

MINISTER OF DEFENCE

Defence Tactical Future Air Mobility Capability

February 2021

This publication provides papers associated with Cabinet's June 2019 decision to confirm the approach and timeframe for the replacement of the Air Force's current fleet of five Lockheed Martin C-130H Hercules tactical military aircraft.

The pack comprises the following documents:

- June 2019 Cabinet Business Committee minute of decision *Defence Tactical Future Air Mobility Capability* [CBC-19-MIN-0022], and
- the associated Cabinet paper *Defence Tactical Future Air Mobility Capability* [CBC-19-SUB-0022].

This pack has been released on the Ministry of Defence website, available at: www.defence.govt.nz/publications.

It has been necessary to withhold certain information in accordance with the following provisions of the Official Information Act 1982. Where information is withheld, the relevant sections of the Act are indicated in the body of the document. Where information has been withheld in accordance with section 9(2) of the Act, no public interest has been identified that would outweigh the reasons for withholding it.

Information is withheld where making it available would be likely to prejudice:

- the security or defence of New Zealand or the international relations of the Government of New Zealand [section 6(a)].

Information is also withheld in order to:

- protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied the information [section 9(2)(b)(ii)]
- maintain the effective conduct of public affairs through the free and frank expression of opinions by or between or to Ministers of the Crown or members of an organisation or officers and employees of any department or organisation in the course of their duty [section 9(2)(g)(i)]
- budget information that would impact Defence's commercial position when undertaking negotiations on capital projects [s9(2)(i)]
- enable a Minister of the Crown or any department or organisation holding the information to carry out, without prejudice or disadvantage, negotiations [section 9(2)(j)].



Cabinet Business Committee

Minute of Decision

This document contains information for the New Zealand Cabinet. It must be treated in confidence and handled in accordance with any security classification, or other endorsement. The information can only be released, including under the Official Information Act 1982, by persons with the appropriate authority.

Defence Tactical Future Air Mobility Capability

Portfolio **Defence**

On 4 June 2019, the Cabinet Business Committee:

- 1 **noted** that the first air mobility priority is to replace the current five C-130Hs that are now over 54 years old;
- 2 **noted** that while the replacement the B757 is forecast in the current Defence Capability Plan, no decision on this is required in the near future and can be the subject of further analysis at the appropriate time;
- 3 **noted** that the need to manage project risk through selection of a mature and proven capability has led to the conclusion that the current Lockheed Martin C-130J aircraft as used by New Zealand's major partners represents the most prudent option;
- 4 **approved** sole source procurement, via the US Foreign Military Sales process, of either four (4) or five (5) Lockheed Martin C-130J-30 (Block 8.1) aircraft;
- 5 **authorised** the Secretary of Defence to undertake formal processes of a Foreign Military Sales Letter of Request for a Letter of Offer and Acceptance for the procurement of either four or five Lockheed Martin C-130J-30 tactical aircraft, simulator and associated services and support; together with further information and reliability, availability and maintenance requirements;
- 6 **authorised** the Secretary of Defence to commit and approve expenditure of public money up to the amount of \$2.573 million;
- 7 **approved** the following change to Vote Defence appropriations for the Ministry of Defence to commit to the processes authorised in paragraph 4, without impact on the operating balance or net debt:

Vote Defence Minister of Defence	\$m – increase			
	2018/19	2019/20	2020/21	2021/22 & out years
Non-departmental Capital Expenditure Defence Capabilities	0.00	2.573	0.000	0.000

- 8 **agreed** that the changes to appropriations for Vote Defence 2019/20 in the above table be included in the 2019/20 year Supplementary Estimates and that, in the interim, the increase be met from Imprest Supply;
- 9 **noted** that these costs are offset by a capital receipt from the New Zealand Defence Force;
- 10 **invited** the Minister of Defence to report back to the Cabinet Government Administration and Expenditure Review Committee with a Project Implementation Business Case for the supply of tactical aircraft by early 2020 and at that time seek approval to commit to contract;
- 11 **noted** that the above decisions do not constitute a commitment to proceed with the procurement;
- 12 **noted** the project plans to seek capital commitment through Budget 2020.

Vivien Meek
Committee Secretary

Present:

Rt Hon Jacinda Ardern (Chair)
Hon Kelvin Davis
Hon Grant Robertson
Hon Phil Twyford
Hon Dr Megan Woods
Hon Chris Hipkins
Hon Andrew Little
Hon Carmel Sepuloni (part item)
Hon Dr David Clark
Hon Nanaia Mahuta
Hon Ron Mark
Hon Tracey Martin
Hon Shane Jones
Hon James Shaw

Hard-copy distribution:

Minister of Defence

Officials present from:

Office of the Prime Minister
Department of the Prime Minister and Cabinet

Chair, Cabinet Government Administration and Expenditure Review Committee

DEFENCE TACTICAL FUTURE AIR MOBILITY CAPABILITY

Proposal

1. To seek approval to confirm the approach and timeframe for the replacement of the Air Force's current fleet of five Lockheed Martin C-130H Hercules tactical military aircraft.

Executive summary

2. This paper is focussed on the replacement of the current tactical aircraft. The accompanying Detailed Business Case looks at air mobility as a whole, and clearly identifies that tactical air mobility is the highest priority for replacement. This paper does not ask for a financial commitment to replace aircraft at this point.

3. The Defence Capability Plan review confirmed the importance of air mobility as a core capability for the Defence Force. The advanced age of our current tactical aircraft and the need to maintain this capability means that we need to ensure that we have the procurement and technical information we need to make an investment decision in 2020. This will safeguard our vital air mobility capabilities for our community, nation and world into the future.

4. The air mobility capability provided by the Royal New Zealand Air Force (RNZAF) supports a range of objectives set out in the Coalition Government's Strategic Defence Policy Statement 2018, for example by delivering humanitarian assistance and disaster relief missions to communities in New Zealand and our region. Defence undertakes a range of passenger and specialist transport missions, including for our Pacific partners

s6(a)

5. The current fleet of five Lockheed Martin C-130H Hercules (hereafter C-130) and two Boeing 757-200 (hereafter B757) aircraft has provided exemplary service for decades. The C-130s are now well over fifty years old¹ and, notwithstanding ongoing upgrades, are at an age where maintenance and availability are a considerable challenge. The B757s do not need replacement until the middle-to-end of the next decade, at the earliest.

6. The attached Detailed Business Case examines a range of aircraft and fleet mix options to replace the Defence Force's current air mobility fleet. The key findings are that the current C-130 is the priority for replacement and that the core of any future air mobility capability should be sourced from the medium military tactical aircraft category.

¹ Given the lead time for new aircraft, the oldest C-130 will be close to 60 years old before it finally retires.

7. Cabinet noted, as part of the P-8A decision [CAB-18-MIN-0305], that an initial capital commitment for the tactical air mobility component of the Future Air Mobility Capability project would be sought against Budget 2020. A Project Implementation Business Case with the amount and timing of payments will be presented to Cabinet by early 2020, for inclusion in Budget 2020.

8. My recommended option is for the procurement of new generation tactical aircraft of a similar level of size and capability to our current C-130s. This new fleet would deliver at least the same level of capability as the current fleet which is in line with the policy direction signalled in our Strategic Defence Policy Statement.

9. Our current fleet of five tactical aircraft has amply demonstrated its utility and versatility over the last fifty years. The new fleet will form the core of an air mobility capability that will meet our needs in the decades to come. The project's ability to contribute to the Enhanced Maritime Awareness Capability project signalled as part of the P-8A decision will also be examined as the requirements of that project are developed. Fleets of four or five aircraft will be presented as options in the Project Implementation Business Case.

10. Given the need to replace the current C-130 fleet and the intent to minimise the risk to New Zealand of introducing a critical new capability, I am recommending a sole source procurement as the most effective way to manage risk and ensure that this essential capability is maintained during the transition. The market for military transport aircraft is specialised, and there are only two medium sized aircraft available – the Lockheed Martin C-130J Hercules and the Embraer KC-390². The C-130J is a mature product in widespread use (including with our partners) whereas the KC-390 is a new design that has yet to be proven in service. Realistically, we need to go with the proven capability.

11. Because the C-130J is built in the United States, I am recommending that the procurement be undertaken through the United States Government's Foreign Military Sales (FMS) system for up to five Lockheed Martin C-130J-30 tactical aircraft. A costed option for four and five aircraft fleets will be sought. This will require an estimated capital investment (excluding contingency) of up to s9(2)(b)(ii) (for four aircraft) or up to s9(2)(b)(ii) (for five aircraft) over the period 2020/21 to 2023/24. Both options are within the indicative funding provision signalled in the Defence Capability Plan 2019, which included a funding estimate for a tactical air mobility fleet of five aircraft in all the force structure options considered, and aligns with the cost estimates provided to Cabinet as part of the P-8A procurement decision earlier this year.

12. As noted, Cabinet does not have to decide at this point on the other issues examined in the Detailed Business Case, such as determining a future fleet mix, or on the replacement of the B757. These issues do not have the same urgency as the C-130 replacement and will be the subject of a future business case. This pathway aligns with the new Defence Capability Plan.

² Other smaller and larger aircraft types are fully analysed in the Business Case and summarised later in this paper.

Community, Nation, World: How our air transport capability meets our policy expectations

13. The Strategic Defence Policy Statement 2018 reinforced the need for the New Zealand Defence Force (NZDF) to be able to respond to a range of events in a timely manner. Air mobility is a fundamental capability that supports a range of contingencies, whether these be assisting New Zealand and Pacific communities through air mobility for disaster relief; delivering national support through a range of air mobility tasks as diverse as VIP travel through to supporting the Department of Conservation (as one example of the wide range of government agencies that benefit from airlift); and in acting as a vital global link for deployments to every continent. The flexibility, versatility and range of air mobility make it one of Defence's most used capabilities. This importance was reflected in the just concluded Defence Capability Plan review.

14. The Policy Statement also anticipated the increasing frequency and intensity of extreme weather events caused by climate change. This is reinforced through the recently launched Defence Climate Change Assessment. A likely result of this will be an increased demand for tactical air mobility capabilities to support humanitarian and disaster relief operations in New Zealand and the Pacific, with increased potential for concurrent operations.

15. Current policy also emphasises New Zealand's interests in the Antarctic. New Zealand's major contribution to our Joint Logistics Pool with the United States is the provision of air mobility through the military air mobility force. The Antarctic air mobility season coincides with tropical cyclone season in the South Pacific, so we need to provide for concurrent operations if required.

16. Defence planning estimates that replacement of the current air mobility fleet will be required from 2023. Investment decisions are required in advance of that date to ensure new aircraft are delivered in time. This timeline has been confirmed by analysis undertaken during the Defence Capability Plan review, which also confirmed that the first priority is the replacement of the tactical fleet, with replacement of the strategic B757 fleet later in the decade.



The current Air Mobility fleet

17. Air mobility is the ability to transport people and equipment in aircraft. It is essential for a broad range of military and wider government tasks, including military operations in distant locations, responses to security events and natural disasters in New Zealand, humanitarian assistance and disaster relief missions in the Pacific region and further abroad, search and rescue operations, and VIP transport missions.

18. The RNZAF operates seven transport aircraft: five Lockheed Martin C-130H Hercules (the tactical component) and two Boeing B757-200s. The C-130 aircraft have a large cargo hold to carry bulky items and vehicles. Their rear ramp allows them to load and unload without any ground support if they need to. They can airdrop supplies and personnel. They can operate from short and rough airfields. They have defensive systems so they can operate in a combat zone.

19. The two B757s are civilian airliners, modified with a cargo door to perform a military strategic air mobility role. They are much faster than the C-130, and provide greater

passenger comfort. The ability to put a mix of cargo and passengers on the main deck makes them very versatile, including for supporting New Zealand's Antarctic operations alongside the C-130. As a fleet, these aircraft can perform a number of different tasks in different locations at the same time, allowing for meaningful responses to a very wide range of military and wider Government needs.

5 x Lockheed Martin C-130H Hercules	2 x Boeing 757
	

Air Mobility Priorities

20. Three of the C-130s are now over 54 years old, and the remaining two are only three years younger. Given the lead time for delivering new aircraft, a replacement decision now will mean that the oldest will be close to 60 years old before it is finally retired. They have been upgraded a number of times, including through the major Life Extension Programme that commenced in 2005. This improved some of their systems, but there is a limit to what continuous upgrading can achieve for old aircraft due to equipment obsolescence and structural fatigue.

21. Age is also taking its toll on reliability and maintainability. [REDACTED] s9(2)(g)(i)
 [REDACTED] Costs did go down as aircraft completed their Life Extension Programme, [REDACTED] s6(a), s9(2)(g)(i)
 [REDACTED]

22. [REDACTED] s9(2)(g)(i), s6(a)
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

23. Inspection and analysis has validated that the structural integrity of the C-130s will likely remain [REDACTED] s6(a) however it is also possible that, notwithstanding the increased time and cost of maintenance they receive, unanticipated problems could occur before then. Given the lead time required for proposal evaluation, contract negotiation and aircraft production, a contract with Lockheed Martin, via the US Foreign Military Sales process, by mid-2020 would provide assurance that the capability provided by the C-130 is maintained.








24. By contrast, the B757s were built in the early 1990s, before being procured second hand for the RNZAF in 2003. The B757 is still in widespread commercial use, and it is currently expected that they will be able to operate until approximately 2027 based on the Defence Force's usage rates and mission profiles.

The Detailed Business Case

25. Investigation of potential aircraft fleet mix options combining a range of aircraft sizes and classes was approved by Cabinet on 10 July 2017, to be followed by more detailed economic analysis in a Detailed Business Case.

26. These different combinations of aircraft classes and numbers were evaluated by all stakeholder agencies. A visual summary and summation of key capabilities of the aircraft classes in scope is attached at Annex 2. The benefits, costs and risks of different fleet mixes were then assessed using Multi Criteria Decision Analysis (MCDA). Fleet mix costings included a provision for a flight simulator device where this made economic sense.

27. All options that met policy and requirements included at least some military aircraft, as only military aircraft have the full range of characteristics that are need for our more challenging missions. The analysis looked at military aircraft in three broad capability categories: Light, Medium and Heavy. Representative examples of these are shown below:

Light		Medium		Heavy		
						
Airbus C295	Leonardo C-27	Embraer KC390	Lockheed Martin C-130J	Kawasaki C-2	Airbus A400M	Boeing C-17

28. The process determined that the core of any future air mobility fleet should continue to offer, at a minimum, the existing broad utility, range, payload and interoperability of the legacy C-130 fleet, whilst providing concurrent expeditionary capability. This could only be provided by **a medium military tactical aircraft** of the same capability class as the current C-130. This aircraft type provides the baseline flexibility and versatility that is essential to an air mobility fleet. It is large enough to have the payload and range to undertake a wide range of tasks in New Zealand's area of operations - from the Antarctic, across the South Pacific and to the rest of the world. Of critical importance, it allows us to have the platform numbers necessary to provide concurrent capabilities across more than one event.

29. The analysis also confirmed that a medium military tactical aircraft would be the core component of any future fleet, including in combination with any of the other aircraft types (including civilian aircraft or heavy military aircraft).

Replacing the C-130: The Need for like-for-like platform replacement

30. Since the initial development of the Detailed Business Case, the Coalition Government released the Strategic Defence Policy Statement 2018 and announced the Pacific Reset. These policies respond to the changing nature of challenges faced by New Zealand and Pacific Island countries, including pressure on the international rules based

order, the rise of a range of complex disruptors, and the increasing frequency and intensity of extreme weather events exacerbated by climate change. This suggests a growing need for Defence to conduct, amongst other activities, more frequent humanitarian assistance and disaster relief operations, which puts a premium on the ability to operate tactical air mobility in challenging conditions.

31. During both the initial scenario analysis conducted for the MCDA and the subsequent scenario analysis conducted for the Defence Capability Plan review, the need for the tactical element of the NZDF air mobility capability was considered and it was determined that a sustainable like for like level of capability was essential.

32. [Redacted] s6(a), s9(2)(g)(i)
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

33. [Redacted] s6(a), s9(2)(g)(i)
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

34. It is anticipated that new aircraft will nearly double availability from the current level once they are fully in service. Procuring a simulator will both improve training and provide an additional increase in operational flying time by reducing the need to undertake some training in the actual aircraft.

35. [Redacted] s6(a), s9(2)(g)(i)
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

36. [Redacted] s6(a), s9(2)(g)(i)
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

37. As the Enhanced Maritime Awareness Capability project develops its requirements, the opportunity presented by the adaptability of the tactical airlifter to meet all or part of them will be further tested in time to inform the final procurement decision.

s6(a), s9(2)(g)(i)

38. These factors confirm that a fleet of up to five aircraft (as per current fleet size) is the best fit for our needs from a capacity perspective. This fleet composition has served us well for fifty years and will continue to do so in the decades ahead. The increase in availability with new aircraft, together with the simulator, will allow an increase in the number of annual hours flown. This will increase the responsiveness of the fleet and allow more transport missions to be undertaken across the region.

39. A fleet of five aircraft may provide additional inherent capacity to deliver further hours in support of the complementary tasks noted above, depending on operational funding to support this.

40. The Whole of Life cost of this recommendation sits within the parameters of the Defence Capability Plan review. The greater price fidelity that will be delivered via contract quality negotiations will clarify the cost and affordability of the recommended fleet.

Options For Tactical Air Mobility

41. Along with the P-8A, the replacement of the current C-130 fleet represents the biggest defence investment the Coalition Government is likely to consider. It is expected that the new aircraft will be in service for at least a generation, continuing as one of our most visible contributions to our communities, our region, and our partners. As with all defence procurements, risk management is a vital consideration.

42. The P-8A decision established some key criteria to ensure value for money and reduce risk over the aircraft's life-cycle. These are:

42.1. *The ability to multi-task* – New Zealand has a small air force by international standards and therefore its assets are required to perform multiple roles and offer broad utility.

42.2. *Community size/Close relationship with community* - Being part of a group of partner countries with the same platform provides access to critical mission and logistics support in different locations. It would be best for New Zealand to participate in as large a user community as possible, with as many friends as possible, for support.

42.3. *Already developed?* - Although a tactical aircraft is not as sophisticated as a maritime patrol aircraft, it is just as important for New Zealand that we procure mature technology. New Zealand should therefore look to identify a capability which has already been developed and works from the get-go.



42.4. *Successful introduction into foreign markets?* – All aircraft have a level of complexity which needs to be supported through training, maintenance and associated services. For assurance that all these attributes are in place it would be best for New Zealand to go with a proven capability.

42.5. *Support for technology growth path?* – Aviation technology changes over time, and especially over the long time frames that military aircraft stay in service. New Zealand should therefore look to a platform which will be fully supported through upgrade paths and where upgrade costs can be shared with other users.

43. Reinforcing the importance of these criteria, the Review of Defence Procurement Policies and Practices for Major Capability Projects completed by Sir Brian Roche in April 2018 found that “Defence has now instilled a policy and culture where the default position is to avoid solutions that are unproven, highly developmental and/or unsupported by a reliable evidence base. Lessons have been learned from past acquisitions and now there is a focus on off-the-shelf capability”.

44. The project has identified two aircraft in the medium military tactical air mobility category that are currently being marketed. These are the Lockheed Martin C-130J-30 Hercules and the Embraer KC-390. The C-130J-30 is a new generation development of the C-130H incorporating new technology engines, propellers, mission and other systems. The -30 variant is two complete pallet stations longer than the current C-130H. It is built in the United States. The KC-390 is a new jet powered design made in Brazil. The key dimensions and capacities of the two types are quite similar.

45. A summary assessment of each aircraft against the above criteria is below:

Medium tactical aircraft	Lockheed Martin C-130J-30	Embraer KC-390
Capability includes: Training systems including simulator; self-protection systems; options for surveillance equipment; mission support systems and processes; infrastructure		
Ability to Multi Task (Broad Utility)	Available in a number of variants. Variants with surveillance equipment proven in service	s6(a)
User community size	21 nations ³ have C-130J in service or on order, with around 400 currently in service and a further 100+ contracted	Brazil has ordered 28 KC-390
Close relationship with community	Australia, United States, Britain and Canada all use C-130J. There is an active user group	s6(a), s9(2)(g)(i)
Already developed	Yes	
Successfully introduced	Yes, into 20 nations outside the United states	
Technology growth path	Yes – current variant is Block 8.1: additional capabilities have been developed (e.g. US Coastguard variant)	
Initial capital cost estimate (including contingency based on uncertainty risk)	s9(2)(b)(ii), s9(2)(t)	s9(2)(b)(ii), s9(2)(t)

³ United States, Australia, United Kingdom, Canada, Germany, France, Bangladesh, Qatar, Tunisia, Denmark, Egypt, India, Iraq, Israel, Italy, Kuwait, Libya, Norway, Oman, Saudi Arabia and South Korea.

46. It is apparent from the comparison that the C-130J-30 is a mature product that is proven in service. [REDACTED] s9(2)(g)(i), s6(a)

[REDACTED]

[REDACTED] s9(2)(g)(i), s6(a)

48. As noted earlier, in the first half of the next decade the Air Force will be bringing into service three separate capabilities: the P-8A; the tactical aircraft; and the enhanced maritime air surveillance capability. [REDACTED] s6(a), s9(2)(g)(i)

[REDACTED]

49. An external independent quality assurance review has examined the ability of the project to bring the capabilities into service in the planned timeframe. The review concluded that the detailed resource planning that Air Force has undertaken for the next five years, combined with the capability integration planning that the project has led, provide confidence that this is achievable.

Procurement Methods

50. Capital purchase is the recommended method of procurement for tactical aircraft, due to the nature of tasks that a military aircraft will be called upon to deliver. Lease options for military aircraft, which by their very nature may be expected to operate in conditions that civilian aircraft would not, do not provide full operational flexibility or allow the Government to manage risk. For this reason, leasing is excluded from consideration.

51. The United States Government's Foreign Military Sales (FMS) system is the preferred mechanism for the acquisition of military aircraft manufactured in the United States. FMS provides surety around price and timeframe, economy of scale, and access to the United States sustainment and training arrangements. These factors reduce procurement risk and were decisive advantages that led to selecting FMS as the preferred procurement strategy for the P-8A (Poseidon) aircraft. The same advantages apply to this procurement. The proven maturity of the platforms and the ability to leverage the experience of large users will ensure that the capabilities can be introduced successfully.

Replacement Timeline

52. The Foreign Military Sales process will take approximately 10-12 months to complete, as detailed negotiations need to be undertaken before the procurement is finalised. This timeframe will give time to develop any potential synergies with the Enhanced Maritime Awareness Capability project as noted above. This timeframe is

consistent with the Defence Capability Plan and will give a delivery schedule that supports the orderly transition from the old aircraft to the new. On current planning and scheduling, delivery of the first aircraft is anticipated during 2023.

53. Whilst a tactical aircraft is not as complex as a maritime patrol aircraft (i.e. the P-8A), as noted above we have sought to minimise the complications inherent in introducing two new aircraft into service in a similar timeframe. We also need to ensure that during the transition from legacy aircraft to new there is no significant reduction in our air mobility capability. Current timetable planning envisages separation between the timing of introduction of the P-8A and the C-130 replacement to mitigate this impact. Annex 3 identifies the proposed delivery schedules of the P-8A and the C-130J, noting that greater definition will be available post P-IBC.

54. The separation between the P-8A and C-130 replacement's introduction into service is managed by the Director Air Domain, to which the two Integrated Project Teams report, and is assured by the inclusion on the Enhanced Maritime Awareness Capability and Future Air Mobility Capability Project Boards of a common Chairperson and common external member.

55. Through the Air Domain oversight, the three Integrated Project Teams are co-ordinating the plans for integration of their respective capabilities to the NZDF. The capability integration plans consider in detail the changes to the NZDF necessary for, and driven by, the introduction of the new capability systems and the commensurate capacity of the NZDF to manage the changes. By using the Integrated Project Team structure and resources within the team, there will be a reduced call on the NZDF resources needed for introduction into service. Where there are single units supporting both introductions, conflict can be avoided through communication and scheduling. Final project timings will be developed once procurement negotiations are complete.

56. The Integrated Project Teams also conduct regular joint planning with the NZDF to ensure the introduction into service planning is meshed with the broader change initiatives of the NZDF under Force 2025.

Next Steps

57. Taking all these factors into account, I recommend that we make a sole source procurement⁴ of either four or five C-130J-30 Hercules, together with training and support equipment and costed options for additional equipment that could support our surveillance capabilities.. Defence will undertake the next stage of the FMS process and report back to Cabinet with final proposals by early 2020.

58. No significant funding is sought at this stage. Estimated capital funding requirements were identified as part of the P-8A decision, which noted that capital funding would be sought against Budget 2020. The amount required and timing of payments will follow in the Project Implementation Business Case that Cabinet will consider following evaluation of the final proposal.

59. Both this project, and the eventual replacement of the B757, are planned and costed in the new Defence Capability Plan. Committing to acquiring the tactical aircraft

⁴ Sole Source is permitted under rules 13 and 15 of the MBIE Government Rules of Sourcing.

now does not constrain Cabinet's timetable for or eventual decision on a suitable replacement for the B757.

Consultation

60. The following departments and agencies have been consulted: Antarctica New Zealand, Ministry of Civil Defence and Emergency Management, Department of Conservation, New Zealand Customs Service, New Zealand Fire and Emergency, Ministry of Foreign Affairs and Trade, Ministry of Health, Maritime New Zealand, New Zealand Police, Ministry for Primary Industries, Department of the Prime Minister and Cabinet (PAG), New Zealand Search and Rescue/Rescue Coordination Centre New Zealand, and the Treasury.

61. Industry has been extensively consulted during the development of this project. They have been aware of the possibility that the outcome may be a sole source solution due to the combination of requirements and risk management.

Financial Implications

62. This paper seeks approval for expenditure from Vote Defence of up to \$2.573 million for pre-contract costs required to undertake a Foreign Military Sales process. No further funding will be sought until the Project Implementation Business Case for tactical air mobility is presented to Cabinet by early 2020. These pre-contract costs will be funded from existing NZDF baselines and no new funding is being sought through this paper.

63. The procurement of five C-130J-30 tactical aircraft, together with a simulator and appropriate training and support is currently estimated as up to s9(2)(b)(ii) including support, spares, training, and other overheads that are required to introduce and successfully operate a new type. The addition of contingency of up to s9(2)(i) provides a total estimated cost of up to s9(2)(i), s9(2)(b)(ii)

64. The procurement of four C-130J-30 tactical aircraft, together with a simulator and appropriate training and support is currently estimated as up to s9(2)(b)(ii) including support, spares, training, and other overheads that are required to introduce and successfully operate a new type. The addition of contingency of up to s9(2)(i) provides a total estimated cost of up to s9(2)(i), s9(2)(b)(ii)

65. These figures are based on current FMS supplied projections and are calculated using Treasury (NZ Debt Management) forward foreign exchange rates as at October 2018. They do not include a foreign exchange contingency.

66. A breakdown of the capital cost estimates and year by year cash-flows are included in Annex 1.

Infrastructure

67. Although yet to receive the final Site Survey report from the USAF, the infrastructure requirements for the new aircraft will be minimal. This is predicated on operating from Base Auckland and utilising the existing 40 and 5 Sqn hangars. There will need to be a building established to house the simulator for which an allocation s9(2)(j)

has been included in the project budget. Detailed design and costing will be sought with a fixed price contract to be presented in the Project Implementation Business Case.

68. Refurbishment of a number of facilities on Base Auckland, including aircraft hangars, supply warehousing and the 40 Squadron headquarters is included in the Master Plan managed by Defence Estate and Infrastructure.

Human Rights, Legislative, Regulatory Impact, Gender or Disability Implications

69. There are no implications in respect of the considerations above.

Publicity

70. The FMS Letter of Request process is publicly notified in the United States. This is a standard procedure, and has occurred with every FMS request that New Zealand has made. As part of the standard FMS procedure, the figure that will be publically notified in the US will be greater than the budgeted figure, as it is not tailored to New Zealand's specific request. The FMS negotiation process will result in a final figure in line with the capital expectations set out in this paper. I will undertake pro-active publicity on our decision to issue an FMS Letter of Request.

71. This decision will attract interest from defence industry and media commentators. Due to the level of industry engagement in the project, Defence has prepared a communications plan to ensure that they understand why the recommendation has been made. As with the P-8 decision, our approach will not be a major surprise.

Proactive Release

72. I propose to release this paper proactively, subject to redaction as appropriate under the Official Information Act 1982.

Recommendations

73. I recommend that the Committee:

1. **note** that the first air mobility priority is to replace the current five C-130Hs that are now over 54 years old;
2. **note** that whilst the replacement the B757 is forecast in the current Defence Capability Plan, no decision on this is required in the near future and can be the subject of further analysis at the appropriate time;
3. **note** that the need to manage project risk through selection of a mature and proven capability has led to the conclusion that the current Lockheed Martin C-130J aircraft as used by our major partners represents the most prudent option;
4. **approve** sole source procurement, via the US Foreign Military Sales process, of either four (4) or five (5) Lockheed Martin C-130J-30 (Block 8.1) aircraft;
5. **authorise** the Secretary of Defence to undertake formal processes of a Foreign Military Sales Letter of Request for a Letter of Offer and Acceptance for the procurement of either four or five Lockheed Martin C-130J-30 tactical aircraft,

simulator and associated services and support; together with further information and reliability, availability and maintenance requirements;

6. **delegate authority** to the Secretary of Defence to commit and approve expenditure of public money up to the amount of \$2.573 million;
7. **approve** the following change to Vote Defence appropriations for the Ministry of Defence to commit to the processes authorised in recommendation 4, without impact on the operating balance or net debt;

Vote Defence Minister of Defence	\$m – increase			
	2018/19	2019/20	2020/21	2021/22 & out years
Non-departmental Capital Expenditure Defence Equipment	0.00	2.573	0.000	0.000

8. **agree** that the proposed changes to appropriations for Vote Defence 2019/20 in the above table be included in the 2019/20 year Supplementary Estimates and that, in the interim, the increase be met from Imprest Supply.
9. **note** that these costs are offset by a capital receipt from the New Zealand Defence Force.
10. **invite** the Minister of Defence to report back to the Cabinet Government Administration and Expenditure Review Committee with a Project Implementation Business Case for the supply of tactical aircraft by early 2020 and at that time seek approval to commit to contract;
11. **note** that approvals in this paper do not constitute a commitment to proceed with the procurement; and
12. **note** the project plans to seek capital commitment through Budget 2020.

Authorised for lodgement

Hon Ron Mark
MINISTER OF DEFENCE

Annex 1: Financial Tables

Capital Cost for Five Aircraft

The following table provides the estimated capital cost breakdown based on FMS and other information available to date. The weighted average of the October 2018 foreign exchange rates provided by Treasury for expenditure FX rate used in calculating the NZD equivalence is 0.66. Between now and the confirmation of the PIBC there is a risk that FX changes will affect elements of the pricing. s9(2)(b)(ii)

Initial Capital Acquisition (including contingency) Year by Year Affordability (escalated)	Total	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Description	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million
5 x Medium Tactical Aircraft	s9(2)(b)(ii), s9(2)(j), s9(2)(i)									
- Airframes										
- Block 8.1 JUG Fee										
- Initial Spares										
- Spare Engines										
- Simulation										
- Initial Support Contracts										
- Operational Equipment										
- Operational Acceptance										
- FMS Admin Fee										
- Project Management Costs										
- Crew Training (Air and Ground)										
- Infrastructure (Project funded)										
- Contingency										
Total Initial Capital Acquisition 5 x Medium Tactical Aircraft (including contingency)										

The contingency figure of s9(2)(i) excludes any foreign exchange contingency and is based on a quantified risk assessment of the FMS and commercial sales estimates for the C-130J. They quantify the uncertainty in the data and information available. The final contingency figure will be based on the contract quality information that will be included in the Project Implementation Business Case that Cabinet will consider in 2020. This will also update exchange rate impacts.

Note that the capital cost of additional surveillance and other mission system options that may be considered as part of the Enhanced Maritime Awareness Capability are not included in the above table. These costs will be included in the Project Implementation Business Case, together with their potential impact on the Enhanced Maritime Awareness Capability and its budget.

The projected cash flow will be confirmed once the payment schedule from the Foreign Military Sales office is provided. This will not be available until FMS negotiations are undertaken.

Capital Cost for Four Aircraft

The following table provides the estimated capital cost breakdown based on FMS and other information available to date. The weighted average of the October 2018 foreign exchange rates provided by Treasury for expenditure FX rate used in calculating the NZD equivalence is 0.66. Between now and the confirmation of the PIBC there is a risk that FX changes will affect elements of the pricing. s9(2)(b)(ii)








Initial Capital Acquisition (including contingency) Year by Year Affordability (escalated)	Total	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Description	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million	\$NZD million
4 x Medium Tactical Aircraft	s9(2)(b)(ii), s9(2)(j), s9(2)(i)									
- Airframes										
- Block 8.1 JUG Fee										
- Initial Spares										
- Spare Engines										
- Simulation										
- Initial Support Contracts										
- Operational Equipment										
- Operational Acceptance										
- FMS Admin Fee										
- Project Management Costs										
- Crew Training (Air and Ground)										
- Infrastructure (Project funded)										
- Contingency										
Total Initial Capital Acquisition 5 x Medium Tactical Aircraft (including contingency)										

The contingency figure of s9(2)(i) excludes any foreign exchange contingency and is based on a quantified risk assessment of the FMS and commercial sales estimates for the C-130J. They quantify the uncertainty in the data and information available. The final contingency figure will be based on the contract quality information that will be included in the Project Implementation Business Case that Cabinet will consider in 2020. This will also update exchange rate impacts.

Note that the capital cost of additional surveillance and other mission system options that may be considered as part of the Enhanced Maritime Awareness Capability are not included in the above table. These costs will be included in the Project Implementation Business Case, together with their potential impact on the Enhanced Maritime Awareness Capability and its budget.

The projected cash flow will be confirmed once the payment schedule from the Foreign Military Sales office is provided. This will not be available until FMS negotiations are undertaken.

Annex 2: Aircraft Classes Evaluated by Stakeholder Agencies

	Corporate Business Jet	<p>Provides short, medium and long haul transport for 10-20 passengers. Range around 6,000 nautical miles with up to a three tonne load.</p>
	Civilian Combination	<p>Medium sized jet airliner with an added freight door for the short to medium haul transport of passengers and/or cargo: accommodates 100 – 150 passengers or a combination (hence 'combi') of passengers and cargo. Range of 3000+ nautical miles with around a 15 tonne load.</p>
	Civilian Medium	<p>Medium sized jet airliner for short to medium haul transport. Accommodates 150 – 250 passengers; range of 3000+ nautical miles with a 15 tonne load.</p>
	Civilian Large	<p>Large sized jet airliner for long haul transport. Accommodates 250 or more passengers; range of 7000+ nautical miles with a full load of passengers and their baggage.</p>
	Light Military	<p>Military aircraft for transport of light personnel and cargo loads into austere / non-permissive areas. Accommodates 50-70 passengers or a combination of passengers and cargo. Range of 2000+ nautical miles with a 5+ tonne load.</p>
	Medium Military	<p>Military aircraft for transport of medium personnel and cargo loads into austere / non-permissive areas. Accommodates 80-90 passengers or a combination of passengers and cargo. Range of 2500+ nautical miles with a 15+ tonne load.</p>
	Heavy Military	<p>Military aircraft for strategic long range transport of heavy personnel and cargo loads into austere / non-permissive areas. Accommodates 110-120 passengers or a combination of passengers and cargo. Range of 4,000+ nautical miles with a 15 tonne load. Large maximum payload of 35+ tonnes.</p>