those costs directly contributing to this output, such as the personnel on No. 75 and No. 2 Squadrons; personnel that have a supporting role, such as the maintenance and logistics personnel and No. 14 Squadron, and those that contribute indirectly either as RNZAF or NZDF overhead.

8.6 The number of personnel that are affected by the review options and the resulting financial impact are shown in Table 2 and Table 3.

Table 2 – Personnel Changes

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	TOTAL CHANGE OVER 10 YEARS
Current Staffing ¹¹	1137											
Option 1 (24 aircraft)		1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	0
Option 1 (18 aircraft)		1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	0
Option 2 (14 aircraft)		1137	1007	902	797	797	797	797	797	797	797	(340)
Option 3A		893	741	589	437	437	437	437	437	437	437	(700)

¹¹ This number is based on a weighted average salary and represents the personnel cost of the Air Combat Force Output. It therefore includes personnel both directly and indirectly involved in the air combat force, and NZDF overhead.

**Table 3: Personnel Costs
(NZ \$million, GST inclusive)**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	TOTAL CHANGE OVER 10 YEARS
Current Funding	60											
Option 1 (24 aircraft)		60	60	60	60	60	60	60	60	60	60	0
Option 1 (18 aircraft)		60	60	60	60	60	60	60	60	60	60	0
Option 2 (14 aircraft)		60	54	48	42	42	42	42	42	42	42	(144)
Option 3A		50	40	32	24	24	24	24	24	24	24	(310)

8.7 Under Option 3 and using the present annual attrition rate of 9%, it will take a number of years for the RNZAF regular force personnel numbers to reach the new lower total. The indicative cost reductions given in the ten-year timeframe above have been based on the assumption that the lower staffing levels will either be achieved by accelerated attrition by the end of 2004/05, or that the creation of a suitable regular force redundancy package will enable the reductions to occur earlier at a cost no more than the amount costed for salaries in 2003/04 and 2004/05. The overall personnel reductions are considered to be a conservative estimate by HQ NZDF and Treasury: further reductions on those indicated may be possible later in the ten year period once the RNZAF has been re-organised to adjust to the elimination of a role.

Operating Costs

8.8 The operating costs of the air combat force are closely related to the annual hours flown. At present, the A-4 fleet flies 4,100 hours per year in order to achieve the directed level of capability. The Aermacchi fleet flies 3,159 hours per year in the supporting role to provide a continual stream of qualified pilots. The major components of operating costs are aviation fuel, munitions and maintenance. An A-4 replacement is likely to use more fuel and be more expensive to maintain. However, if the A-4s are replaced later in the ten year period, the operating costs do not vary significantly because simulator use will reduce the actual hours flown. For the purposes of this review, it has been assumed for Options 1 and 2 that the A-4 would be replaced by the F-16.¹²

¹² F-16 data has been used because it is the most complete data available at this time.

8.9 In addition to the direct costs associated with flying the A-4, or its replacement, and the Aermacchis, there is a component of indirect or overhead costs spread throughout the RNZAF and NZDF. These overhead costs will remain largely unaltered by any of the options chosen.

8.10 Operating costs are shown in Table 4.

**Table 4 – Operating Costs
(NZ \$million, GST inclusive)**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	TOTAL CHANGE OVER 10 YEARS
Current Funding	52											
Option 1 (24 aircraft)		69	73	73	73	73	73	73	75	75	75	212
Option 1 (18 aircraft)		69	73	73	73	73	73	73	75	75	75	212
Option 2 (14 aircraft)		69	63	63	63	63	63	63	63	63	63	116
Option 3A		44	23	23	23	23	23	23	23	23	23	(269)

8.11 All of the operating costs have been derived using a NZ-US dollar exchange rate of 0.475. An improvement in the exchange rate to 0.55 will decrease operating costs by approximately 5%, while a deterioration to 0.35 will increase costs by approximately 15%.

Depreciation

8.12 Under Options 1 and 2, the A-4s are replaced at the end of their life in June 2008. Based on the acquisition of 18 new aircraft, it is anticipated that depreciation will increase eventually by \$34 million per year. Under Option 3, the depreciation expense is reduced by \$32 million per year by FY 02/03.

8.13 The depreciation changes for the four options are shown in Table 5.

**Table 5 – Depreciation
(NZ \$million, GST inclusive)**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	TOTAL CHANGE OVER 10 YEARS
Current Funding	38											
Option 1 (24 aircraft)		37	38	40	38	38	38	38	71	78	86	122
Option 1 (18 aircraft)		37	38	40	38	38	38	38	60	66	72	85
Option 2 (14 aircraft)		37	36	19	17	17	17	17	36	41	47	(96)
Option 3A		17	8	8	8	8	8	8	8	8	8	(291)

Capital Investment

8.14 For Options 1 and 2 the costs of possible replacement combat aircraft is based on an estimate of the likely cost of used F-16s. For Option 1 the estimated price is about \$840 million (GST exclusive) for 18 aircraft and \$1,100 million for 24 aircraft. For Option 2, the estimated cost of 14 aircraft is \$680 million. There could also be additional capital costs for such items as targeting pods and ECM Systems. Previous estimates put the cost of these in the region of \$70 million.

8.15 It should be noted that alternatives to outright purchase of the aircraft may be possible. There are ample examples of finance lease options for air combat aircraft overseas to suggest that New Zealand may well be able to secure such an offer. While this would be at a higher interest rate (and hence total cost) than the Crown's usual cost of debt, it would relieve pressure on capital funds due to payments being spread over a longer period, allowing depreciation funding to keep pace. It would also be likely, however, to increase the cost to the NZDF's annual operating baseline.

Affordability

8.16 The funding requirements for the tactical communications equipment and the light armoured vehicle (LAV) projects have limited the NZDF's ability to make other equipment purchases. For the LAV project a capital contribution of \$35.17 million was approved to cover the projected cash shortfall in FY 2003/04. The projected bank balance for capital purchases in FY 2004/05 will be approximately \$100 million rising to about \$260 million in 2005/06. Other capital acquisition projects being considered, and likely to be approved before consideration of a replacement for the A-4 under the policy contained in the DPF, will require part or all of these funds. Any additional major purchases will lead to a requirement for additional capital contributions.

8.17 The actual level of contributions cannot be forecast, as it is dependent on decisions on other new projects proceeding, their costs, cashflows, and the subsequent depreciation funding generated. Under Options 2 and 3 the disposal of the A-4s and Aermacchis and their non-replacement will decrease the depreciation funding available to meet other capital acquisitions.

8.18 It is likely that the following capital investment costs in various capability areas will be considered before a replacement for the A-4.

Likely Capital Investment

Land Forces	\$470 million
Airlift (including helicopters)	\$720 million
Maritime Patrol	\$267 million
<i>Canterbury</i> replacement	\$315 million

8.19 The NZDF is currently experiencing significant pressures from within its baseline. There is not enough funding to retain the current set of outputs and capabilities. An additional \$25 million has been provided this financial year and the air combat force was reduced to a basic level of capability as a cost cutting measure. The NZDF is forecasting an operating shortfall next year of \$95 million. This does not include provisions for East Timor or pay increases for military personnel. The current estimate of the ongoing baseline pressures, based on the current force structure, is \$80 million a year.

8.20 Treasury are of the view that it is unlikely that the Government will be able to afford the level of operating costs required in both the short and long term.

8.21 The elimination of the air combat force would free up resources (potential baseline savings in the region of \$870 million over 10 years) to assist the rebuilding of the remainder of the NZDF. This would include significant RNZAF investment in the areas of fixed wing air transport, utility helicopters and maritime patrol. While Option 2 would free up considerable resources, it would not be sufficient to make a rebuilding process affordable unless it were accompanied by a decision to make major cuts in other areas.

Defence Industry

8.22 The maintenance contractors that support the NZDF are able to establish records of competence that allow them to compete for offshore work for other governments and military forces. An example is SAFE Air, located in Blenheim, that has a work force of 350 highly skilled and well-paid technicians. Through work on the A-4 and other RNZAF aircraft it has built up a capacity to successfully compete for work overseas. SAFE Air has been awarded two off-shore A-4 projects to date and there is strong potential for more. It is now in the process of bidding for a major contract to refit Brazilian P-3 Orions that would bring in work worth four times its current turnover. This work has also made it a contender to pick up related contracts.

8.23 The loss of a major capability like the air combat force could pose a degree of risk to industrial players like SAFE Air to maintain their capacity to successfully bid for these kinds of off-shore contracts.

Summary of Financial Implications

8.24 It is important to note that the costings are susceptible to changes in foreign exchange, overseas prices for capital equipment and consumables, and personnel levels. Efforts have been made to keep them conservative. However, for example, an improvement in the exchange rate to 0.55 (US) will decrease operating costs by approximately 5%, while deterioration to 0.35 will increase costs by approximately 15%.

Option 1-Retention of Current Level of Capability

- The NZDF baseline would have to be increased by \$297-\$334 million over the next 10 years to accommodate the rising cost of maintaining the air combat force.
- Capital investment in the region of \$840-1,100 million would be required in the later part of the 10 year period and beyond to replace the A-4s. Given the NZDF cash position and competing demands for capital investment, this would most likely have to be funded by additional capital contributions from the Crown.
- Savings would not be available for rebuilding the remainder of the NZDF.

Option 2 – Reduced Air Combat Capability

- Baseline savings in the region of \$128 million would be made over the 10 year period. These would not begin to occur until 2002/03, and would disappear in 2010/11 once the 14 replacement aircraft had arrived.
- A capital investment of about \$680 million would be required later in the 10 year period and beyond to replace the A-4s with 14 aircraft. Given the NZDF cash position and competing demands for capital investment this would most likely have to be funded by additional capital contributions from the Crown.
- There would be insufficient savings realised for the rebuilding of the rest of the NZDF unless it was accompanied by major cuts in other areas.

Option 3 – Disband the Air Combat Force

- Baseline savings in the region of \$870 million would be realised over the 10 year period. There would be an immediate cost reduction of \$39 million in 2001/02 over the existing baseline (and \$55 million when compared to the other options), rising to \$96 million per year from 2004/05.
- These savings, as well as the avoidance of further capital investment in the air combat force, would assist in the rebuilding of the NZDF, significantly reducing the need for additional funding.

- Additional cost reductions from personnel costs and base consolidation may be possible once RNZAF is re-organised to adjust to its new role.
- Some of the major contractors involved in the support, overhaul and repair of the A-4 and Aermacchi fleets would be adversely affected, with a possible reduction in their ability to generate export earnings.

9. CONCLUSIONS

9.1 The air combat force equipped with the A-4 Skyhawk in its current state would be a marginal asset to any multinational coalition, and its operational utility will continue to decline. Should the Government wish to retain an air combat capability with some useful operational utility, then it would have to make a significant investment in new aircraft, more modern weapons, and improved combat systems.

9.2 In the absence of a foreseeable military threat, it is unlikely a New Zealand government would use the air combat force to respond to a low level security challenge around New Zealand or the South Pacific.

9.3 The air combat force plays a useful role in confidence building in the Asia-Pacific region through its involvement in FPDA activities and bilateral exercises. This is part of the architecture that helps maintain stability in the region. These activities also contribute to our foreign policy objectives. A New Zealand government, however, has not used the air combat force in response to a security challenge in the region for over 25 years. The outlook in Strategic Assessment 2000 makes it difficult to visualise a situation where a government might do so in the foreseeable future.

9.4 The foreign policy impact of disbanding the air combat force needs to be cast in the wider context of the other decisions the Government will be making on our defence effort. The Australians will want to see New Zealand maintain a range of capabilities needed to continue to play a role in the region and to be able to work jointly with Australia. In the absence of air combat, these would include naval and land combat forces and maritime surveillance.

9.5 For Singapore and Malaysia, as well as other South-East Asian partners, the key will be maintaining capabilities that can effectively contribute to FPDA activities and bilateral exercises. Our major contributions are the air combat force, the P-3 Orions and our frigates. The effect of eliminating the air combat force could be dampened by assurances that the other force elements will continue to participate.

9.6 The air combat force supports the RNZN and New Zealand Army in maintaining their operational standards, as well as contributing important expertise to the joint force environment. There are other options for meeting these requirements satisfactorily if an air combat force was not part of the NZDF force structure. These would require the cooperation of our defence partners and there would be costs involved.

9.7 Because of the uncertainty of the security environment in the medium to longer term a decision to eliminate the air combat force carries with it the risk that New Zealand may not have a force structure that is able to cope with future challenges. But it is hard to visualise any circumstance where New Zealand would face a future serious threat on its own; we would do so as part of a multinational grouping. In these circumstances, each country would contribute what it could and smaller countries like New Zealand would not be expected to have available a full spectrum of capabilities. What would be expected was that our contributions would be relevant, well trained and well equipped and thus able to play a useful part. It

would not be in anybody's interest for us to maintain a breadth of capabilities that could not be properly developed and sustained.

9.8 If recruitment and retention problems were to arise in the RNZAF as a result of a decision to disband the air combat force, the impact could be reduced if the decision were seen in the wider context of using scarce resources wisely in those areas of the RNZAF where there is a demonstrable need. These areas would include utility helicopters and strategic airlift. This would require an assessment that those capabilities we choose to retain in the force structure would be properly resourced to maintain professional standards and operational readiness.

9.9 The cost of the Air Combat Force Output is about \$150 million annually, excluding capital charge. This is about 13.5% of the cost of NZDF Outputs (excluding capital charge). The \$870 million reduction in operating expenses over the next ten years that would be realised if the air combat force was disbanded, and the avoidance of between \$680 million and \$1 billion in capital investment over the same period, could be used to address the needs of the rest of the force structure within the level of resources that are likely to be available for defence in the current financial setting.

9.10 Retaining the air combat force at its current level of capability would not carry any strategic, foreign policy or military operational risks. It would be available to respond to security challenges and participate in FPDA activities and bilateral exercises. Training support could be provided to the Australians as long as it was needed. It would require, however, baseline increases over the next 10 years totalling in the region of \$300 million. Capital investment in the region of \$840-1,100 million would also be required.

9.11 Retaining a reduced air combat capability would balance the strategic and foreign policy risks of eliminating the capability with the financial risks of maintaining air combat as part of the NZDF structure.

9.12 Elimination of the air combat force entirely carries strategic, foreign policy and military operational risks. Disbanding the air combat force would free up considerable resources and avoid the need for significant capital investment. These cost reductions would go a long way to achieving a fiscally sustainable defence effort within the Government's financial setting.

9.13 If it were decided to eliminate the air combat force, there is a choice as to timing. The choices would involve; on one hand, how soon cost reductions are achieved; and on the other, accommodating the Australian wish to retain our training support.

ANNEX A

The Government's Defence Policy Objectives

- 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.
- 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.

ANNEX B

COSTING ASSUMPTIONS

A. Operating Costs

Level of Capability

- The standard assumption for the baseline, Option 1 and Option 2 is the ongoing operation of the air combat force at DLOC.

Cost Changes Included

- Cost changes arising directly from decisions on the capability of the air combat force are included. These decisions include capital investment for the existing aircraft and their replacement.
- The cost changes due to a base closure are not included. The closure of a base is taken as a separate decision in this costing.

Baseline

- The costing baseline is the budgeted personnel and operating expenses and depreciation costs for FY 2001/02 in Vote: Defence Force Output Class D11 – Air Combat Forces. As the basis for comparison, the budgeted personnel and operating expense, and revenue, adjusted for the termination of Nowra-based operations after FY 2001/02, are extrapolated across the ten period of the review. Baseline depreciation is the forecast amount by year from the NZDF accounting system for the A-4 and Aermacchi fleets.

Transition

- It is assumed that the cost of the transition from the A-4 to a replacement aircraft can be managed within the total operating costs presented.

Fuel

- The base fuel prices used are those current in February 2001.

Other Costs

- Capital charge is excluded because it is not a charge against the Government's operating provisions.
- It is assumed that all reductions in asset value will be met from the NZDF's revaluation reserve (\$387 million at 30 June 2000).

Revenue

- The forecast ENA costs and revenues are based on the FY 2000/01 cost sharing ratio.

GST

- GST is included to provide consistency with the requirement for Cabinet submissions. Any exceptions are noted as GST exclusive.

Inflation

- Price and wage inflation are excluded from personnel and operating costs.

Materiality

- Cost effects rounded to the nearest NZD \$1 million.

B. Capital Expenditure

Foreign Exchange Rates

- Financial data are presented in New Zealand dollars. The exchange rate applicable to asset purchases in each year are:

Year	Rate: NZD:USD
2001/02	0.475
2002/03	0.536
2003/04	0.533
2004/05	0.525
2005/06	0.52
2007/08	0.52
2008/09	0.52
2009/10	0.52
2010/11	0.52
2011/12	0.52

- These figures are Treasury projections using averaged forecast quarterly rates for each year through 2004/05 inclusive; remaining years use approximately the 2004/05 average.

C. Aircraft Values

A-4 Skyhawk

- A revaluation of 19 A-4s at both FY 2001/02 and 2004/05 is included with the consequent changes in depreciation. The revaluation is based on the value of F-16 C/Ds as the replacement aircraft, plus initialisation, support and air weapons. The capability factor used in the revaluation is estimated at 40 percent.
- Capital expenditure of \$26 million (GST exclusive) is required on the 19 A-4s to keep them airworthy and usable for training to FY 2007/08. For a reduced fleet of 14 A-4s the figure is \$11 million (GST exclusive).
- All Options exclude expenditure on upgrading the internal avionics and weapons control systems for the A-4 to enable it to interface with a targeting pod or electronic counter measures pod. Given the A-4s limited remaining service life, expenditure on such equipment would be uneconomic. Accordingly, all Options also exclude expenditure on self-protection, air weapons, and targeting and ECM pods during the remaining life of the A-4 (see *Replacement Aircraft section below*).
- A-4 disposal value will be nil by FY 2007/08. Earlier disposals in whole or part will not produce material sale proceeds. Partial disposals would be used for rotables/spares for the remaining fleet.

Aermacchi

- Full or partial disposals of the Aermacchi fleet may generate material sales proceeds, however due to considerable uncertainty as to the level of such proceeds they are not included in the cash flows.

Replacement Aircraft

- The cost of used replacement aircraft is estimated at \$49 million each (GST exclusive), including fatigue monitoring, initialisation, hush house, and air weapons, with the airframe alone at \$29 million, i.e., USD15 million. New, standard F-16 C/D airframes sell for USD 24 million each (GST exclusive).
- The replacement aircraft are assumed to be ten years old with about twenty years remaining service life for depreciation purposes.
- Alternatives to outright purchase of the aircraft may be possible. There are examples of finance lease options for air combat aircraft overseas to suggest that New Zealand may well be able to secure such an offer. While this would be at a higher interest rate (and hence total cost) than the Crown's usual cost of debt, it would relieve pressure on capital funds due to payments being spread over a longer period, allowing depreciation funding to keep. For this reason, a ten-year finance lease option has been included for costing the airframes.

- Self protection and reduced radar cross-section are assumed to be included because it is reasonable to expect F-16 C/D models to come fitted with these capabilities as standard. Targeting and ECM pods are omitted from all costings on the basis that it is unknown what other capabilities a replacement aircraft would already have, and the pods represent a material capability increase which would be a separate capability / investment decision.
- Capital expenditure for asset purchases is spread over the FY 2008/09 to FY 2010/11 period.

Other Capital Expenditure

- Runway reconstruction is planned at both Ohakea and Whenuapai in the ten-year period. The expenditure, estimated at \$16-18 million (GST exclusive), is dependent on the continued operation of the base rather than on the type of aircraft flown.

GLOSSARY

ADF	Australian Defence Force
ASEAN	Association of South East Asia Nations
ARF	ASEAN Regional Forum
APEC	Asia Pacific Economic Cooperation
BLOC	Basic Level of Capability
CAS	Close Air Support
CDR	Closer Defence Relations
DPF	Defence Policy Framework
DPMC	Department Prime Minister and Cabinet
ENA	Enhanced Nowra Agreement
EEZ	Exclusive Economic Zone
FPDA	Five Power Defence Arrangements
FY	Fiscal Year
GST	Goods and Services Tax
LAV	Light Armoured Vehicle
OLOC	Operational Level of Capability
NZDF	New Zealand Defence Force
MOD	Ministry of Defence
RNZAF	Royal New Zealand Air Force
RNZN	Royal New Zealand Navy
RAN	Royal Australian Navy
UK	United Kingdom
UN	United Nations
US	United States

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