

A photograph of Earth from space, showing the curvature of the planet and the thin blue atmosphere. The sky is a deep, dark blue, and the Earth's surface is a lighter blue with some white clouds. The horizon line is visible, separating the dark sky from the bright atmosphere and the Earth's surface.

Submission form

New Zealand Space Policy Review Consultation

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How to make a submission

The space policy review consultation is an opportunity to share your interests in space and views on the values and policy objectives that underpin New Zealand's space activities and engagements.

You can make a submission either through this form or the survey linked below.

Submissions close by **31 October 2022**.

Submission form

This submission form can be accessed via the MBIE consultation portal at www.mbie.govt.nz/have-your-say/new-zealand-space-policy-review. To make a submission through this form you will need to:

1. Fill out the **submitter information** page within this document, including your name, email address, phone number and organisation. If you are representing an organisation, please ensure you have the authority to represent its views.
2. Fill out your **responses to the questions** within this document. You can answer any or all of these questions.
3. Please **send this submission form** either:
 - Via email: to spacepolicyreview@mbie.govt.nz; or
 - Via post: to: Space Policy Review, Ministry of Business, Innovation and Employment, PO Box 1473, Wellington 6140.

Submission survey

Alternatively, you can complete a submission on the same questions within this form using the following link: <https://www.research.net/r/spacepolicyreview>

How feedback will be used

Your feedback will be collated into a summary of feedback report. This will assist the New Zealand government to create or amend space policies and to look at:

- *Creating a National Space Policy*: a document which outlines New Zealand's values and objectives on space, including for our international partners.
- *Articulating New Zealand's broad interests on space across multiple activities and engagements*: including at United Nations fora and with international space and security partners.
- *Developing future space strategies, policies and regulatory changes*: including adjusting our policies and regulations to meet advancements in space technology.
- *Future engagement on space policy with the New Zealand public*: including on any key areas of interest identified through the consultation.

Considering whether any legislative changes are required to the Outer Space and High-altitude Activities Act 2017.

MBIE has commissioned PublicVoice to produce a summary of feedback report on the space policy review consultation. PublicVoice will collate all submissions, and other feedback received through the course of the consultation.

All feedback from the space policy review consultation will be collated by PublicVoice for the purposes of producing a summary of feedback report. MBIE will upload the summary of feedback report onto the MBIE website, and may also upload PDF copies of submissions received to MBIE's website in due course.

Private information

The *Privacy Act 2020* establishes certain principles with respect to the collection, use and disclosure of information about individuals by various agencies, including MBIE.

Any personal information you supply to MBIE in the course of making a submission will be used in the collation of feedback on the space policy review consultation, to facilitate the purposes outlined in the "how my feedback will be used" section above.

Release of information

Submissions remain subject to requests under the *Official Information Act 1982* and MBIE will consider you to have consented to the release of your submission in full, unless you clearly specify otherwise.

Release of your submission will include releasing your name in a list of submitters in the report, and as part of uploading submissions in due course to the MBIE website – www.mbie.govt.nz, and in the event of a request under the *Official Information Act 1982*.

If you do not wish for certain information in your submission to be released, please tick the relevant boxes on the next page and outline which parts you consider should be withheld, together with the reasons for withholding the information.

MBIE will take such objections into account and will consult with submitters when responding to requests under the *Official Information Act 1982*.

Submitter information

About you

Name: L. Barbee Ponder IV

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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.

Globalstar, Inc.

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.
- Please tick this box if there is other information within your submission that you want to be kept confidential. If you have ticked this box, please state your reasons and grounds under the Official Information Act 1982 below, for consideration by MBIE.

Section 1: New Zealand interests in space

New Zealand’s association with space goes back centuries – the first Māori explorers navigated by the stars to Aotearoa New Zealand, and centuries later they were followed by European navigators whose instruments also looked to the stars. Today, our modern navigation systems are still guided from space.

New Zealanders rely on space assets to do everyday tasks, like banking, transporting goods, travelling by air, and talking with each other. As the world becomes more connected and digitised, our reliance on space to support our daily lives is only going to increase.

The New Zealand government pursues a range of cross-cutting interests in space – including economic development, national security, regulation, international relations, and environmental interests. These interests are often articulated in broader government policies, strategies and assessments and inform our approach to space policy interests.

Question 1. What are your interests and relationship to space? (Pick as many as apply below)

General interest in space	Work in the New Zealand space sector	Cultural connections to space	Academic involvement on space issues	Other (please explain in box below)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please note any other interests and relationship to space below that you would like to share.

Globalstar, Inc. is an American satellite communications company operating a low-Earth orbit (LEO) satellite constellation consisting of 24 satellites. Globalstar satellites provide reliability and operability worldwide connecting users in areas where traditional networks are unreliable or unavailable. Its' satellite product portfolio equips the field with voice and data services, Commercial IoT and SPOT Business tracking and messaging products that serve a multitude of companies, workers and outdoor enthusiasts in remote business and pleasure applications.

Globalstar is authorised to operate in New Zealand, and is currently operating a gateway in the country.

Globalstar also notes that on 7 September 2022, Apple Inc. announced new satellite-enabled services for iPhone 14, for which Globalstar will be the satellite operator for the Services pursuant to the terms agreement.

More information about this service can be found at <https://support.apple.com/en-us/HT213426>.

Section 2: New Zealand values in space

New Zealand’s values speak to who we are as a nation and how we act in the world. The following are values that the New Zealand government aims to reflect and promote through space activities, engagements and the use of space technologies. These values are informed by the concept of kaitiakitanga (guardianship) as a guiding framework to ensure that space, and its benefits, remain accessible for all.

- **Innovation** – We value innovation, science, and technology as means of advancing our knowledge about the universe, driving productivity in the economy and improving the wellbeing of New Zealanders. We also want to encourage innovation which is responsible, enables New Zealand to be a good steward of the environment, and enables collaboration with companies and other governments.
- **Responsibility** – Space is a unique domain which is shared by all states. We act responsibly to promote a peaceful, stable, and secure space environment and to inform responsible behaviours on Earth. This includes acting in accordance with the principles in the Outer Space Treaty and other international agreements and arrangements applicable to space, as well as New Zealand’s domestic law and policies. We also seek to influence the development of new international instruments, and develop norms and standards with like-minded countries, where there are gaps.
- **Stewardship** – Space offers a unique perspective that is crucial for understanding our environment, including to fight climate change, and better manage our natural resources. At the same time, we take care to act sustainably in space and on Earth to preserve the benefits of these environments for future generations.
- **Partnership** – We are better when we work together. Participation, Partnership, and Protection are key principles of Te Tiriti o Waitangi and we want to continue to engage with Māori on New Zealand’s space activities and engagements. The government works alongside New Zealanders and the space sector in developing policy and regulations that impact them; collaborates with international partners on economic, security and other interests; and within international institutions to promote New Zealand’s values.

Question 2. To what extent do you agree or disagree that these values should apply to New Zealand’s space activities and engagements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don’t know
Innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stewardship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Partnership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Question 3. Are there any other values, or aspects of kaitiakitanga (guardianship), that you think should apply to New Zealand’s space activities and engagements (for example, cultural values regarding space).

N/A

Section 3: New Zealand's space policy objectives

The New Zealand government supports a range of interests in space (economic, environmental, international, national security and regulatory) by pursuing the following key policy objectives:

- Growing an innovative and inclusive space sector
- Modelling sustainable space and Earth environments
- Promoting the responsible uses of space internationally
- Protecting and advancing our national security and economic interests
- Regulating to ensure space activities are safe and secure

Question 4. Are any of these key policy objectives of particular importance to you?

Globalstar fully supports the efforts of the New Zealand government in formally laying down the approach and values that underpins the country's space activities. We believe that it is a step in the right direction, as it provides stakeholders with a guiding framework on how to contribute to further developing this important pillar of the New Zealand economy.

The overarching policy objectives of the proposed Space Policy resonate very well with Globalstar's commitment to provide reliable commercial satellite solutions. Pursuing a strategy that is safe, innovative, responsible, and sustainable would ensure that the benefits of harnessing space resources would be enjoyed by both the present and future generations.

As we discuss in our comments below, each of these objectives are essential in coming up with a holistic framework and are distinctly relevant in our efforts to provide unhampered connectivity for everyone.

Section 3a: Growing an innovative and inclusive space sector

OBJECTIVES

The New Zealand government supports the growth of an innovative and inclusive space sector. This means:

- Promoting New Zealand’s natural advantage for conducting space activities, and research and development expertise across the space value chain
- Partnering within New Zealand and internationally to increase research and development capabilities
- Identifying opportunities to increase diversity in the space sector
- Using cutting-edge space technology and space sourced data to support New Zealand’s values and interests

Question 5. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to grow an innovative and inclusive space sector?

d. Promoting New Zealand’s natural advantage for conducting space activities, and research and development expertise across the space value chain

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don’t know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b. Partnering within New Zealand and internationally to increase research and development capabilities

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don’t know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c. Identifying opportunities to increase diversity in the space sector

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don’t know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d. Using cutting-edge space technology and space sourced data to support New Zealand’s values and interests

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don’t know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 6. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Globalstar supports an innovative and inclusive space sector based on transparent democratic values. Since its inception, Globalstar has positioned itself as an innovator in the satellite communications sector and continues to further improve access to emergency communications services via its satellite networks. The company strives to find further avenues for innovation. As such, our company entered a ground-breaking partnership with Apple to provide Emergency SOS satellite messaging on the iPhone 14, thus enabling mobile users to access Globalstar's satellite capacity to provide support during disasters or life-threatening situations. In addition, Globalstar continues to innovate within the space sector and operates a wide range of asset tracking IoT devices.

Mindful of this, Globalstar supports New Zealand's approach towards international partnerships. While the benefits of international and regional collaboration in the furtherance of space exploration are well understood and indeed laudable, Globalstar also believes that public-private partnerships have a significant role to play in the developing space sector.

In this regard, Globalstar supports New Zealand's recognition of partnering with international companies. It is trite that the private space race is well underway, and that significant innovation occurs from within the private sector. Globalstar submits that this objective should be expanded to recognise the true extent to which the private sector is contributing to the further exploration and development of space and the space sector.

Question 7. Are there any other policy objectives that you think would help the New Zealand government to grow an innovative and inclusive space sector?

Constant innovation in the space sector has seen the rapid development of various uses for space-enabled products and services. This is very much apparent in the development trajectory of Globalstar's products throughout the years. Initially, emergency communications are limited through satellite phones, personal locator beacons and other similar devices that are oftentimes not user-friendly and have limited accessibility. But today, access through satellite-enabled emergency services is made more accessible to everyone, with the partnership of Globalstar and Apple, as well as other companies, that are deploying satellite-based emergency communications technology in mobile phones. This spells a huge improvement in emergency connectivity, which would translate to more lives and properties saved.

However, we note that the successful operation of this evolved form of satellite emergency communications relies on the integration of the network with ground-based emergency service centres. In line with the objective of achieving an innovative and inclusive space sector, Globalstar would like to highlight the importance of emergency communications through satellite-connected devices, including next-generation smart phones in the Policy. Further, we would like to seek clarity on how this integration with the National Emergency Management Agency and 111 would occur and could be best facilitated.

Addressing these concerns would resonate very well with the goal of having an innovative space industry. Widening the access to emergency communications would also result in better inclusivity, as this further democratises the availability of this erstwhile limited communication tool.

Question 8. Do you have any questions or comments about what these objectives would mean in practice?

No comment.

Section 3b: Modelling sustainable space and Earth environments

OBJECTIVES

The New Zealand government advocates for the sustainable use of space to ensure its benefits remain available to future generations. At the same time we seek to use space, and space technologies, to gain understanding and better protect our environment on Earth. Specifically this means:

- Encouraging inclusive, sustainable space collaborations within New Zealand
- Assessing the cumulative impact of space activities on the Earth environment
- Assisting with solving sustainability challenges through space data, including to better monitor or understand the Earth's environment
- Investing in New Zealand's capability to retain, grow, access and use sustainable space technologies

Question 9. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to model sustainable space and Earth environments?

a. Encouraging inclusive, sustainable space collaborations within New Zealand

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b. Assessing the cumulative impact of space activities on the Earth environment

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c. Assisting with solving sustainability challenges through space data, including to better monitor or understand the Earth's environment

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d. Investing in New Zealand's capability to retain, grow, access and use sustainable space technologies

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Question 10. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Globalstar supports all of the policy objectives listed in theory, however, Globalstar is not in a position to comment on the environmental impacts of space launches or the effects on the maritime ecosystem. Additionally, Globalstar is a communications company and does not operate Earth observation satellites.

However, Globalstar does recognise the need for robust communications networks in a world with increasing climate volatility. In this instance, Globalstar is aligned to the policy’s objective of “improving responses after disasters and emergencies”. In particular, the company acknowledges both natural and man-made disasters can severally impact the operational effectiveness of terrestrial infrastructure.

As already recognised, New Zealand is vulnerable to flood, tsunami and earthquakes, all of which have the capacity to destroy terrestrial communications infrastructure. The 2011 Christchurch earthquake demonstrated the effectiveness of a prepared New Zealand in building communications systems which were seismic resilience. However, flaws revealed themselves in collapsing power grids and difficulties in maintaining the operation of alternate power sources. Satellite communication systems are a final fallback point, continuing to operate where all other infrastructure has been lost or damaged, including power supply, provided mobile devices are charged.

Protecting and facilitating the market access of satellite-enabled emergency communication tools could help the country in responding to this spate of disasters and could further improve the resiliency of New Zealand’s communication networks.

Question 11. Are there any other policy objectives that you think would help the New Zealand government to model sustainable space and Earth environments?

Globalstar recognises that a sustainable Earth environment is important and that the negative effects of climate change are well documented and irrefutable. However, sustainability within the Earth’s atmosphere is only one aspect of the equation within the space sector.

Globalstar submits that the model needs to include New Zealand’s approach towards space sustainability and how New Zealand intends to promote a space sector that is responsible for ensuring sustainable launches, safe de-orbiting of satellites and space vehicles and ensuring robust space vehicles and satellites which can operate within orbit for extended periods of time.

Globalstar submits that it is the responsibility of all space operators to ensure that all space missions observe principles of space sustainability through guaranteeing the operational effectiveness of their mission cycle from launch to de-orbit. To realise the objective of attaining space sustainability, New Zealand can exercise the prerogative to deny operators who cannot provide evidence of these capabilities any entitlement to launch space missions, lest they cause irreparable harm to the space ecosystem.

Question 12. Do you have any questions or comments about what these objectives would mean in practice?

No comment.

Section 3c: Promoting the responsible uses of space internationally

OBJECTIVES

The New Zealand government promotes the responsible use of space internationally. This means:

- Advocating for effective international rules, norms and standards in space
- Partnering with like-minded launch states to adopt peaceful, responsible and sustainable space practices
- Collaborating internationally to increase New Zealand's influence and capabilities in the global space sector

Question 13. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to promote the responsible uses of space internationally?

a. Advocating for effective international rules, norms and standards in space

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b. Partnering with like-minded launch states to adopt peaceful, responsible and sustainable space practices

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c. Collaborating internationally to increase New Zealand's influence and capabilities in the global space sector

Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 14. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Globalstar supports international harmonisation towards space regulation through effective and transparent standards. As such Globalstar supports the New Zealand Government's sentiments towards advocating for the same.

Question 15. Are there any other policy objectives that you think would help the New Zealand government to promote the responsible uses of space internationally?

No comment.

Question 16. Do you have any questions or comments about what these objectives would mean in practice?

No comment.

Section 3d: Protecting and advancing our national security and economic interests

OBJECTIVES

To sustainably grow our space sector by having due regard to our national interests we need to:

- Use space assets to protect and advance New Zealand’s national security and economic interests
- Manage the broad range of security risks in space to protect New Zealand’s space industry
- Collaborate with international space and security partners to pursue New Zealand’s national security and economic interests

Question 17. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to protect and advance our national security and economic interests?

a. Use space assets to protect and advance New Zealand’s national security and economic interests

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b. Manage the broad range of security risks in space to protect New Zealand’s space industry

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c. Collaborate with international space and security partners to pursue New Zealand’s national security and economic interests

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Question 18. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Globalstar echoes the need to use space assets in the protection of the country's economic and security interests. Space resources have progressively played a huge role in a wide array of these areas, including responses in the event of humanitarian and disaster situations. Protecting lives and properties are imperative in maintaining national security and safeguarding economic interests. As such, satellites—including Globalstar's solutions—have become instrumental in saving lives and properties during these critical times.

The use of satellite communications in providing relief services in times of emergencies and disasters would become more apparent in the coming years, as the world faces a larger threat of climate-related emergencies. Indeed, the industry has realised the value that satellites bring in enhancing relief services, particularly in areas where traditional terrestrial networks cannot reach.

As such, while the focus on protecting the country's economic and security interests is indeed correct and laudable, there should be a recognition that these include areas of disaster and emergency relief, considering their importance in a country's economic and security goals.

Question 19. Are there any other policy objectives that you think would help the New Zealand government to protect and advance our national security and economic interests?

As earlier noted, one of the more increasingly pervasive risks that may impact a country's national security and economic interests is the threat of climate-related emergencies. As such, there is a need to protect and further enhance the resources (i.e., spectrum) allocated for these types of life-saving technologies.

Satellite technology is instrumental not just in providing traditional communications tools, but also in life-saving connectivity. As such, spectrum resources must be allocated equitably for this specific type of communication, lest the development of critical satellite-enabled emergency communication tools be adversely affected. Spectrum usage and allocation should also take into account the needs of satellite communications, as this will impact how communications technology respond to the threat of climate emergencies and natural disasters.

. While we recognize the need to reduce harmful interference that could affect the quality of services, it is also important to have an optimal and equitable allocation between various communication needs, lest one segment be foreclosed from pursuing the development of critical life-saving technologies.

Integrated and expedited authorization and spectrum allocation is especially needed when it comes to installation of earth stations in disaster areas. Thus, while satellite connectivity is the best solution in most of the disasters, the attendant processes needed in the licensing of earth stations—which may include a service offering license, a radio frequency license, or construction permits, among others—tend to be generally complex and time-consuming procedures. As such, the installation of temporary facilities such as small satellite earth stations could help in emergency situations or disaster recovery operations.

Question 20. Do you have any questions or comments about what these objectives would mean in practice?

No comment.

Section 3e: Regulating to ensure space activities are safe and secure

OBJECTIVES

The New Zealand government regulates to ensure New Zealand space activities are safe and secure. This means:

- Facilitating the safe and secure use of emerging space technologies from New Zealand
- Clarifying what New Zealand space activities are inconsistent with the national interest
- Promoting and protecting New Zealand's interests through permitting space technologies

Question 21. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to ensure space activities are safe and secure through regulation?

a. Facilitating the safe and secure use of emerging space technologies from New Zealand

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b. Clarifying what New Zealand space activities are inconsistent with the national interest

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

c. Promoting and protecting New Zealand's interests through permitting space technologies

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Question 22. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Globalstar is fully aligned with the policy objectives proposed to be advanced by New Zealand in ensuring that space activities are safe and secure. Considering that space resources is the common resource of all mankind, it is incumbent upon all users to harness it responsibly so that future generations would be able to reap its benefits as well.

We note the concerns raised on the increasing number of satellite constellations, especially their impact on the space ecosystem. We agree in the principle on the proposal to have future regulation that will give more certainty and transparency on New Zealand's approach to this system. As earlier noted, these satellite systems can bring immense benefit, especially in disaster and emergency relief. A complicated regulatory framework could hamper the development of these life-saving technologies. As such, while regulation is indeed ideal, these should be reasonable enough to take into account the purposes for which these constellations are utilised

Question 23. Are there any other policy objectives that you think would help the New Zealand government with regulating to ensure space activities are safe and secure?

No comment.

Question 24. Do you have any questions or comments about what these objectives would mean in practice?

No comment.

Section 3e(i): Regulating in line with our national interests

Under the Outer Space and High-altitude Activities Act 2017, the Minister for Economic and Regional Development may decline a licence or permit if they are *not satisfied* that it is in the national interest. The Minister may take into account when considering the national interest: economic or other benefits to New Zealand; risks to national security, public safety, international relations or other national interests; risks that cannot be mitigated by conditions of the licence or permit; and any other relevant matters.

As part of policy to inform the language in the Act, Cabinet has agreed to principles that will inform the consideration of national interest for space activities, as well as what is not in New Zealand's national interests. These principles are:

- **Responsibility:** that space activities from New Zealand should be conducted with due care and in such a way as to promote an orbital environment where actors avoid causing harm or interference with the activities of others.
- **Sustainability:** New Zealand should promote sustainable space practices that preserve the benefits of space for future generations.
- **Safety:** space activities from New Zealand should be conducted in a way that does not jeopardise human safety (including the safety of people in space).
- **Aligning with New Zealand's values and interests:** space activity from New Zealand should uphold the policies and values supported by New Zealanders and align with broader policy settings.

The following space activities are *not in New Zealand's interests*; i.e. the Minister will not authorise space activities:

- that contribute to nuclear weapons programmes or capabilities
- with the intended end use of harming, interfering with, or destroying other spacecraft or space systems on Earth
- with the intended end use of enabling or supporting specific defence, security or intelligence operations that are contrary to government policy
- where the intended end use is likely to cause serious or irreversible harm to the environment.

Question 25. Are there any comments you would like to make about these criteria that inform consideration of the national interest?

Globalstar agrees with these criteria that are considered in determining the national interest for space activities. These are holistic enough to address the various concerns on space activities, and would ensure New Zealand's success in achieving the overarching objectives of its proposed Space Policy.

Question 26. What questions do you have about how the national interest is considered in practice?

In line with the principle of safety, Globalstar would like to reiterate the need for robust and resilient emergency communications during an emergency, natural disaster, or similar catastrophic event. Globalstar has committed itself in business to developing and bringing to market innovative satellite-based emergency communication devices. This commitment towards delivering lifesaving communication continues through our recent partnership with Apple and the provision of emergency SOS on the iPhone 14 model. We are confident that this partnership aligns with the Policy's commitment towards safeguarding New Zealand citizens' lives.

As such, Globalstar submits that as technology further innovates to allow for satellite emergency SOS messages on mobile devices, there should be increased regulatory certainty towards national coordination with emergency services. This would allow the private sector to provide unhampered connectivity during critical situations, and at the same time allowing the citizens of New Zealand to experience the benefit of this life-saving communication tools.