

## **Submission from appointed members of the Public Advisory Committee on Disarmament and Arms Control (PACDAC) to MBIE's consultation on New Zealand's space policy**

Submitted by PACDAC deputy chair Mary Wareham on behalf of appointed PACDADC members to: [spacepolicyreview@mbie.govt.nz](mailto:spacepolicyreview@mbie.govt.nz)

31 October 2022

### **Recommendations**

- Reflect New Zealand's strong commitment to not only ensuring the "safe and secure" access to and use of space, but to working for "a space environment that is sustainable, peaceful, and free from conflict." New Zealand must act with greater urgency to help prevent armed conflict in space as the consequences of such use of force could be catastrophic and irreversible.
- Thoroughly review space launch permit applicants and payloads from a legal, technical, and broader societal perspective to ensure they do not contradict New Zealand law and regulations or our principles and values. To build public trust, the current process by which MBIE reviews each payload requires greater clarity, precision, and, above all, transparency.
- Set the threshold to decline applications with "a high level of risk" rather than based on "intent." Applicants need to demonstrate that they have thoroughly and sufficiently mitigated the risks, not just that they intend to not cause harm.
- Payloads should not be approved for launch into space from New Zealand territory if they contain prohibited weapons or if they may be used for command, control, guidance, or geo-positioning of such prohibited weapons.

### **Introduction**

1. The [Public Advisory Committee on Disarmament and Arms Control](#) (PACDAC) is a statutory body created by the New Zealand Nuclear Free Zone, Disarmament and Arms Control Act 1987. Its independent experts advise the New Zealand government on disarmament and arms control issues and provide recommendations on funding allocations to groups and individuals working to further peace and disarmament causes.
2. This submission is provided on behalf of PACDAC members appointed for the 2022-2025 term: Mary Wareham (deputy chair), Andrew Chen, Kevin Clements, Marty Donaghue, Jamila Hodayun, Edwina Hughes, and Lucy Stewart. PACDAC's appointed members participated in a consultation meeting with MBIE officials on 7 October 2022. They discussed New Zealand's multilateral space policy work with officials from MFAT's emerging security issues team on 17 October 2022. The appointed PACDAC members acknowledge the years of correspondence and engagement on New Zealand's space policy and practice by previous PACDAC members.
3. PACDAC members come from diverse backgrounds, experience, and have expertise in many fields, including, but not limited to disarmament and arms control, peace and conflict resolution, humanitarian aid and disaster relief, human rights, engineering, and artificial intelligence. As PACDAC members, our principal interest in space relates to efforts to avoid the weaponisation of outer space so this is the primary focus of PACDAC's joint submission.

Afterall, the weaponisation of space raises a plethora of concerns and directly threatens the right to life, the right to a safe environment, the right to development, and the right to peace, among others.

### **Values and Principles**

4. The goal of facilitating the “safe and secure” use of emerging space technologies from New Zealand matters as human activities in outer space have the potential to impact life on Earth. Space activities aimed at benefiting agriculture, the environment, disaster response, transportation, communication, humanitarian assistance, and other areas have the potential to positively and negatively impact our planet, celestial bodies, and the solar system. As MBIE has stated, anything with propulsion in it has a risk of harm in outer space.
5. It is clear that the peaceful and equitable use of space is being threatened by growing military competition among major powers (China, Russia, United States) and that smaller states with space launch capabilities such as New Zealand are being drawn in. Ensuring the peaceful use of space requires working proactively to prevent the weaponisation of the global commons. This is of paramount importance and could be better reflected in these policy objectives outlined in the consultation document. MBIE should reflect New Zealand’s strong commitment to not only “safe and secure” access to and use of space, but to work for “a space environment that is sustainable, peaceful, and free from conflict,” as New Zealand stated in its [May 2021 submission](#) to a study by the United Nations (UN) Secretary-General.
6. New Zealand needs to act with greater urgency to help prevent armed conflict in space as the consequences of the use of force could be catastrophic and irreversible. As New Zealand’s [Disarmament Strategy for 2021-2022](#) states: “There is an urgent need for inclusive and transparent multilateral engagement on addressing threats and risks in space, and for related New Zealand policy, including on responsible behaviours and related issues such as those pertaining to space weaponisation.”
7. It is important that discussions about the use of space should not set up a false dichotomy between innovation and responsibility or stewardship. During consultations we heard that adding more regulation to the existing ecosystem could hamper the development of New Zealand’s space industry. We posit that if we allow the status quo to continue, and we do not engage with space in a responsible way, then if harms accrue the space industry will lose the social licence and right to innovate. Economic development cannot be prioritised over safety and security. We observe that there may be a conflict of interest where the same agency is mandated to both promote and regulate New Zealand’s aerospace industry.

### **Space Launch Applications and Reviews**

8. We understand that officials conduct a national interest risk review of any space launch application, which identifies and measures potential risks to New Zealand’s “national interests and security.” Such assessments matter as New Zealand accepts sealed payloads from approved applicants, which means we invest a high level of trust in accepting that they contain what the applicant says they contain. This shows the need for thorough review of applicants and payloads from a legal, technical, and broader societal perspective to ensure they do not contradict New Zealand law and regulations or our principles and values. This submission highlights some ways in which MBIE and government agencies could do better in this regard.

9. The process by which MBIE reviews each payload before issuing a space launch permit requires greater clarity, precision, and, above all, transparency. MBIE must be able to demonstrate that its agencies have sufficient expertise to be confident that the information submitted by the applicant is accurate and that the sealed payload contains what its clients say it does. Saying that MBIE and the interagency team receive and review “classified information” regarding the capability of the payload and “what it is intended to do” is not enough to build public confidence and trust. MBIE regards the intent of the system as “the critical element” and, again, this requires a high degree of trust in the applicant’s stated intent.
10. There are many types of harms that may occur despite an applicant’s intent, and these need to be evaluated and mitigated. We recommend that a risk assessment framework be developed across a number of areas, such as potential harm against people, potential harm against other spacecraft, potential harm against the environment, and potential infringement of our nuclear-free legislation. The threshold should be set to decline applications with “a high level of risk” rather than based on “intent.” Applicants need to demonstrate that they have sufficiently mitigated the risks, not just that they intend to not cause harm.
11. In our discussions with the relevant policy officials, we found that it is not clear what happens if a payload is found to have contravened our laws after it has already been launched. While false declarations may attract minor fines or penalties, we need to ensure that New Zealand has appropriate recourse against applicants that use New Zealand’s launch capability to support unacceptable ends. Whether this is in line with or against the stated intent of the applicant, the consequences need to be clearer to also give the public confidence that there is sufficient disincentive against poor behaviour.
12. MBIE has been unequivocal in stating that activities that contribute to nuclear weapons programmes or capabilities are illegal under New Zealand law and should not be authorised or permitted in New Zealand’s use of space. This is an essential criterion, but greater clarity is needed on the precise activities involved. In our view, payloads should not be approved for launch into space from New Zealand territory if they contain nuclear weapons or if they may be used for command, control, guidance, or geo-positioning of nuclear weapons.
13. The same must apply to any other weapons systems prohibited under New Zealand law or that are used inappropriately. MBIE says nothing about conventional weapons, which is a significant omission given New Zealand’s legal obligations, such as our ratification of the 1997 Mine Ban Treaty and 2008 Convention on Cluster Munitions. There are also relevant obligations under humanitarian and human rights law, both domestically and internationally. Vague statements that payloads must be “consistent with international obligations” and “in compliance” with New Zealand laws and regulations are insufficient. MBIE and its partners could start by issuing a public list of the specific laws prohibiting weapons systems, such as the comprehensive list kept by MFAT’s export controls team.
14. We understand that MBIE engages regulatory and policy teams across government on both legal and technical questions as well as national interest concerns. This consultation includes New Zealand Defence Force, Ministry of Defence, the “intelligence community” including the GCSB and Security Intelligence Service, and MFAT’s legal division. Others might be involved – we can’t tell. From the outside it is a confusing conglomeration of groups. Consider publicly releasing a flowchart naming the groups and showing how they are involved in this process. Is the information flow between them one-way or does it flow in

both directions? Who assesses the information that is provided and handles any contradictory advice? What information is shared across agencies and what information is withheld?

15. We are also concerned that given the relatively high rate of turnover in public sector agencies, that there may not be sufficient capacity to critically examine applications. What outside or external non-governmental advice is currently sought, if any? Expert advice may be warranted if officials lack specific expertise. Further oversight may be appropriate given the high-risk nature of allowing military launches from New Zealand. This could be in the form of random audits of MBIE assessments, conducted by an independent third-party entity.
16. MBIE states that payloads with the intended end-use of enabling or supporting specific defence, security or intelligence operations that are contrary to government policy are not to be approved. This is another area where greater clarity is needed to give the public confidence. New Zealand risks reputational damage by cooperating with the militaries of other countries on space launches. It's no longer possible to depict the US space agency NASA as being solely interested in space exploration and the peaceful use of space as it has signed a memorandum of understanding with the US military's Space Force committing to collaborate on issues including "planetary defense." The MOU links that to a wider set of concerns around acquiring full spectrum dominance in space. The US development of a joint all-domain command and control system (JADC2) is a vision of a wholly connected military in which forces (both conventional and nuclear) across land, air, sea, space and cyber are speedily and accurately fed the information they need. This degree of integration between the command and control of conventional and nuclear forces may already make some of the payloads that have been approved questionable and certainly needs to be taken into account when communication payloads are approved.
17. The dual-use nature of much technology launched into space for military purposes raises the question of how MBIE can be 100% certain that the initial use of the technology does not change in the future. MBIE has responded by distinguishing between the likely, approximate use of a satellite and anything it could possibly do as its officials see the need for a line to be drawn between the expected use of the payload and the potential, possible use. We're not completely satisfied by the language employed about "intent" of the payload as this will provide only a partial picture. As mentioned, MBIE could prioritize scrutinizing the potential as well as intended uses of the payload.
18. A summary of payloads approved for launch by the Minister for Economic Development are listed on the MBIE website, but there is no transparency around applications that were declined. If it is not possible to list the payloads then consider listing the applicants who were declined.

### **Consultation Processes**

19. PACDAC members recommend MBIE pay utmost attention to ensuring it considers every submission to this consultation process as some individuals and companies may be reluctant to express their views due to Rocket Lab's dominance in the sector. Given New Zealand's small size, individuals can feel pressured to keep quiet or risk backlash in their professional careers – we have privately received reports of individuals who already feel this way. While Rocket Lab is only one player in New Zealand's burgeoning aerospace industry, their networks permeate business and finance, academia, and professional services communities.

20. We are disappointed to see questions over military clients dismissed over the course of this consultation with the apparent intent of deflecting attention by depicting those asking as “anti-military.” Both MBIE and Rocket Lab have employed similar language. In the 7 October consultation with appointed PACDAC members, a senior MBIE official responded to a question by telling us that “we do not accept that military equals bad.” A press statement issued by Rocket Lab on 13 October asserts that “launching satellites for defence forces does not automatically equate to launching weapons.” We note that MBIE and Rocket Lab have both sought to re-focus attention on military use of communications satellites for disaster relief, monitoring New Zealand’s exclusive economic zone, and assisting aid organizations.
21. PACDAC members have encouraged wide participation in this consultation, but the timeframe provided has not been optimal. We are particularly concerned by reports of insufficient consultation and engagement with the community in Māhia, near Rocket Lab’s launch site, especially with mana whenua. More time would be appropriate as would more information in the public domain.
22. Finally, we understand that MBIE has contracted a private company called PublicVoice to collate submissions and other feedback received through this consultation and produce a summary report of the feedback provided. There are inherent issues around using external agencies for public consultations and PACDAC’s appointed members are concerned that input may be overly condensed or misconstrued if it is filtered by a third-party contractor. Therefore, we are providing this submission direct to MBIE as well as in a letter to the New Zealand government.

## Submitter information

### About you

Name: Mary Wareham, Deputy Chair, Public Advisory Committee on Disarmament and Arms Control

Email address: marywareham@gmail.com

### Are you making this submission on behalf of a business or organisation?

Yes  No

If yes, please tell us the title of your company/organisation.

Public Advisory Committee on Disarmament and Arms Control (PACDAC)

### Would you like to be kept informed of the outcome of the Space Policy Review?

Yes  No

### Are you happy for MBIE to contact you if we have questions about your submission?

Yes  No

### Release of information

Please tick this box if you do not wish your name and contact details above to be included in any information about submissions that MBIE may publish.

