### **CP – Equity**

#### Counterplan text – Member nations of the Outer Space Treaty of 1967 should equitably distribute all resources harvested and exploited in outer space between all signatory nations.

#### Specifically, we defend a model similar to the welfare state of Norway, as advocated by

**Shammas and Holen 19** ~Victor L. Shammas -X, Tomas B. Holen- X) "Capitalism and Outer Space: Replies to an Interlocutor" Dr. Victor Lund Shammas Blog, <https://www.victorshammas.com/blog/2019/12/17/capitalism-and-outer-space>,  12/18/2019

If you could change the way the space enterprise works, how would it look?

Our advice would be to respect the intent of the Outer Space Treaty from 1967. The Outer Space Treaty says that all resources harvested and exploited in outer space should benefit all of humankind.If we do  manage to reach the potential resources found in outer space, they should benefit all of humanity. Profits should be shared equitably between all signatory nations. As we write in our paper, Donald Trump’s administration has essentially stated that this treaty is null and void. According to Scott Pace, the Executive Director of the National Space Council, outer space is precisely *not* “the ‘common heritage of mankind’, not ‘res communis’, nor is it a public good.” Well, that’s it for the Outer Space Treaty, then, which proposed a kind of Cold War-era *proto-communism in space*, with all profits to be shared equitably between all people back on Earth. Trump’s people hate this mindset of course, because they think profit-making is the only motivator of human action, a very neoliberal notion that makes a mockery of altruism and selfless curiosity that guide and drive a thousand acts of interpersonal kindness and scientific inquiry each and every day.

The notion that the Outer Space Treaty should still apply seems quite common-sensical to us. As Norwegian scholars, coming from a Nordic, social-democratic context, we’ve witnessed first-hand the many benefits of a strong welfare state, with high levels of taxation on “ground rent” resources like hydroelectric dams and oil or natural gas fields. Profits from space enterprise should benefit all of humankind.

#### Social welfare model means that capitalists get their profit, but a helluva lot of it is redistributed back out – this solves your advantages because it makes stuff equitable whilst also solving case turns by allowing for capitalism to continue

#### CX conceded that CPs negate

### DA: Innovation

#### Link Story

#### First, the US commercial space industry is booming – private space companies are driving innovation

**Lindzon** 2021 [(Jared Lindzon, A FREELANCE JOURNALIST AND PUBLIC SPEAKER BORN, RAISED AND BASED IN TORONTO, CANADA. LINDZON'S WRITING FOCUSES ON THE FUTURE OF WORK AND TALENT AS IT RELATES TO TECHNOLOGICAL INNOVATION) "How Jeff Bezos and Elon Musk are ushering in a new era of space startups," Fast Company, 2/23/21, https://www.fastcompany.com/90606811/jeff-bezos-blue-origin-elon-musk-spaces-space]

In early February, Jeff Bezos, the founder of Amazon and one of the planet’s wealthiest entrepreneurs, dropped the bombshell announcement that he would be stepping down as CEO to free up more time for his other passions. Though Bezos listed a few targets for his creativity and energy—The Washington Post and philanthropy through the Bezos Earth Fund and Bezos Day One Fund—one of the highest-potential areas is his renewed commitment and focus on his suborbital spaceflight project, Blue Origin. Before space became a frontier for innovation and development for privately held companies, opportunities were limited to nation states and the private defense contractors who supported them. In recent years, however, billionaires such as Bezos, Elon Musk, and Richard Branson have lowered the barrier to entry. Since the launch of its first rocket, Falcon 1, in September of 2008, Musk’s commercial space transportation company SpaceX has gradually but significantly reduced the cost and complexity of innovation beyond the Earth’s atmosphere. With Bezos’s announcement, many in the space sector are excited by the prospect of those barriers being lowered even further, creating a new wave of innovation in its wake. “What I want to achieve with Blue Origin is to build the heavy-lifting infrastructure that allows for the kind of dynamic, entrepreneurial explosion of thousands of companies in space that I have witnessed over the last 21 years on the internet,” Bezos said during the Vanity Fair New Establishment Summit in 2016. During the event, Bezos explained how the creation of Amazon was only possible thanks to the billions of dollars spent on critical infrastructure—such as the postal service, electronic payment systems, and the internet itself—in the decades prior. “On the internet today, two kids in their dorm room can reinvent an industry, because the heavy-lifting infrastructure is in place for that,” he continued. “Two kids in their dorm room can’t do anything interesting in space. . . . I’m using my Amazon winnings to do a new piece of heavy-lifting infrastructure, which is low-cost access to space.” In the less than 20 years since the launch of SpaceX’s first rocket, space has gone from a domain reserved for nation states and the world’s wealthiest individuals to everyday innovators and entrepreneurs. Today, building a space startup isn’t rocket science. THE NEXT FRONTIER FOR ENTREPRENEURSHIP According to the latest Space Investment Quarterly report published by Space Capital, the fourth quarter of 2020 saw a record $5.7 billion invested into 80 space-related companies, bringing the year’s total capital investments in space innovation to more than $25 billion. Overall, more than $177 billion of equity investments have been made in 1,343 individual companies in the space economy over the past 10 years. “It’s kind of crazy how quickly things have picked up; 10 years ago when SpaceX launched their first customer they removed the barriers to entry, and we’ve seen all this innovation and capital flood in,” says Chad Anderson, the managing partner of Space Capital. “We’re on an exponential curve here. Every week that goes by we’re picking up the pace.”

**And, Crushing these inspirations now will delay next-gen space applications by decades**

**Hampson 17** Joshua Hampson, Security Studies Fellow at The Niskanen Center, Niskanen Center, January 25, 2017, “The Future of Space Commercialization”, https://niskanencenter.org/wp-content/uploads/2017/01/TheFutureofSpaceCommercializationFinal.pdf

How Government Allows Space Business

Finally, the United States also needs to look at how it allows space business to be conducted. Organizational changes may allow the government to be better positioned to consider policies and regulation, and government business reforms may ensure that markets are not skewed too much. Responsible policies, however, will be the most important aspect of a healthy commercial space market. The United States benefits from promoting as large a space economy as possible. Such an economy would drive innovation and promote growth. For the government, a freestanding space economy would drive down costs of launches and services. How then should the government approach its space regulations? While the commercial space market is perhaps in a better shape than it ever has been, it still is relatively fragile. While this paper has mentioned the various pressures that are 208 growing on the U.S. government to review its space regulation, those pressures themselves do not mean that the United States should regulate for regulation’s sake. For example, in some cases the solution may simply be clarifying the decision process and enabling a review process. In approaching commercial space, government agencies should take as light-touch an approach as possible. Missions should be default-approved, with the burden of proof on the government to demonstrate that a particular mission would be risky to the public or national security. If within a standard period of time the government cannot articulate a specific reason as to why the mission should not move forward, it should be permitted. The application process for missions should be clearly articulated, and decisions should be consistent across applications from different companies. Informal processes should be formalized. Decisions made for national security reasons should at least be traceable, in case review is necessary. There should also be a public review process for challenging decisions. The remote sensing industry is an example of what can happen when overly burdensome regulations are put into place: American businesses are handicapped and industry advantage shifts to foreign competitors. In this regard, current policies that are archaic should also be revisited. The licensing process for remote sensing, for example, has been criticized as arbitrary. The result, at least from the commercial viewpoint, has 209 been that non-governmental remote sensing is provided mostly by non-American companies. The 210 review of the export control system should also continue, with regular updates. The specificity of 211 the restrictions means that they can become obsolete quickly, with non-American companies producing equipment American companies are constrained from selling abroad. In reviewing these processes and systems, the goal should be that the space market becomes self-supporting rather than a simple privatization of government tasks.212 The government can also avoid creating regulations to manage issues that could be managed under existing law. It is possible, for example, that tort law could be used to manage some of the possible issues of outer space, at least in issues between two American companies. Outer space is not a single policy area which requires a one-size-fits-all approach. There are a range of issues with a range of analogs in existing domestic and international law, and there will be a range of potential solutions to those particular issues. Space mining may be analogous to deep sea exploration, while debris clean-up in orbit would require international agreements and coordination. Maturity levels of different parts of the industry will also inform different approaches. Regulations, if found to be necessary, should be consistent, unambiguous, and specific. The process for rulings on decisions should be transparent and consistently applied. The government should avoid using catch-all categories and should instead specifically draft the rules for individual activities in space if needed. The government should also remember that the OST is not self-executing. Although there could be international consequences for decisions made about whether to regulate an activity in space or not, the United States has leeway in determining what needs authorization and how intensive “continuing supervision” needs to be. The United States also should not try to guess what 213 commercial uses of outer space may become viable or not. It is important to remember the lesson of AT&T’s 1960 license application: the commercial sector may surprise the government in what the latter believes to be viable.214 Because of Article VI mandate in the OST and the complexity of the issues at play, avoiding burdensome regulation is the hardest policy suggestion. The mere presence of complexity, however, does not mean that the government should err on the side of overly restrictive policies, especially when the benefits to liberalizing the regulations in this industry are so pronounced. Conclusion This recommended list of actions does not exhaust the possibilities for how the U.S. government can promote commercial outer space. New and complex problems will certainly arise in the future. For now, these proposals can help the United States realize the full potential of outer space for private actors and the government alike. Elevating space policy to a higher level within the government, codifying an attitude of openness to innovation, and making sure that any regulations—if needed—are up-to-date, clear, and reliably applied are key to realizing the benefits of space. A growing and robust commercial space economy will facilitate economic growth and promote domestic national security. The same incentives that drive innovation in the competitive, commercial sector will, over time, reduce the costs and increase the capabilities of American security space systems. Innovations in satellite technology will change how parts of the economy operate, and how the U.S. military projects power abroad. Cheap launch services can open Earth’s orbit and beyond to larger markets, eager entrepreneurs, and new inventors. Those services could also allow the United States to create a more resilient defense network in orbit and, if necessary, quickly reconstitute it. There are many challenges that stand in the way of that market—from the sheer difficulty of going to space to the geopolitical and legal complexities involved—but now is the time to get serious about crafting good space policy. The decisions in the next couple of years could define access to space, and the benefits we reap, for generations to come. The United States must decide between a risk-averse approach—restraining the market and ceding exploration and investment to more adventurous nations—and an optimistic and permissive approach, with intervention only when it is clearly necessary. The rise of a commercial space market will not necessarily be uneventful. There will be failures, and some of the optimistic companies that exist today will succumb to competitors or the difficulty of the task at hand. Investments in space will ebb and flow. But there will be no groundbreaking 215 innovation if we refuse to tolerate failures and allow the market to mature. Public safety, especially for launches, must remain a concern, but that does not have to come at the expense of promoting growth and defending national security. The United States is on the cusp of having an independent commercial space market. With a few smart decisions and a policy of regulatory restraint, the government can simultaneously promote innovation, growth, and national security, while proving that enterprise in space does not require the backing of a large nation state. That would be a giant leap for mankind.

#### B. Impact Story

**Space Innovations are essential to stop multiple extinction level issues**

**Beames 18** – Chairman of the SmallSat Alliance & Exec Chairman of York Space Systems, former Principal Director of Space & Intel-Office of UnderSecDef AT&L

Charles Beames, Chairman of the SmallSat Alliance, Executive Chairman of York Space Systems, former Principal Director of Space and Intelligence in the Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L)), active early stage investor in entrepreneurial space, former President of Vulcan Aerospace where he was responsible for asset allocation within a privately held aerospace investment portfolio exceeding $1B, Col. (ret.) in the USAF where he served 23 years in space & intelligence leadership positions around the world, SmallSat Alliance is on a path toward a new space horizon, first appeared in the July 2018 issue of SpaceNews Magazine, available at <https://spacenews.com/op-ed-smallsat-alliance-is-on-a-path-toward-a-new-space-horizon/>

We find ourselves still at the dawn of a new space century, mindful of the victories and setbacks of our past, eager to pass the torch to the next generation of space visionaries, scientists, engineers, and enthusiasts. We look to the future not just to see how much bigger, faster, or higher we can reach, but also how the United States, and specifically the U.S. space community, can again inspire the nations of the world to align with us, as it did in the 20th century.

The SmallSat Alliance is an alliance of companies developing, producing, and operating in all segments of the ‘next generation’ space economy; championing renewed U.S. leadership in the burgeoning commercial space economy, and advocating for the transformation of government-led space capabilities. We are experienced space professionals who have chosen to join with others leveraging our decades of hard-won experience, to develop smarter ways to explore space in the 21st century.

A wonderful outgrowth of the legacy space program is the commercial, entrepreneurial, and job-creating commercial space business that it bequeathed. These next-generation enterprises range from multi-million-dollar startups providing rideshare opportunities or components for small satellites to multi-billion-dollar space data-analytic platforms reinventing urban car service and agricultural production. The early returns of this economic revolution are already on our doorstep: space data capabilities are exponentially growing elements of the 21st century world economy.

Beginning with the dreams and funding by successful tech entrepreneurs, enormous venture investments are already delivering wondrous benefits to the world.

Commercial Space – Profit and Non-Profit

There are really two major categories in the commercial sector, the profit driven and the non-profit. The classic for-profit companies include not only those designing, building, launching, and operating satellites but also the tech sector that is turning that raw space data into gold through machine-learning analytics. Since for-profit companies are no longer dependent upon the revenues generated by the Cold War space race culture of a bygone era, this new generation of space companies is able to more efficiently capitalize on Moore’s Law, the nonstop exponential growth in chip density, and the associated networking technology co-evolving with it. This new generation is building profitable businesses helping to clean up our oceans of garbage and debris with satellite surveillance, reconnoitering to assist in enforcing laws that protect our oceans from illegal, unregulated, unlicensed fishing, something that is rapidly depleting the world’s most valuable and essential lifeforms. It’s leading in the innovative use of low-cost satellite constellations to produce ubiquitous remote-sensing data, enabling small business owners to be more profitable and less wasteful. For example, precise timing signals from space are already optimizing transportation of people, goods, and services, with even further gains anticipated with the introduction of artificial intelligence to assist drivers, perhaps even someday replacing them entirely.

The non-profit sector is the other side of commercial space, concerned more for the general welfare of society, but every bit as integral to this new space enterprise. Much like every century before it in human history, ours is not without its unique challenges, some of which have been a consequence of the last, and all of which the space data domain can be leveraged to help solve. Examples are endless, but one challenge that this new space community is uniquely well-adapted for is to further inform worldwide resource allocation for the 21st century and beyond. These two primary resources are sustainable water and the materials needed for adequate housing for an ever-increasing human population. As cities and urbanization continue to expand, governmental planning challenges such as transportation design optimization for goods and services are only the beginning. Additionally, through using inexpensive remote sensing technologies, some members are designing space data analytics to mitigate human suffering from plagues, contain outbreaks, and combating illegal poaching. Some are connecting with other non-profits to curtail human trafficking for the sex trade or forced labor for migrant debt repayment. Still others are helping non-governmental organizations in their work to expose the use of **child**ren as **soldiers**. Addressing these challenges has little to do with resuscitating dreams conceived by long deceased science-fiction writers and much more to do with **turning “swords back into plowshares**” to **solve real threats to humanity**.

Other non-profit initiatives include pursuing an even more foundational understanding of who we are and how to be the best custodians of our environment. Much as exploring and monitoring the world’s oceans has advanced civilization through a better understanding of human life and the planet, so too does exploring and monitoring from space. Low Earth orbit (LEO) provides a unique vantage point to look back on the planet and understand what is happening, anticipate what might happen and prepare for the future. In addition to better understanding Earth, responsible and rapid exploitation of the low Earth orbit domain will enhance the understanding of the solar system and the rest of the universe. Small satellites already offer low-cost platforms to study and explore what lies beyond the Earth. Other members are pioneering the use of zero-carbon, hydrogen-based reusable propulsion systems to ensure we don’t worsen our atmosphere using kerosene-fueled rockets for the coming tsunami of satellite launches. Finally, a mission ensuring the general welfare and planet survival for the next thousand years is finally confronting the existential threat that asteroids and comets pose to humanity. These extra-terrestrial, deep-space threats are passing dangerously close to our planet, and today we have no solar map of them and no defense.