HON JUDITH COLLINS KC, MINISTER OF DEFENCE

Proposed New Zealand Defence Force Participation in Operation Olympic Defender to Secure Space Capabilities and Services

December 2024

This publication provides documents on Cabinet's August 2024 decision on New Zealand Defence Force (NZDF) participation in the United States-led enduring multinational military space domain operation, Operation OLYMPIC DEFENDER.

The pack comprises the following documents:

- the Cabinet minute of decision: Proposed New Zealand Defence Force Participation in Operation Olympic Defender to Secure Space Capabilities and Services [FPS-24-MIN-0020]
- the Cabinet paper: Proposed New Zealand Defence Force Participation in Operation Olympic Defender to Secure Space Capabilities and Services [FPS-24-SUB-0020].

This pack has been released on the Ministry of Defence website, available at: <u>https://defence.govt.nz/publications/Proposed-New-Zealand-Defence-Force-</u> <u>Participation-in-Operation-Olympic-Defender-to-Secure-Space-Capabilities-and-</u> <u>Services/</u>

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.

Certain information is withheld, where the making available of the information 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)].

In addition, certain information has been withheld in order to:

- 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)]
- maintain legal professional privilege [section 9(2)(h)].

Where information is withheld pursuant to section 9(2), it is not considered that the public interest in this information outweighs the need to protect it.



Cabinet Foreign Policy and National Security 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.

Proposed New Zealand Defence Force Participation in Operation Olympic Defender to Secure Space Capabilities and Services

Portfolio

Defence

On 20 August 2024, the Cabinet Foreign Policy and National Security Committee:

- 1 **noted** that ^{\$6(a)} New Zealand received an invitation to join Operation Olympic Defender (OOD), a United States-led multinational space domain operation, which aims to support military operations with space-based capabilities and deter hostile action against space assets;
- 2 **noted** that the New Zealand economy and use of military capabilities depend on spacebased services, and that:
 - 2.1 space technology has become embedded in numerous critical services and is important for the success of modern military operations;
 - 2.2 New Zealand does not have any significant sovereign assets in orbit ^{\$6(a)}
- 3 **agreed** that New Zealand join OOD with ^{\$9(2)(f)} contribution of one liaison officer;
- 4 **agreed** to the following strategic objectives, namely that participation in OOD will:
 - 4.1 signal New Zealand's commitment to promoting safe and sustainable behaviours in s6(a)
 - further deepen New Zealand's partnerships s6(a), especially in the space domain; and
 - 4.3 build space operations experience and expertise among New Zealand Defence Force personnel to support wider operations, s6(a)
- 5 **directed** officials to inform relevant partners of Cabinet's decision s6(a)

etence

s9(2)(f)(iv) 6 **noted** that joining OOD is estimated to cost \$0.17 million in the 2024/25 financial year, \$0.17 million in 2025/26, and \$0.16 million in 2026/27, which can be funded by reprioritisation within the existing baseline for Vote Defence Force: Protection of New Zealand and New Zealanders Multi-Category Allocation;

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s9(2)(f)(iv)

Jenny Vickers **Committee Secretary**

Present:

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

Office of the Chair of FPS

Office of the Minister of Defence

Chair, Cabinet Foreign Policy and National Security Committee

PROPOSED NEW ZEALAND DEFENCE FORCE PARTICIPATION IN OPERATION OLYMPIC DEFENDER TO SECURE SPACE CAPABILITIES AND SERVICES

Proposal

1. To provide Cabinet with options on proposed New Zealand Defence Force (NZDF) participation in the United States (US)-led enduring multinational military space domain operation, Operation OLYMPIC DEFENDER (OOD).

Relation to government priorities

2. Participation in OOD would support the objectives of the *National Security Strategy* (2023) which identified space security as one of twelve core national security issues. These objectives acknowledge the critical services that space provides and the complex challenge of securing those services.

3. Participation in OOD aligns with Cabinet's intent to apply renewed focus to traditional like-minded partnerships [Cabinet paper 'Resetting New Zealand's Foreign Policy' (CAB-24-MIN-0033) refers].

Executive summary

4. The US has invited New Zealand to join OOD, a US-led multinational standing space operation with a mandate to secure space infrastructure by coordinating the space capabilities of member nations. The operation is a response to the growing level of economic and military dependence on space infrastructure and increasing strategic competition.

5. The key objectives of the operation are to secure space assets, provide space-based services to member militaries, and keep space assets operational by preventing attack and interference. These objectives will be achieved through coordination of space capabilities 56(a)

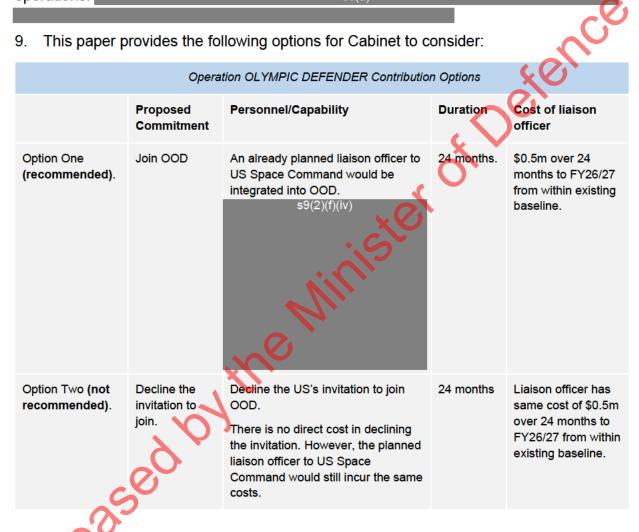
The overall goal is to avoid any action that might put space-based assets at risk, including preventing actions in space that could cause space debris. New Zealand's Five Eyes partners make up the current membership, with New Zealand, France, and Germany now invited to join.

6 The New Zealand economy and modern military capabilities depend on space-based services. The past decade has seen a rapid rise in the number of satellites in orbit, while growing strategic competition affects how nations behave in space. (\$9(2)(g)(i)

7. Joining OOD requires a strategic decision to participate in a space operation, with only a modest contribution required. The NZDF has existing plans to send one liaison officer to the US Space Command. While sending a liaison officer sits within the Chief of Defence Force's authorities, a Cabinet-level mandate is sought on the decision to join OOD itself. If Cabinet approves participation in OOD, New Zealand's SOUTH Contribution to the

operation would be integrating that liaison officer into the operation. \$9(2)(f)(iv)
Nevertheless, the \$9(2)(f)(iv)
Contribution cost is low for the relatively large benefit membership would provide.

8. Agreement to join OOD would demonstrate New Zealand's commitment to playing its part to support the international rules-based system in regard to freedom of access to space. New Zealand would contribute to enhancing space security by helping secure vital infrastructure, providing support to partners, and upskilling NZDF personnel in space operations.



10. The option to join OOD is estimated to cost \$0.17m in 2024/25, \$0.17m in 2025/26, and \$0.16m in 2026/27. This option can be funded by reprioritisation within the existing baseline for Vote Defence Force: Protection of New Zealand and New Zealanders Multi-Category Allocation.

s9(2)(f)(iv)

Option Two would see the liaison officer remain attached to US Space Command, though without access to OOD activities and information, with the same costs incurred from the existing baseline.

11. |

New Zealand's reliance on space

12. Space-based services are central to the economy and integral to the success of modern military operations. Satellites have three broad functions: they provide communications, global positioning, and Intelligence, Surveillance and Reconnaissance information and related services.

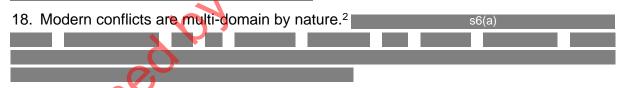
13. A degradation of space-based services would have consequent critical impacts on military capability and the global economy. For example, disruption to satellite navigation systems, such as the Global Positioning System (GPS), alone would generate a dramatic negative economic impact. A British study from 2021 estimated that a seven-day outage of satellite navigation systems would cause an economic loss of £7.6 billion to the United Kingdom economy.

14. Dependence on space-based services goes well beyond the role satellite navigation plays in transport and logistics. The precise timing information provided by GPS is now used for a wide range of purposes including financial transactions, synchronising computer servers, and operating the electricity grid. Military operations have similarly and increasingly adopted space-based services to achieve their missions.

15. New Zealand does not currently have significant sovereign capabilities in orbit¹ s6(a)

16. Space is increasingly congested, contested, and competitive. Falling space-launch costs have fuelled the rapid adoption of space technology and the number of satellites in orbit has risen dramatically in the last decade. This has led to growing congestion which increases the likelihood of catastrophic collisions and debris affecting space sustainability.

17. At the same time, strategic competition has increased, which affects the way states behave in space. Several nations have, or are developing, operational direct-ascent antisatellite weapons to target certain space systems. s6(a)



19. Attacks on satellites (especially by anti-satellite missiles) additionally run the risk of creating debris which pose a danger to other satellites. A potential consequence of this is a cascade effect that would increase the cost of satellite operations, and at worst, make space inaccessible to satellites and human exploration for decades.

Operation Olympic Defender

OOD is a comprehensive operation to secure critical space infrastructure

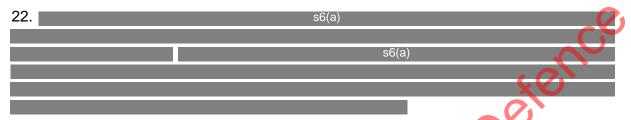
20. OOD is a US-led multinational space operation designed to coordinate the space capabilities of member nations. The current membership is the US, the United Kingdom,

¹ In March 2024 the NZDF's Defence Science and Technology agency launched a research payload into orbit and expects to launch another later in 2024.

² For example, Russia's attack on commercial satellites servicing Ukraine was the precursor to its invasion.

Canada, and Australia. Invitations to join have been sent to New Zealand, France, and Germany. s6(a)

21. The operation aims to secure space assets, provide space-based services to member militaries, <u>s6(a)</u>. It does this through the day-to-day coordination of space capabilities. These services include missile warning/tracking, satellite communications, and precise navigation and timing (via GPS).



23. Benefits of the operation include better coordination of partner space capabilities, opportunities for personnel training, improving interoperability across member-nations, and improving resilience of space systems. This will help deter hostile action through a range of measures, including increased awareness of activities in space that negatively affect the ability to access and use space systems, or that undermine the safety, security, stability and sustainability of the space environment; and increased access to support from partners' space-based systems such as position, navigation, and timing, and space weather detection.

24. The operation is a response to the growing level of economic and military dependence on space infrastructure, increasing strategic competition in space, and how that competition might play out in space. Falling space-launch costs will likely continue to fuel rapid adoption of space technology.



New Zealand was asked to join due to its existing space activities

26. New Zealand is both a Five Eyes member and a member of the Combined Space Operations initiative from which OOD originated. Combined Space Operations is a forum aimed at building norms of behaviour in space and removing barriers to multinational military space cooperation amongst likeminded nations. The NZDF also participates in several multinational s6(a) exercises, and training courses with OOD members.

27. More broadly, multinational missions are politically valuable to partners as they signal wide international support for the goals of the operation.

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

s6(a)

28. New Zealand was invited to join OOD <u>s6(a)</u> but at that time the operational structure was not finalised. Cabinet is being asked to consider this now as structural arrangements have been decided. The new structure enables nations to

participate in a bespoke	e manner		s6(a)	
29		s6(a)		
	•		s9(2)(f)(iv)	

Participating in OOD aligns with existing policy

30. Participation in OOD would be in line with the Defence Policy and Strategy Statement framework to Understand, Partner, and Act through increasing awareness of the space domain; supporting collective security and enhancing interoperability with security partners; and making the NZDF better able to promote and protect New Zealand's interests by shaping its security environment. It would also support the National Security Strategy and the National Space Policy.

31. Membership would further encourage norms of responsible behaviour in space and help deter hostile action in space, reinforcing the aims of the National Space Policy, membership of Combined Space Operations and New Zealand's multilateral efforts in the United Nations.



Proposed strategic objectives for participation in OOD

33. New Zealand's participation in OOD would be guided by the following objectives:

33.1. Signal New Zealand's commitment to promoting safe and sustainable behaviours in space, s6(a)

33.2. Further deepen New Zealand's partnerships <u>s6(a)</u>, especially in the space domain; and

33.3. Builds space operations experience and expertise among NZDF personnel to support wider NZDF operations. s6(a)

Options for New Zealand participation in OOD

34. Two options are presented for Cabinet consideration.

Option One: Join OOD (Recommended)

s9(2)(f)(iv)

35. This option would see an already planned NZDF liaison officer to US Space Command in Colorado Springs be integrated into OOD as a representative of a member nation. In practice, this would see the officer:

s6(a)

35.1. Represent New Zealand's interests and integrate New Zealand's strategic objectives into the OOD campaign plan;

35.2. s6(a)

35.3. Contribute to the development of operations; and

35.4. Provide expertise in integrated planning and execution of operations and spacerelated exercises, workshops, s6(a) and experiments.

Telated exercises, workshops,	so(a), s9(2)(g)(i)
	s6(a), s9(2)(f)(iv)
Benefits	Assessment
Closer integration with defence partners in the space domain.	A liaison officer would be able to report back on the development of the operation and add a New Zealand voice to its evolution.
Signal willingness to uphold values of responsible behaviour in space.	Clear communication will help articulate the value of the operation to the public.
Upskilling of NZDF personnel on space operations.	While NZDF personnel would continue to gain value from current arrangements, joining OOD would place those arrangements on a firmer basis, deepen the military-to-military relationship and further enhance the NZDF experience in space operations.
o elear	s6(a), s9(2)(f)(iv)
Risks	Assessment
	s9(2)(g)(i)

s9(2)(f)(iv) s9(2)(f)(iv)

Option Two: Decline invitation to join OOD (Not Recommended)

39. If New Zealand declined the invitation to join OOD the role of the planned liaison officer would remain with US Space Command but without access and privileges available to OOD members. The officer would still provide information and training benefits for New Zealand related to US space operations, but would not be able to achieve the strategic objectives that membership would bring.

40. New Zealand would still benefit from the products of partner space infrastructure (ranging from s6(a) to global public goods like GPS). s6(a)

•	. •	1	s6(a), s9(2)(g)(i)

Benefit	Assessment		
No risk of growing resource needs	One liaison officer s9(2)(f)(iv) involvement is a very low resource burden s9(2)(f)(iv)		
Risk	Assessment		
Would not meet the government's goal of leaning in with traditional partners.	OOD represents a significant level of engagement with traditional partners at a low cost.		
Would limit New Zealand's participation in space domain operations.	New Zealand would still participate in s6(a) initiatives like Combined Space Operations. However, these provide less opportunity to understand and contribute to space operations than OOD.		
	s6(a), s9(2)(g)(i)		

Financial Implications

41. The options will incur the same level of cost, which is estimated to be \$0.17m in 2024/25, \$0.17m in 2025/26, and \$0.16m in 2026/27. This will be funded by reprioritisation

within the existing baseline for Vote Defence Force: Protection of New Zealand and New Zealanders Multi-Category Allocation.

42. The posting of a liaison officer to US Space Command is not declared to be "qualifying operational service" under the Veterans' Support Act 2014. There is, therefore, no impact on veterans' support entitlement obligations.



Consultation and Engagement

46. This Cabinet paper has been consulted with the Ministry of Foreign Affairs and Trade; the Ministry of Business, Innovation and Employment; the Government Communications Security Bureau; the Treasury; and the Department of the Prime Minister and Cabinet.

Next Steps, Communications, and Proactive Release

47. Officials will advise close partners of Cabinet's decision through standard defence and diplomatic channels. This paper will be considered for proactive release following Cabinet decisions and any public announcement of these decisions, subject to any appropriate redactions.

48. If Cabinet agrees to Option One, I will announce the contribution.

Recommendations

I recommend that the Committee:

- 1. **Note** that s6(a) New Zealand received an invitation to join Operation OLYMPIC DEFENDER (OOD), a United States-led multinational space domain operation. It aims to support military operations with space-based capabilities and deter hostile action against space assets.
- Note that the New Zealand economy and use of military capabilities depend on space-based services. Space technology has become embedded in numerous critical services and is important for the success of modern military operations. New Zealand does not have any significant sovereign assets in orbit s6(a)

Agree	to:
EITHE	R
Option	One: Join Operation OLYMPIC DEFENDER (Recommended)
3.	Agree that New Zealand join OOD with s9(2)(f)(iv) one liaison officer.
4.	Agree to the proposed strategic objectives. Participation in OOD will:
	4.1. Signal New Zealand's commitment to promoting safe and sustainable behaviours in space,
	4.2. Further deepen New Zealand's partnerships s6(a specially in the space domain; and
	4.3. Build space operations experience and expertise among NZDF personnel to support wider NZDF operations. s6(a)
5.	Direct officials to inform relevant partners of Cabinet's decision s6(a)
6.	Note the option to join OOD <u>s9(2)(f)(iv)</u> is estimated to cost \$0.17m in 2024/25, \$0.17m in 2025/26, and \$0.16m in 2026/27. This option can be funded by reprioritisation within the existing baseline for Vote Defence Force: Protection of New Zealand and New Zealanders Multi-Category Allocation.
7.	s9(2)(f)(iv)
20	
OR	

Option Two: Decline the offer to join Operation OLYMPIC DEFENDER (Not Recommended)

- 8. Agree to decline the offer from the United States and the other members of OOD.
- 9. **Note** that if Cabinet declines to join OOD, the planned liaison officer to US Space Command would be limited to non-OOD activities only.

10. Note the option to decline the invitation does not incur a direct cost or a saving. The liaison officer would still incur the same level of costs which are estimated to be \$0.17m in 2024/25, \$0.17m in 2025/26, and \$0.16m in 2026/27. This option can be funded by reprioritisation within the existing baseline for Vote Defence Force: Protection of New Zealand and New Zealanders Multi-Category Allocation.

Released by the Minister of Defence