

Submission on developing the Aotearoa New Zealand Aerospace Strategy

Your name and organisation

Name	Laurie Ross
Organisation (if applicable)	New Zealand Nuclear Free Peacemakers

Overview of the Aerospace Strategy

- Question 1:** Do the four areas above provide the right basis for the Aerospace Strategy?
- Question 2:** What are the critical factors that you see for aerospace sector development?
- Question 3:** How would an Aerospace Strategy help you?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Addressing Questions 1-3 is problematic as it is not clear WHY you think NZ needs a costly competitive super high tech Aerospace Strategy. However, it is your assumption that this must be the goal. However, the majority of NZers may disagree with your goals if they knew the implications or adverse consequences of '**Pathway to the 2030 Future State**'.

Could you please clarify if this is based on 'Agenda 2030' and 'The Great Reset' of the WEF?

After trying to understand what your intentions are, my conjecture is that you are aiming for New Zealand to become a leader as a **Space Age High Tech Society**. Is this what you mean? You stipulate the goals of 'integrating all forms of autonomous aerial vehicles' and 'actively support a permanent human presence in Space' which is part of the bigger picture of an AI dominated framework.

Thus, your aerospace strategy is about making the entire population subscribe to a Sci-Fi Future as the 'new reality' which will be totally dependent on the IoT in a High Tech system of digital devices controlling our lives. It would be helpful if you were more upfront about this plan and ask the question: **Do NZers really want this High Tech Aerospace 2030 Future State?**

I appreciate that the *raison d'être* is about financial gain and that you believe 'there is no choice' if we want to be successful in the **Global Space Age Economy**. This is the way the world is moving and we/NZ must go with it- in a leading position to maximise commercial opportunities for economic growth. Thus, you are seeking public validation on how the High Tech aerospace industry will be useful to business.

The most troubling element of your Aerospace Industry Strategy is that it is tied up with the major weapon producing corporations responsible for militarisation, warfare, technology, surveillance, control of Earth and Space. However, you do not reveal the fact that your proposed Strategy will serve or is in accordance with the top Aerospace companies: Boeing, Airbus, Lockheed martin, United Technologies (Raytheon), GE Aviation, Northrup Grumman. The NZ aerospace industry is already heavily embedded in the US/multinational military corporations through NZer Peter Beck and his Rocket Lab company in New Zealand.

Although now owned by US corporates it still 'proudly' operates out of NZ employing hundreds of people, generating billions of dollars. Hence it is understandable that the NZ government wants to fast track expansion of this high tech space industry and downplay the dangers or any moral qualms.

WHY do you not state these concerns anywhere in your document? Why does NZ need to build it's prosperity on becoming more embedded in the military industrial technocracy?

Dealing with Questions 4-8 -It is particularly distasteful to see how you are misappropriating Maori cultural concepts to serve your objectives. However, the promise of financial advantages and status may seem like a fair trade deal. Using Maori language and Mana provided by Maori representation on some Boards, gives the AeroSpace Industry the veneer of legitimacy by Tangata whenua. This liaison will increase the empowerment of both parties but **does the Aerospace Strategy and 2030 Future State truly represent the higher Good and deeper Wisdom of the people of Aotearoa?**

In addition, there is an inherent contradiction of Pakeha and Maori spiritual values for protecting the health of the atmosphere, biosphere, Ranginui and the Heavens. If we are genuine in our values to reduce carbon and greenhouse gas emissions that exacerbate the Climate Crisis, then our priority is to reduce not increase the AeroSpace Industry.

It is clear from scientific studies that growth of the AeroSpace Industry with thousands more launches per year, **threatens the Ozone layer of protection around the Earth**. This is obviously contrary to both scientific advice and spiritual values-even though it may legally comply with political regulations to pollute for profit.

Pillar #2 refers to 'risks' but does not explain what they are and how totally devastating. You allude to the need for 'regulatory systems' but fail to articulate how critical they are to whether or not NZ proceeds down the path of 2030 Future State-ism. (Is this part of the WEF 'Great Reset'?)

The problem of your Aerospace Strategy is that your objective is **'Manufacturing Consent' for this AI Drone driven future of Life on Earth blanketed in EMF microwaves. However any concerns are over ridden by compulsion for NZ to comply with globalism High Tech ideology because it is profitable and for NZ to be interoperable with the dominant global systems-is this correct?**

Questions 9-11 and Pillar #3 raises alarm bells and the question: Is it right to build our 'national interest and identity' on a Space Age High Tech 2030 Future State? PLEASE THINK about it again. Step outside the boxed mindset goggles of 'virtual reality'.

Questions 12-15 clarifies your purpose of 2030 Future State-ism which is to build and promote the NZ Space Age High Tech Global Economy. However you made a **grave omission** in not declaring commitment to **NZ's Nuclear Free and Disarmament Act and to the Treaty for Prohibition of Nuclear Weapons, plus others eg. Biological weapons etc whose production and transit is banned.**

The minimum criteria for pursuit of this 2030 Future State must be: a) **Peaceful Use of Space**

This means **NO Militarisation of Space** nor technological support for militarisation defence/offence purposes. This platform is established in the UN Peaceful Use of Outer Space and other international agreements including the **UN's 'Reducing Space Threats through Norms, Rules, Principles of Responsible Behaviours'** (see my summary paper attached)

b) **Commitment to Humanitarian and Human Rights Law** –should be stated as fundamental to Space Age Tech development and policies in this Strategy. It means banning 'killer robots' (Lethal Autonomous Weapons- LAWS) and should be stated in your document.

c) **Commitment ONLY to 'essential services' and healthy uses of Space Tech** –in the policy strategy would minimise wasteful or excessive production for profit. Investment to protect NZ's EEZ from over-fishing, pollution and depletion of resources, illegal trafficking of drugs, etc focus on ecological restoration eg. seaweed production, removal of plastics and prevention of waste dumping.

Area One - A strategy for building our aerospace sector

- Question 4:** Is the 2030 Future State set out in a way that enables New Zealand to build on its existing advantages to develop a leading place in the global aerospace economy?
- Question 5:** Will the 2030 Future State support your ambitions for growth and participation in the sector?
- Question 6:** What barriers are there to optimising sector growth?
- Question 7:** How could the government and the sector work together to achieve the 2030 Future State?
- Question 8:** How can the Government enable Māori ambitions for the sector?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Area Two - Building strong foundations (Three Pillars)

Question 9: What do you think of the Three Pillars and do you think they will support the 2030 Future State?

Question 10: What else would you like to see in the Three Pillars?

Question 11: What actions and initiatives could the sector focus on to support the Three Pillars?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Area Three - Goals for 2030

Question 12: What do you think of the Goals for 2030?

Question 13: Are the goals framed in a way that will enable New Zealand to build on its strengths and comparative advantages to achieve the 2030 Future State?

Question 14: What activities and milestones can help us achieve these Goals?

Question 15: Where do you see yourself in realising these Goals?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Area Four - Pathway to the 2030 Future State

Question 16: What policies, ideas, actions, and/or initiatives would you like to see in the Action Plan to help achieve the ambitious 2030 Future State?

Question 17: What would be the benefits of these actions and how would they help grow the New Zealand aerospace sector?

Question 18: How would you like to be involved in the delivery of the Aerospace Strategy?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

United Nations Office for Disarmament Affairs (August 2021) Report on Reducing Space threats through Norms, Rules and Principles of Responsible behaviours (A/76/77) by UN Secretary General Antonio Guterres

An Overview - by Laurie Ross (Sept. 2021)

There is recognition among all states of increasingly unacceptable levels of congested, contested and competitive activity in Space from both commercial and military entities engaged in 'dual purpose' arrangements. (currently 11 space nations and 31 submissions)

Brief Introduction to Dangers:

1/ **Space Junk**, Collisions and massive debris from over-inundation of satellites and rockets in space. (*approx. 4000 sats. in space, over 15000 pieces of debris, Elon Musk has permits for 42000 satellites deployed in next few years*)

2/**Waste of precious resources** in billion dollar production and launch of thousands of rockets and satellites (*80,000+ planned*). This *Wealth is better spent on helping humanity with health, sanitation, food, education etc, Climate protection and restoration of Earth.*

3/ **Ozone destruction** from black soot emissions plus **Electromagnetic disruption** of stratosphere.

4/ **Co2 emissions** exacerbating Climate Crisis and other **chemicals** toxifying the atmosphere around Earth.

5/**Dual purpose** of commercial launches (seemingly benign) used to mask militarization for warfare, with autonomous weaponry and AI systems that can destroy Earth and Space.

6/**Miscalculations** and misunderstandings increase the risks and threats.

Benefits: Space Technology used for implementing the **UN 17 Sustainable Development Goals (SDGs) for Agenda 2030**, supports Agriculture and Fisheries, in non-polluting, non-wasteful and healthy food production for humanity. Space Tech can help protect the environment, health of soil, rivers, forests and oceans. Space tech for Disaster response to warn or rescue people from storms, hurricanes, floods, fires, earthquakes etc. *However, the main reason for massive Space Tech Industry is that corporate elites can make multitrillion dollar profits in this global economic order, through Telecommunications for IoT, space mining for metals and other lucrative uses.*

Summary of Space Threats and Security Measures (A/76/77)

The major threat is from states with military doctrines that engage in weaponisation of Space. This increases tension, fear, threat, competition and defensive arms race. Thus, there is acceptance of the need to formulate international guidelines to regulate Space for global security. The majority of states want a legally binding **UN Treaty for Prevention of an Arms Race in Outer Space** but this has been blocked by the US at several UN conferences.

The **PAROS** Treaty is a necessity for an **International Rules based** order which now encompasses the whole of Outer Space.

However, the US openly declares 'Outer Space as a warfighting domain' and has stated its intention to be 'Master of Space with full-spectrum dominance'. This flies in the face of the majority of UN member states, although voluntary guidelines must still be pursued.

Ten major Military Warfare Space Threats:

Nuclear weapons for destruction on earth could now be used for warfare in space. This would release electromagnetic effects that disable the entire technological infrastructure. However, the **1967 Outer Space Treaty bans nuclear weapons** of mass destruction, to be orbiting, stationed in Space or on celestial bodies.

This should now be extended to ban other weapon systems in Space eg. hypersonic missiles and autonomous weapons, etc.

1/**Direct-ascent anti-satellite weapons** can be launched from the air, ground or sea to destroy by kinetic impact OR explosive proximity to target (*'Rods of God' as destructive as nuclear weapons*)

2/ **Space-based** anti-missile interceptors

3/ **Co-orbital kinetic projectiles**, anti-satellite weapon systems include harpoons, robotic arms, chemical sprayers, etc.

4/ **Dual Use Co-orbital** satellites to damage spacecraft (as above) but combined with valid services eg. Repair, Refuel or Remove existing satellites and debris

5/**Directed energy** weapons eg. lasers, microwaves, particle beams, killer robots, etc

6/ **Electronic** radio-frequency interference to deny, deceive, degrade, jamming, spoofing or disrupt commercial or military Space activities

7/ **Cyber software** network techniques to compromise, control, interfere or destroy computer systems, Space satellites, ground infrastructure, launch sites, datacenters and reverse authorization and command systems of space vehicles

8/ **'Stealth'** or low visibility technology (under the radar) and unmanned swarms of drones

9/**High Altitude Platform Systems** using nuclear power could explode or have radiation leaks, also from nuclear powered satellites

10/ **Dangers of Proximity**, Rendezvous and Collision of satellites through lack of registration and communication, viewed as Unidentified objects in Space, provoke hostility and fear.

The UNODA Document A/76/77 advocates 12 Responsible Behaviour Activities which promote Safety, Security and Sustainability in the Space environment, that respect and protect people and 'space assets'. *This requires all parties to voluntarily choose to contribute to stability, risk reduction, avoid surprise and provocation of tensions* and minimize dangerous misunderstanding. It means Refraining from threatening activities (as listed) that could endanger others (or be perceived as such). The idea is to develop mutually *enhancing, non-threatening*, trust and confidence building measures, norms and guidelines for the peaceful exploration of Outer Space.

This should require a) **Committing to not place weapons in Outer Space**

b) Commit to legally binding measures to protect space *vehicles engaged in peaceful purposes.*

Irresponsible Behaviours threatening Global Security (exacerbate 'Dangers' and 'Threats')

1/ Deliberate, inadvertent or negligent actions producing long lasting debris or damage of Space or on Earth.

2/Testing or simulation of anti-satellite weapons

3/ Failing to declare or omission of information re. satellite constellations, intentions or providing misleading data.

4/Lack of transparency, ambiguous acts, carelessness 'accidents' or fear mongering.

5/Underestimation of impacts on Space environment from activities causing harm.

The UN document states that while transparency and **confidence building measures and Trust, play a positive role to guide and support good behavior in Space, they do NOT fulfill the need for negotiation of a legally binding instrument. (International Law)**

This the purpose of the proposed **UN Treaty for Prevention of an Arms Race in Outer Space PAROS would prohibit militarization of Space for warfare.**

PAROS would also prohibit land, air and sea based weapon systems designed to destroy objects in Outer Space.

The PAROS Treaty would require monitoring and verification to protect Outer Space for Peaceful purposes. It is in the 'national interest' of all states to abide by an 'International Rules based order' for peaceful protection of humanity and global security.

Principles of Responsible Behaviour, Norms and Rules in Space are furthered in the context of several UN forums and Treaties eg. Outer Space Treaty, Nuclear Test Ban Treaty, Registration of Objects in Space, Inter-Agency Space Debris Coordination Committee, Transparency and Confidence building Measures in Outer Space Activities, UN Charter, Disarmament Commission, Committee on Peaceful Uses of Space (COPUOS), Conference on Disarmament, Missile Technology Control Regime, Long term Sustainability of Outer Space Activities, etc and First Committee Of General Assembly Open Ended Working Group, which provides a foundations for PAROS.

Artemis Accords (2020) only provides guidelines, applies only to commercial 'rights' eg. to mine the Moon or asteroids, claim space on Mars and promotes 'safety' for private enterprise, etc led by US for a select group of nations.

New Zealand's Role: The NZ submission to the UNODA Report is excellent, but should **actively champion the PAROS Treaty.** NZ could offer services required for successful implementation of **PAROS and protection of Space for Peace.** In addition, NZ could recommend setting up a **UN Space Protection Agency** to oversee PAROS.

Recommendations to the New Zealand government for Defence and Foreign Policies, GCSB and Economic Development in Space:

1/ New Zealand will promote the PAROS Treaty at the UN and offer it's Space Technology services to monitor, report and stop Militarisation Space.

2/ NZ Space Industry will withdraw from militaristic defence and focus on Maritime surveillance to protect our Exclusive Economic Zone from piracy, over fishing, poaching, smuggling, waste dumping and pollution, etc. (and assist Pacific island nations to do this)

3/NZ Space Industry technology will provide support services for sustainable fishing practices, Search and Rescue operations, Climate and Environmental Protection.

4/NZ Space Industry and GCSB intelligence (for 5 Eyes) will be used for early warning systems of natural disasters or military transgressions and for verification of arms control agreements that increase international security.