

MINISTER OF DEFENCE

Defence Tactical Future Air Mobility Capability

February 2021

This publication provides papers associated with Cabinet's May 2020 decision to purchase five C-130J-30 Super Hercules.

The pack comprises the following documents:

- May 2020 Cabinet Government Administration and Expenditure Review Committee minute of decision *Defence Tactical Future Air Mobility Capability* [GOV-20-MIN-0012], and
- the associated Cabinet paper *Defence Tactical Future Air Mobility Capability* [GOV-20-SUB-0012].

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 constitutional conventions for the timing being which protect the confidentiality of advice tendered by Ministers of the Crown and officials [section 9(2)(f)(iv)]
- 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 Government Administration and Expenditure Review 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 28 May 2020, the Cabinet Government Administration and Expenditure Review Committee:

- 1 **noted** that in June 2019, the Cabinet Business Committee 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, authorised the Secretary of Defence to undertake formal processes for the procurement, and invited the Minister of Defence to report back to GOV in early 2020 with a Project Implementation Business Case and to seek approval to commit to contract [CBC-19-MIN-0022];
- 2 **noted** that the first air mobility priority is to replace the current five C-130Hs that will be over 60 years old by the time the new fleet begins introduction to service, and which are approaching the end of their economic life;
- 3 **noted** that while the replacement for 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 an appropriate time;
- 4 **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;
- 5 **approved** sole source procurement, via the US Foreign Military Sales process, of five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, Large Aircraft Infra-Red Counter Measures (LAIRCM) and sustainment;
- 6 **authorised** the Secretary of Defence to sign the US Government Foreign Military Sales (FMS) Letters of Offer and Acceptance for the procurement of five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, EO/IR camera, LAIRCM, and sustainment.

Financial implications

- 7 **noted** that the initial C-130J-30 capital cost is NZ \$1,521 million, made up of s9(2)(b)(ii) to acquire five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, LAIRCM and sustainment; s9(2)(j) for infrastructure; s9(2)(i) for the project management; s9(2)(f)(iv) for transition to NZDF costs; s9(2)(f)(iv) for crew delivering introduction into service; and s9(2)(i) for capital delivery and foreign exchange contingency;
- 8 **noted** that of the NZ \$1,521 million initial capital cost for the C-130J-30 capability, NZ s9(2)(i) is sought by way of capital injections through the funding set aside in a tagged contingency in Budget 2020, s9(2)(f)(iv) is sought through an operating to capital funding swap, and remaining s9(2)(f)(iv) from depreciation reserves;
- 9 **noted** that s9(2)(i) of the contingency total above is specifically allocated to cover foreign exchange risk, and that if any of the s9(2)(i) foreign exchange contingency for this project is not required, it will be returned to the Crown;
- 10 **noted** that the foreign exchange contingency is sufficient to cover the costs of foreign currency purchases to a level of NZD/USD 0.612, however, given current market volatility there is a risk of further foreign exchange fluctuations between Cabinet approval and hedging;
- 11 **agreed** that Defence will meet any further foreign exchange requirements beyond the existing contingency, to a level of NZD/USD 0.570, through the re-allocation of up to NZ s9(2)(i) from depreciation reserves;
- 12 **noted** that any re-allocation would likely result in capability trade-offs within the indicative Defence Capability Plan;
- 13 **noted** that the Minister of Defence will return to Cabinet for further direction should the exchange rate at the time of hedging fall below NZD/USD 0.570;
- 14 **noted** that the prices in the C-130J Letter of Offer and Acceptance are not fixed until contracts are concluded, however cost estimates are conservative and held with high confidence and no further funding will be sought;
- 15 **approved** the following changes to appropriations and capital injections for the capital, associated capital charge, depreciation, direct operating costs, and personnel costs required to give effect to the acquisition of five C-130J-30 tactical aircraft, training systems, other support equipment, services infrastructure and other components as noted in paragraphs 5 and 6 above, with the following impact on the operating balance and net core Crown Debt;

	NZ \$M - increase/(decrease)							
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 & Out years
Operating Balance Impact	s9(2)(f)(iv)							
Debt Impact								
No Impact								
Total								

	NZ \$M - increase/(decrease)							
Vote Defence Force Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 & Out Years
Capital Injection:								
New Zealand Defence Force – Capital Injection	s9(2)(f)(iv), s9(2)(i)							
Departmental Output Expense:								
Air Force Capabilities Prepared for Joint Operations and Other Tasks (funded by revenue Crown)	s9(2)(f)(iv), s9(2)(i)							
Total Operating								
Total Capital								

16 **agreed** that the expenses and capital incurred above be charged against the Defence Capability Plan 2019 - Contingent Funding to Support the Introduction of New Capabilities tagged contingency established at Budget 2020 [CAB-20-MIN-0155.10];

17 **noted** that:

17.1 the C-130J-30 capability average annual direct operating and personnel costs (excluding depreciation and capital charge) are estimated to be s9(2)(f)(iv), s9(2)(j) in today’s dollars from 2024/25, which is within the existing C-130H costs;

17.2 Defence will continue to determine with greater certainty the direct operating and personnel costs, depreciation, and capital charge requirements, which may result in a change to the above costs as the transition period gets closer;

17.3 Defence may seek changes to reflect any change in costs through future Budgets;

18 **approved** the following fiscally-neutral s9(2)(f)(iv) operating to capital swap associated with New Zealand Defence Force personnel involved in the C-130J-30 capability integration activities to give effect to paragraph 8 above, with no impact on net core Crown debt;

	NZ \$M - increase/(decrease)					
Vote Defence Force Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Capital Injection:	s9(2)(f)(iv)					
New Zealand Defence Force – Capital Injection	s9(2)(f)(iv)					
Departmental Output Expense:	s9(2)(f)(iv)					
Air Force Capabilities Prepared for Joints Operations and Other Tasks (funded by revenue Crown)	s9(2)(f)(iv)					
Total Operating	s9(2)(f)(iv)					
Total Capital	s9(2)(f)(iv)					

Changes required for the Secretary of Defence to commit to the acquisition process

- 19 **authorised** the Secretary of Defence to commit and approve expenditure of public money up to NZ \$1,512 million to acquire five C-130J-30 aircraft, training systems, infrastructure and other goods and services and, noting that NZ \$2.573 million has been previously approved for pre-contract capital costs [CBC-19-MIN-0022];
- 20 **authorised** the Secretary of Defence to commit and approve expenditure of public money of an additional s9(2)(i) if the exchange rate falls below 0.612, and no further than NZD/USD 0.570;
- 21 **approved** the following changes to appropriations for the Secretary of Defence to commit to the acquisition process associated with the Future Air Mobility C-130J-30 tactical airlift process;

	NZ \$M – increase/(decrease)						
Vote Defence Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Non-Departmental Capital Expenditure: Defence Capability	s9(2)(f)(iv)						

- 22 **approved** the additional changes to appropriations of s9(2)(i) for the Secretary of Defence to commit to the acquisition process associated with the Future Air Mobility C-130J-30 tactical airlift if the NZD/USD Exchange Rate drops below 0.612, and no further than NZD/USD 0.570, with no impact on the operating balance or net debt;

	NZ \$M – increase/(decrease)						
Vote Defence Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Non-Departmental Capital Expenditure: Defence Capability	s9(2)(i)						

- 23 **noted** that the expenditure in paragraphs 21 and 22 above are offset by a capital receipt from the New Zealand Defence Force;
- 24 **noted** that the following changes to appropriations would be required in accordance with the New Zealand Defence Force – Capital Expenditure PLA, authorised by section 24(1) of the Public Finance Act 1989, reflecting the forecast NZ \$1,521 million costs of developing the C-130J-30 tactical airlift capability, with a corresponding impact on debt;

	NZD \$ M – increase/(decrease)						
Vote Defence Force Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Departmental Capital Expenditure: New Zealand Defence Force Capital PLA	s9(2)(f)(iv)						

- 25 **agreed** that the changes for Vote Defence Force and Vote Defence appropriations for 2020/21 in paragraphs 15, 18, 21, 22 and 24 above be included in the 2020/21 Supplementary Estimates and that, in the interim, the increases be met from Imprest Supply;

Report back to Cabinet

26 **noted** that:

26.1 [Redacted] s9(2)(f)(iv) [Redacted]
[Redacted]

26.2 [Redacted] s9(2)(f)(iv) [Redacted]
[Redacted]

Rachel Clarke
Committee Secretary

Present:
Rt Hon Winston Peters
Hon Chris Hipkins (Chair)
Hon Stuart Nash
Hon Kris Faafoi
Hon Ron Mark

Officials present from:
Office of the Prime Minister
Officials Committee for GOV

Proactively released by the Minister of Defence

Chair, Government Administration and Expenditure Review Committee

DEFENCE TACTICAL FUTURE AIR MOBILITY CAPABILITY

Proposal

1. Cabinet is invited to approve the acquisition of five Lockheed Martin C-130J-30 Hercules tactical military aircraft to replace the aging C-130H Hercules fleet.

Executive summary

2. New Zealand's current fleet of five Lockheed Martin C-130H Hercules aircraft are essential for a broad range of military and wider government air mobility tasks within New Zealand, the Pacific, and further afield. Tasks include global military operations, responding to security events and natural disasters, humanitarian assistance and disaster relief missions, and search and rescue operations.

3. The C-130H Hercules have provided exemplary service for nearly 60 years. However, despite being upgraded several times, they are coming to the end of their life. It is expected they can be kept operational until at least the early to mid-2020s, but with rapidly declining maintainability, reliability, and availability.

4. In June 2019 Cabinet approved replacement of the existing fleet of C-130H Hercules with the new generation Lockheed Martin C-130J-30 Hercules [CAB-19-MIN-0268 refers]. It authorised the Secretary of Defence to undertake the formal processes of the United States (US) Government's Foreign Military Sales system to obtain cost information for four or five aircraft, simulator, and associated services and support. Letters of Offer and Acceptance were received in January 2020. This paper seeks formal Cabinet approval to accept the US Letters of Offer and Acceptance.

5. The recommended number of aircraft is five. s6(a)
[REDACTED]
[REDACTED]

6. The estimated investment whole of life cost is s9(2)(f)(iv) and includes initial acquisition, through-life capital investment, and personnel and operating costs. The initial capital investment (including capital contingency but excluding foreign contingency) is NZ s9(2)(b)(ii), s9(2)(i), s9(2)(j) consisting of s9(2)(b)(ii) to acquire five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, Large Aircraft Infra-Red Counter Measures (LAIRCM) and sustainment; s9(2)(j) for infrastructure; s9(2)(i) for the project management; s9(2)(f)(iv) for transition to NZDF costs; and, s9(2)(i) capital delivery contingency. If Cabinet, approves this investment, s9(2)(b)(ii), s9(2)(i), s9(2)(j) will be funded through the s9(2)(i) capital injection provided in Budget 2020, with the

remaining s9(2)(f)(iv) funded from depreciation reserves. In addition, there is s9(2)(f)(iv) relating to New Zealand Defence Force crew delivering introduction into service activities, that will be funded through an operating to capital swap.

7. A separate s9(2)(i) contingency has been allocated to cover the predicted exchange rate costs. This brings the total investment to NZ \$1,521 million. Foreign exchange risk for this project will be covered through the standard policy of hedging following Cabinet approval. If any of the s9(2)(i) foreign exchange contingency for this project is not required, the capital injection will be returned to the Crown.

8. The advent of COVID-19 and its effect on the exchange rate between the New Zealand and United States dollar has had a major impact on the FAMC project. The s9(2)(i) contingency is predicted to cover the exchange rate risk to a level of NZD/USD 0.612. In the event the exchange rate is below this level at the time of hedging, Defence seeks approval to cover additional contingency up to s9(2)(i) through the reprioritisation of near term future projects currently scheduled to be funded from depreciation reserves.

9. s6(a)

[Redacted]

Air mobility is key to delivering Government policy

10. The **Strategic Defence Policy Statement 2018** (SDPS), approved by Cabinet in May 2018 ([ERS-18-MIN-008] refers), sets out the Government's policy objectives for Defence, and provides the policy basis to identify the Defence capabilities required to give effect to the Government's intentions.

11. The SDPS sets out ten principal roles of the NZDF. Every one of those roles is supported by NZDF's air mobility capabilities, and some, such as supporting New Zealand's civilian presence in Antarctica and conducting a broad range of operations in the South Pacific, would be functionally impossible to achieve without air mobility capabilities.

12. The SDPS notes that New Zealand's interests are global, therefore the NZDF must be able to operate and deliver a range of effects far from New Zealand's shores. The NZDF must also be sufficiently self-reliant that it can conduct such operations independently, in and around New Zealand, from Antarctica, to the South Pacific. The SDPS notes that tactical airlift capabilities provide the core airlift capability for the deployment of personnel and equipment within New Zealand's immediate region and further afield. This includes air transport capabilities in support of New Zealand's interests in Antarctica.

13. Air mobility has been at the heart of Defence's ability to respond to a range of contingencies in support of the SDPS's 'Community, Nation, and World' focus. Some examples are:

13.1. **Community:** responding to natural disasters in New Zealand, such as the Christchurch and Kaikoura earthquakes; providing firefighting support during the Port Hills (2017), Chatham Islands (2018), and Nelson (2019) fires; and responding to the Christchurch terrorist attack in 2019.

13.2. **Nation:** supporting Government agencies such as the Department of Conservation and Antarctica NZ for resupply and research; and transporting government personnel and VIPs to events.

13.3. **World:** responding to natural disasters in Asia such as the 2018 Indonesian earthquake and tsunami; providing troops and logistical support to operations in the Middle East; establishing an air bridge of concurrent C-130 operations during the East Timor, Bougainville and Solomon Island conflicts; and participating in training exercises with partners.

14. In November 2018, Defence released a Defence Assessment, "**The Climate Crisis: Defence Readiness and Responsibilities**", exploring the consequences of climate change for Defence. It noted that the impacts of climate change will require more humanitarian assistance and disaster relief, stability operations, and SAR missions in New Zealand, and across the region. It further noted that "New Zealand may be faced with increasingly concurrent operational commitments, which could stretch resources...".

15. The NZDF's air mobility assets are in the first line of response to these climate change effects and form a significant part of New Zealand's overall ability to respond, the demand for which is expected to grow, not diminish.

16. **The Pacific** is a region of great importance to New Zealand, as emphasised by the Government's "Pacific Reset" Strategy ([CAB-18-MIN-0054] refers). s6(a)

[REDACTED]

17. Air mobility also supports the Government's **Living Standards Framework and the four Wellbeing capitals** as follows:

17.1. **Social Capital:** transporting personnel to engagements that support New Zealand's international relationships and the rules-based international order. New Zealand's social capital can be safeguarded by strengthening New Zealand's international relationships and providing security to democratic norms and values; protecting the New Zealand way-of-life; and protecting New Zealand's national security.

17.2. **Human Capital:** responding to a broad range of security events, including undertaking humanitarian and disaster relief operations in response to natural disasters contributes to the personal, social, and economic well-being of New Zealanders. Introducing new modern capabilities and technologies, and the related

training this entails, leads to the generation of a more skilled workforce, within Defence and wider New Zealand industry.

17.3. **Natural Capital:** supporting Government agencies such as the Department of Conservation, and providing air transport to Antarctica contributes to New Zealand's interests there, including protection of the environment for the current and future well-being of New Zealanders.

17.4. **Financial and Physical Capital:** the above contribution to Social, Natural and Human Capital have the ultimate effect of protecting New Zealand communities and assisting them to increase their financial and physical capital.

The current Air Mobility fleet

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

19. The two B757s are currently expected to be able to operate until approximately s6(a) s9(2)(g)(i)

The need to replace the tactical Air Mobility fleet

20. The NZDF's fleet of C-130Hs are aging, and will be over 60 years old by the time the new fleet begins introduction into service. The aircraft 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 maintainability and reliability. s9(2)(g)(i) Costs did go down as aircraft completed their Life Extension Programme, s9(2)(g)(i), s6(a)

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

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

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

Detailed Business Case recommendations

25. The Detailed Business Case (DBC) approved by Cabinet in June 2019 [CAB-19-MIN-0268 refers] instructed the Secretary of Defence to seek to source either four or five C-130J-30 Hercules via the United States Government’s Foreign Military Sales (FMS) process. A Letter of Offer and Acceptance for this was received in January 2020.

26. This Cabinet paper and accompanying Project Implementation Business Case (PIBC) seeks final Cabinet confirmation of the number, additional options, and costs for the C-130J aircraft recommended following receipt of the Letter of Offer and Acceptance.

How many C-130Js?

27. The PIBC, prepared following receipt of the Letter of Offer and Acceptance costs, confirms the DBC recommendation that the optimal number of tactical aircraft is five.

28. Government policies such as the SDPS, the “Pacific Reset” Strategy, and Defence Climate Change Assessment are clear: the New Zealand Defence Force will increasingly be called on to **respond** to the growing security challenges, from the Antarctic to the Equator. Further, there will be an increasing need for **concurrent** operations.

29. NZDF’s air mobility capability is frequently New Zealand’s first and most appreciated response to such challenges. It is air mobility that enables personnel—our other key responder—to get to where they need to be, when they need to be there, with the equipment and supplies they need to respond. New Zealand’s C-130 aircraft are a powerful and highly visible symbol of New Zealand’s commitment to partnership and support of our Pacific neighbours.

30. Currently, our aging fleet of C-130H aircraft are struggling to meet existing demands. They will not meet the future demands for response and concurrency that Government has forecast through its policy priorities.

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

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

33. It is expected that new aircraft will nearly double availability from the current fleet once they are in full service, [REDACTED] s9(2)(g)(i), s6(a) This level of availability is required of the fleet to deliver against Government's existing policy objectives and expected increase in demand as foreshadowed in the the Government's strategic policy settings. This increased availability can be obtained at no greater operating and sustainment cost to the current C-130H. Procuring a simulator will both improve training and provide a further increase in aircraft operational utilisation due to the reduced need to undertake some training in the actual aircraft.

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

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

- [REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]

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

37. The ability to undertake concurrent operations is especially important during times of high demand such as New Zealand's summer and shoulder season (around November to April). This is the summer Antarctic season, when most of our air mobility operations to that continent takes place. But it also coincides with the cyclone season in the South Pacific.

38. The following table compares the different availability and capital cost for four, five, six and seven aircraft:

Number of aircraft	Aircraft availability at one time ¹	Capex (excluding contingency) ²
4 C-130J Hercules	s6(a), s9(2)(g)(i)	s9(2)(b)(ii)
5 C-130J Hercules		
6 C-130J Hercules		
7 C-130J Hercules		

Table 1: Aircraft Availability

39. The above analysis leads to the conclusion that five C-130J aircraft is the best balance between cost and availability and will assure the delivery of concurrent tasks.

Simulation

40. As noted above, increased operational capacity can also be obtained through the delivery of training in a flight simulator. Not only does it save the cost of sending personnel overseas, it also saves the aircraft hours that would traditionally be used for training.

41. In addition to the increase in operational hours and cost savings, simulators also provide a range of non-financial benefits, including freeing up personnel, especially more qualified flying instructors, for operational tasks, and reducing risk to crew safety or aircraft damage by allowing more demanding scenarios to be undertaken in a simulator.

Additional Systems

42. A number of features are included in the standard fit of the C-130J. However, the following systems are also included with the proposed configuration, offering additional utility and benefit to all stakeholders:

Satellite Communications

43. Satellite communication systems are important components of modern aircraft. I recommend the New Zealand aircraft be fitted with the wide bandwidth, high speed SATCOM satellite data system. Using the Inmarsat™ network, this civilian SATCOM system will provide the ability to stream imagery, video and data in real time, and provide a secure carrier for encrypted worldwide communications.

¹ s6(a), s9(2)(g)(i) This takes into account scheduled and unscheduled maintenance.

² Capital cost includes the aircraft, a simulator, and associated systems.

Electro-optical/Infra-red camera system

44. An Electro-optical/Infra-red (EO/IR) camera is recommended to be installed on the C-130J aircraft. [REDACTED] s9(2)(g)(i), s6(a)

45. The EO/IR camera enhances flight safety by improving visibility in low light or poor visibility conditions. The EO/IR camera will also enhance the NZDF's overall air surveillance and maritime domain awareness capability. [REDACTED] s9(2)(g)(i), s6(a)

46. The EO/IR camera will be particularly useful when undertaking humanitarian and disaster relief operations and search and rescue missions. A C-130J equipped with an EO/IR camera will be capable of providing video surveillance during disaster relief operations whilst also carrying emergency supplies. In the past, two aircraft types (the P-3 Orion and C-130H) would have been required to undertake these two different tasks.

Large Aircraft Infra-Red Counter Measures

47. The C-130J will be delivered with an enhanced self-protection system as standard configuration. [REDACTED] s9(2)(g)(i), s6(a)

[REDACTED] However, an additional self-protection system to protect against infra-red guided threats is available for the C-130J. The LAIRCM system provides protection for large aircraft from infra-red-guided missiles by defeating the missile guidance system. [REDACTED] s9(2)(g)(i), s6(a)

[REDACTED] s9(2)(f)(iv)

48. [REDACTED] s9(2)(g)(i), s9(2)(f)(iv)

Sustainment

49. New Zealand will procure a level of sustainment for the aircraft through FMS. Sustainment services will be secured under a separate Letter of Offer and Acceptance from the US Government and commence six months in advance of delivery of the first aircraft.

Acquisition details

50. As directed by Cabinet, the C-130J acquisition would be through the US Government's Foreign Military Sales (FMS) process. This would be a direct source procurement, not put to competitive market tender. FMS is a government-to-government

acquisition process for the purchase of US military equipment, services and support, and is being used for New Zealand's procurement of the Boeing P-8A Poseidon aircraft.

51. FMS acquisition has a number of benefits, including greater price certainty, potential cost savings through economies of scale, lower commercial risk, commonality of equipment with security partners, and airworthiness certification through the US Department of Defence, which helps the introduction into service process.

52. The price in the C-130J Letter of Offer and Acceptance are not fixed until contracts are concluded. The costs incorporate estimates where the US Government has not yet secured contracts for supply of specific elements. The estimates are conservative, based on advice from the US Government and on broad FMS procurement experience. Defence has high confidence in the price estimates. The price of some elements of the offer may, however, change as the contracts are concluded. The recommended investment budget for the C-130J includes contingency to absorb cost risks, including those which are present in the FMS procurement method, to which the project is exposed through to introduction to service.

53. The US Government will require the Minister of Defence to provide an indemnity as a standard, non-negotiable requirement of the FMS process. This has a low likelihood of being called on and risk management strategies are in place to minimise Government exposure. An indemnity was previously provided to the US Government by the Minister of Defence for the P-8A Poseidon acquisition.

Next Steps

54. Taking all these factors into account, I recommend that we make a sole source procurement³ of five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, LAIRCM, and sustainment.

Key Milestones

55. The proposed payment schedule for the FMS acquisition is as follows:

Financial Year	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Amount	s9(2)(f)(iv)						

³ Sole Source is permitted under rules 13 and 15 of the MBIE Government Rules of Sourcing.

56. The anticipated project timeline is provided below.

	Milestone	Forecast Completion
	LOAs signed	June 2020
Capability Delivery	Delivery of Simulator	s9(2)(g)(i), s6(a)
	Delivery of first aircraft	
	Delivery of last aircraft	
	Initial Operational Release (IOR)	
	Full Operational Release (FOR) (post Antarctic programme)	

57. The Future Air Mobility Capability project has sought to minimise the complications inherent in introducing both the P-8A Poseidon and C-130J aircraft into service during a short period of time between 2023 and 2024, while ensuring there is no significant reduction in our air mobility capability. The Integrated Project Team is actively planning for the introduction of the P-8A and the C-130J to mitigate this impact and will continue to monitor the likelihood and consequence of delivery schedules. Air Domain projects will continue the close co-ordination of their respective integration plans.

Consultation

58. The following departments and agencies have been consulted: Antarctica New Zealand, Department of Conservation, New Zealand Customs Service, Fire and Emergency New Zealand, Ministry of Foreign Affairs and Trade, Ministry of Health, Department of Internal Affairs, 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, State Services Commission, and the Treasury.

Financial Implications

59. The initial capital investment cost of five C-130J-30 tactical aircraft, together with a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, LAIRCM and sustainment, is calculated at s9(2)(b)(ii). The addition of capital delivery contingency of s9(2)(i) and New Zealand Defence Force crew introduction into service activities of s9(2)(f)(iv) provides a total of s9(2)(b)(ii), s9(2)(i). The phasing of the s9(2)(b)(ii), s9(2)(i) capital expenditure, together with the specific foreign exchange contingency of s9(2)(i) is set out in the table below.

	Capital Expenditure NZ\$ M									
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	TOTAL	
Capital Investment including capital delivery contingency	2.573	s9(2)(b)(ii), s9(2)(i), s9(2)(j), s9(2)(f)(iv)								
Crew delivering introduction into service	0.000	s9(2)(f)(iv)								
Foreign exchange contingency	0.000	s9(2)(i)								
Total	2.573	s9(2)(f)(iv)								1,520.625

60. As part of Budget 2020, Cabinet set aside s9(2)(i) in capital funding in a tagged contingency towards the C-130J-30 tactical aircraft capital investment, including capital contingency, of s9(2)(b)(ii), s9(2)(i), s9(2)(j). The remaining s9(2)(f)(iv) capital cost would be funded from depreciation reserves.

	NZ \$M								
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	TOTAL
Capital Injection	0	s9(2)(i)							

61. In addition, Defence requires an operating to capital funding swap of s9(2)(f)(iv) to reflect New Zealand Defence Force personnel involved in the C-130J-30 tactical airlift introduction into service activities.

	NZ\$ M								
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	TOTAL
Operating to Capital Swap	0.000	s9(2)(f)(iv)							

62. Foreign exchange risk for this project will be covered through the standard policy of hedging at the time of contract. The advent of COVID-19 and its effect on the exchange rate between the New Zealand and United States dollar has had a major impact on the FAMC project. A separate s9(2)(i) contingency has been allocated within the tagged contingency established as part of Budget 2020 to cover the predicted exchange rate risk. This contingency is sufficient to cover the exchange rate risk to a level of NZD/USD 0.612. If any of this s9(2)(i) foreign exchange contingency for this project is not required, the capital injection will be returned to the Crown.

	NZ \$M								
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	TOTAL
Capital Injection	0.000	s9(2)(i)							

63. In the event the exchange rate falls below NZD/USD 0.612 at the time of hedging, Defence would need to reprioritise up to s9(2)(i) from its depreciation reserves to support the purchase of additional foreign exchange coverage. That would cover the foreign exchange rate to NZD/USD 0.570. The likely consequence of having to allocate additional depreciation funding is trade-off of other priority procurements as signalled

under the current Defence Capability Plan. If the rate drops below that level before foreign exchange coverage is obtained, Defence would not proceed with the hedging arrangements and would return to Cabinet for further direction.

64. Through-life capital sustainment costs, the majority of which are anticipated to occur beyond 2030 as the aircraft gets older and parts require replacing, are estimated to be s9(2)(f)(iv), s9(2)(j) over the 30-year service life of the aircraft.

65. The annual operating and sustainment costs for the C-130H, funded through a mix of operating expenditure and capital appropriations, align with the forecast s9(2)(f)(iv), s9(2)(j) operating and sustainment costs for the proposed C-130J-30, as shown in the below table.

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

66. The C-130H major aircraft and engine overhauls (which are classified as capital sustainment activities) are currently undertaken by Airbus. The proposed maintenance regime for the C-130J sees majority of the maintenance activities being undertaken by the NZDF's C-130J operating unit (No. 40 Squadron). Where additional support is required during deeper level maintenance, Defence will establish the appropriate arrangements through a combination of USAF FMS support, direct commercial arrangements, and organic support.

NZ \$ M	C-130H	C-130J
Personnel costs	s9(2)(j), s9(2)(f)(iv)	
Operating and Maintenance Costs		
Through-life capital sustainment maintenance		
Total Operating, Personnel, and long-term capital sustainment		

67. Personnel costs will reduce by s9(2)(f)(iv) from 2024/25 due to particular crew positions no longer required to operate the C-130J-30.

68. Operating and personnel baseline movements are summarised in the table below.

	NZ \$ M - increase/(decrease)							
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27 & Out years
Personnel baseline movement	0.000	s9(2)(f)(iv), s9(2)(j)						
Operating cost baseline movement	0.000							
Total baseline movement	0.000							

69. Defence will require a depreciation funding increase to reflect the value of the C-130J-30 asset. An increase in the short term is also required due to the reduction in the remaining service life of the C-130H ancillary support equipment that is not compatible

with C-130J-30 fleet operations. This results in spreading the equipment's remaining book value over a shorter number of years.

70. Capital charge will be incurred as a result of the the capital injections.

71. Depreciation and capital charge baseline movements are summarised in the table below. The Depreciation component does not fully address the forecast increase in expense from 2024/25 – Defence will update forecasts as the fleet nears introduction into service and identify funding implications as required.

	NZ \$ M										
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30 & out years
Depreciation	0.000	s9(2)(f)(iv), s9(2)(j)									
Capital charge	0.000										
Personnel and Operating	0.000										
Total baseline movement	0.000										

72. Approval is requested for the s9(2)(i) capital injection and Operating Baseline uplift to be funded from the Defence Capability Plan 2019 tagged contingency established at Budget 2020 which identifies the component relating to the replacement of the C-130H Hercules.

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

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

Publicity

74. There was significant media interest in the Government's announcement to formally seek a Letter of Offer and Acceptance for the procurement of five Lockheed Martin C-130J-30 tactical aircraft in 2019. The Letter of Offer was made public by the United States Congress on 20 November 2019 and there were subsequent media reports that New Zealand was investigating the purchase of C-130J.

75. Publicity for this decision will be coordinated by the Offices of the Minister of Defence and Minister of Finance.

Proactive Release

76. I propose to release this paper proactively, subject to final Budget decisions being made public, and subject to redaction as appropriate under the Official Information 1982.

Recommendations

77. I recommend that the Committee:

1. **note** that the first air mobility priority is to replace the current five C-130Hs that will be over 60 years old by the time the new fleet begins introduction to service, and which are approaching the end of their economic life;
2. **note** that whilst the replacement for 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 five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, LAIRCM and sustainment;
5. **authorise** the Secretary of Defence to sign the US Government Foreign Military Sales (FMS) Letters of Offer and Acceptance for the procurement of five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, LAIRCM, and sustainment.

Financial implications of acquiring the C-130J-30 Capability

6. **note** that the initial C-130J-30 capital cost is NZ \$1,521 million and is made up of s9(2)(b)(ii) to acquire five C-130J-30 Hercules, together with training and support equipment, a simulator, civilian SATCOM, Electro-optical/Infra-red (EO/IR) camera, LAIRCM and sustainment; s9(2)(j) for infrastructure; s9(2)(i) for the project management; s9(2)(f)(iv) for transition to NZDF costs; s9(2)(f)(iv) for crew delivering introduction into service; and s9(2)(i) for capital delivery and foreign exchange contingency;
7. **note** that of the NZ \$1,521 million initial capital cost for the C-130J-30 capability, s9(2)(i) is sought by way of capital injections through the funding set aside in a tagged contingency in Budget 2020, s9(2)(f)(iv) is sought through an operating to capital funding swap, and remaining s9(2)(f)(iv) from depreciation reserves;
8. **note** that s9(2)(i) of the contingency total above is specifically allocated to cover foreign exchange risk, and that if any of the s9(2)(i) foreign exchange contingency for this project is not required, it will be returned to the Crown;

9. **note** that the foreign exchange contingency is sufficient to cover the costs of foreign currency purchases to a level of NZD/USD 0.612, however, given current market volatility Defence assesses there is a risk of further foreign exchange fluctuations between Cabinet approval and hedging;
10. **agree** that Defence will meet any further foreign exchange requirements beyond the existing contingency, to a level of NZD/USD 0.570, through the re-allocation of up to s9(2)(i) from depreciation reserves;
11. **note** that any re-allocation would likely result in capability trade-offs within the indicative Defence Capability Plan;
12. **note** that should the exchange rate at the time of hedging fall below NZD/USD 0.570, Defence will return to Cabinet, for further direction;
13. **note** that the prices in the C-130J Letter of Offer and Acceptance are not fixed until contracts are concluded, however cost estimates are conservative and held with high confidence and no further funding will be sought;
14. **approve** the following changes to appropriations and capital injections for the capital, associated capital charge, depreciation, direct operating costs, and personnel costs required to give effect to the acquisition of five C-130J-30 tactical aircraft, training systems, other support equipment, services infrastructure and other components as noted in recommendations 4 and 5, with the following impact on the operating balance and net core Crown Debt;

	NZ \$M - increase/(decrease)							
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 & Out years
Operating Balance Impact	s9(2)(f)(iv)							
Debt Impact								
No Impact								
Total								

	NZ \$M - increase/(decrease)							
Vote Defence Force Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28 & Out Years
Capital Injection:								
New Zealand Defence Force – Capital Injection	s9(2)(i), s9(2)(f)(iv)							
Departmental Output Expense:								
Air Force Capabilities Prepared for Joint Operations and Other Tasks (funded by revenue Crown)								

Total Operating	s9(2)(i), s9(2)(f)(iv)
Total Capital	

15. **agree** the expenses and capital incurred under recommendation 13 be charged against the Defence Capability Plan 2019 - Contingent Funding to Support the Introduction of New Capabilities tagged contingency established at Budget 2020 [CAB-20-MIN-0155.10];
16. **note** that the C-130J-30 capability average annual direct operating and personnel costs (excluding depreciation and capital charge) are estimated to be s9(2)(f)(iv), s9(2)(j) in today's dollars from 2024/25. This cost is within the existing C-130H costs;
17. **note** that Defence will continue to determine with greater certainty the direct operating and personnel costs, depreciation, and capital charge requirements. As a result, the above may change as the transition period gets closer, and that Defence may seek changes to reflect that through future Budgets;
18. **approve** the following fiscally- neutral s9(2)(f)(iv) operating to capital swap associated with New Zealand Defence Force personnel involved in the C-130J-30 capability integration activities to give effect to recommendation 7 above, with no impact on net core Crown debt;

Vote Defence Force Minister of Defence	NZ \$M - increase/(decrease)					
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Capital Injection: New Zealand Defence Force – Capital Injection	s9(2)(f)(iv)					
Departmental Output Expense: Air Force Capabilities Prepared for Joints Operations and Other Tasks (funded by revenue Crown)						
Total Operating						
Total Capital						

Changes required for the Secretary of Defence to commit to the acquisition process

19. **authorise** the Secretary of Defence to commit and approve expenditure of public money up to NZ \$1,512 million to acquire five C-130J-30 aircraft, training systems, infrastructure and other goods and services and, noting that NZ \$2.573 million has been previously approved for pre-contract capital costs [CAB-19-MIN-0171 refers];

20. **authorise** the Secretary of Defence to commit and approve expenditure of public money of an additional s9(2)(i) if the exchange rate falls below 0.612, and no further than NZD/USD 0.570;
21. **approve** the following changes to appropriations for the Secretary of Defence to commit to the acquisition process associated with the Future Air Mobility C-130J-30 tactical airlift process;

	NZ \$M – increase/(decrease)						
Vote Defence Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Non-Departmental Capital Expenditure: Defence Capability	s9(2)(f)(iv)						

22. **approve** the additional changes to appropriations of s9(2)(i) for the Secretary of Defence to commit to the acquisition process associated with the Future Air Mobility C-130J-30 tactical airlift if the NZD/USD Exchange Rate drops below 0.612, and no further than NZD/USD 0.570, with no impact on the operating balance or net debt;

	NZ \$M – increase/(decrease)						
Vote Defence Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Non-Departmental Capital Expenditure: Defence Capability	s9(2)(i)						

23. **note** that the expenditure in recommendations 21 and 22 above are offset by a capital receipt from the New Zealand Defence Force;
24. **note** the following changes to appropriations would be required in accordance with the New Zealand Defence Force – Capital Expenditure PLA authorised by section 24(1) of the Public Finance Act 1989, reflecting the forecast NZ \$1,521 million costs of developing the C-130J-30 tactical airlift capability, with a corresponding impact on debt;

	NZD \$ M – increase/(decrease)						
Vote Defence Force Minister of Defence	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Departmental Capital Expenditure: New Zealand Defence Force Capital PLA	s9(2)(f)(iv)						

25. **agree** that the proposed changes for Vote Defence Force and Vote Defence appropriations for 2020/21 above be included in the 2020/21 Supplementary Estimates and that, in the interim, the increases be met from Imprest Supply; and

Reporting back to Cabinet

26. [REDACTED] s9(2)(f)(iv)
[REDACTED]
[REDACTED]
[REDACTED]

Authorised for lodgement

Hon Ron Mark
Minister of Defence

Proactively released by the Minister of Defence

Lockheed Martin C-130J-30

New Zealand's Future Air Mobility Capability- Tactical



Supporting the Community, Nation, and World

- Support to DOC, Antarctica NZ and other Government agencies (Community, Nation).
- Humanitarian aid and disaster relief- earthquakes, fires and cyclones (Community, Nation, World)
- Transporting government personnel and VIPs to trade and political forums (Nation, World).
- Coalition support to operations (Op TEAL (Middle East)) and exercises (RIMPAC) (World).
- Due to its broad utility and flexibility, tactical Air Mobility is often the first response, supporting both NZDF and other Government agencies.

Aircraft Specifications

	C-130H(NZ)	C-130J-30
Wing span	40.41 m	40.41 m
Height	11.66 m	11.85 m
Length	29.0 m	34.4 m
Speed	300 kts	330 kts
Payload	18.1 Tonnes	21 Tonnes
Pax	92 Passengers	128 Passengers

Plus Training, Simulation, Infrastructure and Through Life Support

Typical HADR Scenario – (Samoa)

50 pallets of aid (personnel and equipment)
Up to 15 tonne payload per flight
Range with 15 tonne payload

- C-130H(NZ) 1800 nm
- C-130J-30 2400 nm

NUMBER OF FLIGHTS

C-130J-30 C-130H(NZ)

7

10

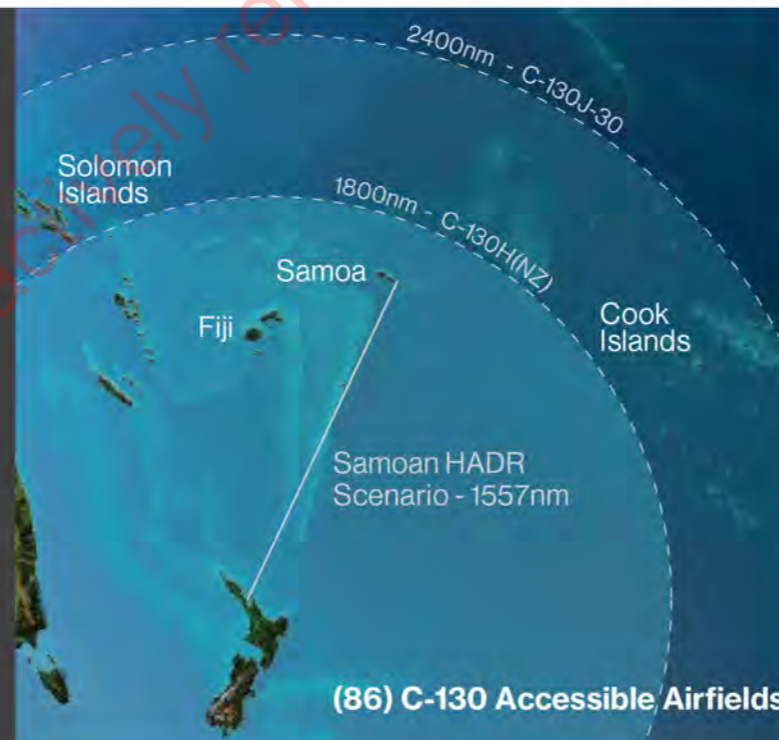
FLIGHT HOURS

C-130J-30 C-130H(NZ)

70

105

C-130J-30: Fewer flights - Faster, Further



C-130H(NZ)



C-130J-30

