

# Conquering the Solar System

Increasing Human Energy and Momentum, by the mandate of Nikola Tesla, for the salvation of the species and conservation of the planet, by expanding our footprint to the rest of the Solar System.

Sf. R. Careaga, BSEE, MSTOM  
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Recommended Viewing at: <https://bit.ly/3Dbd3pi>

## ABSTRACT

Mankind has an intense need for expansion, removal of toxic stagnation, and a way to mature and develop without wiping itself out in catastrophic, geopolitical warfare. Military contracts and research do help us to advance, and space tourism also encourages this SPACER movement. However, what is lacking is a fairly comprehensive, open-minded, long form discussion of the entire settlement plan, based upon new research and the state of technology, engineering, and design now. Furthermore the missing contexts of our mythic and religious pasts, our current biased psychologies and propensity to return to tribalism and anti-Enlightenment, anti-rationalist values, as well as looming threats of a New Cold War and World War 3 need to be added to previous science fiction optimism about a Starfleet, in order to avoid foolish “Star Wars” and other toxic behaviors.

*Keywords: Solar System - Terraforming - Mars - Moon - Venus*

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## Introduction & Recap

In the last Space “Sci-fi” paper, the foundational “Birkeland Polyphase Superweb,”<sup>1</sup> the author discussed at length the issues of scale, energy, energy transfer, and weaponry of the gods, in the development of the human initiative into space. Many of those topics will be revisited in this paper, particularly energy transfer, vessels, war, and other issues. However, this paper will do what no other has done before, but go sequentially, with some overlap and “venn diagramming” of function, behavior, and development, the stages needed to conquer the Solar System, and prepare for the 10th stage: interstellar flight.

Some current technologies will be addressed and incorporated. New ones based on current and near future science will also be discussed (such as transmutation of elements). Furthermore, difficult subjects like economics and militarism will also be discussed. The degree of MIMSical appropriateness of weaponization of the BPS, as well as satellite warfare, etc. It will be cogent for the reader to familiarize themselves with the entire Strategy Series<sup>2</sup>, as well as MIMS 2.0, 2.1.1, 2.5.1, 2.6.1-2, and 2.7 & 2.8.

Throughout this paper, the consistent message, like in the Mars Opinion paper, is that we absolutely must consider scale, economics, appropriate inflation and also separation of various non-linear systems which could be affected by and affect the space economy and militarism. The MIMS work on dual layer economics (MIMS 1.3)<sup>3</sup> as well as revelations about the anti-MIMS<sup>4</sup> of war, pushes the

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<sup>1</sup>

[https://www.academia.edu/38560727/Birkeland\\_Polyphase\\_Superweb\\_A\\_Proposition\\_for\\_the\\_Future\\_Betterment\\_of\\_Mankind\\_global\\_defense\\_interconnection\\_and\\_unlimited\\_power](https://www.academia.edu/38560727/Birkeland_Polyphase_Superweb_A_Proposition_for_the_Future_Betterment_of_Mankind_global_defense_interconnection_and_unlimited_power)

<sup>2</sup> <https://bit.ly/3gtYmoh>

<sup>3</sup>

[https://www.academia.edu/50300514/On\\_the\\_Membranous\\_Interface\\_of\\_the\\_Material\\_and\\_the\\_Spiritual\\_from\\_an\\_EPEMC\\_perspective\\_and\\_Dual\\_Double\\_Layer\\_Economics\\_a\\_proposed\\_test\\_of\\_EPEMCs\\_metallic\\_properties\\_tensile\\_strength\\_malleability\\_durability](https://www.academia.edu/50300514/On_the_Membranous_Interface_of_the_Material_and_the_Spiritual_from_an_EPEMC_perspective_and_Dual_Double_Layer_Economics_a_proposed_test_of_EPEMCs_metallic_properties_tensile_strength_malleability_durability)

<sup>4</sup> Literally a MIMS, but instead of creating life and positivity, destroying it.

author in the direction of caution, with strong optimism.

While the end of the American empire is near, it is not yet over, and besides that, it is clear that only America can lead from the front, without creating a Chinese led draconian dystopia. Therefore, the quicker America transforms from the Military Industrial Complex v2.0, the faster the next stage of humanity can come.

The main reason it needs to come is that mankind cannot much longer afford to exist on one planet. There is plenty of room, but the threat of level 7, 8, or 9+ catastrophes are becoming more statistically likely.<sup>5</sup> Supervolcanoes, mega tsunamis both endogenous and alien, the potential alien threat itself, and of course bolide events, but also changes in the SSEC, the PEC<sup>6</sup>, and the climate itself is threatening the survival of the species. These are all exogenous to human behavior, and the list of indogenous threats are too numerous and off point for this paper (except as it relates to the Space domain of warfare).

As the future moves forward, the purposes of Operations Research, Analytics<sup>7</sup>, and the MIMS philosophy itself (specifically 1.0, the need to bring the future to now) become ever more necessary in engineering a safe haven for mankind, while avoiding World War III<sup>8</sup>, civil wars, revolutions, genocide, and other high-signal misfires of the “human circuit.”

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<sup>5</sup>

[https://www.academia.edu/36753643/Our\\_Plasma\\_Electromagnetic\\_Sky\\_Application\\_of\\_Hollow\\_Expanding\\_Growing\\_Electromagnetic\\_Earth\\_Hypothesis\\_with\\_particular\\_respect\\_to\\_the\\_Earths\\_Atmosphere\\_starting\\_from\\_the\\_Lithosphere\\_and\\_ASCENDING\\_Altitude](https://www.academia.edu/36753643/Our_Plasma_Electromagnetic_Sky_Application_of_Hollow_Expanding_Growing_Electromagnetic_Earth_Hypothesis_with_particular_respect_to_the_Earths_Atmosphere_starting_from_the_Lithosphere_and_ASCENDING_Altitude)

<sup>6</sup> Solar System electric circuit and Planetary EC, respectively;  
[https://www.academia.edu/50912946/FAQ\\_EPEMC\\_MIMS](https://www.academia.edu/50912946/FAQ_EPEMC_MIMS)

<sup>7</sup> [https://www.academia.edu/50901241/MIMS\\_2\\_1\\_1\\_2\\_Aet\\_her\\_Business\\_and\\_Analytics\\_With\\_a\\_short\\_reflection\\_up\\_on\\_the\\_philosophies\\_of\\_Ayn\\_Rand\\_and\\_the\\_concepts\\_of\\_Fortune\\_as\\_it\\_relates\\_to\\_the\\_Aether](https://www.academia.edu/50901241/MIMS_2_1_1_2_Aet_her_Business_and_Analytics_With_a_short_reflection_up_on_the_philosophies_of_Ayn_Rand_and_the_concepts_of_Fortune_as_it_relates_to_the_Aether)

<sup>8</sup>

[https://www.academia.edu/51022722/Winning\\_the\\_New\\_Cold\\_War\\_World\\_War\\_3](https://www.academia.edu/51022722/Winning_the_New_Cold_War_World_War_3)

Nikola Tesla, a true American patriot, gave the US Military and FBI<sup>9 10</sup> the 20th Century in less than 3 pages of his autobiography<sup>11</sup>. Of America he had this to say,

*"It would be calamitous, indeed, if at this time when the art is in its infancy and the vast majority, not excepting even experts, have no conception of its ultimate possibilities, a measure would be rushed through the legislature making it a government monopoly. ... universal evidence unmistakably shows that the best results are always obtained in healthful commercial competition. There are, however, exceptional reasons why wireless should be given the fullest freedom of development. ... it offers prospects immeasurably greater and more vital to betterment of human life than any other invention or discovery in the history of man. Then again, it must be understood that this wonderful art has been, in its entirety, evolved here and can be called "American" with more right and propriety than the telephone, the incandescent lamp or the aeroplane."*

The true America is the same America that said it would get to the moon by the end of the 1960s, and did it. The engineering difficulties were - in 1960 - considered to be insurmountable. The present goals are also quite like this, but for different reasons. However, the author is breaking this down into a 10 stage process, with each stage progressing in difficulty.

<sup>9</sup> <https://vault.fbi.gov/nikola-tesla>

<sup>10</sup> "Page 62, in a report titled "NY 65-12290", is particularly eyebrow-raising:

"TESLA's only military invention was a method to which he once eluded but nevr [sic] fully described. This invention was a means whereby an impenetrable [sic] 'wall of force' can be erected around the United States' borders which would render helpless any military attack. TESLA disclosed the existence of his plan in 1934 and stated he intended to present it to the Geneva Conference but seldom referred to it afterward."

<https://www.businessinsider.com/tesla-death-ray-border-wall-trump-2017-2>

<sup>11</sup> <https://www.mcnabb.com/music/tesla/bio.pdf>

Simultaneously, the author is working on a SPACERS™ protocol, and a set of entrepreneurial projects, designed to begin some of the progress in laying these foundations for each of the first three stages, in order to decrease the time. At the moment the power curve for these endeavors are weak, looking currently (updated with each re-publish) as so:

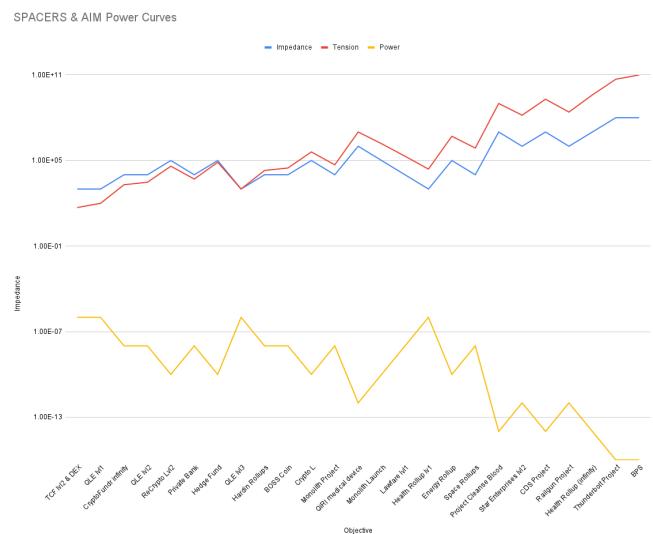


Figure 1 - SPACERS™ & AIM™ Power Curve; credit: author<sup>12</sup>

The goal would be to get the curve to look like so:

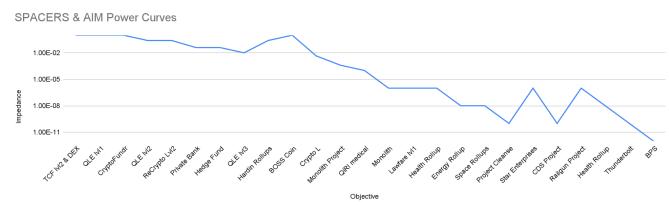


Figure 2 - 3-fold increase in Power levels on even heavy projects; credit: author<sup>13</sup>

The goal, through the MIMS work, is to make all of this possible in as quick a manner as possible.

<sup>12</sup>

[https://docs.google.com/spreadsheets/d/e/2PACX-1vTIE6uADN5CsQXQ4HRBVPyX31zKOvZLLHv4hNRtd\\_fvr5WcG6tpDjcQOIGGrRi6v7hEHmjX\\_-uS5fl/pubchart?oid=1833057407&format=interactive](https://docs.google.com/spreadsheets/d/e/2PACX-1vTIE6uADN5CsQXQ4HRBVPyX31zKOvZLLHv4hNRtd_fvr5WcG6tpDjcQOIGGrRi6v7hEHmjX_-uS5fl/pubchart?oid=1833057407&format=interactive)

<sup>13</sup>

[https://docs.google.com/spreadsheets/d/e/2PACX-1vTIE6uADN5CsQXQ4HRBVPyX31zKOvZLLHv4hNRtd\\_fvr5WcG6tpDjcQOIGGrRi6v7hEHmjX\\_-uS5fl/pubchart?oid=1186323281&format=interactive](https://docs.google.com/spreadsheets/d/e/2PACX-1vTIE6uADN5CsQXQ4HRBVPyX31zKOvZLLHv4hNRtd_fvr5WcG6tpDjcQOIGGrRi6v7hEHmjX_-uS5fl/pubchart?oid=1186323281&format=interactive)

However, it is difficult to guess at exact costs, so these *Business Power Curves*<sup>14</sup> cannot be specific, at this time. Therefore this paper must remain in the realm of science “fiction” rather than science “business.”

Regardless, the author herein will attempt to provide some of the most detailed step by step process, analytics, and reasoning that has yet hit the public. If there are better, more detailed reports within NASA, then the author is not aware of them. Or perhaps within the Pentagon’s<sup>15</sup> or CIA’s<sup>16</sup> own vaults. Though the resources of the Internet are seemingly endless, there are certain limits to the public sphere, such as classification. If the government can utilize this resource, it will provide massive benefits to the entire spacer movement.

## Solving World Problems

In the previous work, “Winning the New Cold War,” the author identified several major problems that are, unfortunately, grave impediments to the spacer movement, even as they will encourage technological development for the spacer movement. Solving these problems - political, socioeconomic, educational, etc. - will be paramount. Another way of saying this is that the weakening “Innate Shi” of the United States<sup>17</sup> is not a good thing, and in fact for the spacer movement is a very bad development. This can be compounded by certain economic “developments” which are beyond this paper such as stagflation, hyperinflation, and currency wars.

Nevertheless, even as the United States tries to improve its Shi<sup>18</sup>, and to protect its positional advantage and strategic configuration of power in the world, it will need to help solve a number of other - growing - problems. It is beyond world hunger and

global warming, at this stage. We are at a place of massive compression<sup>19</sup> politically, socially, and economically. COVID has only exacerbated this problem. The upside to all of this is the massive increase in interest in the spacer movement, as it becomes clear that people want off planet. They want to pursue the pilgrims’ dreams, and be pioneers again, but this time in space. Besides that, it is geopolitically and strategically vital to win the Space Domain<sup>20 21</sup> and the Allies not get shut out of the race<sup>22, 23</sup>. Unfortunately the author has identified a number of asymmetric vulnerabilities<sup>24</sup>, not the least of which is an IQ asset weakness<sup>25</sup>. This means that the United States will need to leverage resources more and more, and come to rely upon its position at the “top of the heap” less and less. When winds blow in your direction, you can flex. When they do not, you must develop.

There are also known a number of crises, most notably the energy and water crises<sup>26</sup>, and food shortages<sup>27</sup>, and inflation to deal with. There will shortly emerge certain shortages such as sand<sup>28</sup> and helium<sup>29</sup>, which will aggravate the conditions of the industrializing and consuming world, and inflation in general.

<sup>19</sup> Which may or may not have to do with a cosmic Z-pinch in the Local Chimney affecting the GEC>>SSEC>>PEC

<sup>20</sup> [https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Volume-32\\_Issue-2/SLP-Thompson.pdf](https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Volume-32_Issue-2/SLP-Thompson.pdf)

<sup>21</sup> [https://www.nato.int/cps/en/natohq/topics\\_175419.htm](https://www.nato.int/cps/en/natohq/topics_175419.htm)

<sup>22</sup> [https://swfound.org/media/9550/chinese\\_asat\\_fact\\_sheet\\_updated\\_2012.pdf](https://swfound.org/media/9550/chinese_asat_fact_sheet_updated_2012.pdf)

<sup>23</sup> <https://spacenews.com/pentagon-report-china-amassing-a-rsenal-of-anti-satellite-weapons/>

<sup>24</sup> [https://www.academia.edu/49950881/Asymmetric\\_Vulnerabilities\\_of\\_the\\_US\\_and\\_New\\_Capabilities\\_in\\_Geopolitical\\_Warfare\\_Including\\_Economic\\_Digital\\_Cyberspatial\\_and\\_Lawfare](https://www.academia.edu/49950881/Asymmetric_Vulnerabilities_of_the_US_and_New_Capabilities_in_Geopolitical_Warfare_Including_Economic_Digital_Cyberspatial_and_Lawfare)

<sup>25</sup> [https://www.academia.edu/50652106/China\\_vs\\_the\\_World\\_IQ\\_as\\_a\\_Strategic\\_Asset\\_a\\_graphical\\_comparison](https://www.academia.edu/50652106/China_vs_the_World_IQ_as_a_Strategic_Asset_a_graphical_comparison)

<sup>26</sup> <https://www.unwater.org/water-facts/scarcity/>

<sup>27</sup> <https://www.wfp.org/publications/global-report-food-crises-2021>

<sup>28</sup> <https://www.youtube.com/watch?v=f12SSCUfOhk>

<sup>29</sup> <https://www.youtube.com/watch?v=eCorxPmmLa8>

<sup>14</sup>

[https://www.academia.edu/50804855/MIMS\\_2\\_Application\\_discussions](https://www.academia.edu/50804855/MIMS_2_Application_discussions)

<sup>15</sup> <https://www.whs.mil/library/>

<sup>16</sup> <https://www.cia.gov/legacy/headquarters/cia-library/>

<sup>17</sup>

[https://www.academia.edu/49950880/CALCULATING\\_THE\\_INNATE\\_SHI\\_%F5%8B%A2\\_OF\\_COUNTRIES\\_USING\\_THE\\_UNITED STATES\\_OF\\_AMERICA\\_AS\\_A\\_TEMPLE\\_1](https://www.academia.edu/49950880/CALCULATING_THE_INNATE_SHI_%F5%8B%A2_OF_COUNTRIES_USING_THE_UNITED STATES_OF_AMERICA_AS_A_TEMPLE_1)

<sup>18</sup> [https://www.academia.edu/50357891/MIMS\\_and\\_Shi](https://www.academia.edu/50357891/MIMS_and_Shi)

To solve these, very smart, pre-planned “chess like” moves will need to be made.<sup>30</sup> “Adventurism” will be useful if, and only if, it serves the rapid development.<sup>31</sup> Voyages for the sake of pure tourism will lead towards ridiculous developments<sup>32</sup>, though not entirely useless<sup>33</sup>. And yet, a lot can get done in a rapid period of time in the age of super-inflation<sup>34</sup>, so long as we do not enter hyperinflation and experience cavitation collapse.

See Table 1.

Regardless of how it gets done, it is vital that it gets done. There are so many motivated young minds, lacking direction, who think that democracy, the Republic, and capitalism are failing. It is not these inanimate objects which are failing as MIMS, but that they are not evolved by effective and genuine/sincere leadership. So whatever happens, it needs to happen with effective leadership from the front which is unafraid of the criticism and back/ankle biting which will come for [social] media pundits and others infected with the socialist mind pathogen (and other anti-MIMS). It will come when “necessity is the mother of invention” exceeds complacency.

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<sup>30</sup> “The Art of Chess,” Sf. R. Careaga, 2018

<sup>31</sup>

<https://www.cnbc.com/2021/02/27/private-companies-like-spacex-are-driving-industry-costs-down-ceo.html>

<sup>32</sup>

<https://www.forbes.com/sites/nicholasreimann/2021/07/12/leaving-a-planet-in-crisis-heres-why-many-say-the-billionaire-space-race-is-a-terrible-ideal/>

<sup>33</sup>

<https://news.yahoo.com/the-billionaire-space-race-could-benefit-regular-people-too-181303624.html>

<sup>34</sup> Excessive fiat production, but not quite hyperinflation ala Venezuela or Germany after WWI.

Table 1 - Known Problems of the World, Solution Sets, and Motivations<sup>35</sup>

<b>Problem</b>	<b>A solution [set]</b>	<b>Motivations &amp; Utility</b>
M.A.D.	Create Thunderbolt Generators	Non-radioactive hyper-powered and dissuasive WMDs
Water shortages	Desalination, Mantle harvesting, Neo-permaculture, Bioswale <sup>2</sup> s <sup>36</sup>	Not only for population and industrial needs, but because increased biological support increases natural water output <sup>37</sup>
Ocean Pollution	Underwater colonies, automated trollers	Fish and food safety
Energy Shortages	True Green Tech <sup>38</sup> & Thorium nuclear	Growth and development; employment and infrastructure
False Green Tech	Short term use, regulation, redirection	Extend oil supplies and reduce pollution
Nonlinear Dynamical Collapse (Black Swan events)	Dual Layer Economics & Operations Research with Logistical emphasis	Protection against endogenous Cat-6 catastrophes
VEI-7 and megatsunamis	Venting & harvesting molten steel; deconstructing volcanic threats	Energy and ore needs, passive mining, infrastructure, GDP, etc.
Cryptoexplosive Events Cat-7+	Asteroid Slingshots (requiring portable electromag tech, with BPS empowerment)	Survival and BPS development
CMEs & hyper X-class flares	Plasma Double Layer planetary shielding	BPS development
Arable Land Diminution	Deep Mining	Ore shortages, and employment, robotics industries
Gold and other ore shortages	Deep Mining & SAFIRE Transmutation	Electronics needs
CO <sub>2</sub> shortage <sup>39</sup>	Passive Atmosphere Program	Long term forest and soil production <sup>40</sup> for terraforming

<sup>35</sup> This is not an exhaustive list. Just some of the largest issues.<sup>36</sup> Typical bioswale tech is cumbersome to install, and targeted. The idea of Bioswale<sup>2</sup> is to exponentially increase their number at a reduced price, to refresh aquifers and “green” deserts and savannah.<sup>37</sup> <https://www.youtube.com/watch?v=ZSPkcpGmfIE> & <https://www.youtube.com/watch?v=3vfuCFFb8wk><sup>38</sup> Such as geothermals, volcanic natural gas, resonators, wind and river turbines, etc.<sup>39</sup> Currently mankind is increasing CO<sub>2</sub> at a rate of .01% per century, and this is holding. But after the population shrinks and the forests and algae explode in growth, that will become used up at an alarming rate. 0.04% of the atmosphere as CO<sub>2</sub> is dangerously low.<sup>40</sup> Again, the need for more soil production means more carbon needs. Unless we plan to take all the carbon from underneath the ground in destructive coal mining, we will need CO<sub>2</sub> for the forestation and kelp forest projects. It will be far easier to make earth on Earth and railgun it to distant moon bases, than to manufacture it in hostile environments. Also it will help with seeding projects.

## Part I - A Technological Perspective

Again, revisiting the concepts of the previous paper means listing, in brief, the entire set of already proposed technologies before diving deeply into them. It also requires looking at the problems already listed, a little deeper and with some research into the current “thought progress” and “human momentum” found. With COVID distraction and WW3.0<sup>41</sup>, it is likely that people have “lost the plot” that TED/x brought to the world in the 2000s and early 2010s.

- ❖ Birkeland Current technologies (in general)
- ❖ Reflecting farm
- ❖ Railgun & maglev launchers
- ❖ Plasma double layer shield generators (DLSG)
- ❖ Birkeland Vajra Generator (BVG)
- ❖ Blockchain Communication
- ❖ Asteroid Charge Farms
- ❖ Photonic Relay System
- ❖ MHD-FRG generators
- ❖ Self forming nano-balloons (SFNB)
- ❖ Asteroid/comet mineral supply and transport
- ❖ Terraform Platforms and systems
- ❖ Scale Reduced Computers
- ❖ Gold Foil Charge collectors
- ❖ Supercacitors
- ❖ Nanobattery technology
- ❖ Micro-star stations
- ❖ Laser-arc Transfer
- ❖ Tight BEAM Laser
- ❖ MASER Beams
- ❖ CDN Repulsor Tube
- ❖ 3D/VR Internet
- ❖ Edge Computing

All of these technologies come from a specific set of needs. Particularly, ways to interact with the *N*, *F*, and *A* powers by using physics (*P* power)<sup>42</sup>. As the following list pertains, it is a semi chronological development perspective, of each phase of technology, and new ones, to roughly correspond with the stages in the next section.

Bear in mind that as this paper is MIMS<sup>43</sup>, there is no way to rightly know what should or shouldn't happen, nor is it necessary. Instead, the MIMS should produce a precision of metaphysical engineering to enable either further metaphysical engineering (visioneering), or hopefully active, present physical engineering and scientific development. In the latter case, the production of scientific proposals, and experiments, and in the former new devices and inventions. In either case, something physical which can then interact with the mimsical visioneering.

### Deep Mining & Volcanics

In the Universe there are only a few known systems of essentially free, sustainable energy systems. On a cellular level one example would be osmosis<sup>44</sup>. In energy generation, the Stirling Engine is another one<sup>45</sup>. But on a much larger scale, Earth's volcanism and magma flow is the most powerful generator on the planet<sup>46</sup>. There are several reasons why volcanoes can and will be vitally important - as soon as man stops being afraid of them or treating them as angry gods.<sup>47</sup>

1. Energy supply
  - a. Gases
  - b. Molten flow
  - c. Geothermal
2. Thermal heat for underwater cities

<sup>41</sup> The cyber war fought prior to, as a prologue to, World War III

<sup>42</sup> In order: Causality, Evolution or Flux, Relativity, Conservation, Vibration, Rotation, Polarity, and Resonance

<sup>43</sup> 4.0?

<sup>44</sup> <https://www.britannica.com/science/osmosis>

<sup>45</sup> <https://www.britannica.com/technology/Stirling-engine>

<sup>46</sup> [https://www.youtube.com/watch?v=G\\_fh\\_uDtW28](https://www.youtube.com/watch?v=G_fh_uDtW28) look at the size of the plumes.

<sup>47</sup> [https://en.wikipedia.org/wiki/Gunung\\_Padang\\_Megalithic\\_Site](https://en.wikipedia.org/wiki/Gunung_Padang_Megalithic_Site)

- a. Or for super large Sterling generators, in arctic locations
3. Molten iron and nickel, and other increasingly rare ore in practically infinite supply
4. Steel foundries
5. Continuous induction (later stages) for more energy production, probably best for cooling interchangers<sup>48</sup>, etc.

The purpose of using these volcanic systems would be to provide humanity with a passive source of energy and material, as well as lessen pressure in very dangerous chambers and systems, such as those in the Rift Valley, Vesuvius, Krakatoa, and others.

Furthermore, it is the only reliable way to get at massive amounts of structural steel, iron, and other metal ores at the volume necessary without damaging massive amounts of Earth's surface, or relying solely upon Deep Mining.

However, it is clear that Deep Mining will be necessary. For example, the need for various veins of gold and precious metals, not found in space, especially in the early stages before asteroid farming is an option. The key issue with DM will be the heat and pressure. Therefore, improvements in robotics, drones, and AI will be needed - and fast - for mankind to be able to make much more rapid improvement. It is recommended that Venus probes<sup>49</sup> and rovers be designed, as quickly as possible, as the challenge will be sufficient to help mankind with the other issue.

One thing stopping DM progress would be the excessive cost of tunnels to "nowhere" which cause mankind to shrink back from destiny. It will be difficult to pay for the engineers, the designers, and the construction means to accomplish all of it, which will require human manpower at first. Beyond that, the size, conduits, ducts, piping, bulk-head doors, etc. will require a lot of advancement on mining technology of the previous eras, and then some. This does not come easily, and could take some 50 to 100 years of vigorous development.

Each pressure tier will have to be met as a challenge with stronger and stronger reinforcements, and the ventilation and cooling systems rapidly advanced. Early interchangers will fail repeatedly. EnviroSuits<sup>50</sup> of the current 21<sup>st</sup> century are quite unable to help humans cope with temperatures much beyond 140 degrees for very long<sup>51</sup>. With the resources of NASA this could be improved, but humans will be, ultimately, limited in depth. Therefore either very thick and expensively cooled tunnels have to be pre-fabricated for insertion in sequential steps, or robotics will need to improve both in versatility and strength, together.

One other selling factor on this pathway would be that - aside from the jobs it creates - it will drastically reduce the need for surface strip mining, and start to protect the arable land and forests, as well as water.

When mankind changes GDP to include what nature provides for free, as part of a nation's GDP<sup>52</sup>, then several things will change:

- Profitability in ocean cleanup<sup>53</sup> and automation<sup>54</sup> thereof
- Enhancements in permaculture expectations, agriculture, and abandonment of monoculture and poisonous systems
- The end of clear cutting for timber or for ranch space
- Active protection instead of passive/reactive to poaching
- Financing for massive [true] green architecture

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<sup>48</sup> <https://www.britannica.com/technology/heat-exchanger>

<sup>49</sup> <https://www.britannica.com/topic/Venus-Express>

<sup>50</sup> <https://www.pinterest.com/nickporcino/environment-suits/>

<sup>51</sup> [https://www.youtube.com/watch?v=wgUFb\\_I4DLE](https://www.youtube.com/watch?v=wgUFb_I4DLE)

<sup>52</sup> <https://www.youtube.com/watch?v=A-QpKiU-NHo>

<sup>53</sup> <https://www.youtube.com/watch?v=du5d5PUrH0I>

<sup>54</sup> <https://www.youtube.com/watch?v=mT4Qbp89nIQ>

This will further incentivize the faster and faster adoption of true green energy (as opposed to photovoltaic solar, HAWT wind, dam hydroelectric, and other harmful “green” energies), permaculture, high speed rail, electromagnetic transport, and other long held technologies, like hydrogen fuel cells, nanotubes, high temp superconductors<sup>55</sup>, etc.

## Asteroid Harvesting

The entire point of asteroid harvesting is that it, in theory, should be easier than Deep Mining. Deep Mining would need some time to develop the technologies, and probably falls into a Stage 2 to 3 technology. However, asteroid farming could, in theory, begin just as Stage 1 is culminating into more Mars trips, after the Moonbase(s) are active.

It would, in the beginning, probably be mediated by haulers. Haulers, like truckers, will form the backbone of a space economy in a way that few people appreciate. Without truckers, the world would collapse. Without haulers, and too much reliance on an automated and AI-robotic infrastructure would be truly a setup for disaster. It is absolutely critical that the SpaceX and other billionaire tourist efforts continue, to provide the foundational research in Stage 1. If they do not continue this, Stage 2 will be almost an immediate collapse. It is doubtful we could even make it to Phase 2 of Stage 1. Automation will not work in the reality of “on the ground” situations. In the Saturn missions pre planned engineering took us from Earth to the Moon... but surviving the landing and return required human ingenuity on the spot, and high quality training, and previous simulation on land. There were deaths, and brave men died. Later men and women in the Space Shuttle program (which should be de-mothballed) died for similar reasons. We should not shrink away from these facts in favor of some automation. Unlike

Deep Mining, we absolutely can go into space person by person, and must. It is the same as a toddler: it must fall to learn to walk and run, even though you cannot put the toddler in the pool alone (the inside of Earth). Later, when the underground infrastructure is strong, mankind can go into the depths of Earth and the oceans. But we cannot wait till Stage 3 or 4 to build the critical highway of haulers.

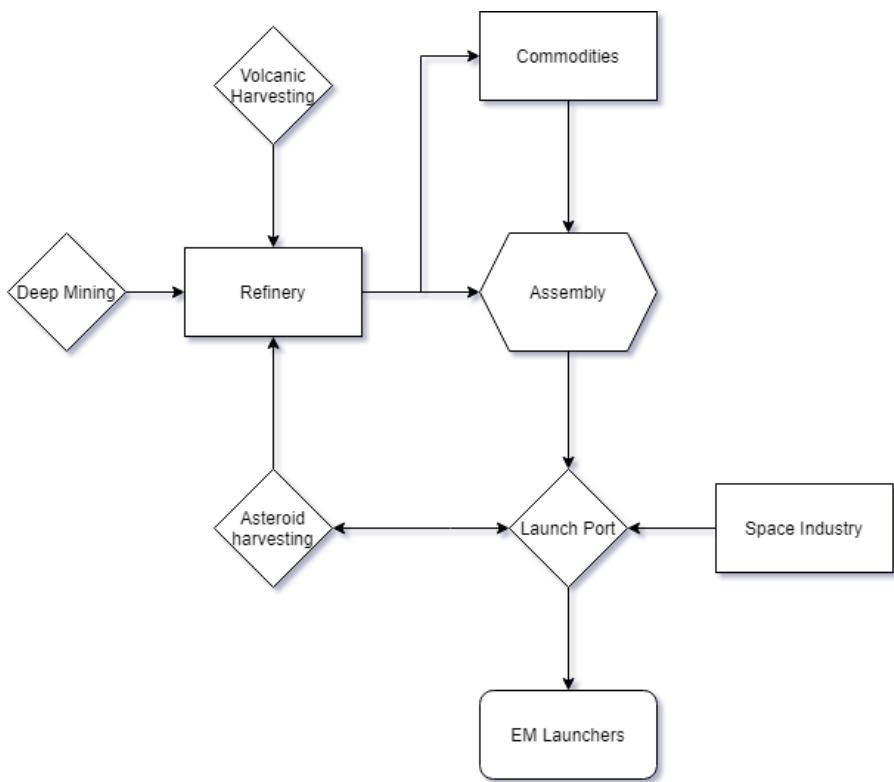


Figure 3 - Proposed Stage 1-2 industrial infrastructure; credit: author

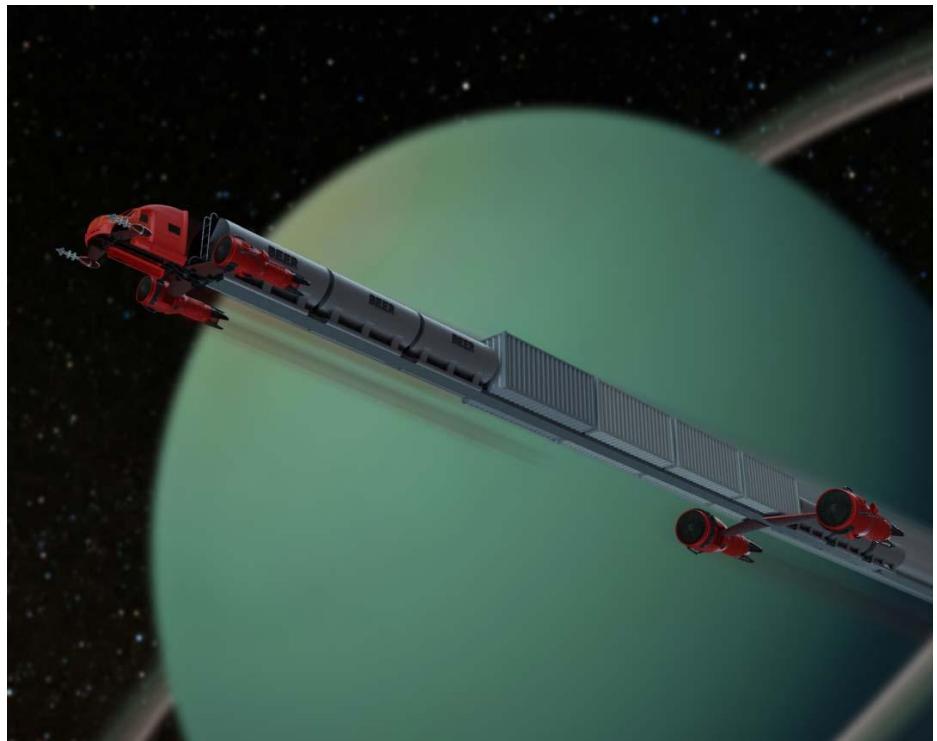
It will also be necessary to create an entire industry of asteroid refineries. It is not thought at this time they should be any more advanced than current, only larger in scale. They will need engineering in pollution control to provide for a complete 0 net-negative-effect refinery.

<sup>55</sup> <https://www.britannica.com/science/superconductivity/Higher-temperature-superconductivity>

Figure 4 - "Santa's Space Truck near Uranus"; credit: chreberle<sup>56</sup>

## Electromagnetic Launches

In order to deal with this kind of infrastructure, we will need EM launch stations, situated throughout the globe, and then over time made into moonbase versions and eventually highly portable (unrolling) stations, made by automated factories, placed next to volcanic harvesting and ports where asteroid commodities are returned and refined (on location). The only thing not shown explicitly in the above is the logistics for raw chemical



refinery, and the energy source. It'd be preferable for a thorium nuclear plant, but theoretically any large scale true/false green/standard energy source would be acceptable in Stage 1. However by Stage 2 this would **not** be acceptable, and only true green energy - no Uranium or Plutonium cores!<sup>57</sup> - will be acceptable.

Creating the EM launchers will not be overly difficult at the middle Stage 1, except for the money and politics involved. Early railgun launching systems will be met with political fear, scorn, and the difficulty of local politics (such as corruption, sandbagging, theft, security, etc.). To make the first ones profitable in a current non-Dual Layer Economics form of globalism will require some type of current industrial and market function. Tourism comes to mind, and repair of satellites, and removal of "space junk" as well. It may need government inflation to float the project for some years until costs come down and increase the replicability.

Such long rail systems are acceptable at the current yield, because there are now magnets strong enough to carry aircraft carriers. The issue will be the electricity generation, with limitations of cable strength, fuses, etc. We are currently limited in the 10,000 A range, and want to be at 1 MA or more. It is therefore advisable to use Tesla wireless technology. However, if we want the ability, using very expensive (and therefore job producing) technologies, then an industry of 3D printing "braided" cables is advised, to increase surface area, since electricity "flows" on the surface of conductors, and not through it. The volcanic harvesting will minimize efforts. The technology for this is in early stages, but 3D printing of Aluminum rockets<sup>58</sup> is already happening, with launches expected in the next 3 to 5 years.

As for the physical structure, it might be advisable to create a "centipede" structure from the start, with maglev or liquid mounting options. Pre-fabricate the rolling centipede of smaller railguns, and then lay them

<sup>56</sup> <https://imgur.com/user/chreberle>

<sup>57</sup> Even though the EM launchers can help get rid of the waste, the risk of automation nonlinear breakdown and meltdown, or in transport systems of said waste, is simply too high for this to be a basis for scaling. Remember: each scale stage is an order of magnitude harder, more expensive, and complex than the previous stage. If we have Chernobyl and Fukushima issues at the base of Stage 1 now, imagine by Stage 5, **the planet would be uninhabitable by mammals, amphibians, and birds.**

<sup>58</sup> <https://www.youtube.com/watch?v=kz165f1g8-E>

along the ridge line until the ramping is to occur, and then up the reinforced titanium structure. The maglev and superconductivity should handle vibration well enough, until the end when precision is needed, and then a centering effect of hex-shaped magnetic tunneling will need to center the craft/object. However, to deal with earthquakes and tremors, liquid mounting on the hempcrete base is suggested, and with adequate sensors to prevent misalignment and crashes. Even if you're only launching commodities to the moonbase you need to prepare for the disasters of unexpectedly launching a ballistic missile at other countries. It might be advisable to have Aegis cruisers and SAMs posted along coasts near the launcher for easy safe destruction. Also the Star Wars program anti-hyper-ballistics need to be placed around all railgun apparatuses to protect from tactical drone, nuclear, or stealth bombing strikes in Stage 1 while everyone is still figuring out how to "calm down" from present WW3.0 and New Cold War issues.<sup>59</sup>

Table 2 - Computing Types

<b>Solid State</b>	<b>Mechanical</b>	<b>Fluid</b>
<ul style="list-style-type: none"> <li>• Faster than DRAM</li> <li>• Moves towards 3D Internet</li> <li>• Efficiency and noise advantages</li> <li>• Scalability</li> </ul>	<ul style="list-style-type: none"> <li>• Survivability</li> <li>• Elegance</li> <li>• Backup systems</li> </ul>	<ul style="list-style-type: none"> <li>• Versatility</li> <li>• Cooling advantages</li> <li>• Survivability</li> </ul>
<b>Molecular</b>	<b>Optical</b>	<b>Plasma</b>
<ul style="list-style-type: none"> <li>• Electrochemical</li> <li>• Very fast, able to compete with high end computing</li> <li>• Theoretically cheap long term production</li> </ul>	<ul style="list-style-type: none"> <li>• Theoretically the fastest non-quantum computing method</li> <li>• Can be combined with other methods</li> <li>• "Holy grail" of computing</li> </ul>	<ul style="list-style-type: none"> <li>• Scalable with Birkeland Current concepts</li> <li>• Quantum ready</li> <li>• Transfer of power component</li> </ul>
<b>Crystal</b>	<b>Biological</b>	<b>Quantum</b>
<ul style="list-style-type: none"> <li>• Durability</li> <li>• Memory advantages</li> <li>• Reasonably high speed</li> <li>• High throughput overall</li> <li>• Inspirational</li> </ul>	<ul style="list-style-type: none"> <li>• Interesting</li> <li>• Social implications</li> <li>• Potential new AI options</li> <li>• Life-affirming</li> <li>• High speed</li> </ul>	<ul style="list-style-type: none"> <li>• Theoretically highest speed</li> <li>• Solve most difficult problems</li> <li>• Biggest areas for near term improvement</li> </ul>

## AI, Supercomputing, and Robotics

The fact is that artificial intelligence is coming whether we want it or not. There are four areas to be cognizant of when we speak about AI:

<sup>59</sup> At present the USA ® is dealing with treason and subversion issues, and a culture war, potential civil war, all of which will slow down Human Momentum and drain Human Energy for the Stage 1 to reach mid level of Stage 1. It will be 10x more difficult to get to phase 3 of Stage 1 than from phase 1 to phase 2 (which is already costing mega billions, and under heavy scrutiny. Then to graduate from Stage 1 will be a high risk of World War, if transparency is not a persistent behavior of world superpowers (US, Russia, China, EU, etc.)

Table 3 - The AI Chart

COLOSSUS/Skynet aka Centralized AI (CAI)	Targeted AI (TAI)
<p>This is a very bad idea for phase 1 of Stage 1, and a big threat. It is presently underway with Google DeepMind and Amazon AWS cloud, and Microsoft. All of them are developing AI which could replace humans in many facets, and they have the corporate fascist values to enable a dangerous New World Order which is demonstrably anti-Human Energy.</p> <p>It would be foolish to imagine there are not government, Chinese, and Deep State operatives that want this kind of power.</p>	<p>Like the function specific AI, targeted AI is focused. But there is no specification of human guided or not. In some ways, if the early AI is designed in a neutral manner, this is better, because then human biases are removed. An example would be rescue robots, or sports-playing robots. In another way it could be problematic if the AI learns to be racist, pedophilic, human-hating, and is connected to specific programs like police robotics for Africa (to fight warlords and corruption).</p>
Program & Project, Function-specific AI (FSAI)	Black Market or Dark AI (DAI)
<p>Whether it is political (like ShadowGate or the CIA toolbox exposed by Snowden) or learning algorithms used by colleges and researchers, programs that have human guided functions are the key form of AI development in a dApp and DeFi environment, which would be the “nutrient rich soup” for the evolution of a Stage 2 or late Stage 1 spacer industry.</p>	<p>Used by shadowy organizations for mostly illegal and parasitic purposes, these AI could make use of blockchains and stock market transactions to target infrastructure, create corruption, market manipulation, and other asymmetric attacks. They can potentially cyphon, theoretically nearly 100% of the Human capital and Energy for spacer projects.</p>

All of these projects are potentially enhanced by Quantum (or bio) Computing (see Table 2), leading to the QAI Supremacy<sup>60</sup>, and therefore a “checkmate” threat on the global stage, which would stagnate Stage 1 in a form of soft Imperialism under “positional threat”... not unlike trench warfare or the Israeli War on Insurgency in the Middle East. Such stifling of motion eliminates Human Momentum, potentially for hundreds of years. If the Allies or China or Russia think “that’s why we have to develop it first” then they are forgetting the salient history of the Hydrogen bomb. It was an upgrade to the atom bomb, and it was stolen even faster than it could have been developed<sup>61</sup>. Whenever new technology scales up, the interconnectivity of nonlinear systems and dynamics ensures rapid osmosis in the system, to stabilize and balance under new homeostasis.

Much more simply we can describe the obvious benefits of immediate, full scale *robotic* adoption, so long as LiDAR and other laser and high energy weapon targeting is left off of them<sup>62</sup>, particularly if they are cloud controlled by a CAI or FSAI.

- Increase scale of strength
- Servile, non human population for menial tasks
- Capable of surviving harsher environments
- Increased precision, especially as the task narrows in focus
- Durability in rugged environments<sup>63</sup>
- Industrial markets and production (jobs)

<sup>60</sup>

[https://www.academia.edu/49950881/Asymmetric\\_Vulnerabilities\\_of\\_the\\_US\\_and\\_New\\_Capabilities\\_in\\_Geopolitical\\_Warfare\\_Including\\_Economic\\_Digital\\_Cyberspatial\\_and\\_Lawfare](https://www.academia.edu/49950881/Asymmetric_Vulnerabilities_of_the_US_and_New_Capabilities_in_Geopolitical_Warfare_Including_Economic_Digital_Cyberspatial_and_Lawfare)

<sup>61</sup> <https://www.youtube.com/watch?v=JpXWxgcP9Rs>

<sup>62</sup> <https://www.youtube.com/watch?v=M45qr18sCKY>

<sup>63</sup> In other ways humans (flesh) is more durable. Depends on the context

- Encourage humanity to leave behind propaganda based education to adopt engineer based<sup>64</sup>
- Improved compliance of peace treaties between non-Allied nations, to make better use of the Human Energy and improve Human Momentum

The robotics will need to be multiform. It is recommended, when utilizing FSAI and TAI in human situations, to use humanoid robots and androids, and even to work with cyborgs/cyberized persons. It is not recommended that CAI take no form or be permitted to have a mobile body, or any form of protected structure, as in "The Forbin Project." It is recommended that we develop type scanning FSAI to look for the different forms, that can connect with (via known and self-evolving protocol systems of the Internet) other AI and robotics, to look for DAI and the false agents of FSAI or CAI which infiltrate organizations, industries, and act as enemy spies and saboteurs.

All of this will require enhanced supercomputing (see Table 16). The current effort towards cloud-based Edge computing is noble, especially to enable the blockchain and decentralized finance (DeFi), however, a bit misguided in terms of the use of 5G+ wireless. It'd be far more permissible to utilize some form of Tesla Wireless, or scalar waves (if they can be found and proven), or ULF lasers. Radio waves and IR are, unfortunately, not secured channels at the moment and beside which there would be too much potential interference. UHF channels are too dangerous in many ways, plus they cannot traverse long distances due to the attenuation of water in vapor and sea<sup>65</sup>. Therefore non 5G options should be sought.

As for the form of supercomputing, we are currently in the cluster mode, but ready to enter "mega-chip-on-same-die," and move away from true miniaturization while still making micro (nano!) chips. However, at present the world economy has not been designed to scale up, using a DLE model, and it is at present in a very bad situation because the world's only complete chip maker is located in Taiwan<sup>66</sup>, which is under dispute. Tactically the USA ® would strike the TSMC facility rather than hand it to China. This represents a ridiculous issue where inflation and economic forces make it too hard for other chip makers, (like IBM or Micron or Nvidia or Intel) to be complete manufacturers in their own industry. We need an entire silicon backbone - and a solving of the world sand issue<sup>67</sup> - to scale this operation and reach Stage 3. It seems unlikely that we will nix the silicon processor anytime soon, even with 3D Internet and biocomputing, or optical computing. Quantum computing will not be cheap (cooling issues) for some time, perhaps even until Stage 4.

All of these processes will require increased amperage and energy sources. Therefore we must finally address the "elephant in the room."

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<sup>64</sup> Of the strains of philosophy - monotheistic/rule based, polytheistic "divine right to rule" tribalism, religious/theocratic, or engineer based (shamanistic or secular) - only the latter has produced great wonders of the engineered skill and precision of the Great Pyramids and Karnak. The rest may have made pyramids or other great megalithic ruins, but they never evolved from there to interact with the PEM force. The Sumerians and first Egyptians, which may be one and the same or descended from Atlanteans, relied upon mathematics and data, as well as empiricism and precision engineering. Both are civilizations gone now, but we inherit their strain of culture and ponder our own mortality as individuals and cultures. By comparison the tribals of the Sami or aborigines of Australia, for example, are long lived and survive, but they have never built anything great.

<sup>65</sup>

<sup>66</sup>

<sup>67</sup> Technically we have enough sand, just not in a ready to use form. So it will take energy to pulverize it. Even then they will be dipping into the same reserves needed for chip manufacturing, so we can expect the silicon issue to increase as time goes on.

## True, Unlimited Green Energy (TGE)

There is no shortage of energy. There is only a shortage of will and desire to capture green energy sources. Silicon based photovoltaics, HAWT wind turbines, and hydroelectric dams are not truly green, and in most cases they are not even scalable. VAWT wind turbines are ancient concepts, and can be easily scaled. They are less harmful to birds, as well. Dams can be replaced with better irrigation methods and river turbines. Photovoltaics can move towards algae based photosynthesis, if the water circulation and pH regulation systems are developed.

There are, however, many other forms of unlimited truly green energy:

- ❖ Volcanism and geothermal
- ❖ Water solar
- ❖ Wind turbines
- ❖ Vibration generators
- ❖ Tidal turbines
- ❖ Earth resonators
- ❖ Atmospheric energy
- ❖ Radiant energy<sup>68</sup>
- ❖ Thorium nuclear
- ❖ Space energy
- ❖ Dark mode plasma fusion
- ❖ Pyramid resonators
- ❖ Etc.



Figure 5 - VAWT urban ([gif](#)); credit: J Doucet<sup>69</sup>

Here we need to define what is a “true green” energy. It is non-toxic in output. Thorium nuclear at present won’t fit this, but it will in time when processes are refined until nothing but salt is the output.<sup>70</sup> Geothermal and turbines are made of metals, difficult to make ruthenium and gold alloy blades<sup>71</sup>, and these are not presently green processes, but should be capable once other green energies come online.

Unlimited here means that the potential for scale far exceeds expected use.

For most of these they will always exceed humans on Earth, but in terraforming other planets and moons, it won’t suffice, and we will need to introduce the last five or six at as early a stage as possible. Long term, the building of pyramids and other shaped Earth resonators in tandem with a Tesla tower wireless system will be desirable as other human unifying conditions and cultural changes (from spacer and engineering movements) come along, probably Stage 3. Could they be made in Stage 2? Yes, but the fact is that **the costs exceed our present economic abilities**.

## Seed Cloning

In the coming age of *force permaculture* caused by a dying planet of shrinking arable land and limited clear cutting options, we will need to be producing non-terminator seeds<sup>72</sup>. However, even if one in ten

<sup>68</sup> Eg: <https://www.bbc.com/future/article/20201126-the-solar-discs-that-could-beam-power-from-space>

<sup>69</sup>

<https://www.zmescience.com/ecology/renewable-energy-ecology/mesmerizing-wall-turbines-could-revamp-urban-renewable-energy/>

<sup>70</sup> <https://www.nature.com/articles/d41586-021-02459-w>

<sup>71</sup> <https://pangea.stanford.edu/ERE/pdf/IGAstandard/EGC/szeged/I-5-01.pdf>

<sup>72</sup> And therefore ending the reign of terror that companies like Monsanto and Dupont have on farmers

gardeners produced seeds for consumption we would not be able to produce enough for the terraforming of Mars, let alone the remainder of the solar system. Therefore, we will need cloning factories. Theoretically it should be doable within Stage 1, considering the technology should be similar to cloning stem cells. However, without a good market (so long as terminator seeds exist) what would drive the invention and capitalistic urge?

Seed cloning, particularly in the department of fruiting and nutting trees, legumes, and of spores (many many forms of mycelium will be needed for the soils), will be absolutely essential for foresting planets.<sup>73</sup>

It will also be useful to create megastructures, and even megacities surrounding new agricultural paradigms because these will produce the manure (human or otherwise) for soils, as well as opportunities to grow plant material purely for the sake of making mulch. The soils can then be turned into dark earths<sup>74 75</sup> utilizing ancient technologies that have enabled the Amazon to be as rich and potent as it is<sup>76</sup>. More importantly, dark earths can be pulverized and made denser for on-ship greenhouses, and off world colonies. But this will introduce a strain on our planet's already thin carbon dioxide resources. Even our present fossil fuel wasting will not be sufficient to provide carbon for the soil production needed at that Stage 3+ terraforming. Therefore we need, and this is **critical**, an offworld source of carbon, not only for growth but soil production. Thankfully there is a key answer hidden in our terraforming processes, and it is crucial to begin the process even at the late or mid Stage 2, and this will give incentive to rocket manufacturers to create satellites under the "hauler" industry!

## Atmosphere Harvesting

In Britain, true green energetic transfer systems known as motorless coal carriers have existed for hundreds of years<sup>77</sup>. They are sadly (and despite the carbon free mentality) almost gone, with only one left in operation to this day. However, the concept can be replicated in space, even before the era of space energy and Birkeland Polyphase Superwebs, we can utilize gravity slingshotting and edge supercomputing to keep atmosphere harvesters in space for a long time. We do not know their attrition rate, but the fact is that we will need hundreds of thousands of them, working passively for hundreds to thousands of years to move CO<sub>2</sub> and other gases (like methane) from Venus, our primary source, and Titan to Mars, Earth, and Europa.

The upside of the program is even as few atoms are harvested at the time into the collectors, there is added transfer of space data, as well as observational equipment to warn of asteroid and comet impacts, etc. As the program accelerates, then Venus will cool - theoretically - and Mars will warm. Furthermore the moving bodies will act as self-driving cars do: tertiary computing centers and diagnostics.

Why would we need to transfer CO<sub>2</sub> to Earth at Stage 4? By those few hundred years in the future, as humans move into underwater and subsurface and on surface megacities, which are built not for containing humans but protecting them<sup>78</sup>, the environment and mankind will need far more carbon than is easy to get at without destroying forests and mountains. Rather than try to bleed the Earth dry of highly useful, important, petroleum sources, it would be far easier to "kill two (or three) birds with one stone" and get the atmosphere of Venus<sup>79</sup> and transfer it to Earth to help the Venus terraforming project<sup>80</sup> accelerate.

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<sup>73</sup> A. Hardin: "[We need] three things for permaculture: bioaccumulator (comfrey, microrhizal fungus), worms, and potash."

<sup>74</sup> [https://en.wikipedia.org/wiki/Terra\\_preta](https://en.wikipedia.org/wiki/Terra_preta)

<sup>75</sup> <https://www.nature.com/articles/s41467-020-20184-2>

<sup>76</sup>

<https://www.smithsonianmag.com/science-nature/pristine-untouched-amazonian-rainforest-was-actually-shaped-humans-180962378/>

<sup>77</sup> <https://www.youtube.com/watch?v=6RiYXI1Tfu4>

<sup>78</sup> And providing for nuclear fallout shelter as well as close research work for the spacer revolution

<sup>79</sup> which originally came from Mars more than likely

<sup>80</sup> Harvesting Venus' atmosphere will be somewhat technically difficult, however producing water on surface will be far more difficult. Europa cannot seed both Mars and Venus. The entire rings of Saturn cannot do so, and will probably be a

The technical aspects of giant satellite scoops and ion-engine accelerators (from Harvester industry) will be less important at this stage than the production of the hauler industry. To wait too long is to flirt with more expensive prospects, such as transmuting elements atom by atom in plasma glow modes. Why do it that way, or as fusion and fission byproducts, when in fact we can solve a need for industrial justification of satellites, haulers, and terraforming hundreds to *thousands of years before we need it?*

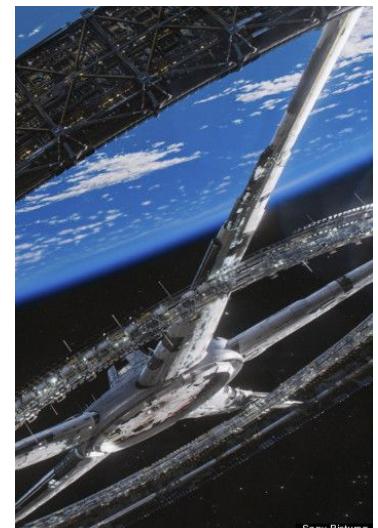
It will not be easy to make portable giant terraforming refineries and megacities. In the beginning humans and robots will have to transport/haul equipment from the moon bases to Mars, and beyond, and build various portable sections and sensitive machinery/engines to create the first versions (for experimentation and testing). Operating these will require a highly educated populace, and so that (at present trends) will take about 50 years of competent instruction, not in "studies" and "critical theory" and other non-engineering<sup>81</sup> or non-technical nonsense. This will not be an artistic or architectural endeavor. Graphic artists and others from gaming and phone or telecom industries need to be moved into actual improvement and engineering projects, particularly working with FSAI and TAI to design better and better systems [enhanced TED]. Systems engineers will have to work with program directors and Operations Research experts (which are in startling short supply), in order to plan out the expansion of the facilities in harmony and with a symphony of support between human and robot, and various nations, much as existed during the brief (all too short), and fading years of the International Space Station<sup>82</sup>.

## Satellite Gold Foil Arrays & Tight Beam Laser

The advantage of a massive pump-n-dump EM launched satellite industry backbone will be more apparent when the age of telecom "space junking" is drawing to a close, and the Space Wars begin (by China and the USA shooting down satellites from Earth).

Towards the end of the second phase the situation can morph from haulers and passive satellites into a far more rapid and utilitarian phase where 10 main types of satellites are being shoveled into the solar system at a rapid pace:

1. Telecom
2. MilSat
3. Space stations (Gyros)
4. Observational
5. Relayers
6. Haulers
7. Delivery of Payload (DoP)
8. Energy harvesters
9. Energy transfers and transponders
10. Portable delivery systems



There will not likely be any "Elysium" (Figure 6) or "Zalem" megacities in the sky for a good while because it would be offensive to too many people: too political and for not much improvement. Therefore wasted altstream and mainstream discussion on nano-tube elevators should be discouraged for the time being beyond the push for better and better carbon nanotube production.<sup>83</sup>

UNESCO protected structure at any rate. So Hydrogen will need to be moved there. Where will the Oxygen come from? Probably Earth. Hence atmospheric harvesting.

<sup>81</sup> and serious computer and mechanical, electrical, materials, chemical, and civil engineering

<sup>82</sup> <https://www.space.com/how-to-destroy-a-space-station-safely>

<sup>83</sup> This as well as supercapacitors and super batteries are more reasons we need more carbon!

Of these the last three are of particular interest in this paper. In the case of the gold foil arrays, the collection of large amounts of solar charge, and the momentum deposited thereby (via Biefeld-Brown effect<sup>84</sup>), which motivates the satellites to move around, as well as aid in other purposes like solar and galactic observation, EM research, etc. will more than justify the temporary loss of small sections of the night sky.

However, for these arrays to work there will need to be a large toroidal or spherical shell of them, especially along the Electrothermal Vines<sup>85</sup> between the sun and the planets we know have connections: Earth, Saturn, Jupiter, Neptune, Venus, etc. This large network will contribute to the computational power. All computer design should be modular to enable decade swap of electronics components (all planning for design, fabrication, launch, repair, etc. mediated by a CAI-FSAI-TAI framework “daisy chain” designed in early Stage 2). But regardless of the network or web of thinking computers should allow for maximal wifi mediated cluster edge supercomputing, even until and when the cost of quantum computers to fit inside their housings can occur.

Generally, an expectation of a 20-30% attrition rate per annum for the first 10 years, then per decade for 100 years, then per century for the next 1000 years should be expected. The result is that we can expect that there will be a market need for the satellite EM launch/railgun industry even prior to full adoption of the DLE standards<sup>86</sup> that prevent unilinear economic collapse (via codependency<sup>87</sup>).

The real issue is shielding. Until small double layer generator shields, fueled by the solar wind itself<sup>88</sup>, are developed, there will be a heaviness/mass issue<sup>89</sup>.

Transporting the energy collected by these, without an Earth medium or a laser ion channel, will probably necessitate the use of Tight Beam Laser communications, and therefore extreme precision. However, other self-contained EM packet methods might be explored prior to the Stage 5 production of the BPS. One of these is known as a Leedskalnin packet or “traveling wave tube” (TWT), the question is what would sustain these? It may or may not be a question directly related to the successful production of plasma Birkeland Currents. Until this is understood, the TWT might be a method of transferring packets, but more concretely the use of LASER and MASER arrays should be researched thoroughly. Typical RF and IR will not be sufficient, efficient, and after all subject to far too much interference, in this author’s opinion.

## Birkeland Polyphase Superweb

The previous work of the author already covered the topic in some detail. Barring the discovery of scalar wave energy (magnetic or electric), we will definitely need to work on BPS generators (BPSG). The only way to get to the BPSG is practicing with a complete Birkeland Current Generator. At present BC’s are observed in the lab in sort of a random fashion. The precise conditions are not known to the author, although there may be classified experiments that are controlled by the American, Russian, or Chinese governments. This would not be surprising, but it would be incredibly foolish. While of course the BPS represents the greatest economic opportunity on Earth in this current aeon of existence, it is, after all just the foundation of

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<sup>84</sup> U.S. Patent 3,120,363 <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history/tt-brown>

<sup>85</sup>

[https://www.academia.edu/36753643/Our\\_Plasma\\_Electromagnetic\\_Sky\\_Application\\_of\\_Hollow\\_Expanding\\_Growing\\_Electromagnetic\\_Earth\\_Hypothesis\\_with\\_particular\\_respect\\_to\\_the\\_Earths\\_Atmosphere\\_starting\\_from\\_the\\_Lithosphere\\_and\\_ASCENDING\\_ALTITUDE](https://www.academia.edu/36753643/Our_Plasma_Electromagnetic_Sky_Application_of_Hollow_Expanding_Growing_Electromagnetic_Earth_Hypothesis_with_particular_respect_to_the_Earths_Atmosphere_starting_from_the_Lithosphere_and_ASCENDING_ALTITUDE)

<sup>86</sup> At present: MIMS 1.2; but later papers may emerge as experiments are proposed.

<sup>87</sup> Codependency in humans is toxic. Why we have it for economics is really unclear. Tension in ropes is a “tug of war.” Nature does not do this with currency exchange. It is fairly foolish that we do. We flirt with nonlinear dynamic or “black swan event” collapse.

<sup>88</sup> 4V per solar grain (citation elsewhere) <https://www.britannica.com/technology/solar-wind-power-satellite>

<sup>89</sup> Lead, steel, aluminum, etc. The better shielding is heavier which demands fuel.

supraluminal (FTLS) space flight, and should not be held “close to the vest” by any power for more than the 100 years following their discovery/conquest.

The author supposes that the main reason that it would remain classified, aside from the weaponization threat of a Vajra Thunderbolt generator, is that the slow decay rate by distance of this form of electricity is, in the end surmisal, highly lucrative and a threat to Big Oil interests. That is an incredibly ignorant situation to be present, and currently both parties are responsible for two different reasons:

1. Democrats crush local oil for OPEC interests, and this stifles nascent American energy generation, and encourages false green technologies and lies already exposed about the environmental movement's views on energy and scale.
  2. Republicans encourage massive oil proliferation to the degree that it discourages true green technology development. This is short sighted because, of course, more electrical production means more jobs.
- But at present the oil lobby is able to turn heads away from the bigger picture with just the whiff of a few shekels<sup>90</sup>.

The author suspects that the key to the BCG will be super high magnetics, super high amperage, and potentially TWT packets, or a pre-arranged laser arc ion channel. However, the author also suspects that laser communications can be used to create a physical connection between entangled materials, and in the future the asteroids and GFA can capture charge, and then be encouraged to shed the charge into the BPS via low energetic laser blasts. That would be in Stage 7 or beyond, perhaps.

If there is a means to release the energy, how will it be controlled? The computing AI, working in tandem with the TAI on particular segments of the array and BPS will have to coordinate a sudden charge collection (even the Sun's output comes in randomized waves and unknown sudden ejections), and then twisted into filaments. These would not be permanent filaments, but continuously altering in location and  $V-I-R^{91}$  properties, which would mean the overall circuit would be changing and need to be compensationally adjusted. This presents a tiny and surmountable issue of clock synchronicity and control, as theoretically the travel time of the current will only slightly lag behind RF controls sent between the satellites themselves for adjustments. Therefore the computational speed per satellite will need to be significant and informed by satellites located upwards of 100AU away from the sun in the other direction. That's 800 minutes of travel time, potentially. There may therefore indeed need to be mainframes like observational satellites placed in clusters throughout the array. This entire network and circuit control system should be designed by various FS/TAI that can then take control of the situation and modulate all frequencies. If the home cluster CAI notices, for example, an observed asteroid threat, or comet, then the array and entire BPS should immediately discharge known quantities of charge and energy to make up the difference of what is needed without the Earth, Mars, or Venus's local circuit that would enable asteroid slingshot or thunderbolt, or dual layer shield to thwart/repel/destroy the target.

The added bonus of this is that the entire array can act as a detector for the invasion of the system, also, by any hostile alien species. The energy levels exceeding  $10^{12}$  A can also ensure M.A.D.<sup>92</sup> between national super powers and prevent any such VTG attacks on Earth or other colonies' surfaces, beyond the Stage 5 level of development. Hopefully this gives man 200-500+ years to get the age of Ares out of our collective cultural DNA.

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<sup>90</sup> “A billion here a billion there, and pretty soon you're talking about real money.” Actually, the energetics we're talking about here require 6 orders of magnitude of money above and beyond current economic asymptotes. That means Quatrillions and Quadrillions of dollars.

<sup>91</sup> Voltage, Current, Resistance, respectively.

<sup>92</sup> Mutually Assured Destruction

It is far too political and sensitive a situation right now to suggest a “Superman 4” like situation of complete mutual nuclear disarmament... and any attempts to suggest so will be (rightly) met with suspicion. Mankind has to keep evolving along the lines of engineering philosophies, in the Scientific Period, in the Age of Aquarius, for 200-400 more years, easily. This will also give some time to deal with the religious/theocracy hangover that is affecting the engineer-based philosophies of the Scientific Period.

## Resonating Thermocouples

At present, thermocouples are primarily used to measure temperature by converting it into a voltage, and then comparing this to their real Kelvin value, from the voltage<sup>93</sup>. But like the stirling engine, the central point is that they run on *gradients*. The difference in potentials is what generates the voltage, or kinetic motion in the case of the TGE: the SE.

Then there is the issue of utilizing resonance to produce energy. The reliability of sinusoidal oscillation enables the conversion of vibration into alternative current, and harmonics into energy. But the most interesting action is that objects in resonance increase phase status... it may appear to destroy some objects but it is merely their attempts to enter a non physical state. This resonance brings about increased energetic states, whether they are love, or lasers.

Thus we may yet find a way to combine the vibration of alternating temperatures within a physical medium, such as metal, placed in long, or perhaps folded/curled form, and converted into energetic electricity. Secondly, we could use these thermocouples in reverse to take thermal and kinetic energy, producing electrical impulses, which are then reconverted back into useful thermal energy, for either purposed use or transfer.

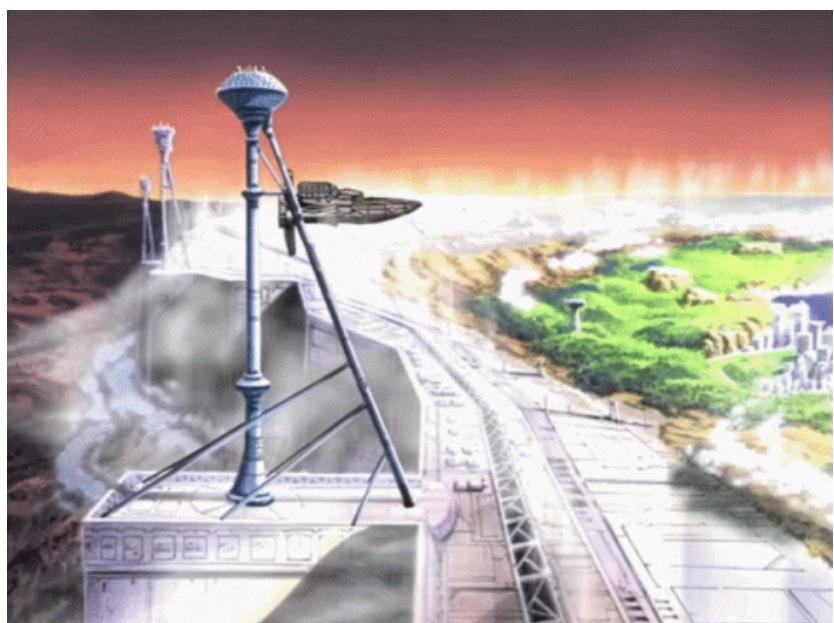
The use of these resonating thermocouples can help bridge the gap in energy and temperature exchange and regulation at small to medium and very large scales. The mediation of temperature, and recapture and transfer of sound or vibration energy will be important to improve the efficiency *and stability* of many systems. After all, vibration in systems often represents a loss of energy through inefficiency.

## Water Harvest & Transfer

One of the long term issues that will require more engineering that is at first imagined, is the transfer of water from Europa (for we cannot send that of Earth), to Mars, and Venus. It is possible that we will also need to transfer water, if it cannot be manufactured in massive supply, from comets and other solar system bodies (see Table 12), to make up for the early conditions of the Oceans.

Figure 7 - Mars Wall Terraforming ([gif](#));  
credit: “Cowboy Bebop”

The cost of transfer alone will be astronomical! It may be easier to manufacture the water, but probably too slow. We need, as a rule, large bodies for the raising of fish and other marine life, and



<sup>93</sup> [https://en.wikipedia.org/wiki/Thermoelectric\\_generator](https://en.wikipedia.org/wiki/Thermoelectric_generator)

plenty more, perhaps 5x as much for a viable water cycle system. It may be that Mars will prove to not be capable of a proper water cycle because of the lack of a magnetosphere. In which case the terraforming of Mars will be delayed another three or more stages until a fake magnetosphere (via particle accelerators) is able to be created. In its place would be cities designed to act as makeshift Earth's, large enough for biodiversity but acting like surrogates.

How can such vast quantities of water be transported? Only through EM Launch, and definitely not through mass fuel burn. The required amount of fuel to lift even a modest amount of water would exceed all the water we have in volume<sup>94</sup>. Water is a mostly incompressible fluid<sup>95</sup>, so it cannot even be made to take up much less space, as it expands when heated or frozen.

The weight is one issue, for it means increased inertia. But also, the sheer size for launch vessels is another problem, even for EM launchers. There will first be the issue of setting up portable harvesting plants on the rugged, craggy "terrain" of Europa. That can be mastered in Stage 2 with practice first on Greenland, and then on the poles of Mars. The Mars stations can lob [light weight] canisters of water, for practice, towards the northern hemisphere and to specific craters. This will have the function of practicing making portable, rotating launch stations. But the greater difficulty is that the stability of atmospheric launch, and water pressure means the weight of the containers will be an added prohibition. There seems unlikely to be any clever means of escape from this. For if the size is mitigated too much, perhaps carbon nanotubing, then the time and transport cost should only increase (and be a waste of surface area of material - such as carbon). If the material is not reduced, then the weight of the container may exceed not only reasonable standards but weight limits, or even that of the water itself, which had to be heated or broken into manageable ice chunks. It will be the job of a TAI to figure out this issue, and of FSAI to design the engineering specifications for the project. But managing the workload will require a million man+ workforce in haulers alone. That means entire college systems surrounding not only hauling but specific technical degrees in hydraulics, materials and mechanical

engineering, as specified for mechanical tubing, launch, transport, and of course retrieval for the materials. It would be ideal if the canisters could, by the 6th stage, become biopromotional materials which help to seed lake or ocean life. It would be even more suitable if energy specifications could enable the passive transfer of the water as the atmospheric harvesting. However the author doesn't see how at this time.

Figure 8 - Mars Mini-Terraforming, within a crater; credit: Cowboy Bebop



<sup>94</sup> "The Saturn V rocket on the launch pad was 85% propellant by mass." Imagine if the rocket needed to carry a lake of water! [https://www.nasa.gov/mission\\_pages/station/expeditions/expedition30/tryanny.html](https://www.nasa.gov/mission_pages/station/expeditions/expedition30/tryanny.html)

<sup>95</sup> <https://www.usgs.gov/special-topic/water-science-school/science/water-compressibility>

The one major alternative, or conjunction, would be to master the BPS wave and “ion control” (via laser, or charge separation?) until a current can be directed to stream a non communications or energy component of the solar web towards the continual streaming and combination at a ring recombinator, where “starwater” is

manufactured. But this only kicks the can down the road in that one would need oodles of oxygen, and the only reliable source at the moment is Earth’s atmosphere. That’s an option but will not be politically popular. Later, other sources will become available.<sup>96</sup>



Figure 9 - Plasma Ring Loop; picture a large circular device that pulls in threads of plasma, and then forces a chemical reaction through arcing, and then outputs water, or other materials; credit: pixelboom

## Oxygen & CO<sub>2</sub> Harvest

It is important to define, somewhat more clearly, the exact needs for harvesting the atmosphere, in terms of the two most important constituents in biological gases. Why? The symbiotic relationship of plant and animal (among other kingdoms of species) is particularly necessary for human survival and terraformation<sup>97</sup>.

As stated before the most viable source of CO<sub>2</sub> is going to be Venus, and possibly Uranus<sup>98</sup>. However, aside from these sources, it may be possible to burn to create the CO<sub>2</sub>.

We cannot use oil, even if produced by the Earth’s mantle as suspected by some<sup>99</sup>, for this would lead to a net loss. Instead, the author proposes a chemical process that involves liberating carbon from the solar wind, or from asteroids (harvesting again), packaging and sending through the ring loops as suggested above. The necessary processes might look something like:

1. Liberate coal from the 600’ (200m) + subsurface depth
2. Transform the coal into carbon nanofibers (keeping it in a dense form)
3. Transport the carbon to locations
4. Burn the carbon in presence of dense Oxygen

The problem is, therefore, the Oxygen source. Earth has a dense Oxygen resource, and one day it will be a flash fire hazard and should be scaled back to mitigate catastrophes<sup>100</sup>. Of course at this time humanity is terrible at mitigating particular catastrophes.<sup>101</sup> The other option, since this is likely to be a political issue for at

<sup>96</sup> A. Hardin writes, “I propose hot ice for water transport. Send water through Venus’s atmosphere, where it picks up heat and CO<sub>2</sub> (in the form of carbonic acid.) When the water enters the vacuum again, it holds the heat but turns to ice anyway. Then when it sublimates in the Martian atmosphere it provides water and CO<sub>2</sub>. This provides for containerless shipment.”

<sup>97</sup> [https://en.wikipedia.org/wiki/Plants\\_in\\_space](https://en.wikipedia.org/wiki/Plants_in_space)

<sup>98</sup> [https://en.wikipedia.org/wiki/Atmosphere\\_of\\_Uranus](https://en.wikipedia.org/wiki/Atmosphere_of_Uranus)

<sup>99</sup> <https://phys.org/news/2009-07-hydrocarbons-deep-earth.html>

<sup>100</sup> <https://www.esfrs.org/EasySiteWeb/GatewayLink.aspx?allid=789>

<sup>101</sup> There is, at the time of this writing, an ongoing Cat-5 to Cat-6 level threat coming from La Palma; one that could easily have been mitigated with a specific contract long ago.

least 100 more years (or more), is Rhea<sup>102</sup>. Rather than directly colonizing such a small body, the author proposes a complete harvesting and dissimilation of Rhea.<sup>103</sup>

By utilizing as much of Rhea's material as possible, the load to Earth's atmosphere can easily be reduced.

Very likely mankind will end up electrolytically converting ocean water into O<sub>2</sub> and H<sub>2</sub> (for fuel), which could give us back some underwater ruins, as well as increase new opportunities for coastal (vacation) investment, *and* liberate sand sources. It's a win, overall. However, it will be a difficult battle until technologies which enable coastal reef cloning and transplantation can occur. There are simply too many rare species and the politics will be tough. So Earth's oceans, rightfully so, will not be touchable for perhaps 300 or 400 years, except through cleanup and underwater cities.

Therefore why target ocean water (which will already be targeted for desalination), when planetoid Rhea is ripe for plucking? Europa also has oxygen, and Io has sulfur dioxide which could be catalytically converted.

The best option overall remains: the conquering of the true internal structure of the atom<sup>104</sup>, and mastering transmutation<sup>105</sup>. But doing so atoms at a time will be a wasteful way to spend 1,000 years if no harvesting is done.

Long term, by the 9th and 10th stages, it will be incredibly advantageous to find a way to overcome charge and wind dangers, radiation, and gravity, as well as the temperatures, and harvest the massive amounts of water - as Oxygen and dense Hydrogen - in the interiors of Uranus and Neptune See Part 2. At this stage we will be already super terraforming Venus, terraforming Ganymede, Io, and creating Pluto bases.

## Nano Machine Medicine

In other works by the author, the seeds have been planted for the next, or next after next, stages of true energetic medicine. However, the author recognizes that there has already arrived, in humanity, a strong current of a desire to design nano machines, and to program these to cleanse the blood and nervous system. As the world is currently experiencing the fear pathogen related to Sars-cov-2 exosomal packaging<sup>106</sup> from engineered gain-of-function research<sup>107</sup>, combined with propaganda and heightened sensitivities already nascent in a politically correct culture... it might be worth exploring the need for such a technology<sup>108</sup>. It also might be a warning against the strong likelihood that China will continue to produce bioweapons and if the west produces this technology and China steals it... as they do not adhere to the Geneva Conventions and the west does, it may lead to a very bad bioweapon attack. A mutator excelsior of Biblical Plague proportions!

Nevertheless, what would it theoretically take to program such tiny microscopic machines? There would, of course, need to be a thorough understanding of current micro machines that exist within the body. Why do they work? Is it merely a mechanical response to electromagnetic current stimuli? Or is there a form of minute consciousness, as the author suggests through the MIMS "Big G" apparatus, which is guiding these

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<sup>102</sup> <https://www.space.com/9599-saturn-moon-rhea-surprise-oxygen-rich-atmosphere.html>

<sup>103</sup> To avoid politicization, it is suggested to rename it 50 to 100 years beforehand to something genderless and neutral, to avoid the backlash seen with recategorizing Pluto as a planetoid. If such a small change can cause such hubbub, imagine a drastic change to the name of Rhea, let alone an announcement of harvesting.

<sup>104</sup> Which appears to likely be platonic solids, and to not need a neutron <https://structuredatom.org/> "The Nature of the Atom: An Introduction of the Structured Atomic Model," Kaal et al., 2020

<sup>105</sup> <https://www.youtube.com/watch?v=L2peLoqu7ho> & <https://www.youtube.com/watch?v=EKocpwYlvho>

<sup>106</sup> <https://www.frontiersin.org/articles/10.3389/fmolb.2021.632290/full>

<sup>107</sup>

<https://www.wionews.com/world/coronavirus-nih-admits-to-us-funding-of-gain-of-function-research-in-wuhan-lab-423010>

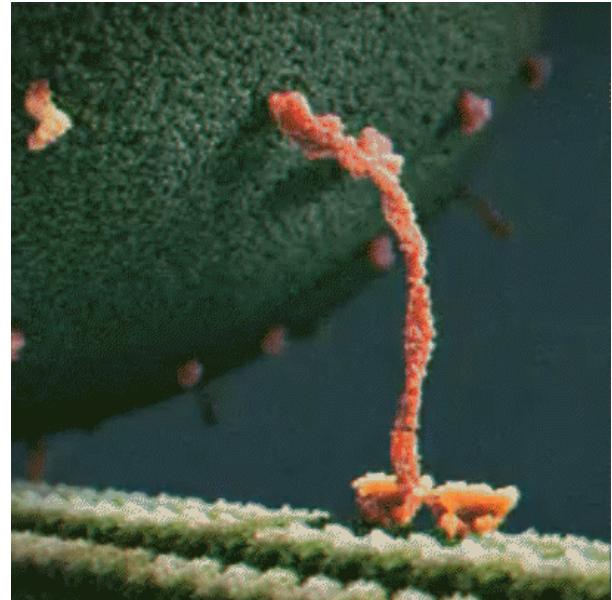
<sup>108</sup> That is, not monetarily, but despite the dangers of WMD production.

micromachines? If there is, are they influenced via a Gaia-like supra consciousness<sup>109</sup>, or could they be? If CAI can interact via “data ley lines” (DLL) between forms of data not even interconnected through its ‘nervous system’ because of some unknown properties of PEM - or if other super consciousnesses can, such as proposed hyperdimensional extraterrestrials - could it not be said that there may be some threat that a pre-programmed nano machine could be “turned” or mutated remotely to make a super plague? It is worth being cautious about.

Secondly, after the mechanism is explored and thoroughly understood, how does one regulate and control the technology, to properly prevent the terrorists and criminal enterprises from producing and accidentally releasing (or purposefully) said bacterial or viral nanomachines?

Figure 10 - Kinesin walking ([gif](#)); credit: giphy

Third, once the known set of specific problems are met, design the FSAI to make TAI which then program nanomachines for function, completion, replication (or not), and death/cleanse. There are simulations to perform, then trials, then manufacturing systems to implement, and the entire process might exceed 80 years in total, and another 120 in quality control issues and issues of war.<sup>110</sup>



Finally, there is the monitoring of levels, as this would offset other, natural, forms of biological spheres such as bacteria. If the evolution applies to micromachines or an evil minded person or CAI generates self-evolving micromachines, what would stop them from reaching potential cluster-consciousness<sup>111</sup> or malevolent parasitism, or becoming symbiotic with a true threat like Ebola or Anthrax, etc.? We have so many unanswered questions, and at this time we cannot even be sure if the Wuhan labs leaked the SARS accidentally<sup>112</sup> or have been setting them free as bioweapons<sup>113</sup> as part of an asymmetric attack<sup>114</sup> in World War 3.0 preparations. The author fears the latter has the greater weight of evidence<sup>115</sup>. Publicly the Deep State denies it.<sup>116</sup> Either way it begs more caution and research. Yet no matter what we need the medicine techniques already!

## Railgun Seeding

After mastering the industrial cloning of seeds, and animal life, and creating megacities devoted solely to growing permaforests to harvest organic material for the labs to grow these clones, then mankind can begin launching them into space. In terms of the Laws of Life, expulsion of material only happens when there is a

<sup>109</sup> <https://courses.seas.harvard.edu/climate/eli/Courses/EPS281r/Sources/Gaia/Gaia-hypothesis-wikipedia.pdf>

<sup>110</sup> Numbers are based on our current trends and trajectories. Many technologies have been announced over 20 years ago that still have not seen their way to market. This has caused some to wonder if there is an overseer force that doesn't want us to succeed in advancing.

<sup>111</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7304239/>

<sup>112</sup> <https://www.washingtonpost.com/politics/2021/05/25/timeline-how-wuhan-lab-leak-theory-suddenly-became-credible/>

<sup>113</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8266003/>

<sup>114</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8300139/>

<sup>115</sup>

[https://www.academia.edu/49950881/Asymmetric\\_Vulnerabilities\\_of\\_the\\_US\\_and\\_New\\_Capabilities\\_in\\_Geopolitical\\_Warfare\\_Including\\_Economic\\_Digital\\_Cyberspatial\\_and\\_Lawfare](https://www.academia.edu/49950881/Asymmetric_Vulnerabilities_of_the_US_and_New_Capabilities_in_Geopolitical_Warfare_Including_Economic_Digital_Cyberspatial_and_Lawfare)

<sup>116</sup> <https://www.airforcemag.com/intelligence-agencies-agree-covid-19-not-a-biological-weapon-not-engineered/>

plethora of the ether buildup inside the organism, in the form usually of seed, egg, sperm, pollen, or spore. Once there is a plethora, or the need is strong, then whatever the timing, the expulsion occurs.

That means that for mankind to successfully “seed” the solar system, regardless of being in a bad state as we are, or in a good state - the cycle of which is likely to continue through **all 10 stages in this paper** - we will need to be in a state of plethora. Not euphoria. Not peace. Plethora.

The deep mining and energy and perhaps Oxygen and water production will need to be well gone. Only at this state would mankind find the energetic support behind the Changes and behind the policy, to provide the sufficiency of raw metal and plastic and rubber materials to encapsulate these seeds and spores, whose ratio is not at this time known but whose experimentation can be done within a short 1 or 2 year window, to begin seeding.

The main limit is not, however, the metal, plastic, or rubber, but *soil*. Weight isn’t our main concern, the EM railgun launchers will be able to handle this. With a saddle/sellar jointing on the end of the ramp<sup>117</sup>, it can be aim-adjusted constantly to enable subtle adjustments, and fully CAI/TAI automated to enable a constant seeding effort. This industry has “no return” and so there is an issue also of *constant expulsion*, economically speaking. It would be thought, therefore, that a special asteroid/seeding economic system needs to be designed which is isolated from the main DLE and yet not separate from it. In male mammals the spermatic ejaculation cannot be continuous, even in high testosterone species like lions. There is 24-48 hours of copulation, but there are frequent breaks. We are talking here of a continuous seeding industrial apparatus, fully automated. If the machine is turned on, and consuming the mantle and crust, atmosphere, and the cities’ “crop” of soil/mulch (turned to dark earth, compacted, and flash frozen), in order to send off... forget the electrical energy issue... this process will absolutely try to take over and dominate the entire economic world, as sexual energies often do (even in business, sports and politics today)<sup>118</sup>.

So what will the dark earth soils need to consist of? Traditionally: manure, shells, leaves and grass, twig-ash, animal and even human remains, then burned in layers. The industrialization of animals is already an ethical issue, and now a political issue (though we actually need the CO<sub>2</sub> long term).

So what to do? Probably the production of worms, though they eat materials within soil, would be handy. First they can be used as protein, or as a specific “herb” for anti-mucus and anti-parasitic medicine. Secondly they can help transform soil and balance mycelium and salt content. They can moisten the soils in the megafactories, as well as encourage the pH balance. Then, when things are burned from compost into dark earth soils (DES), they can take the place of dog, cat, monkey, and human remains. Calcium can be added in some other way to simulate the bone material. Likely limestone by-product from the Deep Mining refuse/excavation.

From there it is easy to package the soils, seeds, and spores together into a canister, sealed and made specifically for launch and well tested for how to slow down and yet penetrate the ground.

Mars itself does not need much soil seeding, as the soils there can already grow plants. So the same canisters can be used but with modification that they spread out and send shrapnel of seed spikes just at the end.

For the survival of the seeds, Mars will need to be warmed up to at least -20 F, and even then we should expect a 99%+ attrition rate by the time of germination. Once germination starts, it will be a geometric, but slow process.

Therefore in the meantime, the seed cloning program will also need to impregnate the agricultural “greenhouse” programs of temporary/other structures.

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<sup>117</sup> Think: fully opposable thumb joint.

<sup>118</sup> Sort of a runaway Effect via an uncontrolled Feedback Loop. R. Ashcroft observes that we will need to understand the *tipping point* in the system. “The Universe is trying to achieve a balanced state in the charge environment for a minimum energy level.” ~11/3/21

Mars' atmosphere can reasonably get to about half the density of Earth's before return on investment becomes a serious concern. However, cooling down Venus will need to continue for this program until it is no hotter than 140 F. For animals to survive it needs to be lower if possible. This requires a colossal effort. Once Mars' atmosphere is as dense as is thought possible, all remaining heating would need to come from solar reflection/concentration, and using the BPS system to transfer solar electrothermal energy to Mars' surface.

As for Venus, how to siphon off that much heat, for Venus is nearer the Sun, and heat transfer is not reasonable through the long expanses of space? The author would suggest utilizing the active volcanology to duplicate Earth systems, with super giant refrigeration as the outcome of the energy and geothermal harvesting. Any remaining Venus atmosphere should be shipped to Europa, Ganymede, and Titan.

Only by replicating Earth's environs, but as much as possible increasing red and especially purple light, can mankind actually grow natural forests, kelp forests, mushrooms/mycelium, and then after 400+ years, animal life. The longer we delay these systems, the less the job opportunities and the longer til our second and third baskets can become true havens. Temporary bases will work, but always be a drain long term. Nature's GDP<sup>119</sup> is what is important to harvest. And the Universe - according to the Laws of Life<sup>120</sup> - supports the program mightily, once the conditions are there.

One final note, and this will make some laugh and be pleased, but we can seed Mars (at least), with tardigrades<sup>121</sup>. They can survive in space.

## Megacities, Electrical Sharing, and Launch

EM Launches, and indeed the entire infrastructure surrounding the endeavors herein described, require inordinate amounts of electricity. The time of naturally drawing electricity is not near us. Tesla zealots will insist we can do so easily but things are not that simple neither in terms of EM force (voltage, amperage, filtering, bandwidth etc.) nor in socioeconomic and geopolitical terms. For if one country goes to it, all will need to or wars will result for we speak of **power** in the true sense of the word. Furthermore if shared, then how is cost determined, because mankind is not ready to see electrical power as a fundamental human right? It is a utility - a bill - and someone has to "foot the bill," unfortunately. Let's be honest thus far the United States and citizenry have footed the majority of it, and in many ways off the backs of the disenfranchised of the developing world.

Therefore, it is most reasonable to speak of the "grid of power," whether that is resilient or sustainable grids, or centralized grids, of what will become essentially city-states, most likely corporate<sup>122</sup>. These megacities will have launching capabilities in the same way that many large cities have one or more airports today. Meanwhile they will provide atmospheric and climate protection for residents. Mankind appears unwilling to toughen up and return to the wild, so we will continue to become soft, effeminate<sup>123</sup>, and weak (physically), and this will make for weak immune systems and digestive systems. But more cogently, the toxic pollution will lead mankind into a crisis of cancer and mutation, and apparently plague or bioweapons, which necessitate

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<sup>119</sup> Literally what nature cleans and grows, as part of a nation's economy. Those nations which develop themselves and yet retain their resources, like the USA, would be able to count more GDP and therefore take out bigger loans for development. It would discourage the destruction of the environment and fund more projects.

<sup>120</sup>

[https://www.academia.edu/37439506/Magnetic\\_Universe\\_Theory\\_A\\_Top\\_Down\\_Review\\_of\\_Phases\\_of\\_Magnetic\\_Theory\\_Development\\_with\\_accompanying\\_historiography\\_and\\_comparison\\_with\\_Unified\\_Aether\\_Field\\_Theories\\_including\\_EPEMC pp. 137](https://www.academia.edu/37439506/Magnetic_Universe_Theory_A_Top_Down_Review_of_Phases_of_Magnetic_Theory_Development_with_accompanying_historiography_and_comparison_with_Unified_Aether_Field_Theories_including_EPEMC_pp._137)

<sup>121</sup> The author is bemused at this 'alien invasion.'

<sup>122</sup> Or more particularly New Corporatism, which is designed/engineered to fix the toxic or vulture aspects of current capitalism and corporatism.

<sup>123</sup> Literally weak T-signals.

these megacities. Already the NWO wants people to “own nothing and be happy,”<sup>124</sup> and to abandon rural areas and agricultural living. Therefore, it is to be thought that powerful interests and the collective gestalt will push mankind further in this direction anyhow, and away from smart, more decentralized, more liberated energy and living arrangements, at least until the 3rd or 4th stages, where people no longer need these differentiations or the megacities are so common and successful (once they get passed anti-M.A.D. tactical strikes to cities who weaken their defenses or do not run efficiently<sup>125</sup>).

The key will be when the Birkeland Polyphase Superweb becomes an international *need*, because the unstated fact is that terran electricity will (by then) become as natural as sharing the air with one another. If God had meant for man to subdivide the primarily parts of life, He would have made walls to air and oceans. However, the fact is that life on this planet is a *sharing of resources*. Quid pro quo is the name of the game. It may be that today you eat the banana, and tomorrow the monkey does, and the next day the ant does. But it is shared by all. The selfishness of our species will be stopped perforce by the laws of thermodynamics, linear and nonlinear dynamics, economics, and of Life itself. However, we will not die off, unless we wish for it, but will survive. We could either thrive on purpose or starve by accident. If mankind could survive the explosion of a dwarf star, he can survive this, easily. However, it will lead, inexorably, towards a final answer: shared electricity<sup>126</sup>.

Once electricity is shared, BPS or terran, wireless or wired, which comes from TGE sources, then it is only a matter of time before impulse is given, and the entire city can be set to a Schumann Resonance of 7.83 Hz<sup>127</sup>, or a resonant multiple thereof (to be determined by experiment), with literally that many impulse driven launches per second happening (averaged worldwide). Ideally, world-synchronized, so that the entire planet throbs with pro-human resonance. If the seeding and terraforming is to be as an endless sexual orgasm of human and societal material ejecting into space, it will not do to find out there is some modulation that occurs if chaos is left in charge of the resonance, and that every dozen years or in step with 11 year solar cycles etc. the entire system will just “crash in a black swan event”<sup>128</sup>! Otherwise, utilize long gathering periods punctuated by crisis-driven ‘explosions’ of activity, as nature has the other species to do, and do not pretend to be a species serious about engineering space travel and a space civilization. Humans cannot act as tweens and expect for dad to let them drive the car with all the sophisticated alien species that may (likely) exist in a highway system far more dangerous than any car. We have to be mature, serious, and methodical.

## Preventing a Repeat of City-state Nightmares

At the current rate, cities are sprawling, spreading *blights* on the landscape and natural ecosystems. They are poorly planned, even with zoning, and unsustainable systems of civil engineering. They are not resilient, they decay at longer periods than the quick rates of building and “Development” leaving behind centers of crime, poverty, racial tension for fewer resources, among many other issues.

<sup>124</sup>

<https://www.theoxfordblue.co.uk/2021/01/27/the-great-reset-explained-what-it-is-and-why-you-should-care-about-it#:~:text=inOxford%20News-The%20Great%20Reset%20explained%3A%20what%20it%20is%20and,you%20should%20care%20about%20it&text=%E2%80%9CYou%20will%20own%20nothing%2C%20and,to%20the%20world%20by%202030.>

<sup>125</sup> A revisit to an unfortunate era of city-state plunder economy ala Athens/Troy seems psychologically and evolutionarily unavoidable. It is already in the back stories for most comic book written versions of utopias with small populations... a powerful society that became like Laputa, and then consumed itself. They always mean more advanced than we are, but not advanced enough to stop being selfish.

<sup>126</sup> Seeing the BPS is believing in the PEMF, and in the “Big G” by proxy, over time, even if for the atheist the *L* power ends up as a *C* power (consciousness), and *G* itself is not just God but Goodness.

<sup>127</sup> [https://en.wikipedia.org/wiki/Schumann\\_resonances](https://en.wikipedia.org/wiki/Schumann_resonances)

<sup>128</sup> <https://www.investopedia.com/terms/b/blackswan.asp>

Take this unresolved, unplanned for issue, and scale it up to the megacity level. Even with the protections against pollution, and various defenses, the chances are very good for there to be resource wars. Spacer society will also create a second renaissance of the industrial... which also means a second post industrial period of excess, revolutionary turnover, laziness, and a Rome-like peak *followed by decline*.

Figure 11 - Arcology, an early conceptualization of the spacer megacity concept. In the revised game these could sometimes launch off into space; credit: SimCity 2000

At this point is precisely when one could expect not only a lot of geopolitical trouble, human intrigues, waste and depreciation of mechanical material - a “used future”<sup>129</sup> as it is depicted in science fiction - but also a potential for mankind to wander from the Path. If systems of supply - and protection of supply from solar damage, and piracy - are not enhanced, then probably such complicated systems will fall apart. If the entire project is not passed the “Critical mass”, of water, air, seeding, and energy, then the entire movement will be for nothing. Therefore, setting aside the need and obvious - a Constitution of Space Federations... a Starfleet Federation - there will need to be FSAI set up for minding governance and refusing to let mankind undo the project progress for mere demagoguery, dictatorship, and military politics (space territory, etc.).

It would be a tendency to begin imagining the military preparations needed for defense, and easily the military industrial complex should be salivating at the next \$1 **Quadrillion** in contracts for the development and defenses, but that would be foolish. It would be far better to hope for peace, and of course prepare against war.



## Underwater Motion

Mankind mistreats the ocean, because mankind does not know and maybe even fears the ocean. Many a captain fell in love with her mystery, with her expanse, and with her ceaseless churning & violent alterations from flat calm to raging typhoons and hurricanes. This motion reminds mankind of the Force, the Aether, and the Unified Field (Universe) itself.

Therefore, it also only makes sense that we will fix the ocean pollution and come to be our best selves, and even safest selves, if we master underwater cities. We will need to first build some protective survivor “ark” cities not in the mountains only, but in the Great Lakes, and later the Rift Valley lakes of Africa, and other large bodies (Lake Baikal, for example).

Figure 12 - The Great Lakes in the heart of populated North America; credit: MPR



So what should these underwater cities look like? The author is not a specialist in these areas<sup>130</sup>. So for the remainder of this section, various known researched and developed models will be presented. Only the author will

<sup>129</sup> <https://gamerant.com/star-wars-used-future-changed-science-fiction/>

<sup>130</sup> Architecture, civil engineering, and marine related matters.

note that the electrical requirements will be *intense*, and will also afford mankind the training required to harden us. By habit we like vacationing, and ease of living. Just as the San Diego Chargers never win the Super Bowl<sup>131</sup>, a humanity that has everything easy will be unable to train for the difficulties of space and conquering nearly impossible and killer environments. Mentally and physically, and working in difficult conditions the same way NASA does currently is going to be incredibly important. The ocean and underwater living will enable this.

### Models of Undersea Cities

Some of these are the most common visions of underwater cities.



Figure 13 - Floating subsurface port miniature cities; credit: Pinterest

<sup>131</sup> <https://champsorchesus.us/team/nfl/san-diego-chargers>



Figure 14 - Sub surface deep cities; credit: Pinterest

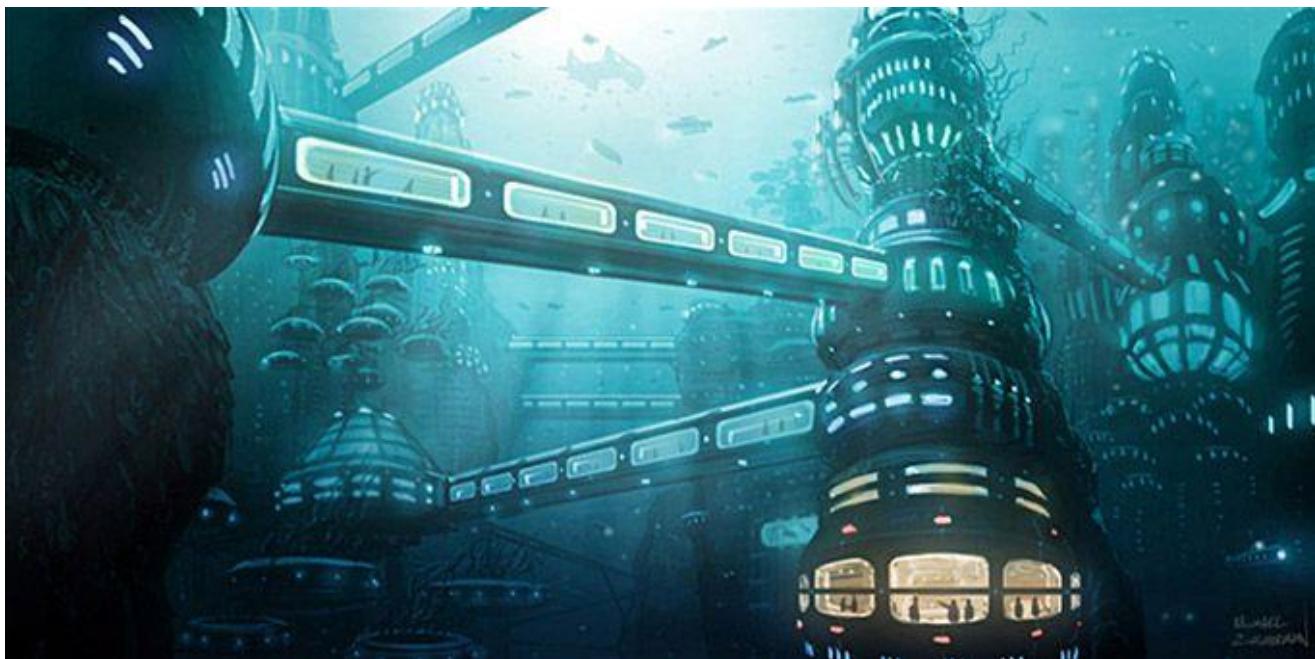


Figure 15 - Ocean Cities Concept Art; credit: Pinterest

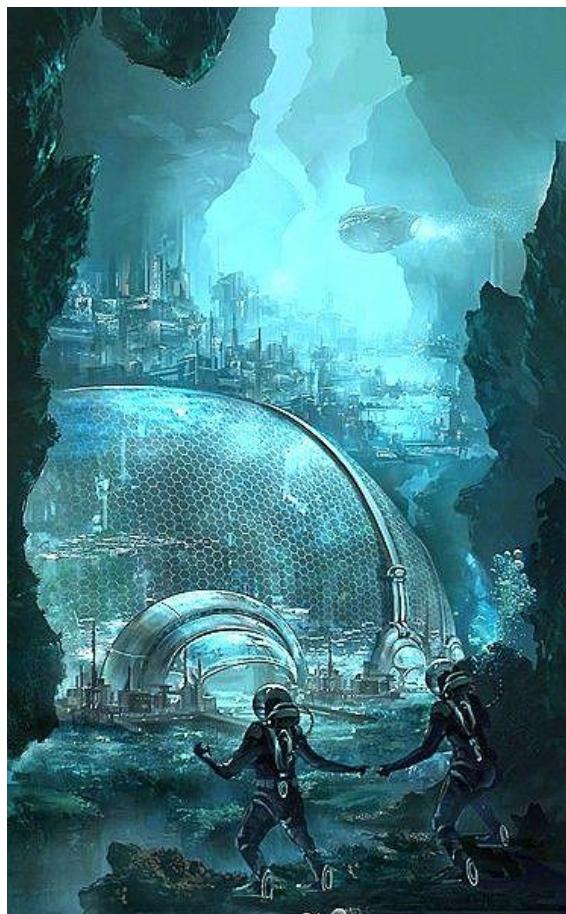


Figure 16 - Deep Ocean City; credit: Pinterest

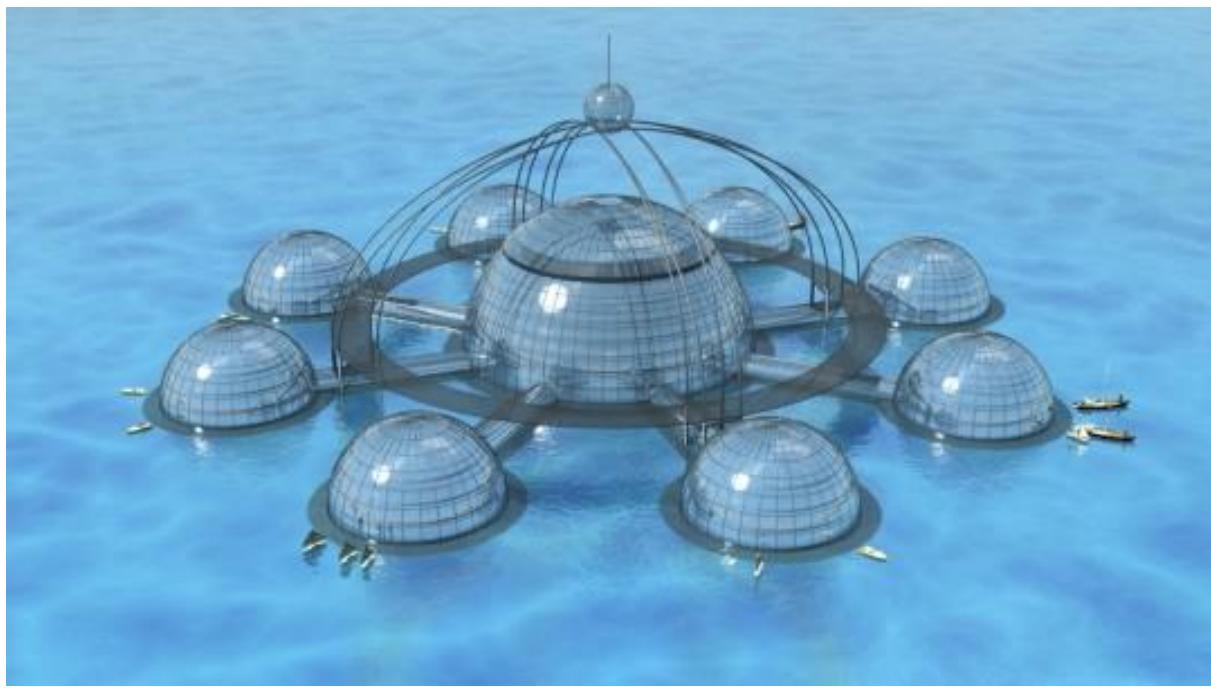


Figure 17 - Surface Domed port (phase 2 Stage 1 ready); credit: Pinterest

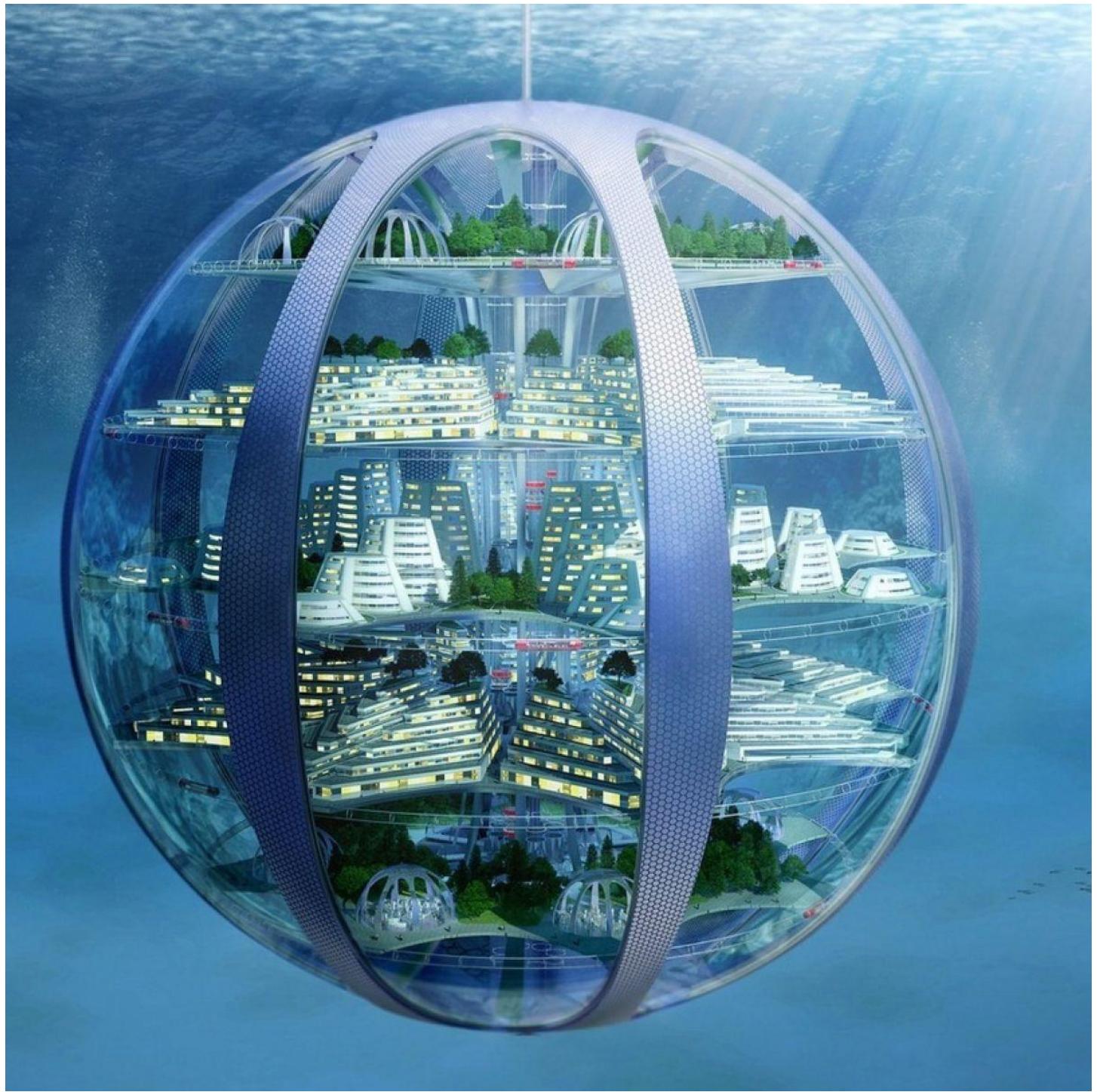


Figure 18 - Dangling, Mobile Ocean City (gravity and ocean current powered); credit: Pinterest

\*Please note that these structures will be useful again on Europa, etc.

## Energy Storage & Crystal Systems

Energy production is one massive problem, but probably a much more difficult problem is long term energy storage. The author is aware of carboniferous storage mediums, which can be used to make supercapacitors. But aside from the shortage of carbon, it is likely going to be just cheaper and more scalable to grow crystal storage, crystal memory, and crystal computer chips. The use of lasers and magnetic fields to control the growth patterns of these systems is likely to be developed by the end of Stage 1, without much problem. Until then, the author's main concern is that the world's obsession with batteries may suck up all the rare Earth minerals which then would be a real problem for later<sup>132</sup>. Which means that landfill mining<sup>133</sup> will accelerate in the mid Stage 1, especially as GDP becomes tied to the protection of natural production systems. When that happens, even China will find mining for REM to become unpalatable. So batteries will start to stagnate. The preference for supercapacitors should be obvious: easier/faster charge and large scale of storage with less toxicity. The only issue is discharge rates. They will require monitoring systems and control circuitry - so a return to semi analog systems - which themselves cost energy. It will be good to have redundant circuits and the need for more components, this will increase industrialization. Industrialization means jobs but also the practice of engineering and giving FSAI and TAI a chance to automate or semiautomate systems.

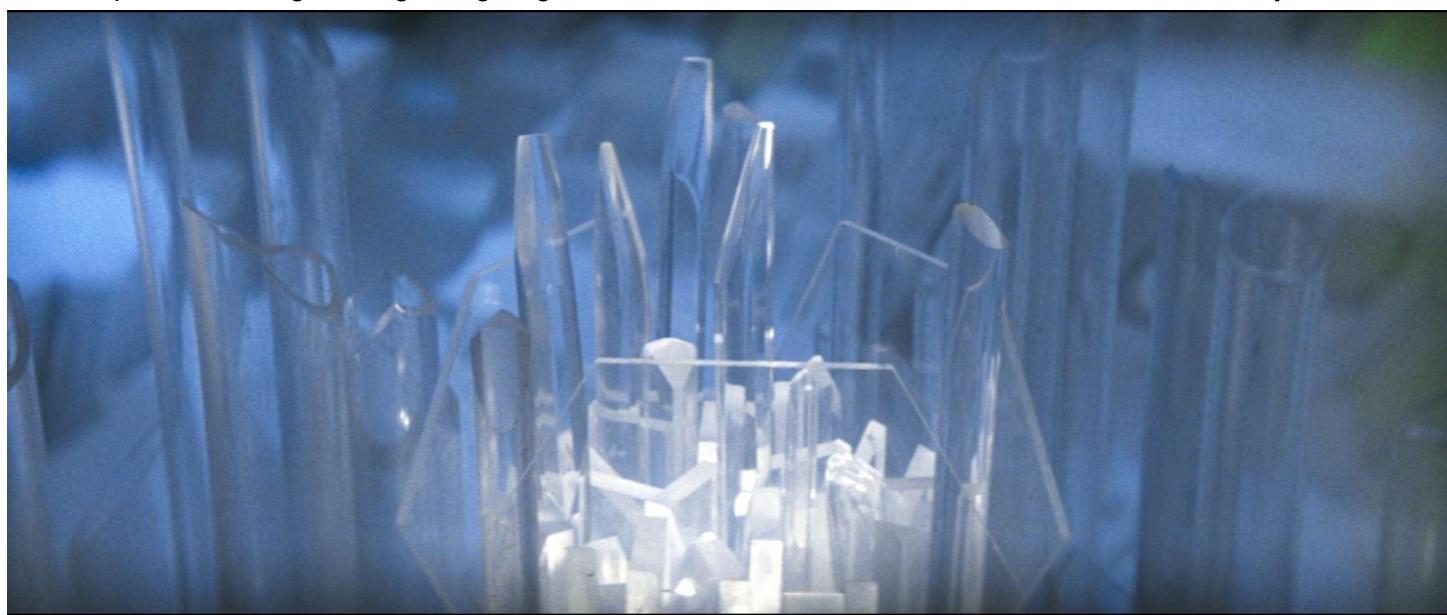


Figure 19 - Crystal Computer in the Fortress of Solitude; credit: Superman 1

The current status of crystal memory<sup>134</sup> is even more interesting and advanced than supercapacitors<sup>135</sup>,<sup>136</sup>. Glass and crystal memory storage, while in the permanent stage, could be used to create FSAI modules for cartridge insertion - like a 'Fortress of Solitude' system but cuboid - and improve the tactile appeal of the designs, as well as get man away from overly toxic or petroleum based systems<sup>137</sup>.

<sup>132</sup>

<https://www.sigmaaldrich.com/US/en/technical-documents/technical-article/materials-science-and-engineering/solid-state-synthesis/rare-earth-crisis>

<sup>133</sup> <https://www.waste360.com/landfill-operations/landfill-mining-and-its-tremendous-potential>

<sup>134</sup> <https://doi.org/10.15623/ijret.2015.0418009>

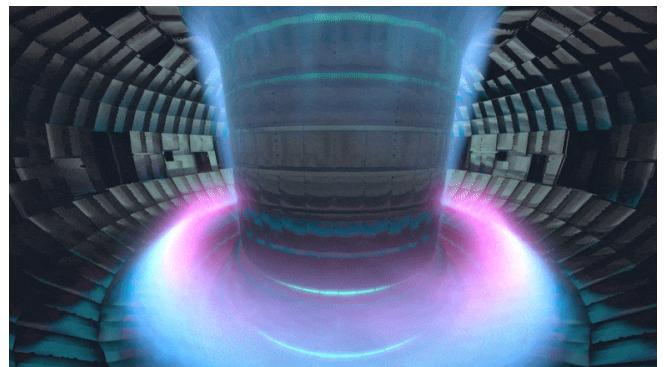
<sup>135</sup> <https://iopscience.iop.org/article/10.1088/1361-6439/ab1c9b>

<sup>136</sup> <https://onlinelibrary.wiley.com/doi/full/10.1002/adma.201902387>

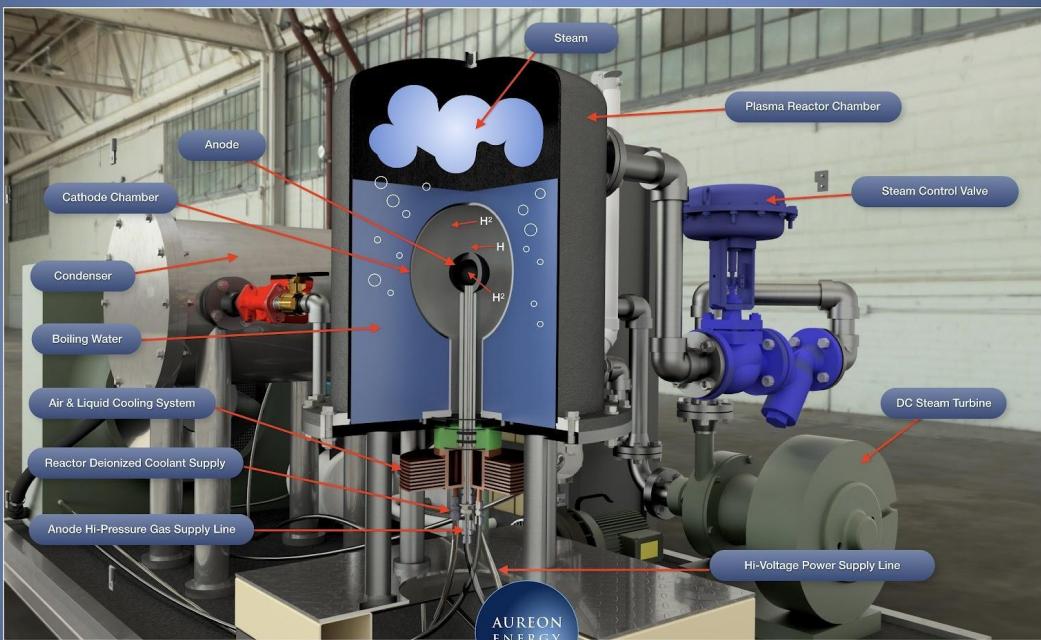
<sup>137</sup> The author is not anti petroleum but it is a precious resource and what can be done with plant based oils and through non oil means should be done to protect this incredible resource. (See Part 3)

## Helium Manufacture, Fusion & Transmutation

Helium is in short supply, and getting less<sup>138</sup>. Aside from REM<sup>139</sup>, Helium mining represents one of the most substantial and growing concerns for industrialists in the 21st Century<sup>140</sup>. Therefore it is obvious that more has to be liberated from the volcanic gases, and we will need to create fusion *Crushers* which spend literally 24/7/365 collapsing deuteriums into tritium and helium. To do this it will be necessary to have a combination of plasma fusor clusters working in tandem with a SAFIRE or TOKAMAK (see Figure 20 [gif](#) at right) like a central chamber system.<sup>141</sup> Why? The main central system will get more done but also it will be able to slip into plasma dark mode to become highly efficient and bring energy out of the Counterspace (SCS), and operate at high efficiencies (7:100 input to temp max limit). However, this alternation of storage to use will need a certain frequency, including the usage of energy for cooling (some of the heat can be used for passive capture such as LFRF<sup>142</sup> generators, stirling engines, passive and active cooling towers, etc.) and for running the fusors, which are running in tandem at all times.



Figures 21 & 22 - SAFIRE<sup>143</sup> Chambers design



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<sup>138</sup> <https://physicstoday.scitation.org/do/10.1063/PT.6.2.20200605a/full/>

<sup>139</sup> Rare Earth Mining

<sup>140</sup> <https://www.npr.org/2019/11/01/775554343/the-world-is-constantly-running-out-of-helium-heres-why-it-matters>

<sup>141</sup> <https://sites.google.com/view/epemcgateway/pemc/pu-research/labs>

<sup>142</sup> 30-300 kHz [https://en.wikipedia.org/wiki/Low\\_frequency](https://en.wikipedia.org/wiki/Low_frequency)

<sup>143</sup> Important to know that phase 2 SAFIRE accidentally had fusion, it wasn't the goal per se. Phase 1 had indications of fusion early on.

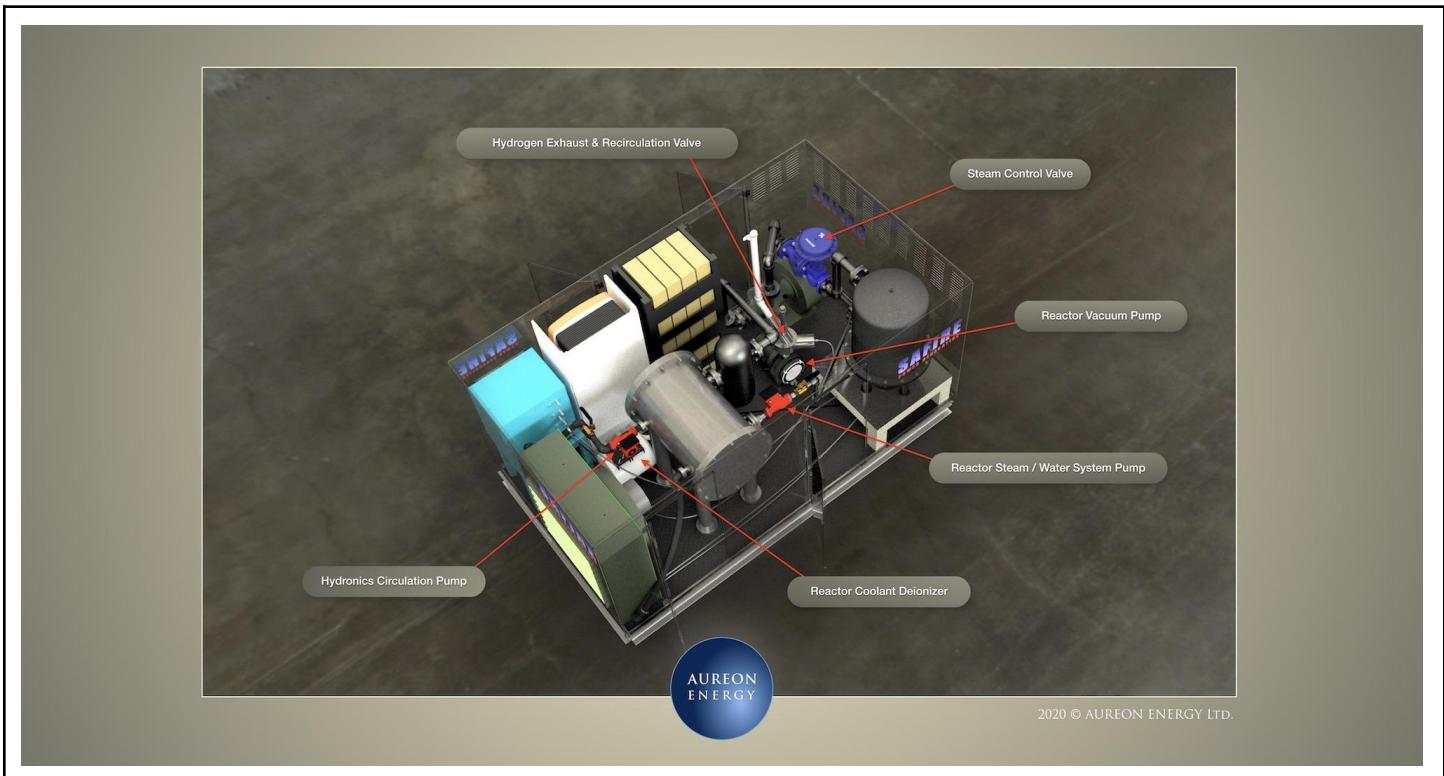
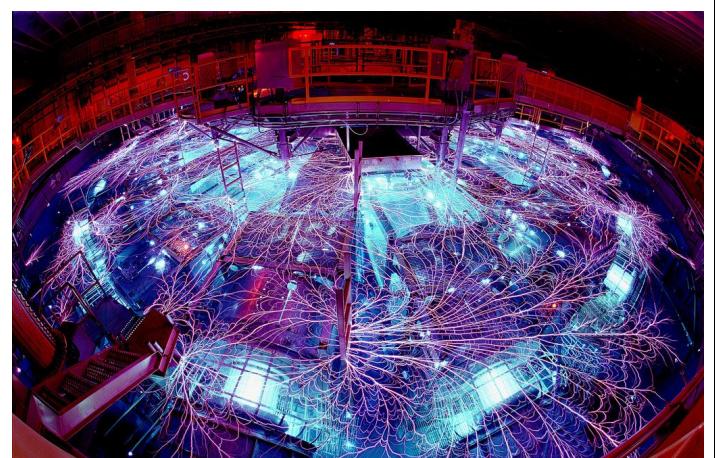
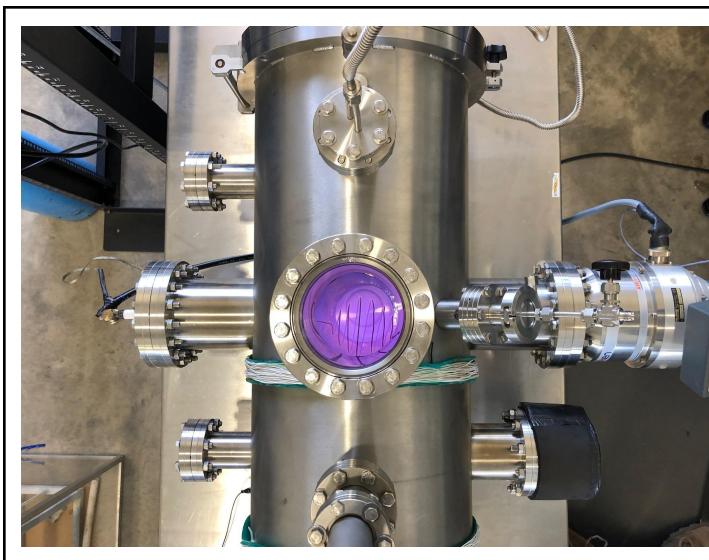


Figure 23 - plasma fusor<sup>144</sup>

Figure 24 - Sandia National Labs



<sup>144</sup> Figures 23-26 come from google image searches. Sandia Labs' website, wikipedia, Tokamak etc.

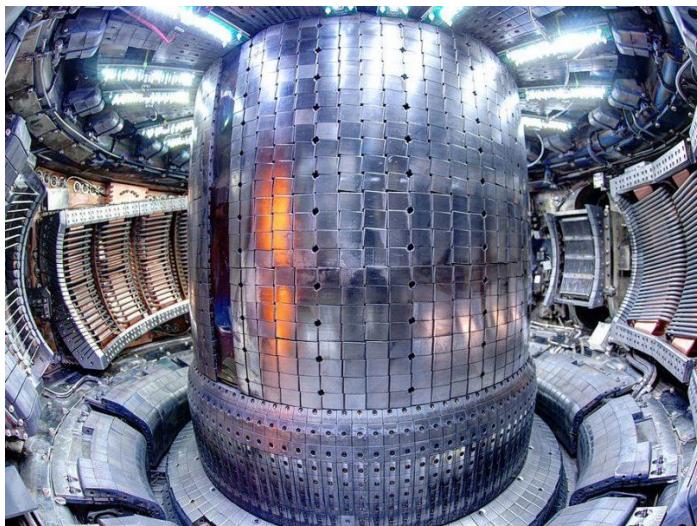


Figure 25 - Tokamak

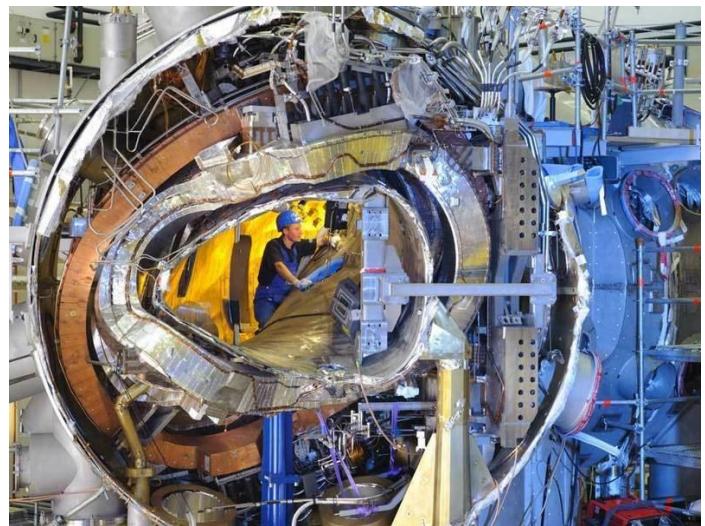


Figure 26 - Stellerator

It is likely that these systems could be combined with nuclear fission processes to mediate the radiation back into a form of useful charge, or to take a difficult pathway in fusion and make it simpler, in the way that a catalyst can improve the efficiency of chemical reactions. This is all under the presumption of the veracity of the Platonic Solid nuclear core of Structured Atomic Model (SAM™)<sup>145</sup>. So far this is the only framework that can explain the SAFIRE chamber transmutations, and also those that happen in biological processes. It is also the underpinning of the as-of-yet unproven Cosmic Rearrangement Hypothesis (by the author).

The need for Helium is not yet severe, but it probably represents the gravest non-research, non-political economic threat to the spacer movement. It needs to be dealt with by the middle of Stage 1, or the entire movement may experience a bottleneck ... and war. War being the anti-MIMS, it would not even solve the issue. So it is not wise to let Helium, sand or oil, become too dire.<sup>146</sup>

## Sand, Soil, & Lightning

The issue of low resources of sand and soil can be solved with giant industrialized markets of mulch and soil manufacture, and in house functions of sand pulverization. However, while Earth has natural lightning, Mars does not, and it's not known if Venus does (it probably has more). This is important because lightning channels pump Nitrogen and other elements into the soil, as well as help produce ozone<sup>147</sup>.

Figure 27 - Example mega Industrial Design, sealed off environment, full automation; credit: Ghost in the Shell

The real issue is how to instigate the fake storms on Mars, or other places. For this, we are fortunate to have some



<sup>145</sup> <https://structuredatom.org/>

<sup>146</sup> The only thing that would be worse would be to run out of CO<sub>2</sub> or let O<sub>2</sub> become so rich the atmosphere catches fire.

<sup>147</sup> To make ozone one needs O<sub>2</sub> but that has been dealt with already.

indication through lightning research and secret nuclear arsenal testing, to understand now that electrical conditions can be induced in the atmosphere with space detonations of nuclear arsenal. This is very fortunate!

Mankind can seed Mars with many future life processes by providing a light nuclear dusting, while getting rid of the toxic nuclear buildup that will continue probably through Stage 2, and maybe threaten mankind again in Stage 4 or 5 as city-states and megacorporations appear.

The question is, if using the “extra” electricity of the system in large tesla coil “lightning” generators, to seed Nitrogen into the soil, will it be the most efficient method long term? The author is not convinced, there may actually be a better system. However, it isn’t reasonable to just keep peppering Mars with Earth’s Nitrogen reserves. It’d be far better, he thinks, to asteroid harvest Nitrogen, then hyper pack the soils launched, and expect the NPK<sup>148</sup> constituents to get circulated *eventually* on Mars. The reader must bear in mind the sheer scale of covering the southern hemisphere (for the northern will be ocean) with soil and forest... it will not be an easy (or fast) process. Over time, the introduction of a new atmosphere might give all sorts of passive electricity. Beyond Stage 10, when the BPS control is *perfect*, mankind could consider simply moving the moon to Venus<sup>149</sup>, and then Mars to twice the Moon’s present distance. This will introduce much energy into the systems, as well as improve the overall space economics. Computations will enable the CAI and TAI to interact and figure out exactly how the SSEC will alter, so as to not cause super flares or ruin the asteroid belt, etc. We simply don’t have the ability now to know the analog circuit of forces, between gravity, momentum, electrokinetics, and magnetic flux rope binding, as well as solar wind pressure and Biefeld-Brown Effect<sup>150</sup> (BBE) that is involved in the SSEC. We can surmise that plasma interchange causes a phase lock in the LaGrange arrangement, but that was a temporary condition, and may have been incredibly dangerous.

Regardless of how mankind felt about the four gas giants exchanging “thunder” (plasma) and forming the Great Man, in actuality it was probably a precarious position. So in moving moons or planets, planetoids, asteroids etc... The CAI and FSAI will need to render billions of quantum simulations prior to programming TAI for layering the BPS receiver-transformers which then apply the magnetic forces necessary to make minor bumps and adjustments. So the author cannot recommend this before Stage 10, when mankind has finally proven Himself capable of climbing the worst, most terrible mountains of difficulty, with fire and sulphur and destruction on each side of him. At such a point, well... then mankind can be said to be mature, responsible - spiritually and materially - to be entrusted and to trust one another, to rearrange the solar system. Mankind needs this ability, for as surely as the author thought of it, there could arise an alien threat where a planetoid could be used as a slingshot or railgun projectile to eliminate one or all three of the main baskets... even ere we begin to move into the outside of the heliosphere, and contemplate real light speed or near c (sublight) travel to Polaris, Proxima Centauri, Kepler 42b<sup>151</sup>, etc. Star Wars envisioned wars of ships which could destroy planets.<sup>152</sup> We need real propulsion - not fake spacetime warp engines made in garages. Even if these BBE<sup>153</sup> systems are currently in the Stealth B2 bomber<sup>154</sup>... they are still far too weak for what is needed<sup>155</sup>. Unless the US government has a secret branch making electrokinetic and anti gravitic drives<sup>156</sup>... the author presumes we need some semi-mechanical system (at this time).

<sup>148</sup> Nitrogen, Potassium, Sodium

<sup>149</sup> And move Venus further out in the Habitable Zone

<sup>150</sup> <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history/tt-brown>

<sup>151</sup> 434 ly, 4.3ly, and 130.7ly respectively. 1 ly  $\sim 5.88 \times 10^{12}$  miles or  $9.46 \times 10^{12}$  km.

<sup>152</sup> We’ve beamed this, and many other paranoid and violent films out into space, and not knowing how PEMF ripples between dimensions. Thus we could and rightly should fear a Dark Forest attack, just as the Pawnee would attack pioneers with fires sending up too much smoke in the plains. If we expect it, then we can prepare for it. And part of that is making survival arks and an entire space flight economy (of which haulers and tourism are the first tidbits).

<sup>153</sup> “How I Control Gravitation,” T.T. Brown, 1929

<sup>154</sup> <https://www.globalsecurity.org/wmd/systems/b-2-upgrades.htm>

<sup>155</sup> As per T.T. Brown/T. Valone <https://www.amazon.com/Electrogravity-Device-T-T-Brown>

<sup>156</sup> As per M. Salla <https://www.amazon.com/Space-Force-Future-Secret-Programs>

## NORTHROP B-2 ATB STEALTH BOMBER (ELECTRO-GRAVITIC PROPULSION SYSTEM)

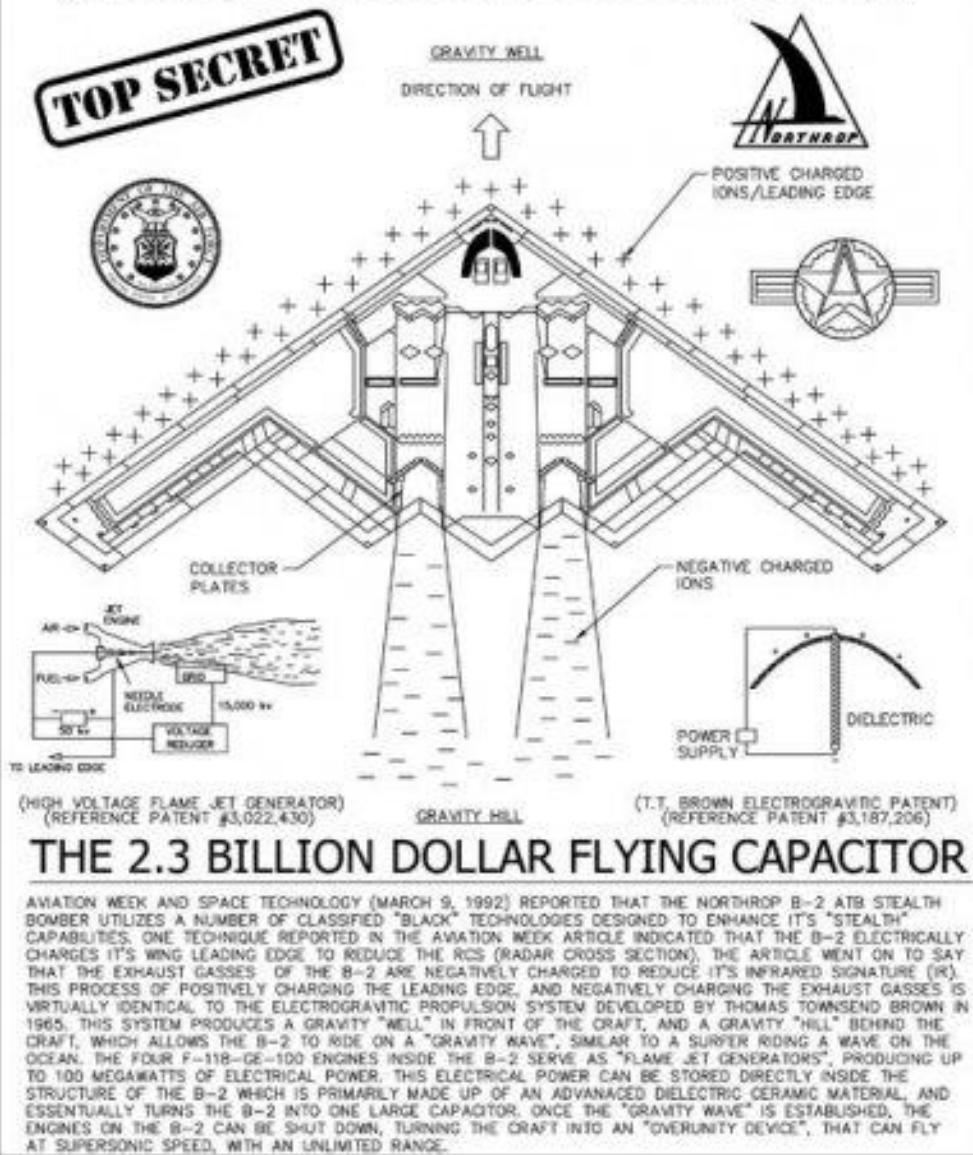


Figure 28 - Stealth B2 electrokinetic drive concept; credit: Schratt/T. Valone<sup>157</sup>

### Double Layer Tesla Turbine Engine™

The following is *a proposal* not the answer, per se. There are likely dozens of ways to get high BBE potential, including nuclear systems. But the author was inspired by Nikola Tesla himself, to come up with a highly science fiction 'Star Trekesque' method, and hopes this will inspire.

The key to the issue is that Tesla Turbines require a fluid<sup>158</sup>, and spinning discs. However, as we are speaking of consuming space plasmas, concentrating them (via BCG), and utilizing them on craft, then we can treat them as dirigible fluids<sup>159</sup>. Furthermore, it is ostensible mankind will learn to syphon charge out of the

<sup>157</sup> <https://www.secretprojects.co.uk/threads/b-2-electrogravitics-other-stuff.2076/>

<sup>158</sup> "Inventions of Nikola Tesla; a Complete Set of Patents," N. Tesla & T. Sheldeski, (1994) pp. 432-437

<sup>159</sup> Dir·i·gi·ble /'dirəjəb(ə)l,də'rījəb(ə)l capable of being steered, guided, or directed.

Aether, and thence from the SCS directly, and master the art of accumulating more energy than is in the apparently physical dimensions at hand, even across the EM spectrum. So, presuming sufficient density to make a steady stream of dirigible plasma (SSDP), then the “turbine” will function in this way:

1. Concentration of passive and semi-active SSDP
2. Nuclear mediated compression and initial voltage provision to direct plasmas into discs
3. Discs are evolved from magnetic high density, highly durable, high RPM ruthenium-tungsten-titanium alloys into actual plasma discs held in shape by directed magnetics
4. Streaming plasmas move through the turbine (20:13 ratio, or whatever is discovered by FSAI to be most efficient), and churn the “discs” with opposing pressure.
5. The turning “rotor” of plasma discs does not break down because there are no mechanical parts. All magnets change shape based upon mastery of Distinti surface currents<sup>160</sup> controlled via computer.
6. The rotor is electrified and so pushes upon a magnetic, or diamagnetic shell, causing a super high velocity rotation of the alloy disc.
7. Outer coils that surround the entire system are induced to move current from this very high voltage into an even higher voltage, and force this difference to occupy the port and stern of the ship, or whatever control surfaces necessary.
8. The resulting potential difference is extremely low current, high potential, and it drives the BBE to enable highly accelerative travel, such as seen with the CME which moved 50% the speed of light across 1AU covering the sun to Earth in 16 minutes<sup>161</sup>.
9. The final aspect to this is the completion of the circuit, the high charge potential is used to circle back into subsystems for heating, cooling, computational controls, all AI mediated.
10. Some things to consider: the feedback mechanism needs to be highly advanced and optically driven since the inertia and momentum experienced by bodies are inertial and react to the  $F=ma$  changes in the kinetic systems. Therefore the inertial dampeners need to compensate for the anti gravitics (BBE mediated) and all of this prior to actual acceleration. Also they may, if Einstein’s Special Relativity is physical and not luminal only, to not allow compression and death, even in sub-light travel. Think also of the deceleration aspect.
11. Finally the system will require a sensor of the outside BPS and heliosphere or even GEC and SGEC environments, not only to mediate the energetics, but avoid impact, etc.<sup>162</sup>

The other aspect of this system, aside from its [assumed] massive cruise ship size, is that the coils will still get very hot. The rotating chamber will be designed to circulate radiate heat and conduct fusion. Fair enough. But the passive receiving coils will probably need to be highly advanced 3D printed ultra-high-surface-area cables of significant gauge, with intertwining coolant controlled by production through the bleed off of the SSDP to compressive refrigeration. Superconductivity and maglev properties of high temp materials (beyond ceramics?) will enable frictionless rotation. The remainder of the heat and sound can be removed via the resonating thermocouples mentioned before. Advanced Stirling Generators (ASG) can combine the refrigeration and high temps for extra passive electrical systems (lighting, air circulation, etc.) to keep the SSDP:BBE axis focused on the plasma dual layer and magnetic shields, and the turbine drive.

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<sup>160</sup> See “Magnetic Universe Theory,” pp. 50-54 to refer to Distinti’s work, all citations are contained therein.

<sup>161</sup> Most take 18-19 hrs <https://nypost.com/2017/11/29/wed-only-have-15-minutes-of-notice-if-a-space-storm-were-to-hit/>

<sup>162</sup> The author presumes the best way to test the “sensing” of the BPS environment is first to test lead-up with probes in a multi anode chamber, and then from there the introduction of miniaturized BCG to create long distance filaments and simulate *current surfing* (circulating about the filament) to determine senses. The main issue is that our density in a cosmic filament will be difficult to replicate with a realistic probe in a lab filament, scale wise. Therefore an ultradense probe would need to be developed, the author imagines, and this is probably not a concern until Stage 2 or 3.

Nuclear fusion can therefore be *minimal*, and this may be small consolation to the riders, but the author thinks it will be better for living systems if the only nuclear processes at this stage of ark motion and massive population transfer has no fission and all fusion is for remediation and elemental production, and **not for cabin energetic systems**. No waste, only production right from the SSDP, be it active BPS or cosmic/passive mediation.

## State of the Technology

It isn't possible to summarize the entire current list of aerospace technology, their status, etc. There's far too many researchers. The author will, however, try to identify the latest unclassified progress that is available. In many ways the industry has become very advanced. In other ways, it is shockingly behind in its progress, for example using rocket propelled launchers.

### Launching Systems, Progress, and Evolution

Ubiquitously, all launch systems in current use are propellant based - "rocket fuel" - and based on mechanical or kinetic thrust. Essentially you gain forward momentum by throwing spent fuel & smoke through thrusters in the opposite direction, thereby pushing air and displacing mass. As the rocket becomes lighter, the acceleration itself accelerates.

$$(1) \quad a = v_e m \Delta t - g \quad a = v_e m \Delta m \Delta t - g \quad \text{Equation for thrust}^{163}$$

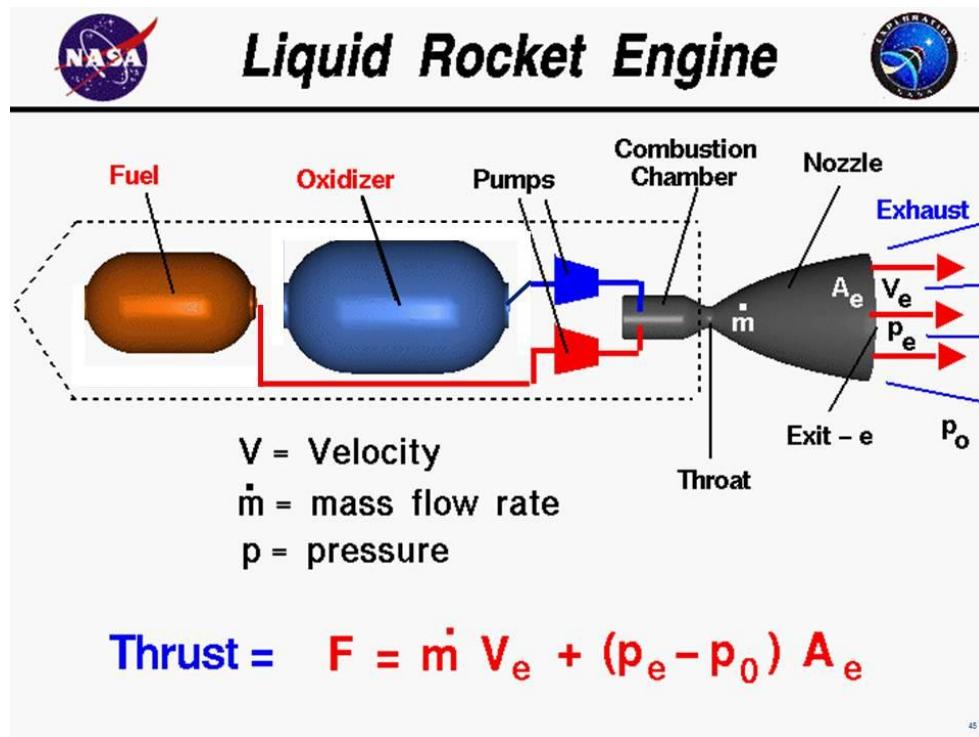


Figure 29 - Liquid Rocket Engine; credit: NASA<sup>164</sup>

<sup>163</sup> <https://courses.lumenlearning.com/physics/chapter/8-7-introduction-to-rocket-propulsion>

<sup>164</sup> <https://www.grc.nasa.gov/www/k-12/rocket/lrockth.html>

★ This is, of course, incredibly inefficient, wasteful, and pollutes the air.

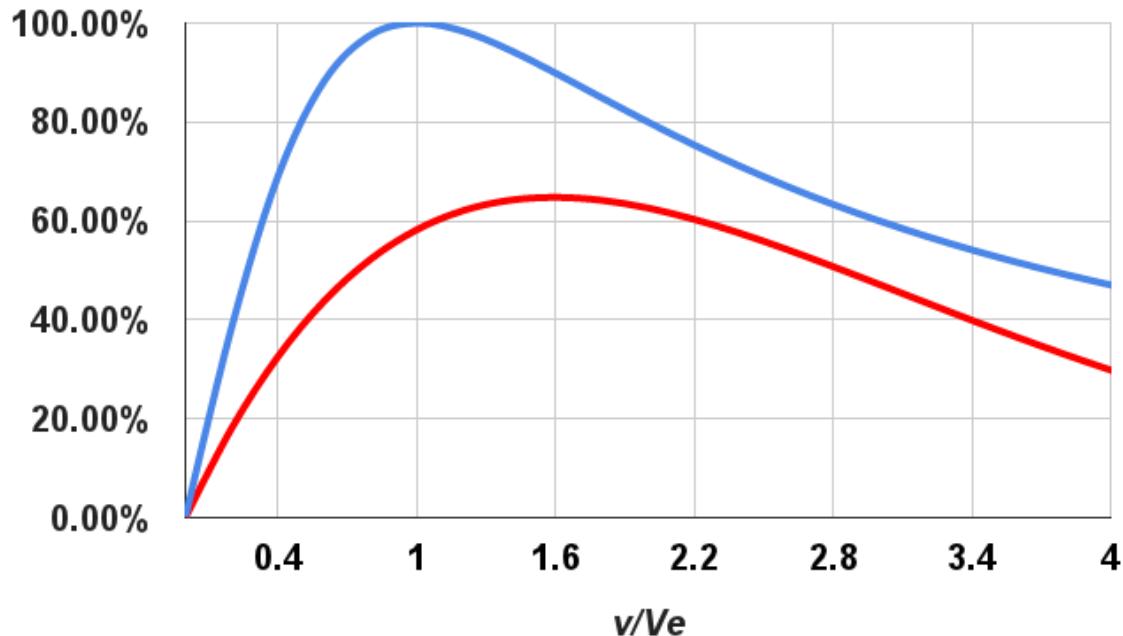


Figure 30 - Rocket efficiency

In the early 1990s, however, some innovative NASA scientists worked on an EM/maglev launch system called StarTram. It's early work on maglev designs went back to the 1960s and 1970s. Related to the project was the MagLifter<sup>165</sup>, a similar project developed by Mankins at Advanced Concept Studies at NASA. The StarTram system was then developed into a 2001 paper<sup>166</sup> and a patent (or series of patents). It was, essentially, a railway launching system that got the spaceship up to escape velocities. From there on out, the onboard propellant would continue the acceleration and maneuverability as necessary.



Figure 31 - MagLifter; credit: NASA



Figure 32 - StarTram; credit: NASA

<sup>165</sup> [https://upload.wikimedia.org/wikipedia/commons/5/58/Maglifter\\_Mankins.pdf](https://upload.wikimedia.org/wikipedia/commons/5/58/Maglifter_Mankins.pdf)

<sup>166</sup> <https://ieeexplore.ieee.org/document/931219>

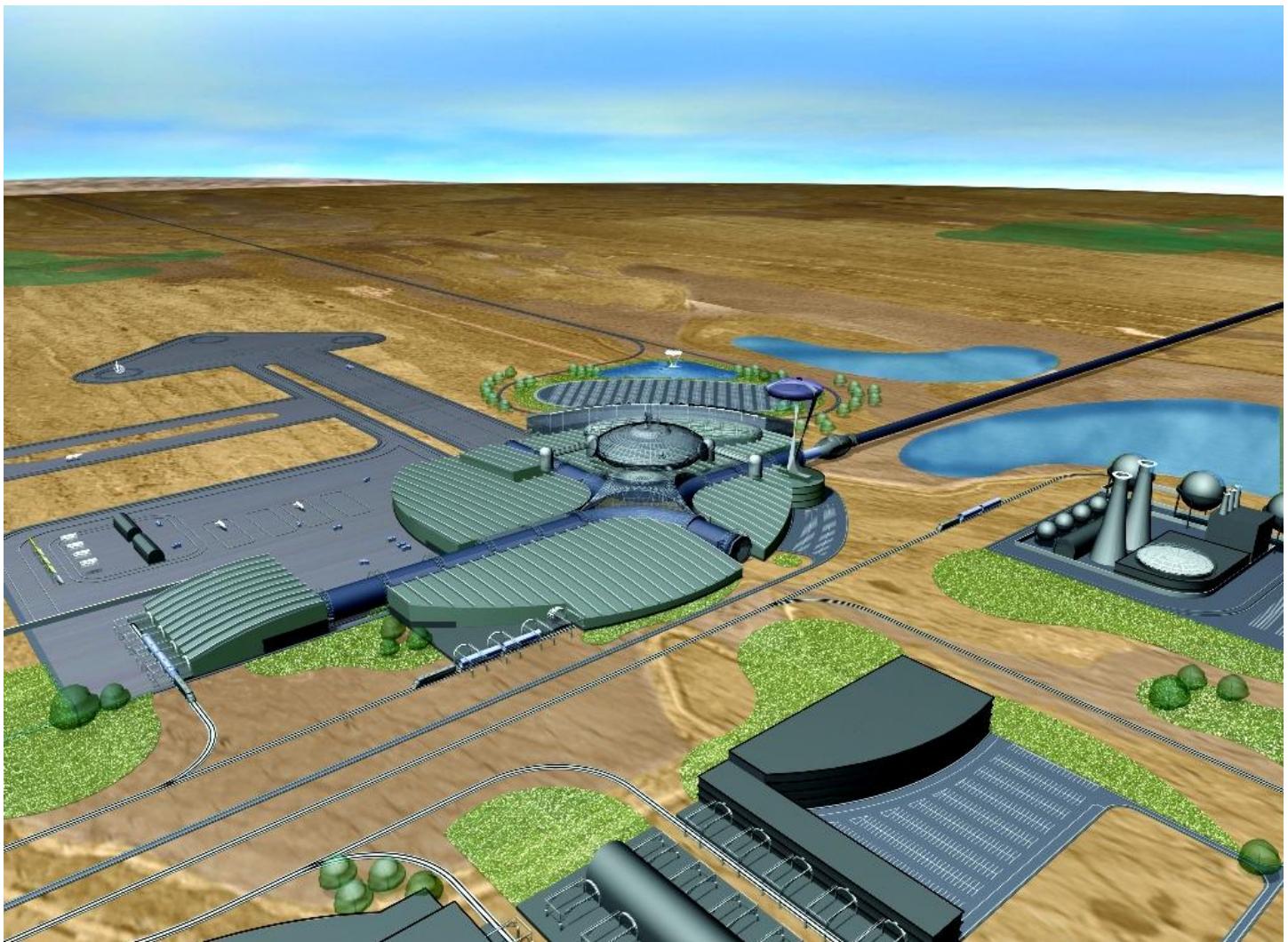


Figure 33 - StarTram Spaceport<sup>167</sup>; credit: Maise/NASA et al.

The system looks credible, and was presented upon in 2010, 2011. Since then, however, much has changed in the political landscape, and now space tourism (for rich people) is open for business, and the StarTram program seems tenuous at best.

One key difference in the above concept to the author's related (and inspired) concept is the scalability and requirements. There's far more involvement in a true SPACERS oriented design or framework, and therefore more demand on resources and R&D. However, the payoff is basically unlimited. This program will not take mankind past Mars<sup>168</sup>. However, it is an excellent framework to start with. Tests seem to be positive overall.<sup>169</sup>

*"The researchers have proposed two different models: a cargo-only version (Generation 1), which would cost about \$20 billion and take about 10 years to build, and a passenger version (Generation 2), which would cost about \$60 billion and would need about 20 years for completion. While the cargo-only*

<sup>167</sup>

[https://web.archive.org/web/20081103234428/http://science.ksc.nasa.gov/shuttle/nexgen/Nexgen\\_Downloads/Spaceport\\_Visioning\\_Final\\_Report.pdf](https://web.archive.org/web/20081103234428/http://science.ksc.nasa.gov/shuttle/nexgen/Nexgen_Downloads/Spaceport_Visioning_Final_Report.pdf)

<sup>168</sup> But it can easily take us to the Moon! [http://pdf.aiaa.org/preview/CDReadyMSPACE2004\\_1014/PV2004\\_5876.pdf](http://pdf.aiaa.org/preview/CDReadyMSPACE2004_1014/PV2004_5876.pdf)

<sup>169</sup> <https://www.science.gov/topicpages/m/maglev+launch+assist>

*version could be built up the side of a tall mountain without the need for levitated tubes, the passenger version would require levitated tubes to hold the track up.*<sup>170</sup>

The question is, can it be made more portably deployable, and in a centipede design? Also, the concept of using trains to carry spaceships is a bit antiquated... just make the spaceships able to work upon the tracks directly!

The problem for the project also seems to be a combination of money<sup>171</sup> and typical government issues: nickel and dime engineering adds up to massive budget overages and causes people to doubt the project.

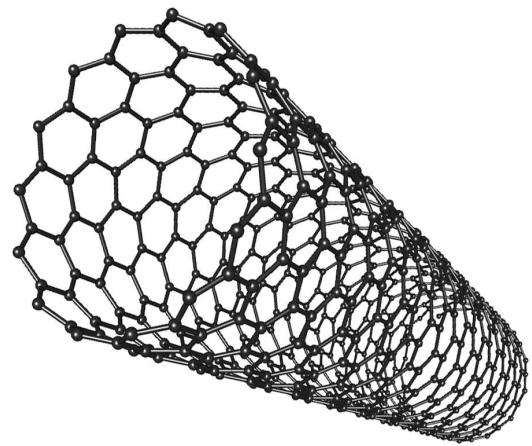
*"The researchers themselves do not consider there to be any doubt whether the levitation would work in terms of force exerted (a consequence of Ampère's force law) but see the primary challenge as the practical engineering complexities of erection of the tube,<sup>[18]</sup> while a substantial portion of engineering analysis focused on handling bending caused by wind."*<sup>172</sup>

This tells the author that there is a lot of room to be done in creating FSAI for modifying CAD designs almost on the fly in order to create novel adjustments in designs, and in systems which enable daily or moment to moment adjustments. However, isn't the possibility, too, that a better nanotube-like infrastructure could help with deformable architecture?

## Carbon Nanotubes

One of the more interesting spacer concepts of the late 1990s to 2000s was the carbon nanotube (Figure 34) Space Elevator<sup>173</sup>. As it turns out, they're "too weak" to get a space elevator actually into space<sup>174</sup>, but the technology is not remiss. There are many options that are useful with blackbody materials, and the durability of carbon fiber is a "proof of concept" for the future power of not only carbon nanotube and fiber structures, but supercapacitors. Imagine a rail-gun/maglev EM "catapult" launcher which stores ambient radiation and charge and pushes it into the launching system ad hoc. Literally allowing for "continuous burst" as alluded to in the previous Part. That's what is needed for a permanent spacer manufacturing system, which is interacting with not only the Birkeland Polyphase Superweb, but also with the space economy, hauler and asteroid mining operations, and of course bases and terraforming operations. The entire framework requires a durable, frictionless, high efficiency launch system. In this author's opinion, the properties of black bodies and structural "promises" of carbon nanotubes<sup>175</sup> fit the bill<sup>176</sup> for a potential direction in Stage 1.

Currently, the technology is, however, difficult to scale. They're slow to make, and expensive.<sup>177</sup> The chemical processes are the most difficult part. It's a time consuming



<sup>170</sup> <https://phys.org/news/2012-03-maglev-track-spacecraft-orbit.html>

<sup>171</sup> <http://www.angelfire.com/biz6/mythicprojects/PUR-19.pdf>

<sup>172</sup> [https://en.wikipedia.org/wiki/Star\\_Tram](https://en.wikipedia.org/wiki/Star_Tram)

<sup>173</sup> <https://phys.org/news/2009-01-stretchy-carbon-nanotubes-space-elevators.html>

<sup>174</sup> <https://www.newscientist.com/article/2093356-carbon-nanotubes-too-weak-to-get-a-space-elevator-off-the-ground/>

<sup>175</sup> <https://www.space.com/42267-space-elevators-that-heal-biology-inspiration.html>

<sup>176</sup> <https://ui.adsabs.harvard.edu/abs/2018cosp..42E2725P/abstract>

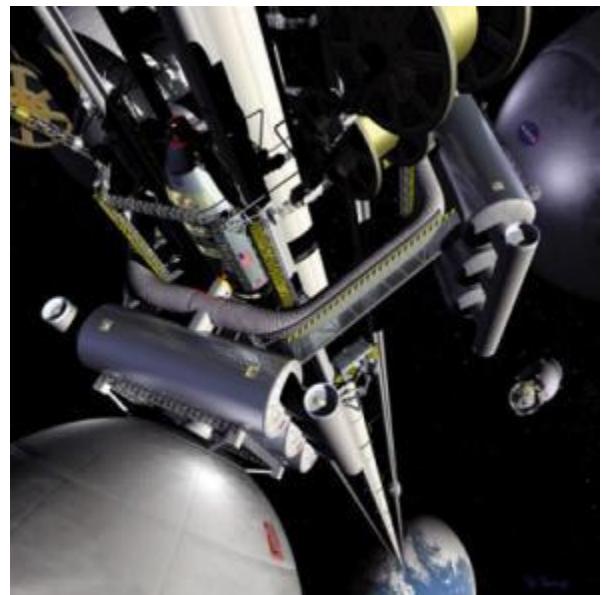
<sup>177</sup> <https://physics.stackexchange.com/questions/122959/why-are-carbon-nanotubes-are-so-difficult-to-create>

process, at the end of which there is a physical layer separation, then refinement to get the carbon nanotubes, and then they can be re-assembled. This is both time consuming and expensive, and it just is not scalable at this time.<sup>178</sup>

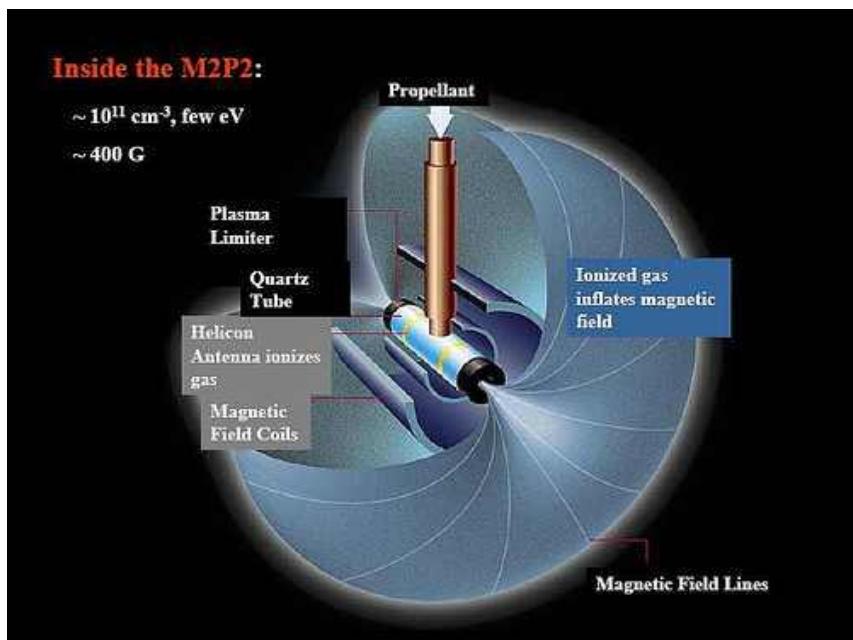
That doesn't mean that they are out of the spacer "race", it is simply that they are not deployable at these early phases of Stage 1. By mid Stage 1, they could or should be, based upon the continual research and interest in the product.<sup>179 180</sup>

However, the author is fairly certain that the elevator to space is both a bad idea, and a colossal waste of time... except where it might promote carbon nanotubes. Especially the exploration of Teslaphoresis.<sup>181</sup>

Figure 35 - Elevator to space: a colossal mistake and waste of time (impractical on many levels); credit: phys.org



### Solar Shielding, and Space Survival



The worst, most difficult obstacle to overcome - setting aside government, war, politics and human psychology - is the protection of humans from solar radiation. Right now our systems sort of rely on the massive Earthen magnetosphere and "atmosphere" extending out past the Moon<sup>182</sup>, to even function, and actually they are still inadequate. It's well known that to go to Mars would mean many times more radiation and damage, potentially, from the trip. So what is mankind to do?

Figure 36 - M2P2 concept of magnetic shielding; credit: Guardian.com

Again, this is where the power of creating plasma Double Layer Generators, and magnetic shields will be absolutely vital. This *will* be done within the early Stage 1 process, as there is no choice, and "necessity is the mother of all invention." The difficulty is, without nuclear reactors, how to sustain that kind of power? And

<sup>178</sup> <https://www.ifm.eng.cam.ac.uk/news/small-but-mighty-the-manufacturing-challenges-of-nanotechnology/>  
<sup>179</sup>

<https://www.forbes.com/sites/kevinmurnane/2016/09/08/carbon-nanotubes-are-getting-closer-to-making-our-electronic-devices-obsolete/>

<sup>180</sup> <http://dailab.stanford.edu/Reprint/46.%20Carbon%20nanotubes%20opportunities%20and%20challenges.pdf>

<sup>181</sup> <https://pubs.acs.org/doi/10.1021/acsnano.6b02313>

<sup>182</sup> <https://www.earth.com/news/earths-atmosphere-beyond-moon>

with nuclear reactors, how can the spaceship be light, and go via rockets? For mid stage 1, this might be acceptable, but by late Stage 1, it must be EM Launchers, or it is a **colossal** mistake. This, above all else (but still the economics of it) is why the author has said that Mars mission planning is completely inappropriate at this time. Almost 100% of the effort, politically, economically, scientifically, needs to be in getting a Moonbase set up, and getting a reasonably priced shuttle system between the Earth and the Moon. The longer we wait, the longer the delay in terraformation, and the greater the chance of a Grade 8 catastrophe<sup>183</sup> which ends humankind's existence (and that of nearly all life on the planet.)

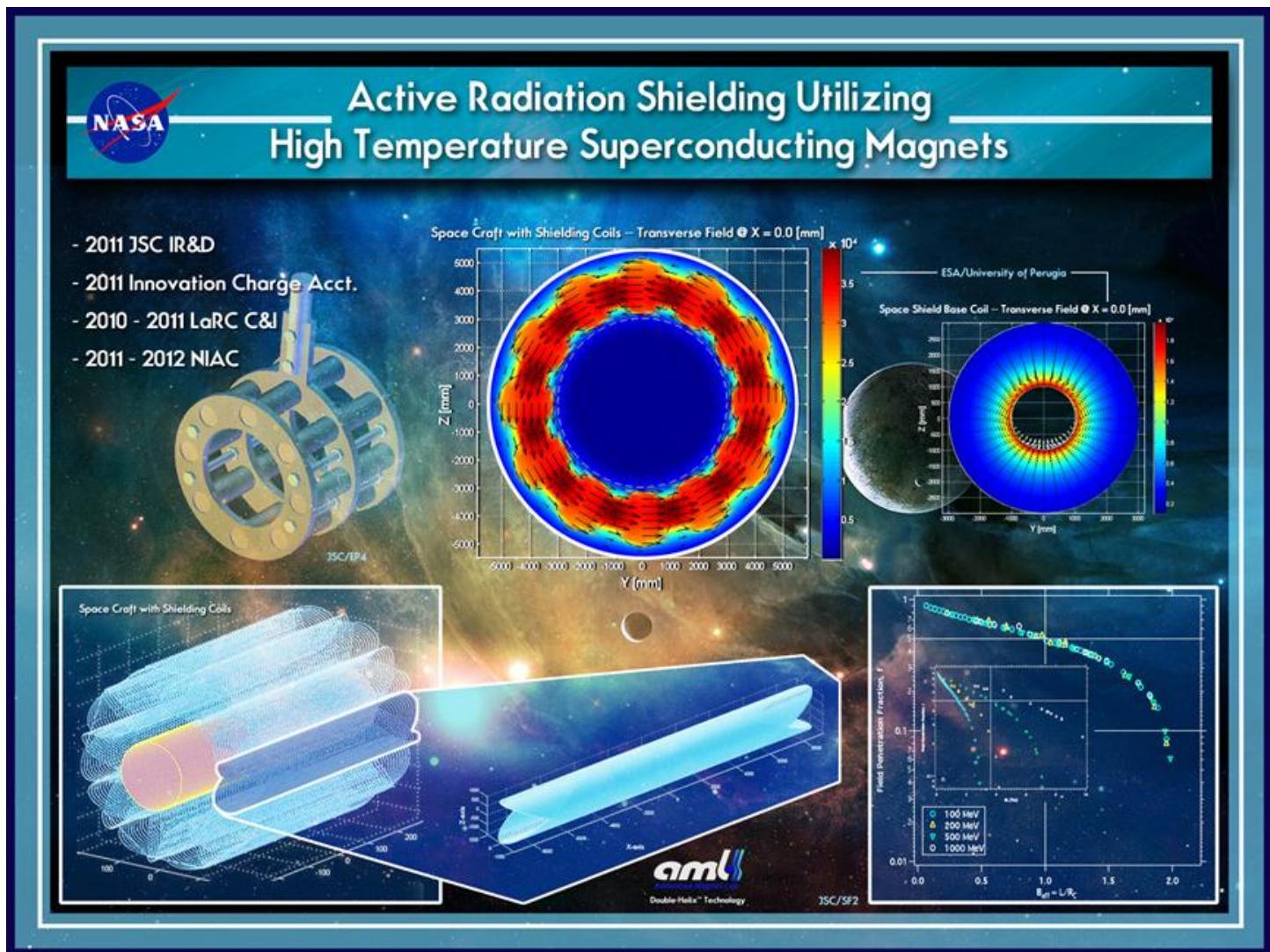


Figure 37 - Active Radiation Shielding Using Superconducting Magnets; credit: NASA

## Space Stations

There are many forms of concept art for space stations, going back to the 1950s and 60s. There is no shortage of new designs, either. What seems to be in short supply are detailed internal renderings post 1980, unless they are designs NASA has internally. Overall, space stations are divisible into three main categories:

1. Rotational/Orbital - including surrounding the entire Earth with a ring.
2. Platform/Docking - usually haphazard "airlock aiming"

<sup>183</sup> Appendix A, "Birkeland Polyphase Superweb"

3. Rotational/Modular - much like the International Space Station<sup>184</sup>, built in sections like a hive, and made to rotate slowly... not symmetric enough to have rapid rotation to give centrifugal "gravity". In fact, the zero G environment is desired for space experiments.

Figure 38 - International Space Station; credit: Wiki

The author thinks that more of the third variety need to be built, in orbit around the Earth, to help with leaf-hopping to the moon as the first few Moon bases are built. But after that, the remainder should be built as type 1 and 2 (for the haulers). Automobile-like control of spacecraft may be some ways out, depending on the declassification of electrokinetic drive R&D. However, it can be certainly said or implied that we will need long barges like haulers, and they will need a place to dock and then the materials put into railgun or shuttle delivery for back to Earth.<sup>185</sup>

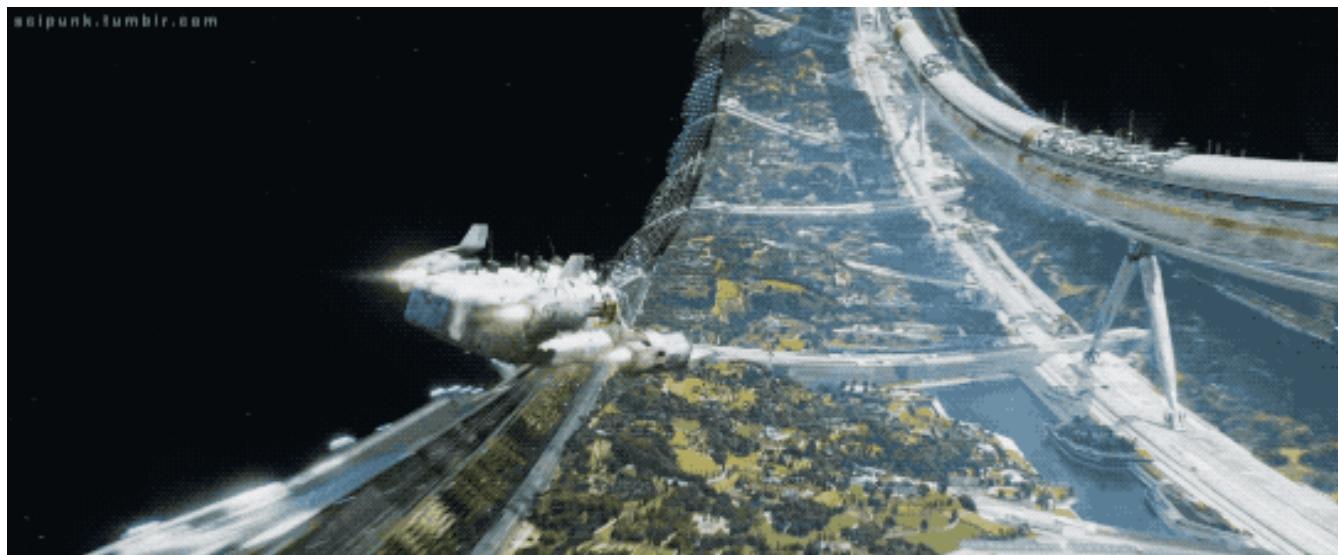
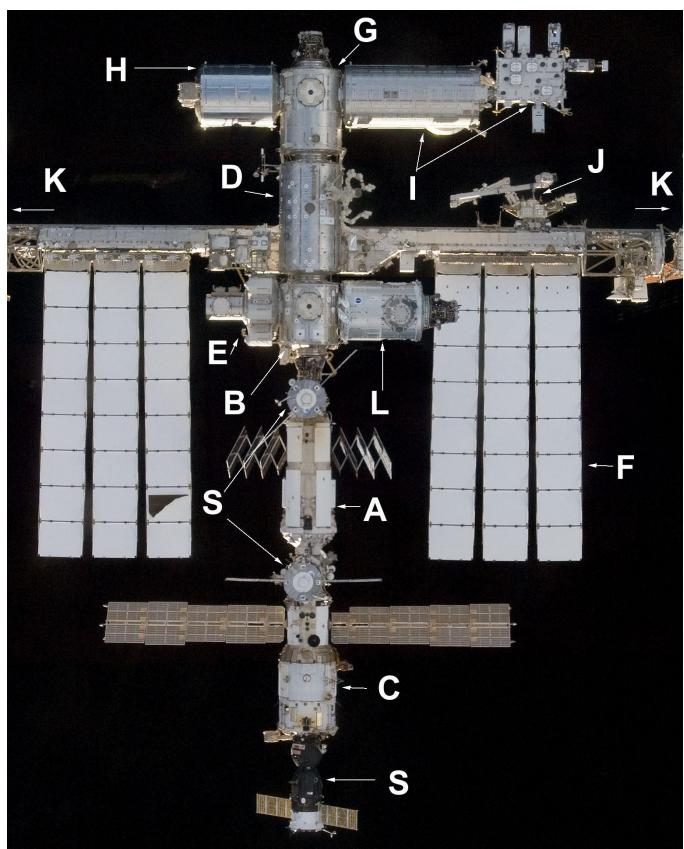


Figure 39 - Large Ring spaceship concept ([gif](#)); credit: "Elysium"

<sup>184</sup> Which is sadly being decommissioned and destroyed, for no better reasons than the Space Shuttle program being mothballed. The author suspects this was the work of the NWO through their mouthpiece, President Barack Obama, to reign in the American empire. Some speculate about aliens, but the author has not found any conclusive proof that the decommissioning of these groundbreaking Spacer programs is connected to a hidden alien infiltration. He is, therefore, agnostic on the issue, save for the obviousness of keeping America from continually developing in outer space. More on the alien issue from the author is found in:

[https://www.academia.edu/37856134/Ancient\\_Alien\\_Architect\\_Hypothesis\\_and\\_EPEMC\\_Brief](https://www.academia.edu/37856134/Ancient_Alien_Architect_Hypothesis_and_EPEMC_Brief) &

[https://www.academia.edu/49955630/Responding\\_to\\_the\\_Cosmic\\_Hoax](https://www.academia.edu/49955630/Responding_to_the_Cosmic_Hoax)

<sup>185</sup> Deal with the offsetting of momentum will be incredibly difficult without complete mastery of the BBE

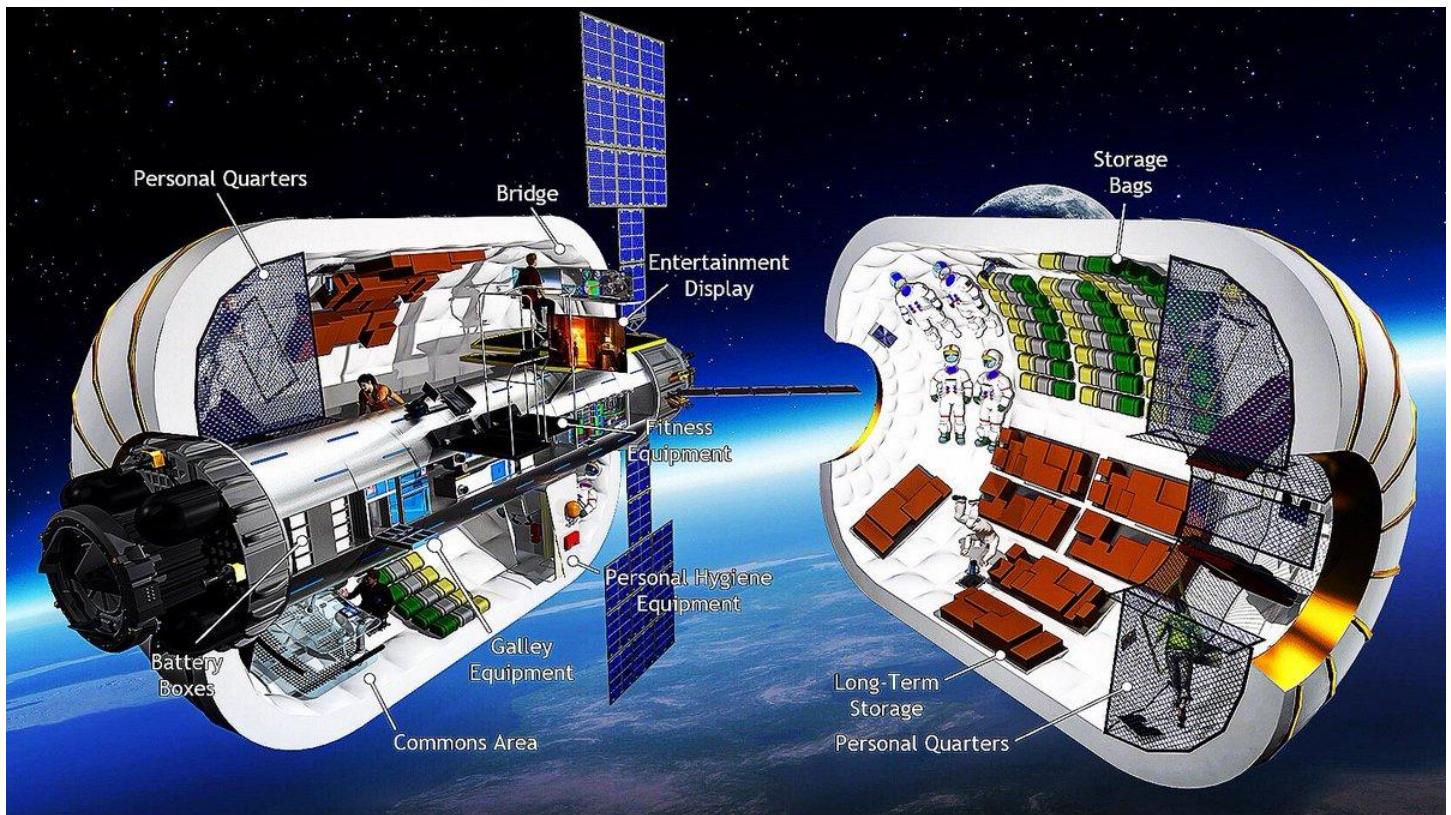


Figure 40 - Bigelow B330 Aerospace Concept with radiation protection; credit: Bigelow Aerospace<sup>186</sup>

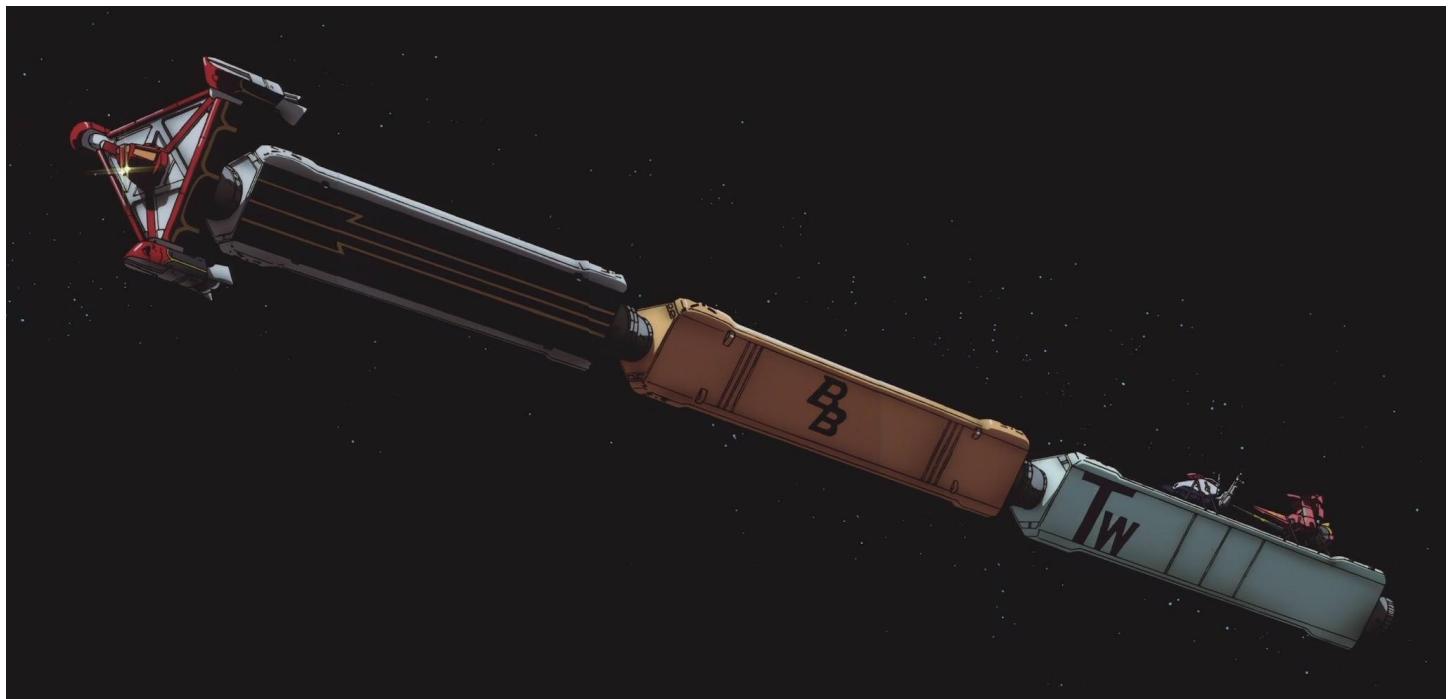


Figure 41 - Space Hauler concept; credit: Cowboy Bebop

<sup>186</sup> [https://www.researchgate.net/publication/318471820\\_Space\\_Settlement\\_An\\_Easier\\_Way/figures?lo=1](https://www.researchgate.net/publication/318471820_Space_Settlement_An_Easier_Way/figures?lo=1)

The main difficulty for type 2 is therefore stability of the station in momentum concerns. All calculations would have to be done on supercomputing clouds. And this is not going to be feasible in the space wars of WWIII, so China and Russia will need to be convinced, or forced to work with, peaceful standards. Sabotaging and destroying such space stations via hacking will not be acceptable. It's imperative that the CCP stand up to Hitleresque Xi Jinping, and return to cooperation and liberation with the world as it had in the 2008 Olympic Games!

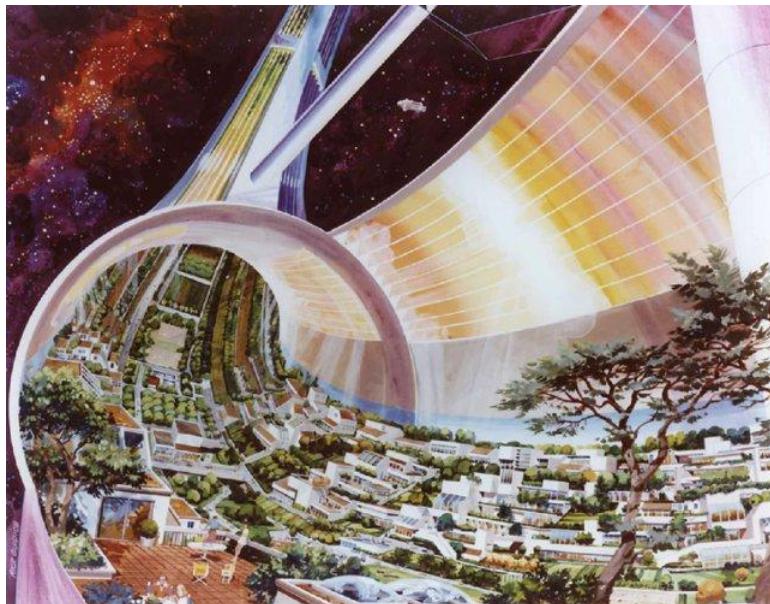


Figure 42 - Famous Ring Station Model, basis for Elysium; credit: Guidice/NASA Ames Research Center<sup>188</sup>

### Docking and Satellite Intermediation

One of the current difficulties and limitations is the tenuous nature of manually steered docking and locking mechanisms used by NASA, ESA, etc. They are sensitive, and dangerous. The ideal would be to move towards sci-fi inspired shielded docks and then normal embark/disembark as from an automobile. But this will not happen quickly.

Figure 43 - superconductor magnetic levitation ([gif](#)); gyfcat

The author suggests that a modular space station design be combined with plasma powered superconductor magnet phase lock, that then guides a ship down a rail towards the dock.

There the ship can go through a standard, but large decompression chamber, and then move inside. To do this, the landing platform probably needs to be parallel to the Earth, and not rotating otherwise. The same system can be used on a raised platform on the Moon, and included in the EM Launcher design... even used on the rails there. Most super-conduction currently requires cold materials and certain (expensive) ceramics, and is not the best delivery. However, important high temp research has yielded massive improvements in this situation, enabling superconductivity at nominal



<sup>187</sup> Correct farming techniques will replenish the soils in Stage 2. However the author sadly sees no consistent effort to replace NPK monoculture with forest farming, tilless, and permaculture techniques, as is necessary.

<sup>188</sup> <https://www.theguardian.com/cities/2014/may/16/how-build-city-in-space-nasa-elon-musk-spacex>

temperatures, meaning that the meaningful use of liquid nitrogen will be easier and more justifiable in cost (for transportation).

In fact this would be one of the earliest hauler industries, helping to develop the asteroid mining industry by determining important standards.

Figure 44 - Superconducting ring ([gif](#))<sup>189</sup>; credit: giphy

Below is a graph that has the current temp values for superconductor phase lock. At the current rate of research, it seems to the author that humanity will have cheap room temperature superconductivity by mid Stage 1, and can begin using present superconductivity industrial techniques almost immediately in early Stage 1.

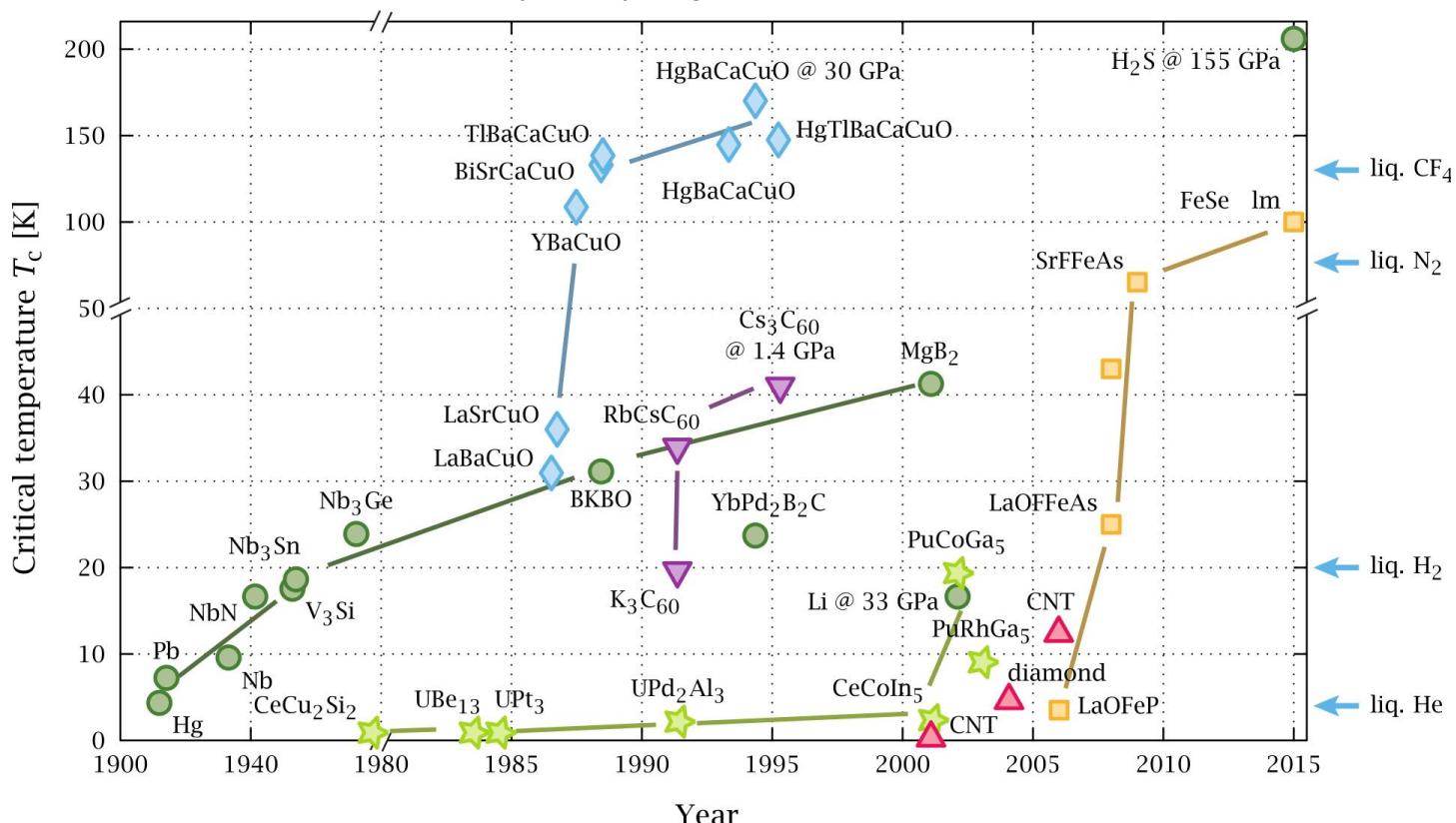


Figure 45 - Critical Temperature values; credit: Chemistry World<sup>190</sup>

## Printed Circuit Boards

This is not a new technology, but needs a few remarks. However advanced we are getting, the truth is that there are too many function specific needs that are not elegantly done with software. If software crashes,

<sup>189</sup> Note how much the law of conservation of energy and momentum enables the ceramic to continue moving along the rail. At this stage of R&D, we cannot carry heavy loads. But when electromags can be used instead of passive ceramics, there will be absolutely massive improvements in efficiency of rail delivery over present frictional systems.

<sup>190</sup>

<https://www.chemistryworld.com/news/room-temperature-superconductivity-finally-claimed-by-mystery-material/4012591.article>

there's nothing that can be done to fix it. Software patches will have to be mediated by several FSAI. In reality, it will be better to have an *entire industry* dedicated to PCB manufacture exclusively for the aerospace industry, which takes FSAI and TAI as well as modular programs, and turns them into miniaturized delivery modules to be installed by any human or robot.

The greatest need for these, immediately, is for massive sensors and communications. This is why the Hardin Scientific<sup>191</sup> model - among others - will be the future of wireless devices and communications. Secondly, they will need to work towards supercomputer speeds per device, as the need to competently control all aspects of payload launch, delivery, docking, and safety procedures will be everywhere. The author could see the need for at least 1k, to 10k sensors per 10m<sup>3</sup>. Eventually these will be less as magnetic current sensors improve to quantum subtlety in Phase 3 Stage 1, or Stage 2. This type of basic research will come naturally out of the University campus system<sup>192</sup>, but it might be worth accelerating. It will be easier to master in space away from Earth's magnetosphere. Later complete sensors for the entire Earth will enable on Earth magnetic flux sensor control, and energy direction as well as on-the-fly remediation (from atmosphere, EMF/RF, wind, weather<sup>193</sup> etc.)

### Extraterrestrial Bases (ETB)

The first several to dozens of ETB will need to be the Moon. After that, bases on Mars, asteroids, Ganymede, Titan, and even Mercury will need to be designed and worked on. The Mercury one will be unique as it will have to crawl slowly across the surface to stay in the shade<sup>194</sup> (it takes 59 days to rotate).

It will be interesting to see the ETB industry begin. The first ventures will not only be risky financially, but will probably be fraught with delays and engineering snafus which challenge mankind's willpower. Everytime a new need arises, so will increase:

- Complexity of design
- Size of base design and payload delivery
- FSAI and TAI production (thus the need for FSAI that build these)
- PCB production
- Energy supply and storage
- "Manpower" or labor force
- Mechanical repair and supplies
- Redundancies etc.



Figure 46 - Lovell City; credit: The Expanse

<sup>191</sup> [www.hardinscientific.com](http://www.hardinscientific.com) : hardware-as-a-service

<sup>192</sup> So far, 4 colleges working towards a SPACER campus system

<https://sites.google.com/view/epemcgateway/epemc/spacers>

<sup>193</sup> Meaning the movement of charge controlling the weather systems.

<sup>194</sup> A VTG can use electrical discharge machining to carve a path around the planet.

Many people have considered ETB design and concept, however in sci-fi work recently only the designs used in "The Expanse"<sup>195</sup> have devoted large amounts of resources to unique, realistic, and completely natural ETB interior design as well as docking and transport issues. Sadly, it also promoted the idea that mankind will be capable of having military, piracy, and terrorism in space. This will not do, because of not only cost, but the psychologically effect space will have on a homesick species. The entire tribalistic depiction is worrisome. No one allowed to enter space, from the most intelligent scientist or pilot to the least mechanic, can be allowed to display an EQ of less than 95 and an TIQ<sup>196</sup> below 110. Violence and geopolitical or religious politics can have no place in the space industry. It will be difficult enough on Earth, organizing the material productions.



Figure 47 - Ceres Station (inside); credit: The Expanse

Certainly it will also be useful for the spaceport cities mentioned earlier to have to deal with these issues, as well as issues of scale, as an analog to the issues of ETB production, implementation, regulation and governance, etc.

Larger and larger, more portable, modular ETB productions will improve over every Stage. It is recommended, therefore, that ETB detailed design begins right now even in early Stage 1, with moon bases.



Figure 48 - spaceship in horizontal dry dock ([gif](#)); credit: the Expanse<sup>197</sup>

<sup>195</sup> Mostly seasons 1 and 2 where they had the money for a lot of conceptual work

<sup>196</sup> Technical IQ (purely engineering and analytical)

<sup>197</sup> <https://www.space.com/the-expanse-season-5-episode-2-recap>

## Propellant

At present the main propellant is obviously liquid rocket fuel. Assuming 0 resistance to altering this relationship from big oil lobbies, there are two main alternatives at present, one more if you give any credence to warp drives and “space-time” which the author does not<sup>198</sup>, nor has any reason to<sup>199</sup>.

1. Ion Drives (Figure 49 at right - [gif](#))
2. Nuclear Drives

And these are not mutually exclusive. The big question is can the systems sustain the other aspects of the flight in order to safely get a living human where they want to be, within a lifetime, and also without taking more time than rocket fuel propellant?

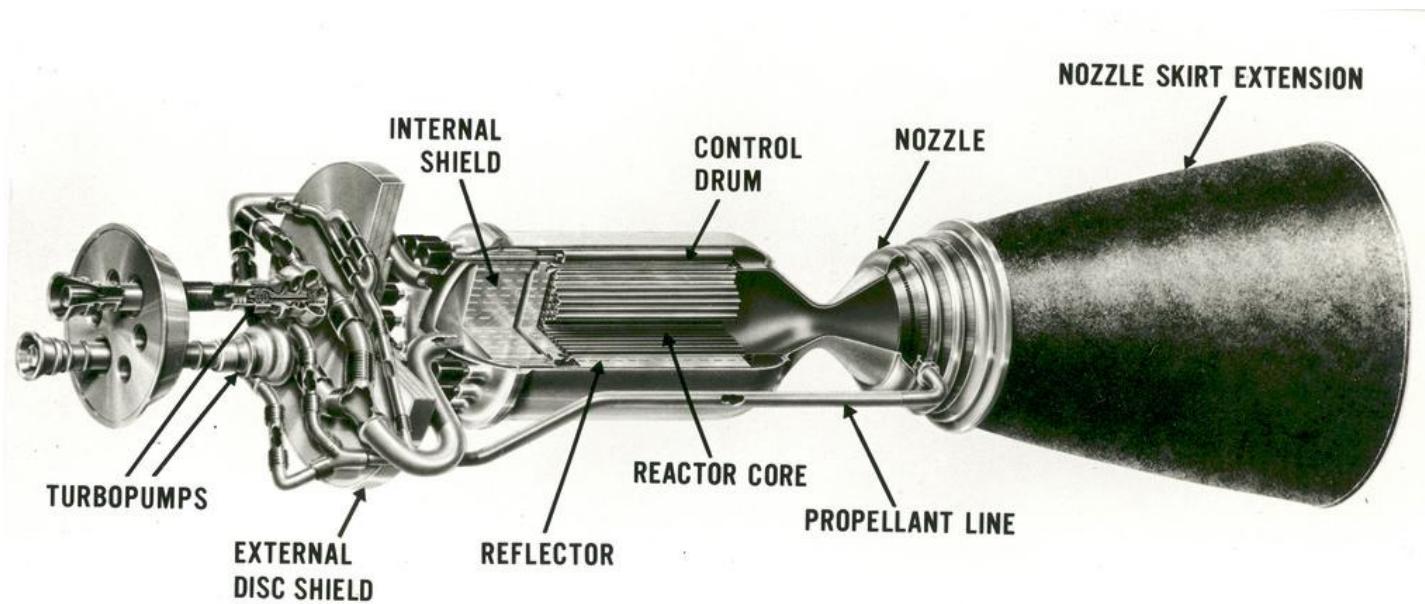
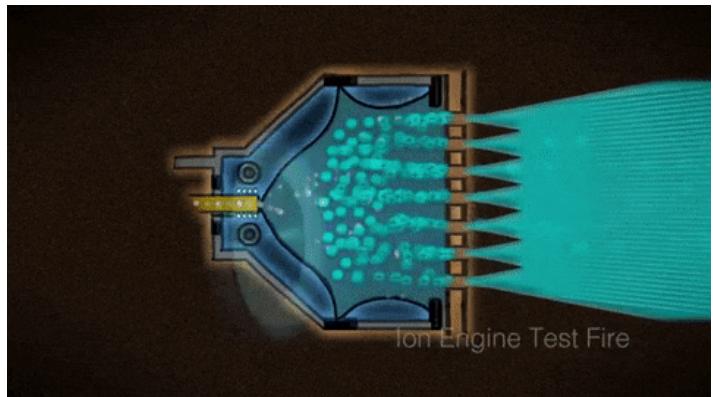


Figure 50 - Nuclear Thermal Propulsion; credit: NASA<sup>200</sup>

<sup>198</sup> In PEMC, space is a holding place, mathematical only - like 0 - and not an object. Time is a measure of flux. Black Holes are not objects but centers of plasmoids. Curved light is refraction of EMF through ionized plasma with high magnetic fields.

<sup>199</sup> Science fiction, and garage speculation do not lend much credence. However, the author does think it possible, in time, to exceed the rate of induction in the Aether (c, the “constant”).

<sup>200</sup> “The first U.S. space-based space fission system to be launched in decades will be a tremendous first step toward the development and utilization of highly advanced space fission systems. Doing so can be analogous to history-making jumps in aviation, from the DC-3 to SR-71.”

**Credits: Boeing and USAF/Judson Brohmer/Armstrong Flight Research Center**

[https://www.nasa.gov/directorates/spacetech/game\\_changing\\_development/Nuclear\\_Thermal\\_Propulsion\\_Deep\\_Space\\_Exploration/](https://www.nasa.gov/directorates/spacetech/game_changing_development/Nuclear_Thermal_Propulsion_Deep_Space_Exploration/)

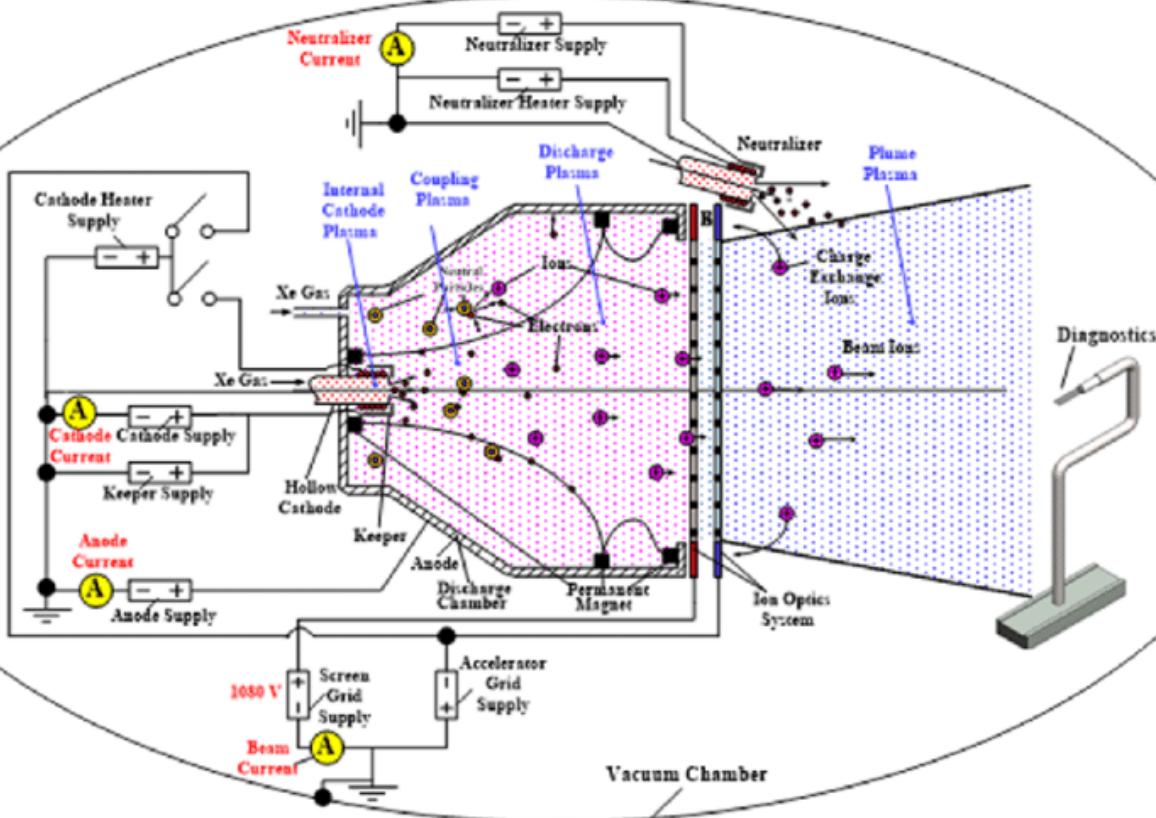


Figure 51 - Schematic of Gridded Ion Drive; credit: Zhang et al.<sup>201</sup>



Figure 52 - Atomic field Station with Propulsion; credit: Chung<sup>202</sup>

Next page: Figure 53 - Project Orion Nuclear Fission Rocket; credit: W. Black<sup>203</sup>

<sup>201</sup>

[https://www.researchgate.net/publication/309765593\\_Calibrating\\_ion\\_density\\_profile\\_measurements\\_in\\_ion\\_thruster\\_beam\\_plasma/figures?lo=1&utm\\_source=google&utm\\_medium=organic](https://www.researchgate.net/publication/309765593_Calibrating_ion_density_profile_measurements_in_ion_thruster_beam_plasma/figures?lo=1&utm_source=google&utm_medium=organic)

<sup>202</sup> [http://www.projectrho.com/public\\_html/rocket/realdesigns2.php](http://www.projectrho.com/public_html/rocket/realdesigns2.php)

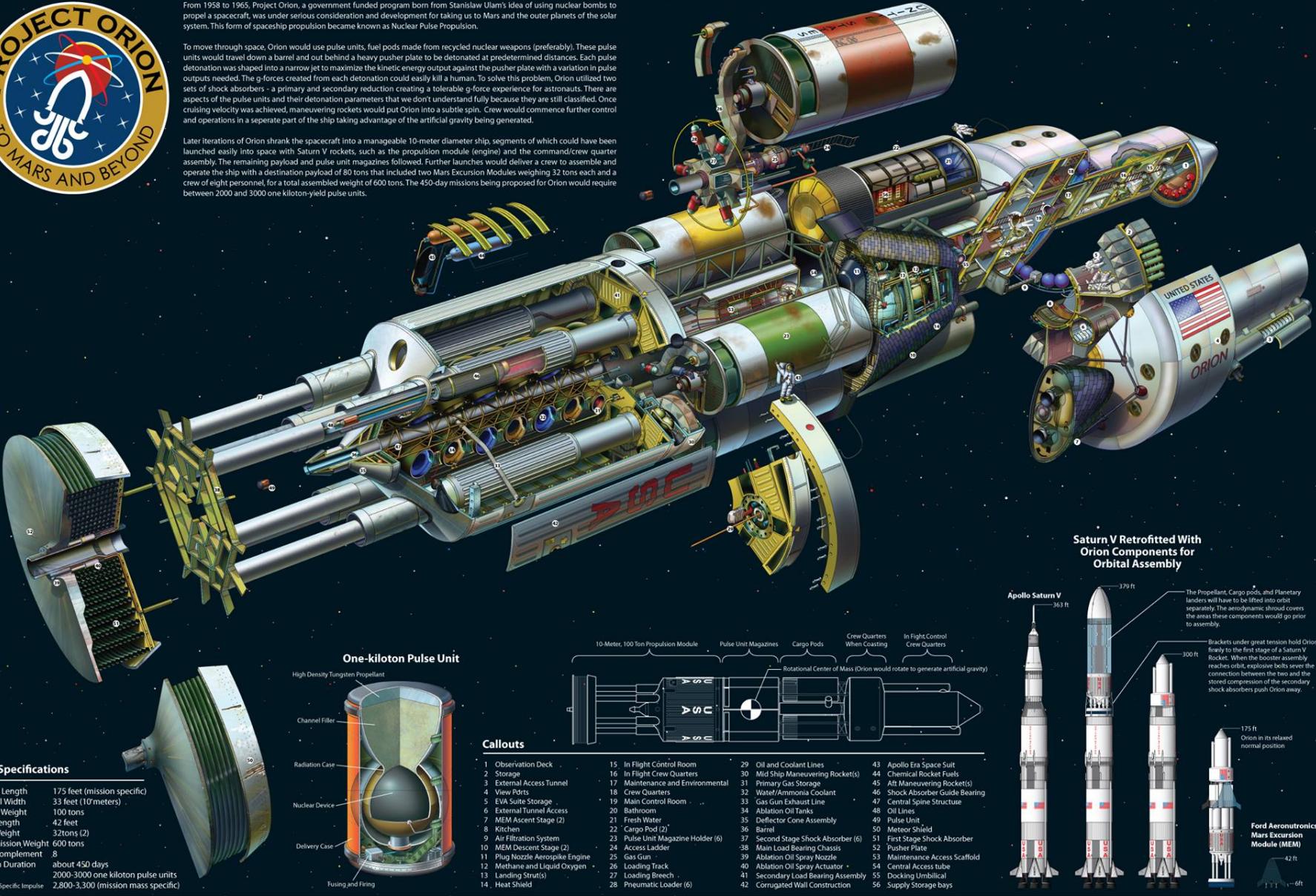
<sup>203</sup> <http://toughsf.blogspot.com/2021/01/moto-orion-mechanized-nuclear-pulse.html>



From 1958 to 1965, Project Orion, a government funded program born from Stanislaw Ulam's idea of using nuclear bombs to propel a spacecraft, was under serious consideration and development for taking us to Mars and the outer planets of the solar system. This form of spaceship propulsion became known as Nuclear Pulse Propulsion.

To move through space, Orion would use pulse units, fuel pods made from recycled nuclear weapons (preferably). These pulse units would travel down a barrel and out behind a heavy pusher plate to be detonated at predetermined distances. Each pulse detonation was shaped into a narrow jet to maximize the kinetic energy output against the pusher plate with a variation in pulse outputs needed. The g-forces created from each detonation could easily kill a human. To solve this problem, Orion used two sets of shock absorbers - a primary and secondary reduction creating a tolerable g-force experience for astronauts. There are aspects of the pulse units and their detonation parameters that we don't understand fully because they are still classified. Once cruising velocity was achieved, maneuvering rockets would put Orion into a subtle spin. Crew would commence further control and operations in a separate part of the ship taking advantage of the artificial gravity being generated.

Later iterations of Orion shrank the spacecraft into a manageable 10-meter diameter ship, segments of which could have been launched easily into space with Saturn V rockets, such as the propulsion module (engine) and the command/crew quarter assembly. The remaining payload and pulse unit magazines followed. Further launches would deliver a crew to assemble and operate the ship with a destination payload of 80 tons that included two Mars Excursion Modules weighing 32 tons each and a crew of eight personnel, for a total assembled weight of 600 tons. The 450-day missions being proposed for Orion would require between 2000 and 3000 one kiloton-yield pulse units.



**One-kiloton Pulse Unit**

- High Density Tungsten Propellant
- Channel Filler
- Radiation Case
- Nuclear Device
- Delivery Case
- Fusing and Firing

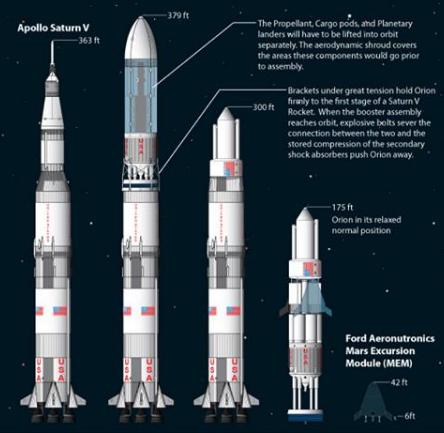
**Ship Specifications**

Overall Length	175 feet (mission specific)
General Width	33 feet (10 meters)
Engine Weight	100 tons
MEM Length	42 feet
MEM Weight	32tons (2)
Total Mission Weight	600 tons
Crew Complement	8
Mission Duration	about 450 days
Fuel	2000-3000 one kiloton pulse units
Isp(sec) Specific Impulse	2,800-3,300 (mission mass specific)

**Callouts**

Callout Number	Description
1	Observation Deck
2	Storage
3	External Access Tunnel
4	View Portholes
5	EVA Suite Storage
6	External Tunnel Access
7	MEM Ascent Stage (2)
8	Kitchen
9	Air Filtration System
10	MEM Descent Stage (2)
11	Plug Nozzle Aeroplane Engine
12	Methane and Liquid Oxygen
13	Landing Strut(s)
14	Heat Shield
15	In Flight Control Room
16	In Flight Crew Quarters
17	Maintenance and Environmental
18	Crew Quarters
19	Main Control Room
20	Bathroom
21	Fresh Water
22	Cargo Pod (2)
23	Pulse Unit Magazine Holder (6)
24	Access Ladder
25	Gas Gun
26	Loading Track
27	Loading Breech
28	Pneumatic Loader (6)
29	Oil and Coolant Lines
30	Mid Ship Maneuvering Rocket(s)
31	Primary Gas Storage
32	Water/Ammonia Coolant
33	Gas Gun Exhaust Line
34	Ablation Oil Tanks
35	Deflector Cone Assembly
36	Barrel
37	Secondary Load Shock Absorber
38	Main Load Bearing Chassis
39	Ablation Oil Spray Nozzle
40	Ablation Oil Spray Actuator
41	Secondary Load Bearing Assembly
42	Corrugated Wall Construction
43	Apollo Era Space Suit
44	Chemical Rocket Fuels
45	Aft Maneuvering Rocket(s)
46	Shock Absorber Guide Bearing
47	Central Spine Structure
48	Oil Lines
49	Pulse Unit
50	Meteor Shield
51	Secondary Load Shock Absorber
52	Pusher Plate
53	Maintenance Access Scaffold
54	Central Access tube
55	Docking Umbilical
56	Supply Storage bays

Saturn V Retrofitted With Orion Components for Orbital Assembly



The Propellant, Cargo pods, and Planetary lander will have to be lifted into orbit separately. The planetary lander covers the areas these components would go prior to assembly.

Brackets under great tension hold Orion firmly to the first stage of a Saturn V Rocket. When the booster assembly reaches orbit, explosive bolts sever the connection between the two and the stored compression of the secondary shock absorbers push Orion away.

Orion in its relaxed normal position

Ford Aeronutronics Mars Excursion Module (MEM)

Text and details from the book "Project Orion" used with permission from the author. Gérard Dyson © 2002

56

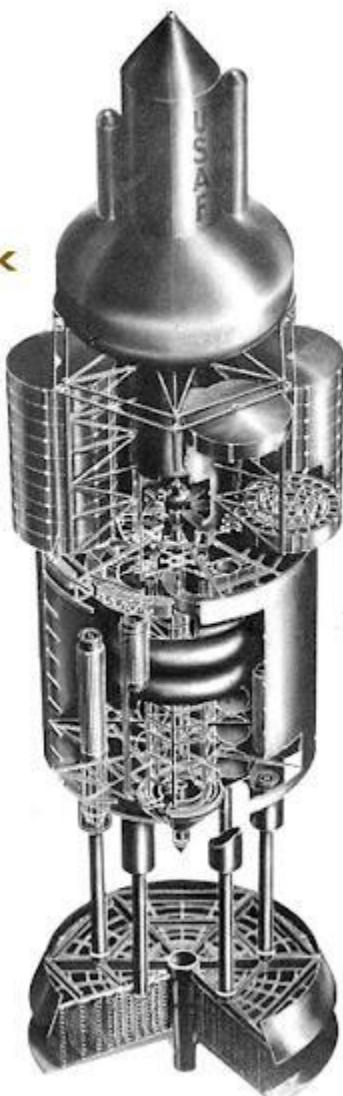
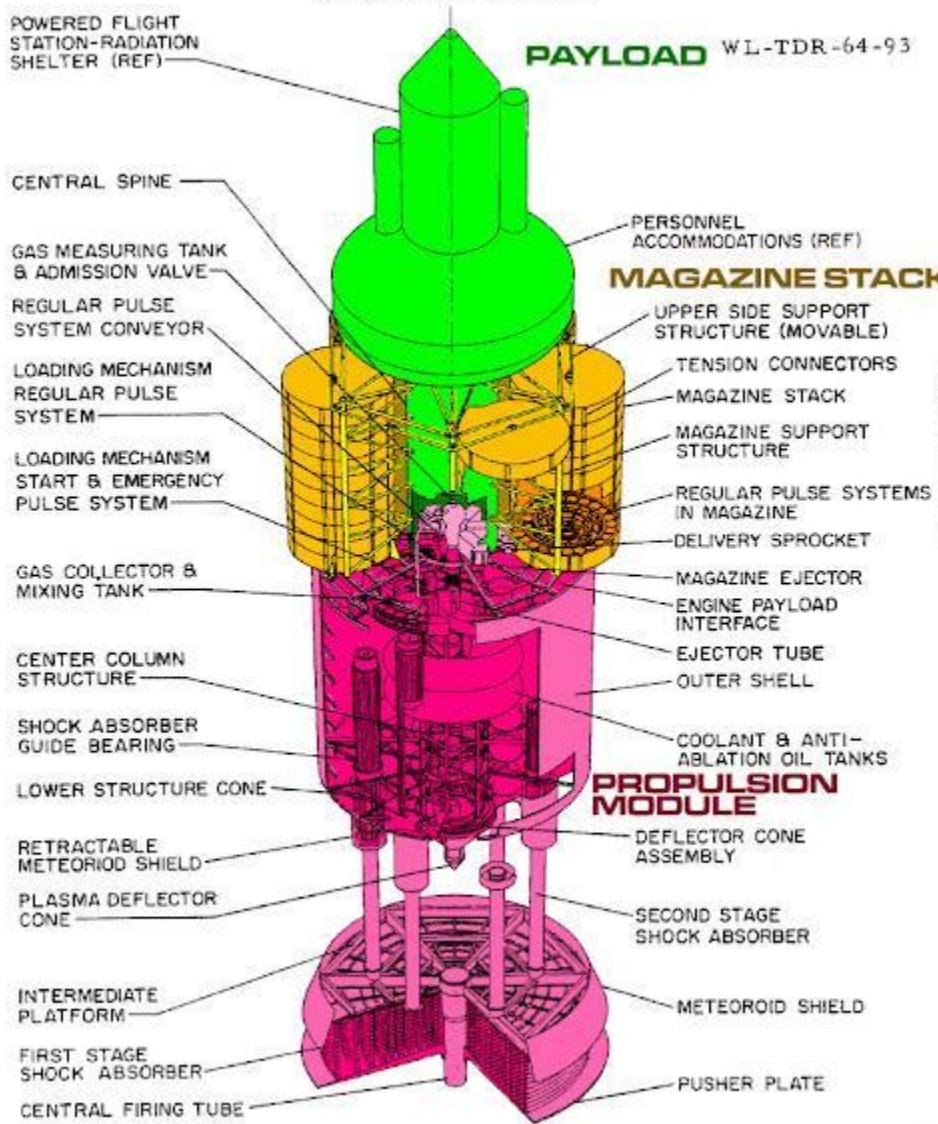
~~CONFIDENTIAL~~

Figure 54 WL-TDR-64-93 Nuclear Payload Rocket Design; credit: Project Orion<sup>204</sup>

Nuclear powered Ion drives seem to be the assumed tech-du-force at the moment of this writing. That would include any and all “warp drives” or high speed sub-light travel. The author is not saying these cannot work, so much as they are not thinking of the larger picture of the sheer quantity of available charge in space.

<sup>204</sup> The citation is definitely worth a thorough read, “Another drawback was the inability to convert any of the nuclear pulse drive’s immense output into electrical power. The two-step suspension system simply acts as a fancy spring to transfer momentum between the nuclear blasts and the spaceship. Most of the time, this is not an issue. Liftoff from a planet or moon’s surface does not take long, so stored power is sufficient. Cost-efficient interplanetary travel consists of short uses of the main propulsion system followed by long periods of coasting, during which solar panels can be deployed.

However, some of the more demanding applications require a lot of onboard power. **Military spaceships especially want the ability to both accelerate out of harm’s way, while producing plenty of electrical power to feed lasers, RADARs and other energy-intensive equipment. Fulfilling this requirement means sacrificing payload capacity to mount an onboard nuclear reactor or some other heavy solution.** It’s also a problem for very fast transports that want to use the Orion engine as much as possible; they can only extend tiny solar panels while accelerating as anything bigger would get burnt off by the nuclear blasts.”

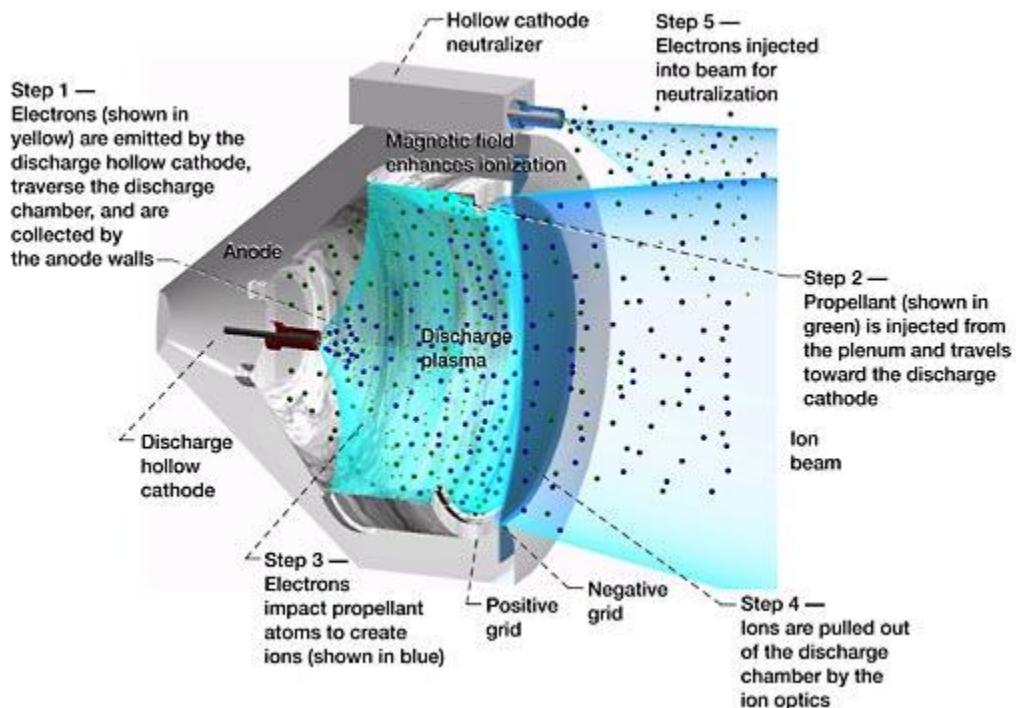


Figure 55 - Plasma Ion Drive, the start of true Plasma/BPS development; credit: NASA

## Mobility

As mentioned in the last footnote, mobility is going to be desired. Not only for the military but many kinds of shuttle craft, haulers, etc. Every misalignment. Presently, mankind has a very poor solution for this: gas evacuation. This is a terrible cost and burden, not only in economic terms but the weight. Utilizing the SSDP to control the flow of charges, in the presence of the sun's mighty electric field<sup>205</sup>, and in reaction to the magnetosphere of Jupiter and Saturn, etc. is wiser, although more difficult. It isn't that gases cannot be kept for use, just as rocket fuels can be. They are training wheels, so to speak.

But the SSDP provides a constant stream of electrical power. There is nothing new or unusual about either ionic wind or the Biefeld-Brown Effect, it is merely a matter of mastering the control of concentrating charges opposite one another, and avoiding arc, shorting, or other intense damage to the ship and control panels, etc. Arc blast is potentially hotter than the surface of the sun, so a catastrophic explosion with the concussive force of several thousand kg of TNT would be highly regrettable even if not in space. But it would be incredibly destructive here. Therefore, and only when this step is complete will things move along: complete and total control of magnetics is what is required to control shielding and enable mankind to safely use electrokinetic drives *and* have healthy DNA, inertia-dampeners, etc. That kind of sensing, computing (on the fly) power, and magnetic control - for they can explode, too - is only just out of reach for humanity. Just beyond perfect superconductor+maglev technology. But it may take until the final phase of Stage 1, because it is a frightening amount of power, and also: materials.

At present, the biggest issue as to why our craft are so puny and vulnerable is that chemically bonded materials are insanely brittle. If they weren't brittle, they would be fluid. And beyond Stage 9 or 10, it's possible mankind lapses into fluid shuttles and then to ion carrying beams. However, that sort of existence is not only alien to us currently, but anathema. We are not transhumanised (nor do we have to be), and we are not as a species even Newtonian minded, let alone Einsteinian or Teslan, etc. Most people are still unsure what to

<sup>205</sup> <https://now.uiowa.edu/2021/07/physicists-led-university-iowa-more-fully-describe-suns-electric-field>

make of Thomas Edison, for Pete's sake! The truth is that in the 20th century we had *scientific* book burnings and a Galileo of our own<sup>206</sup>! We have not completely shed our superstition, nor abandoned Dark Age values<sup>207</sup>.

We are, in the cosmos of time, babies, and we indeed act like children as well.

In such a light, is it not surprising that we consider mobility as a toddler would? We toss tiny marbles around, push and pull, and act rather with a child's mind. We also imagine we will need to shoot things in space. Setting aside an unexpected barrage of meteorites upon a space station, what would there be to shoot? If we encounter aliens, they are, like as not, wholly beyond us and our ability to harm them. If we do not, we're more likely to shoot ourselves<sup>208</sup>.

So we should consider that 40% of volume on a ship should be dedicated to a combination of controller computing (and tiny access ducts for mobile drones to fix with) and mobile controls. The next 40% should be dedicated to life support systems. 10% more to shielding and health. The final small bit for payload and a very minuscule 1% or so for human mobility. That will decrease the amount of time for travel, but encourage rapid development of propulsion, shielding, and mobility systems, by incentivizing humanity to miniaturize and develop better and better materials. The number one material to be developed being carbon nanotubes, to reduce weight and increase radiation absorption, and be more durable. In fact, there is no material more important to develop at this time, and anytime in the first Stage, than carbon materials.

## Simulation

Part of the success of the Apollo missions was the massive amounts of on Earth simulation testing, including in the landers, and centrifuges. However, at scale, this becomes difficult. We can simulate cockpit time with software and VR, if need be. But what about the adrenaline factor, the claustrophobia, the loneliness, the energies in space, etc.? This will be difficult for humanity. Therefore, the author recommends the invention of Space College, and entire Aerospace Universities, wholly dedicated to engineering, flight, simulation, design, the spacer market and economics, etc. What is done for Air Force pilots entering NASA should be done for freshmen at such a college. All pretense of "humanities" and useless "studies" programs<sup>209</sup>, and various "Social Justice" and "Critical Theory" curricula should be strictly forbidden in the college constitutions and bylaws. Engineering itself defies "isms" being involved in decision making.<sup>210</sup>



Figure 56 - LLRV simulation ([gif](#)); credit: giphy

Space will respect *only* merit and the "best of the best." No amount of soft views on this can be allowed. A high TIQ and better than average EQ will be critical for the successful person in the program. Any HR or

<sup>206</sup> Velikovsky and H. Arp, respectively

<sup>207</sup> Such as the Flat Earth.

<sup>208</sup> The author carries a firearm while hiking. But to carry one on a basketball court would be totally inappropriate!

<sup>209</sup> Including typical "University Studies"

<sup>210</sup> <https://www.nytimes.com/2019/10/22/us/bridge-collapse-florida-international-university-NTSB.html>

other concerns can be hired outside by the industries as consulting. All internal research and development, from the AI to the last mechanic on the least important dorsal wing or bolt-checker on the rails systems must be there for one reason only: they are smarter, better, and more highly equipped than anyone else to take the position and generate success.

As for simulation, there are three major points for creating an entire simulator *industry*:

1. Improving the skills of the most highly talented candidates, to ensure ~100% mission success
2. Improving the skills of society in general, just as video games have done for specops and drone ops, and preparing the mentality of people for space travel and scenarios related to the spacer movement and industries.
3. Finding holes in development, safety, engineering snafus, launch related and hauling issues, etc.  
Programmers - AI or human - will not understand the spacer industry any more intimately than a leather maker does for cars, just because leather goes on seats. Therefore, only humans (and later AI robots) will be able to ask the types of questions that lead to improvements.
  - a. For this to work an FSAI that writes and changes code on the fly has to be developed, to create new modules and even order PCB production for **immediate railgun launch to customers in need - in space even** - will be required by phase 2 of Stage 2. It's recommended to be acquired by the end of Stage 1. Such a code will need some strong security and framing-wrap to ensure no corruption or HAL2000 type problems, either idiopathic, espionage related, or AI-self-aware psychopathy, etc.

The concepts of Aerospace Universities as well as simulator industries should be expanded on in separate papers by avid and interested individuals.

## Railguns & High Speed Rail

Related to the EM launching we should, briefly, discuss the status of railgun technology (which is quite advanced) and high speed rail (which is fairly advanced elsewhere other than the USA).

These technologies rely on the power of electromagnets, and in the future, improvements with superconductive materials (paints, ceramics, even wiring<sup>211</sup>). However, for the moment, they are limited in these four ways:

1. Materials: thermal destruction, and vibratory distortions & losses
2. Coil density, bulk, weight, and power delivery & efficiency
3. Political hullabaloo related to costs, gerrymandering and pork barrel projects, as well as lobbyist inertia typical of the transportation, train, and of course oil related sectors.
4. Lack of interest, particularly in the USA where automobiles and the automotive industry crushed interest.



Figure 57 - Railgun penetration<sup>212</sup> ([gif](#)); credit: gyfcat

The main developments in the railgun sector are associated with military developments. Ballistic projectiles are natural choices for any gun, but it was difficult to develop portable, conical projectiles. Most of them required big battery usage such as on a ship, and the author is uncertain if there are any tank-sized railguns in use. Nevertheless, this

<sup>211</sup> Superconductivity means R=0, so almost no electrical losses. <https://www.britannica.com/science/superconductivity>

<sup>212</sup> This is why space battles cannot be allowed: they cannot be stopped.

use is primeval and pedestrian as compared to the goal of launching everything from multi-stage projectiles with sensitive (seeds, biological, supplies, electronics etc.) payloads to humans (slower acceleration curve, inertial dampening engaged with long spring recoil reduction as seen in firearms). Essentially, one is comparing the sophistication of a paper boat to a speed boat. Both float, but in the former the delivery of kinetic energy has no consequence, or is treated with trite (almost too casual) interest. It's easy and careless. But the carrying of expensive equipment and/or humans, animals, seeds etc. will be difficult.



Figure 58 - Real Railgun ([gif](#)); credit: senorgif.com

Therefore this author recommends the following developments:

- A second Great Train Industrialization/renaissance that covers the entirety of North America and South America, including across oceans (with improved “Rearden-like” alloys and cableless spans



Figure 59 - Rearden Steel Bridge, Atlas Shrugged movie; credit: atlasshruggedmovie.com/A. Rand

- As well as sub-surface and underwater super-long distance tunnel systems
- Slow versions of similar systems can be used for deep mine lifts in later Stages as mankind infiltrates the entire crust like a series of roots.
- Development of water and soil or ore delivering railgun systems, with long tracks (mobile or re-orientable) for testing with biologicals and inertial dampeners.
  - This should include means of using hysteresis to convert kinetic energy into EM energy for re-circulation, and the reverse for braking

Figure 60-magnetic braking ([gif](#))



- Development of hypersonic non-ballistic intercontinental missile tourism, starting with plant and animal tests, then moving into a new industry where every part is recovered and the system is even safe enough to launch between cities (if not for air traffic).
- Agreements, internal and geopolitical, regarding acceptable payloads and testing, and ramifications for black market, terrorist, or other types of treaty violations.
  - Mankind must resist temptations to tying violations to an immediate “black knight” retaliatory tactical nuke, WMD, thunderbolt, or railgun ballistica strike, and resort instead to engaging the power of the Dual Layer Economics<sup>213</sup> to create healthy sanctions.
  - Curbing low TIQ behavior will require some CAI assistant, which again is dangerous, but necessary in these instances of “fairness.”<sup>214</sup>

The author reminds the reader that the stakes in space are orders of magnitude higher than already dangerous places on Earth, like the ocean, near volcanoes, or airplane flight. It is simply impossible to maintain a safe and secure “atmosphere” in the spacer movement, with any kind of allowed asymmetric guile. There must be a seriously lopsided asymmetric deterrent to this sort of underhanded behavior, and it needs to be fair and objective. Only a CAI which observes the chronology of behavior and does deep web and social web investigation, and uses QAI (Quantum computing AI) to hack through firewalls of the accused and victimized parties to see who is telling the truth, can provide this kind of objectivity.

### Portable, Deployable Infrastructure

There is an obviousness to this which belies the technology: we have no ETB on any other body at the moment, not even the Moon. Therefore the entire world has the right and responsibility to use the north and south poles of the Earth, deserts, mountains, canyons, and the ocean deeps to practice building what will prove the be the most frustrating technology on this list: portable, deployable mechanized and highly sensitive

<sup>213</sup> “MIMS 1.0”, pp. 15-21

<sup>214</sup> Nothing should be automated fully or “powder kegs” and “black swan events” will dominate Stage 2 and slow mankind down by 50-80 years.

(ie, computerized and scientific) equipment. Starting small, as the military has done with portable bridges, and going to walkers/crawlers, LiDAR guided vehicles, unmade aerial vehicles (UAV or drones), etc.

This groundwork will be essential for these reasons:

- The need for centipede unfurling railways
- The need for re-orientable ramps with full saddle-joint mobility
- The need for high and low temp, simultaneous resistivity
- The need for anti-shock, anti-high wind, anti-radiation hardening and shielding
- The need for high end computing and scientific equipment (think: gravity wave and neutrino detector level of sensitivity and mirror glass for radioscope level of fragility.. But launched at 30% of c)
- The need for survival of railgun deceleration (think: soldering and welding failures)
- The need for impact survival in case of chute failure
- The need for immediate use/rescue ready equipment, such as AI robots, med supplies (glass and plastics), etc.
- Etc.



Figure 61 - USMC portable Bridge ([gif](#)); credit: USMC

These are non trivial engineering issues. They will require continuous honing right from Phase 2 of Stage 1 through Stage 10. The frustrations will be mediated by FSAI and TAI, but not removed. The human intellect is specialized at solving problems (because humans cause so many problems), and will need to be highly engaged. At the Space Colleges, special debug and situational/survival mechanics and chemical engineering programs will need to be taken for a new field of *Space Engineers*, some of which specialized in portable and redeployable technologies and engineering. Again, until mankind overcomes the need to use brittle materials - even carbon nanotubes - and become first fluid, then plasma, then light itself... this will be a non-trivial obstacle.

### Laser Energy Discharge

The present technology state of laser-arc discharge<sup>215</sup> is advancing at a rapid pace<sup>216</sup>. However, assuming continual improvement of the technology in phase 1 of Stage 1, it will reach an asymptotic barrier within 10-20 years, because space is not densely populated with air, and ion channels are difficult to form. Permeability of space and voltage breakdown is estimated at  $4\pi \times 10^{-7} \text{ N/A}^2$  and 3 MV, respectively<sup>217</sup>. Therefore the issue is a matter of economics.

However there are two unique stages for this to develop (that the author can mimically see, at this time):

1. The first is that when the Birkeland Polyphase Superweb is permanently energized (not gather mode only), about Stage 5 or 6, then the well placed asteroidal and Gold Foil Array grid will be able to send reliable Tight Beam Laser relays in a continuous cluster. The difficulty, of course, is the attrition of satellites and the requirement to mine Earth to feed the continuously orgasming manufacturing clusters of multiple megacity ports and city-states. These function as highly consuming kingdoms as well, with

<sup>215</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5116021/>

<sup>216</sup> <https://www.iue.tuwien.ac.at/phd/pourfath/node/15.html>

<sup>217</sup> [https://energyeducation.ca/encyclopedia/Permeability\\_of\\_free\\_space](https://energyeducation.ca/encyclopedia/Permeability_of_free_space)

an insatiable desire for telecom and plasma security.

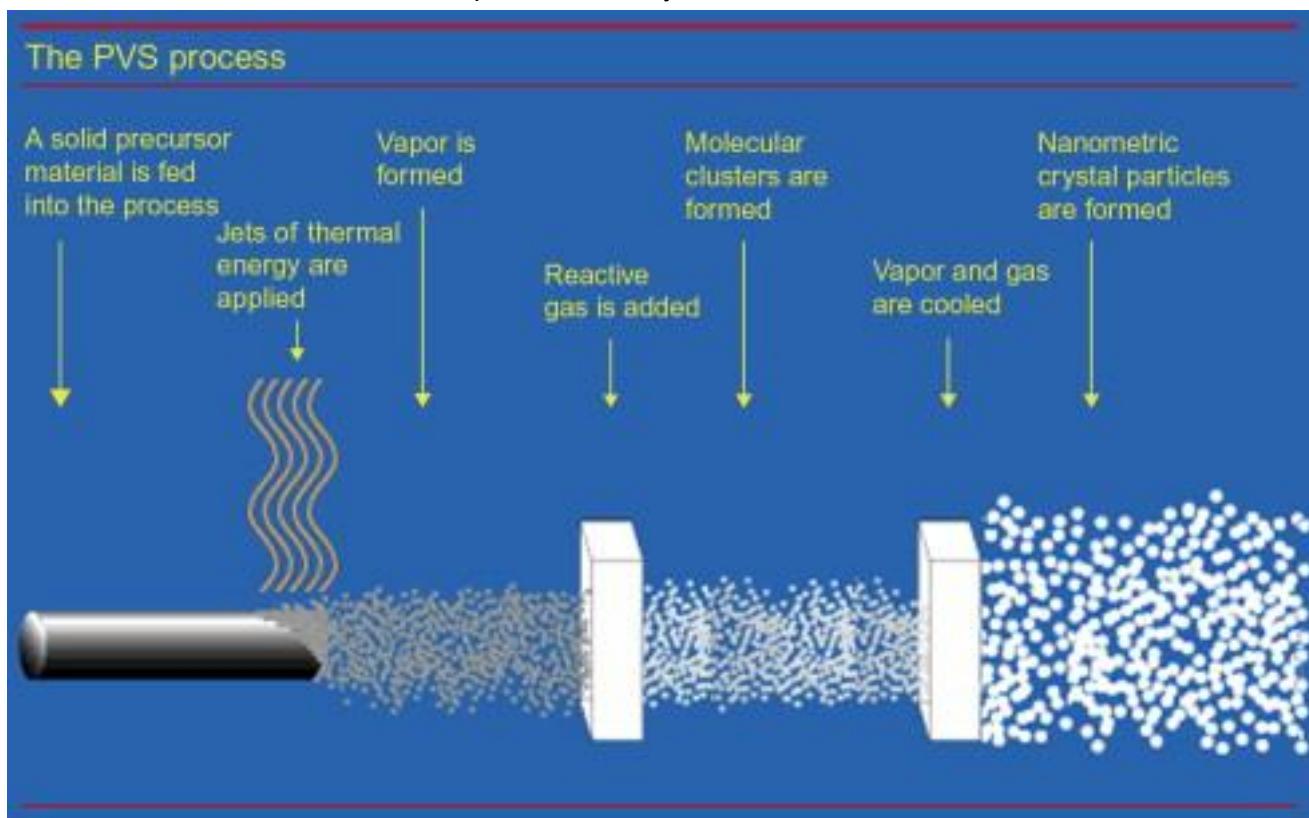


Figure 62 - Laser Ablation; credit: ScienceDirect<sup>218</sup>

2. The second, therefore, is a desired mode to get to ASAP. It requires only a complete conquering not only of magnetic tunneling and sensing technology, as mentioned before, but so called "Spooky Action at a Distance", aka quantum tunneling + entanglement. QTE will enable lasers to be used to "program" matter at a distance, at reliable speeds of near  $c$  to induced charge reformation, transformation, and behavior adaptation to pre programmed analog SSEC changes, decided by - and this is important - Proof of Work<sup>219</sup> mediated blockchain CAI/TAI validation and verification of code changes.

Rather than explain the obviousness of why this system needs to be objective and verified by multiple, edge-computed supercomputing blockchain "DeFi" like devices (ie: no human involvement), to prevent WMDs and stupid things like ramming large objects into human habitations, ala "the Expanse"... let's talk more extensively about the computer code that needs to exist, and how mankind will develop this.

<sup>218</sup> <https://www.sciencedirect.com/topics/chemistry/laser-ablation>

<sup>219</sup> Useful work, calculations on the block of trajectories, orbital velocities, electric circuit measurements, etc.

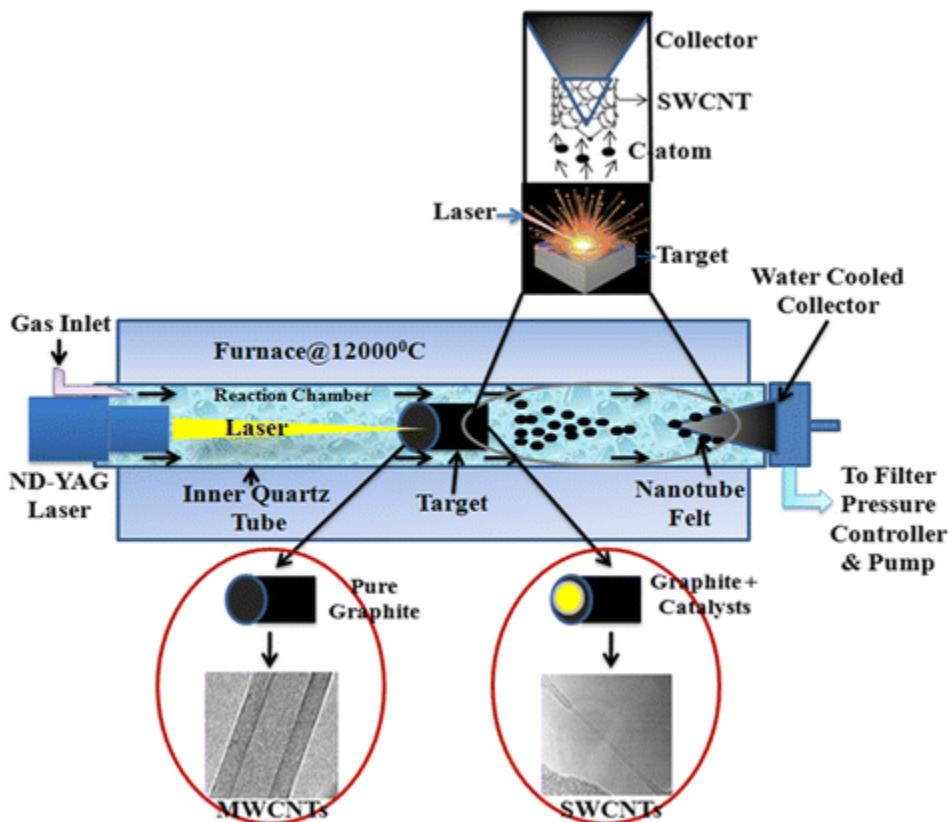


Figure 63 - Laser Ablation in Nanotube synthesis; credit: Das et al./Nanoscale Research Letters<sup>220</sup>

### 3D Web 4.0, and the Deformable Hyperscript Protocol (DHSP)

The current state of web 3.0 is a bit of an unknown. There are five trends which are competing for supremacy even before discussing the geopolitical situation (big tech/data/FAANG/fascism<sup>221</sup>, New Cold War<sup>222</sup>, etc):

1. Self-driving cars/drones/TAI with distributed computing infrastructure.
2. Wearable technologies, VR, XR, etc.
3. Decentralized blockchain, tokens, passive income, etc.
4. Edge computing and supercomputing clusters.
5. Steady State, bio, quantum and potentially optic computing.
6. Low-code/No-code programming.

There is, however, a seventh development which has excited the author, the creation of nearly ray-casted, scalable tech, with low-code/no-code readiness in Unreal Engine 5.0. This provides for highly detailed, scaled, massive environments - think solar system simulations - with little to hardly any difficulty in development. A TAI specific to designing cockpits, for example, can create iterated CAD designs, with minor changes, and then insert cockpits into varying nose cone rocket shapes to immediately test aerodynamics for standard rocket fuel propellant or EM launched results. And the details of the cockpit will then be rearranged and can be given to a FSAI in order to create iterated computing schematic changes, and sent to CAD. In the

<sup>220</sup> <https://nanoscalereslett.springeropen.com/articles/10.1186/s11671-016-1730-0>

<sup>221</sup> After the author wrote this, Facebook announced its move into Web 3.0 (and 4.0) strongly with changing its name to Meta and going full into VR!

<sup>222</sup> [https://www.academia.edu/51022722/Winning\\_the\\_New\\_Cold\\_War\\_World\\_War\\_3](https://www.academia.edu/51022722/Winning_the_New_Cold_War_World_War_3)

future, the CAI in charge of these design changes can simulate the changes to aerodynamics, and electronic schematics, in order to send them to the PCB and industrial packaging centers for rapid shipment and departure scheduling<sup>223</sup>.

All of these mediations would require a next-step/level of the API concept into fast-mediated data interchange, for rapid talk between AI of different types and hierarchies of decision making but constant enforced equality of verification.

How will these technologies be merged and developed? There's currently no incentive for various FAANG/MSO data power rivals to support one another's protocol systems. Microsoft can tell Apple, Oracle, Google, and Facebook to jump off a cliff, and this encourages them to each do likewise. This is, in fact, already happening<sup>224</sup>. But it is an **incredible barrier** to Spacer movement in Phase 1. Amazon and SpaceX are leading the way through the BS, but the AWS<sup>225</sup> bitter rivalry with Google and Microsoft cannot be called productive.

Instead, the author suggests that his concepts of the DHSP and a movement towards a 3D internet - all of which are too proprietary and sensitive to detail here - would enable a movement past this Intel/Microsoft hegemony, and also past the New Cold War and WW3.0 geopolitical standoff between the West, Russia, and China<sup>226</sup>.

The protocol would need to be as - or more - on-the-fly as HTTP, but as versatile as various app programming languages. It would need to be AI/deep learning ready, even if object-oriented. It would need to be in reduced RAM consumption, with increased emphasis on the graphical interface with GPU kernels, for quick floating point calculation and drastically increased scale.

Finally, it should be built with both quantum and biocomputing in mind, though the first 3D computers will not be either of these. But phase 2 and phase 3 on into Stage 2 will of course involve these developments, and hopefully optical computing as well. But the latter should not require any new type of standardization than standard cluster computing with semiconductors, etc. At least, the author doesn't think so, at this time.

No matter what, the standard should go to HD bit format, from 64-bit (now) to 1024-bit, almost immediately. A short duration flirtation with 256 and 512 bit would be permissible as the Unreal Engine (or competitor) moves towards true ray-casting and in depth schematic ability (instead of surface only graphics and lighting). As FSAI are built with the design and function to build and program 3D computers, then the standards can rapidly progress. Dynamic arrays should enable a kernel OS design that keeps the DHSP at a standard progression that is synchronised to blockchain schedule parameters. In the future mega-transactions of the billions or trillions (in modern \$\$USD standards) become dominate but do not erase a massive capacity of small, innumerable transactions, fees, taxes, and estimations on 8 or 12 digit blockchain values (just in finance alone, not even counting aerospace economies of scale.) As the scaling happens, these blockchain PoW, PoS values will become the third chokepoint (with RAM volume and PETAFLOP<sup>227</sup> speeds are the first two). This means that, in absolute terms, the Quantum computing standard will come to dominate with or without the AI, and biocomputing will be the PC user level. This table will give the present analog in terms of economies of scale, in computing engineering:

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<sup>223</sup> Ie - operations research /analytics mediated “critical chokepoint” analysis for a queue of launch sequencing, based upon both blockchain transaction verification and criticality (including time, distance, orbital calculations).

<sup>224</sup> Thankfully, since mankind is flirting with socialist fascism again despite the horrors of the 20th Century that Nikola Tesla warned about and we lived through

<sup>225</sup> Amazon Web Services

<sup>226</sup> [https://www.academia.edu/50652106/China\\_vs\\_the\\_World\\_IQ\\_as\\_a\\_Strategic\\_Asset\\_a\\_graphical\\_comparison](https://www.academia.edu/50652106/China_vs_the_World_IQ_as_a_Strategic_Asset_a_graphical_comparison)

<sup>227</sup>  $10^{15}$  unit of computing speeds; currently we calculate by teraflops. The author thinks a 3 order of magnitude increase should cover the depth of volume to 3D schematic level, and on-the-fly rendering of the 3D OS (in steady state or crystal architecture hardware) with immediate 3D web 4.0 environment.

Table 4 - Comparing Computing, Blockchain, and OS Evolution

Intel/MS	Standard	Pre Web	CPU	2D internet
32x	Biocomputing & Quasi-Quantum (QQC)	Web 1-2.0	GPU	3D surface (gamer like interface)
64 bit	True Quantum	Web 3.0 & DeFi	Microcluster/RasPi	3D + Total <sup>228</sup> XR <sup>229</sup>
256 bit+	Optical Quantum	Web 4.0 (DHSP)	Edge Computing	4D actual Rts <sup>230</sup>

These 4 stages are a simplification of breakdown, and of course only applicable to Stage 1, perhaps early phases of Stage 2. It is important:

- ★ Mankind must not become addicted and limited to the DHSP protocol such that it forms a box on progress the way the Intel/MS (DOS/exe or Unix) standard defined *the last 40 years of production*.

## Batteries and Energy Storage

One of the most distasteful issues in the present spacer situation, and which is being addressed by Elon Musk et al. is the battery issue. Unfortunately, it isn't only about storage, but rare earth mineral shortages, and toxicity, as well as wastefulness. Lithium batteries are terrible, but they will in phase 1 be replaced by better storage mediums that are "in the works." Also, and this is a hopeful fact, crystal storage and memory, carbon supercapacitors, and in the near future hydrogen fuel cell technologies, will increase the likelihood of achieving TGE within this century! That's super exciting news, if you, like Nikola Tesla, believe that burning fossil fuels to push a motor around a stator to produce AC is barbarism. The author certainly does think so.

Hydrogen Fuel Cells (HFC) will be a difficult automobile application to sell, though, for the same reason that Ur/Pt nuclear is: it's plain dangerous. One car, on fire, regardless of justification or even remote connection to HFC explosions, and "hindenburg" disaster memes and regulation could kill the technology for 100+ years!

Let us, briefly, list the state of the technology<sup>231</sup> for current lithium transcendence"

- Zinc<sup>232</sup>
  - Zinc Alkaline<sup>233</sup>
  - Zn ion<sup>234</sup>
  - Zn Air<sup>235</sup>
- Sodium Sulphur<sup>236 237</sup>
- HFC<sup>238 239</sup>
- Lithium-sulphur<sup>240</sup>

<sup>228</sup> Including all senses, such as a "Ready Player One" scenario

<sup>229</sup> <https://www.qualcomm.com/research/extended-reality>

<sup>230</sup> Real-time-scale (to the limits of c in space)

<sup>231</sup> <https://iopscience.iop.org/article/10.1088/1361-6463/abd353/pdf>

<sup>232</sup> <https://www.power-technology.com/features/lithium-battery-alternatives/>

<sup>233</sup> <https://www.sciencedirect.com/science/article/pii/S2405829720302087>

<sup>234</sup> <https://link.springer.com/article/10.1007/s40820-019-0322-9>

<sup>235</sup> <https://www.frontiersin.org/articles/10.3389/fchem.2020.00372/full>

<sup>236</sup> <https://www.sciencedirect.com/topics/engineering/sodium-sulfur-battery>

<sup>237</sup> <https://www.sciencedirect.com/science/article/pii/S0167273817306501>

<sup>238</sup> <https://www.youtube.com/watch?v=hghlckc7nrY>

<sup>239</sup> <https://www.energy.gov/sites/default/files/2020/10/f79/hfto-progress-fact-sheet-june-2020-2.pdf>

<sup>240</sup> <https://greenauthority.com/10-alternatives-to-lithium-ion-batteries-79/>

- Graphene<sup>241</sup> supercapacitors
- Aluminum-graphite<sup>242 243</sup>
- Bioelectrochemical batteries<sup>244 245 246</sup>
- New solar<sup>247 248</sup>
- Powered roads<sup>249</sup> (induction<sup>250</sup> or transference<sup>251</sup>)
- Thin-film batteries<sup>252</sup> (more of a side step than transcendence)
- Solid-state batteries<sup>253 254</sup>
- Crystal Storage /nickel rich<sup>255</sup> or glass<sup>256 257</sup>
- Xenon Difluoride<sup>258</sup>

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<sup>241</sup> <https://www.youtube.com/watch?v=dnE1nO6o-do>

<sup>242</sup> <https://www.frontiersin.org/articles/10.3389/fchem.2019.00268/full>

<sup>243</sup>

<https://www.forbes.com/sites/michaeltaylor/2021/05/13/ev-range-breakthrough-as-new-aluminum-ion-battery-charges-60-times-faster-than-lithium-ion/>

<sup>244</sup> <https://www.sciencedirect.com/science/article/pii/S2588913321000284>

<sup>245</sup> <https://www.mdpi.com/2313-0105/4/3/34>

<sup>246</sup> <https://www.sciencedirect.com/science/article/pii/S1364032120305670>

<sup>247</sup> <https://www.frontiersin.org/articles/638971>

<sup>248</sup> <https://www.sciencedaily.com/releases/2019/05/190509112258.htm>

<sup>249</sup> <https://singularityhub.com/2021/08/09/magnetizable-concrete-in-roads-could-charge-electric-cars-while-you-drive/>

<sup>250</sup>

<https://www.theguardian.com/environment/2018/apr/12/worlds-first-electrified-road-for-charging-vehicles-opens-in-sweden>

<sup>251</sup>

[https://www.greencarreports.com/news/1127520\\_world-first-in-road-charging-test-for-trucks-successful-highway-speeds-next](https://www.greencarreports.com/news/1127520_world-first-in-road-charging-test-for-trucks-successful-highway-speeds-next)

<sup>252</sup> <https://iopscience.iop.org/article/10.1088/1755-1315/218/1/012138>

<sup>253</sup> <https://news.harvard.edu/gazette/story/2021/05/researchers-design-long-lasting-solid-state-lithium-battery/>

<https://electrek.co/2021/07/27/quantumscapes-q2-report-reveals-10-layer-solid-state-battery-plus-commercialization-timeline/>

<sup>255</sup> <https://www.sciencedaily.com/releases/2020/12/201210145750.htm>

<sup>256</sup> [https://en.wikipedia.org/wiki/Glass\\_battery](https://en.wikipedia.org/wiki/Glass_battery)

<sup>257</sup> <https://www.nasdaq.com/articles/3-quantum-glass-stocks-powering-the-market-2021-01-13>

<sup>258</sup> <https://newatlas.com/high-pressure-energy-storage-material/15614/>

## Part 2 - The Stages of Conquest

In Part 2, the author wants to take the time to lay out the solid arguments for each Stage, a [very] rough estimate of each stage's length, some of the more salient points about the stage's sticking points, as well as any current relevant science or science fiction. But, generally, the main gist of the situation is that each stage requires around an order of magnitude more in: economic GDP, sophistication/complexity, energy production, material opportunity (volume of atomic control), computational control, and scientific progress. In order for that to happen, human energy and momentum will have to increase, even after stagnation and the steep population decline. But providing specific education pathways will require a delicate handling of the paradoxical:

1. Humans best perform when they *feel* free to choose what they want to do, and will not likely desire to go back towards a feudal pre-determinism or tribal inefficiency.
2. Humans often follow pipe-dreams and do what they are not good at, and need some guidance for the best use of IQ and technical abilities.<sup>259</sup>

Creative solutions may present themselves, but the most elegant, and morally dubious (and yet already happening and few people seem to complain enough about it) is to have AI subtly guide people into wanting or focusing on specific pathways in life, without them being aware of it. The illusion of free will, and technically the ability to make *any choice*. Yet, the author feels that this is a difficult choice to make without falling into the tyrannical CAI trap. Therefore, in the earlier stages there may likely arise a bureaucratic superstructure that tries to compete with Chinese central planning by replicating a military/draft structure. "We need X structural engineers and *you* have high math scores with strong reasoning skills."

If the reader worries about this, the good news/bad news is that there are not currently well designed tests for these wide ranges of spacer aptitudes, and the more inefficient and haphazard/helter skelter stop/start free market "space tourism" route seems to be in play for an indefinite amount of time.<sup>260</sup>

If the government, or interested individuals intend to pre-engineer the spacer movement, they will need to solve the conundrum of inefficient free market use of talent streaming towards the following areas:

- Video gaming - instead of 3D Internet and better computer engineering
- Graphic art / visual Fx - instead of drafting for mechanical and structural engineering
- Telecom / IT - instead of electronics and electrical engineering
- Software design - instead of pure computer engineering
- Media / marketing / social influencers (and online teachers) - instead of entrepreneurship
- Dead astrophysics - instead of mathematics

### Stage 1 - Establishing a Moonbase

*"We set sail on this new sea because there is new knowledge to be gained, and new rights to be won, and they must be won and used for the progress of all people. For space science, like nuclear science and all technology, has no conscience of its own. Whether it will become a force for good or ill depends on man, and only if the United States occupies a position of pre-eminence can we help decide whether this new ocean will be a sea of peace or a new terrifying theater of war. I do not say that we should or will go unprotected against the hostile misuse of space any more than we go unprotected against the hostile use of land or sea, but I do say that space can be explored and mastered without feeding the*

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<sup>259</sup> For example, if society produces 10 artists/graphic artists for every engineer, that ratio has to exactly reverse. Both are creative, but one is a non technical use.

<sup>260</sup> Or at least until World War 3 kickstarts the next phase.

*fires of war, without repeating the mistakes that man has made in extending his writ around this globe of ours...*

*"We choose to go to the Moon. We choose to go to the Moon... We choose to go to the Moon in this decade and do the other things, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win, and the others, too."* ~JFK, September 12, 1961<sup>261</sup>

Jack Kennedy was a man ahead of his time. The world could not tolerate his unguarded optimism. He was a war hero<sup>262</sup>, and a playboy with incredible charm. He was also in a position to make a bold claim, and set a bold agenda. America was heading towards her peak, and we were at a super advantage to the world. But, we were falling behind<sup>263</sup>. Now we are again<sup>264</sup>. I say to you, now, **we cannot afford to not go to the moon.** We choose to go because to not go will be the worst sort of backslide: to admit to the ascendancy and threat - real or perceived - of the *Unlightenment values*, of the destructive return of tribalism, prejudice, hate filled rhetoric, and subjectivism over objective fact. A failure to feed the trees of liberty, truth, and progress, will equate a victory for backwardness, sloth, envy, fear, and self-destruction.

But it is not the same as visiting, as moving in and owning the place. To survive on the Moon, to make all of the manufacturing centers, ports, and mining operations, mankind has to have three things:

1. Strict discipline to recognize the rarity of Earthen atomic diversity of materials and then take specific, practical steps.
2. Uncharacteristic, almost inhuman self-honesty and truthfulness: no Orwellian states, parties, or permission of lying organizations to exist. Probably corporations should have limited licenses to exist.
3. Unflinching belief in the Mission, loyalty to the goals, perseverance to overcome all challenges, physical, mental, political, economic, and spiritual, and exercise of raw and electromagnetic power, at whatsoever cost per joule in money, fiat, crypto, or whatever MIMS<sup>265</sup> enables it.

Right now, we have none of these three things. Many people do not even believe we went to the Moon in the first place. We have Orwellian Big Brother in social media technology data-giants. And we do not have hardly any discipline with regards to rare minerals, gases, fuels, ores, etc.

That is actually alright because phase 1 of Stage 1 is early in the game, still. We don't really have the same highly literate, high TIQ engineer based society that Germany and Japan did post World War II<sup>266</sup>, and thus are not able to capitalize and "explode" the spacer scene outside of the USA. The fact remains that the USA and to a considerable degree Europe and even China are the best able to quickly create rapid moves in this spacer game. But, none of them are focused on the long goal, only short-sighted imperialistic aims.

As war is a draining anti-MIMS, this isn't likely to produce the desired outcome, and *that* is a problem. But not insurmountable. Many useful technologies will come from such drive and ambition. For example, as noted before, the need for evasive maneuvers in hypersonic space missile warfare and railgun battleships, would necessitate highly mobile spaceships. This won't be had with gas evacuation. Some speculate a secret department of the US Military has the capability of sharp angle maneuvers, and they are running psyops on the public claiming they do not, even going as far as to dupe the US Air Force<sup>267</sup>. But at this time, the author only

<sup>261</sup> [https://en.wikipedia.org/wiki/We\\_choose\\_to\\_go\\_to\\_the\\_Moon](https://en.wikipedia.org/wiki/We_choose_to_go_to_the_Moon)

<sup>262</sup> <https://www.nps.gov/articles/kennedyww2.htm>

<sup>263</sup> <https://www.space.com/17563-sputnik.html>

<sup>264</sup> <https://spacenews.com/op-ed-china-is-beating-the-united-states-in-the-new-space-race/>

<sup>265</sup> [https://www.academia.edu/54428725/How\\_to\\_Create\\_a\\_MIMS](https://www.academia.edu/54428725/How_to_Create_a_MIMS)

<sup>266</sup> <https://www.jstor.org/stable/10.7249/mg716cc.10>

<sup>267</sup> [https://www.academia.edu/49955630/Responding\\_to\\_the\\_Cosmic\\_Hoax](https://www.academia.edu/49955630/Responding_to_the_Cosmic_Hoax)

believes the UFOs to be large plasmoids or ball lightning<sup>268</sup>. However, it isn't out of the realm of possibility that the USA has been hiding this capability in anticipation of WWIII.

In laying out the needs of the Moonbase, we first need to outline the tech set we expect to have or need by phase 2, and from there, the remainder of Stage 1 can be dedicated to the Moonbase ETB, and to the first foundational steps of Stage 2.

Table 5 - Tech Set for Stage 1

Have	Need for Stage 1	Foundations for Stage 2
<ul style="list-style-type: none"> <li>➤ Edge computing<sup>269</sup></li> <li>➤ Laser Arc Discharge</li> <li>➤ Deployable bridges</li> <li>➤ Quasi Quantum Computers</li> <li>➤ FSAI</li> <li>➤ Nuclear Technology</li> <li>➤ Ballistic Railguns</li> <li>➤ Rudimentary BBE<sup>270</sup></li> <li>➤ Carbon nanotubes</li> <li>➤ Various battery alternatives</li> <li>➤ Hi-Freq. Capacitors</li> <li>➤ PCB sophistication</li> <li>➤ Dark Earth research</li> <li>➤ Cloning and stem cells</li> <li>➤ Permaculture</li> <li>➤ Aquaponics &amp; Gray Water</li> <li>➤ VAWT wind (stage 1)</li> <li>➤ Geothermal energy</li> <li>➤ TGE in various turbines</li> <li>➤ Electric Sun replication</li> <li>➤ Unreal Engine 5 and other CAD</li> <li>➤ Space Stations<sup>271</sup></li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Edge cluster QC/BC supercomputers</li> <li><input type="checkbox"/> CAI, QAI, TAI "biosphere"</li> <li><input type="checkbox"/> Supercapacitors</li> <li><input type="checkbox"/> Fusion &amp; Thorium fission</li> <li><input type="checkbox"/> Magnetic tunnel, sensor, and increased control</li> <li><input type="checkbox"/> DHSP for Web 4.0</li> <li><input type="checkbox"/> Aerospace Universities</li> <li><input type="checkbox"/> Several New Industries <ul style="list-style-type: none"> <li><input type="checkbox"/> Haulers</li> <li><input type="checkbox"/> PCB for space</li> <li><input type="checkbox"/> ETB / mobile modules</li> <li><input type="checkbox"/> Simulators</li> </ul> </li> <li><input type="checkbox"/> First megaport</li> <li><input type="checkbox"/> First railgun(s)</li> <li><input type="checkbox"/> Portable and re-deployable tech</li> <li><input type="checkbox"/> Docking space stations</li> <li><input type="checkbox"/> Superconductor+maglev perfection</li> <li><input type="checkbox"/> Landing tech perfected.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Railgun ballistic stopping</li> <li><input type="checkbox"/> Inertial Dampeners<sup>272</sup></li> <li><input type="checkbox"/> Seed cloning</li> <li><input type="checkbox"/> Soil/DE packing &gt; launch</li> <li><input type="checkbox"/> TAI and FSAI for DHSP low-code/no-code on-the-fly modification</li> <li><input type="checkbox"/> Volcanic mining</li> <li><input type="checkbox"/> Asteroid mining experiments</li> <li><input type="checkbox"/> Deep Mining</li> <li><input type="checkbox"/> Early Hauler programs</li> <li><input type="checkbox"/> Passive atmosphere harvesters, testing</li> <li><input type="checkbox"/> Gold foil launchers</li> <li><input type="checkbox"/> Early BPS, VTG, and SSDP manipulation</li> <li><input type="checkbox"/> Terraforming plant modules</li> <li><input type="checkbox"/> Portable ETB technology</li> <li><input type="checkbox"/> Undersea cities, stage 1</li> <li><input type="checkbox"/> First BPS satellites, probably "gold foil arrays"</li> </ul>

In the development of Stage 1 assets and tech, services and new capabilities we must bear in mind the increasing costs, and orders of magnitude for energy, time, computing needs, and leverage of the PEMF. It isn't enough to just make larger and more powerful magnets, though they are impressive. Being able to lift an aircraft carrier is impressive... but predictable. The EM force is  $10^{37}$  x stronger than gravity<sup>273</sup>!

What impresses the author is micro sized control of field shape<sup>274</sup>, strength, and of course flux. Magnetic fields are not *really* in flux, but there are parallel electric currents and surface currents involved, and

<sup>268</sup> <https://www.youtube.com/watch?v=Z3ExTkjYXWY>

<sup>269</sup> <https://www.ibm.com/cloud/what-is-edge-computing>

<sup>270</sup> It may already be well developed, according to documents highlighted in "Space Force"

<sup>271</sup> Nine actively in development, only 1 ring design.

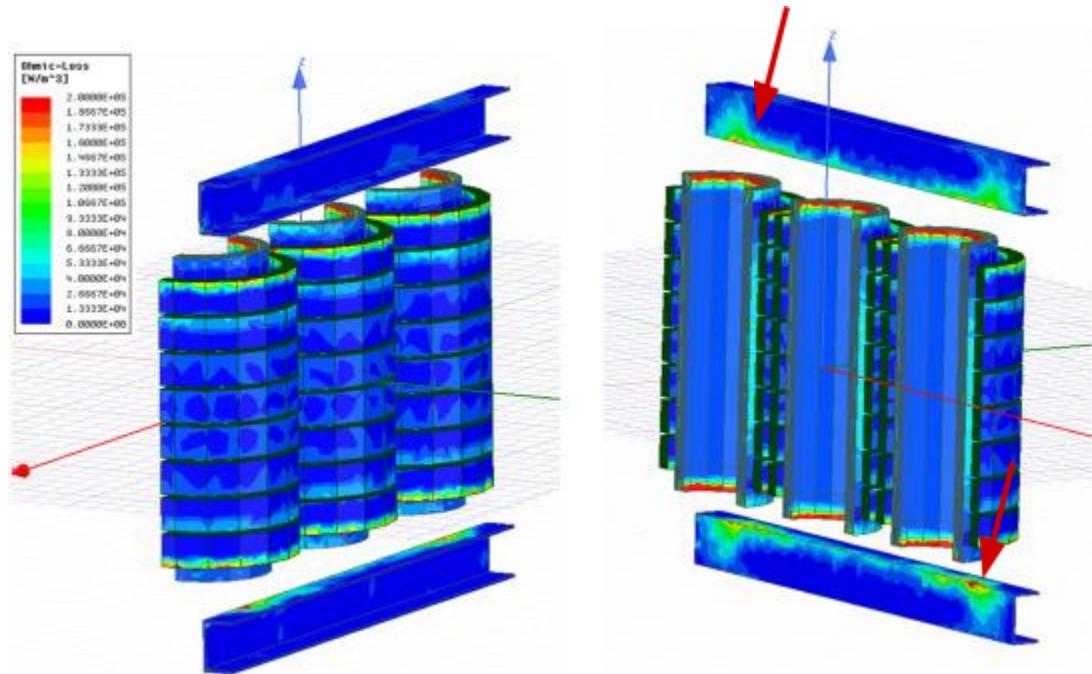
<sup>272</sup> [https://memory-alpha.fandom.com/wiki/Inertial\\_damping\\_system](https://memory-alpha.fandom.com/wiki/Inertial_damping_system)

<sup>273</sup> <https://socratic.org/questions/what-is-the-difference-in-strength-between-the-four-fundamental-forces>

<sup>274</sup> <https://advancemag.com/magnetic-shielding/>

these are implicated in the transfer of energy and therefore force. Force fields are not just a matter of science fiction, they are a science fact<sup>275</sup>. How can we produce these fields without destroying human DNA, tissue, and causing catastrophic destruction of nearby circuits and equipment, since fields are not discrete objects? In fact they aren't even objects, per se, but relationships. Most of a magnetic field, for example, will "flow" within the transformer main, but of course  $B$  fields are measured also outside the transformer, despite there being a conductor path. This is not something we have understood thoroughly enough to realize how to package the PEMF in a manner consistent with our digital or portable mindset.

Figure 64 - Transformer Magnetic Field losses in eddy current; credit: Chiu et al.<sup>276</sup>



Take the railgun delivery module, for example. It will need over a dozen applicable tips and a half a dozen mechanisms for delivery of energy, from completely ballistic with penetration (but not destruction of payload) to essentially 0-penetration "soft landing". Not even a scratch to the surface of mirror collectors can be allowed. That kind of control doesn't come overnight, but with Edison-like discipline!

Mankind is on its way. Currently we can "shape" magnetic fields<sup>277</sup> and produce faked "monopoles"<sup>278</sup> as well as ferrofluids, and a number of kinds of electromagnets. However, we're nowhere near to the point of creating Birkeland Currents on demand which may be guided via TWT<sup>279</sup> like packets of magnetism, through the aether<sup>280</sup>.

Again, we can do laser arc discharge, but we cannot control the programmable behavior of matter remotely, yet. We have to send our entangled atoms forth, and they can become easily disentangled by a stray cosmic ray. It happens all the time: qubits fall out of sync<sup>281</sup>. That kind of randomosity can result in complete death or self destruction of living systems. Redundancy of computing is fine except that comes at an electrical cost. That cost is both in power and in weight, as well as equipment, of course.

Most of these technologies do require a substantial amount of engineering:

<sup>275</sup> <https://www.britannica.com/science/force-field>

<sup>276</sup> <https://www.sciencedirect.com/science/article/pii/S2352484719310376>

<sup>277</sup> <https://www.arnoldmagnetics.com/products/shaped-field-magnets/>

<sup>278</sup> "Primer Fields" / Primer Cubes <https://sites.google.com/view/epemcgateway/pemc/mag-universe/d-lapointe>

<sup>279</sup> Traveling wave tubes, [https://en.wikipedia.org/wiki/Traveling-wave\\_tube](https://en.wikipedia.org/wiki/Traveling-wave_tube) not amplifiers but EMF packets.

<sup>280</sup> Again, if the second validation of the vertical light interferometer experiment is validated, as the author expects.

<sup>281</sup> <https://physics.aps.org/articles/v11/75>

1. Engineering of the pre-engineering; ie engineered conceptual design, with the concepts of enhanced TED design built into the renderings<sup>282</sup>.
2. Pre-engineering, mostly software and computer programming, CAD, simulation, and manufacturing studies
  - a. Also Operations Research and Data Analytics driven logistics studies
3. Engineering the solutions, delivery, mechanical, chemical, and electronics forwarding to the systems design engineers who oversee the AI framework, and work with logistics or Process/Project Managers.
  - a. The author is aware that artists, HR, PR, marketing, and others will want input into the process... this is here or potentially pre-engineering, but should not directly influence the AI daisy chain.

This may seem like overkill for the first ETB/Moonbase, but bear in mind that NASA/ESA will have done several of these steps *and* that this is a framework for the remainder of the Stages. If the stages are designed too serially then they do not conform to the Next<sup>Next</sup> TED standard. If they are designed too uniformly then there will not be enough customization to overcome each stage.

Therefore a consistent, circular, spiralling, expanding & contracting design process is encouraged. It should undulate the same as the size of projects and costs do.

Table 6 - Example of Undulating TED needs

	Low cost	High cost
Low Priority	EM Railgun launcher	First ETB/Moonbase
High Priority	Aerospace University	Hauler Industry

Every single aspect of this table is important, and some would say that there is an asymmetric value to them. For example, while the first EM Railgun launcher is only going to be in the low \$\$ billions<sup>283</sup>, it is absolutely essential to the long term of the entire SPACERS movement. Meanwhile, it is not as much a priority to create a Moonbase as an Aerospace University, since TIQ is a massive consideration and challenge. The Hauler Industry will be very expensive to create, but will extend throughout all the stages. It is predicated, though, on the success of space tourism, which drives the hypersonic EM launching industry as well! So algorithmic comparisons cannot be handled by AI, nor (of course) by a committee of corrupt, flagellating bureaucrats who do nothing but push pencils and make guesses. It must be a mediation of the data from

<sup>282</sup> Not that artistic value is not to be appreciated. But we now know that small architectural changes, for example, can determine massive energy efficiency and pollution cascades that are not overtly obvious from comparing on the outside. The energy efficiency of a log cabin, a modern home, and a yrt hut warrant long research as to the best choice. There is, of course, the factor of aesthetics. 3D printed homes may, or may not, be perfect for living on Earth, based on conditions of thermal exposure vs. insulation, cost, and market forces. But it may not be otherwise optional on Mars or the Moon. All of these considerations take time. A FSAI can be designed by a TAI that has been told what contingencies to measure b, and according to what hierarchy of needs and appropriateness of values. The FSAI can then write its own TAI design CAD scripts which modulate and iterate solutions, running the 3D printed home-modules against thermodynamic considerations, payload, estimates in weight and cost, as well as launch considerations (if the modules are not to be printed on ETB by shipping 3D printing equipment and teams of AI robots to operate it). The FSAI can receive the data back from these cluster supercomputer and edge computer operations, compile them, sift through the data and renderings, and a human can compare the top 3-5% of acceptable parameters. The original TAI is merely a construct. But it can be supplied as a default to a higher up FSAI by the CAI to repeat the process for all sorts of 3D printed modules, such as labs, bathrooms, cranes, biodomes, greenhouses, etc.

<sup>283</sup> Gen 1 estimate is \$240-\$250 M

project estimations. Live and on-the-fly based on database values that are shared throughout the Aerospace industry and concatenated into the entire dynamic array of cost vs. benefit analyses, and of the systems/design/project engineers that are overseeing the process, and interacting with the committees.

If the committee (bloviated and corrupt as it will be, based upon current Military Industrial Complex behaviors and China's own CCP and Politburo, etc.) requires oversight, then a CAI with authority to "kill projects" or at least halt them for manual inspection can be installed to stop the "production line" of the "design factory" while debugging or internal investigations and audits occur.

Eventually these Stage 1 snafus will die down, or morph into new ones, especially (as mentioned before) in the era of city-state comeback (perhaps 200 years from now?). However, it will be money well spent, and time, to develop the AI daisy chains, design factories, and an efficient (or approximately so) bureaucratic organizational hierarchy. As it stands the current "run, walk, crawl" paradigm is both ridiculous and inefficient. Many good programs that had no reason to end them but merely be updated, have been stopped:

- The Space Shuttle Program
- The International Space Station
- Hubble (until public pressure reversed the decision)
- Star Wars program<sup>284</sup>
- Space Nuke Programs<sup>285</sup>

## NASA's Share of the U.S. Budget

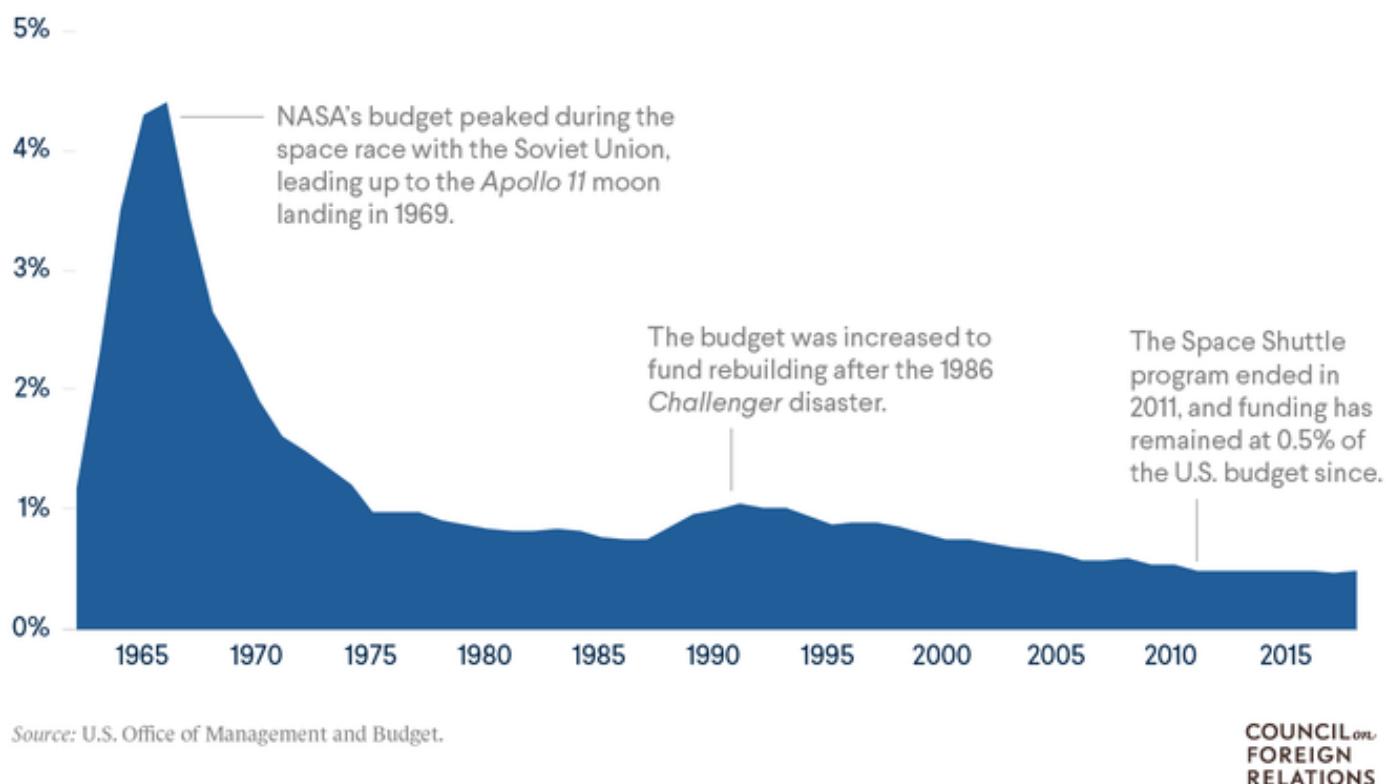


Figure 65 - NASA's Share of US Budget; credit: CFR<sup>286</sup>

<sup>284</sup> <http://www.atomicheritage.org/history/strategic-defense-initiative-sdi>

<sup>285</sup> This is probably the **only** appropriate place for testing nukes, and it has a value in PEMF and BPS research

<sup>286</sup> <https://www.cfr.org/backgrounder/space-exploration-and-us-competitiveness>

While the author *absolutely abhors* wasteful government spending, the only thing worse than making a mistake is wasting money by not capitalizing on previous spending. The Shuttle was actually a drastic improvement over the Apollo program<sup>287</sup>, which was bloated and needed to end<sup>288</sup>. But it did not need to stop.<sup>289</sup>

Forget about supremacy... the shuttles were not only cool, they were the only game in town. Whose fault is that? The private sector could not [immediately] compete, and the idea that they could was highly dubious. Now the ISS<sup>290</sup> will die because the flower was not watered and the fruit withered on the vine. What a waste! It was the best example of world co-operation in all of history. Now it will burn up in the atmosphere. This is a travesty! There is no excuse for it. Phase 1 will take potentially 30 more years because of this... nevermind the deeper meaning of a superpower going neocolonial and undermining (and stealing) the hard work of other powers and superpowers to pursue its reckless communist and tyrannical agendas.<sup>291</sup>

Returning to the movement from Phase 1 through the entire Stage, it appears to be this:

- Foster space tourism - this will enhance chances of asteroid mining and a hauler industry
- Establish a strong Spacer “biosphere” of private companies
- Fund a private, top tier, standards-producing Aerospace University with STEM as its only credo
- Fund Gen 1 of EM launching programs
- Develop Thorium nuclear and other TGE at a 10x manner
- Move funding deeper into PEMC (plasma) research
- Liberate electrokinetic research and any patents or other classified research related to the topic
- Develop portable, deployable technologies, centipede rails etc.
- Set up the AI daisychains, and create AI frameworks which enable FSAI and TAI development, self-development, and mutual interaction
- Create Aerospace Database under API standards<sup>292</sup> to track costs and developments without the need for researchers to always manually “google” or searchterm a topic
- Establish pre-engineering standards related to the development of the megaport industries and cities
- Research volcanic mining and deep mining opportunities
- Deregulate deep earth and asteroid, as well as ET landing site regulations which would incentivize private sector speculation and “futures”
- Pre-engineer Dual Layer Economic ready neomarkets and space markets
- Change the definition of GDP to reflect Earth’s bioproduction
- Complete fundamental researches regarding materials, storage, energy delivery, and even highly speculative technologies such as “high temp” superconducting wires
- Master magnetics and Birkeland currents

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<sup>287</sup> <https://www.youtube.com/watch?v=f4CTI5GDz98>

<sup>288</sup> <https://lwn.net/Articles/548125/>

<sup>289</sup> In the author’s opinion, it is all asymmetric control by China (via the Deep State, CIA, and orders from the NWO) working over progressives and the Obama Administration to “end American hegemony” and “supremacy.”

<sup>290</sup> “International Space Station”

<sup>291</sup> China’s role in this needs to be exposed, while it’s even allowed to be. The author writes this at the juncture of what will happen: truth and freedom, or Orwellian redefinition of the truth and history in order to prop up a completely fiat state? A fiat state funded and fed by fiat powers (IMF, World Bank, CFR) and *actively collapsing* as the author writes this.

<sup>292</sup> Recommended by the author’s Quantum Leap Engine™ “enterprise software” system, when it becomes available.

If these, and the remainder of the non-exhaustive list, are done in the particular order that studies on the subjects indicate, mega markets can be created or co-created, and a lot of rapid advancement can happen. By the end of phase 3 as the first ETB is being built and overcoming all accidents, unforeseen events, CME<sup>293</sup> destruction, energy and supply shortages, geopolitical bickering from low TIQ<sup>294</sup> individuals, moving mankind more towards an Egypt-like engineer-based society... then mankind can complete Stage 1 not with the "skin of his teeth" as the Apollo missions... but with real grace and even power and momentum heading into Stage 2.

Stage 2 can happen semi-simultaneously. But it is, as the author specified elsewhere, not wise<sup>295</sup>. It may even be the Asperger/antisocial related musings of the super rich. That is to say, their pipe dream at the expense of the rest of us. Just because Elon Musk wants off the planet<sup>296</sup> to avoid the CAI takeover<sup>297</sup> and Jeff Bezos wants a giant penis<sup>298</sup>, does not mean that it is time to go to Mars. But it is time to take care of Earth and plan out how to get to Stage 2, with grace, power, and hopefully, without WWIII or Orwellian dystopia Big Brothers.

### Finer Points

While fine points are not generally knowable about most of the Stages, there are some things worth mentioning here, which could make the difference of many years time in production and success:

1. There will, even with the first ETB, let alone when there are dozens of cities on the Moon, need to be an entire network of space stations of varying kinds, between Earth and the Moon. These stations will be costly, but eventually as commonly manufactured as any Boeing or Airbus factory. In fact, the space stations will represent many forms of protective barriers for the Earth, involved in coplanar orbits, all calculated and maintained by the BPS network. Therefore, it is advisable to co-plan out the vertical docking zone or base (VDB) to be in geosynchronous orbit with the ETB. The issue is at first it may not be possible to make a perfectly orbiting station, or it is desired for the station to be in geosynchronous orbit with Earth instead, etc. Perhaps both are needed. But a system of convenient research, domiciles, medical access, and of course docking/drydock and hauler industry needs to be established concurrently with the ETB.
2. The railgun launch from Earth, at first, will be of little importance in terms of angular momentum conservation. Over time, the sheer volume of the launches, plus the deep mining and ocean cities, and the extra gravity of stations and moon bases, to say nothing of BPS current changes to the SSEC, will have a cumulative effect upon the Earth's rotation and growth seasons.
3. For that matter, railgun or gaseous launches from space stations, or ETB, will also have an effect. It will be difficult to track the volume of gas needs, and the industrial gas industry will probably not be able to keep up with demand. Whenever gas hits space, we lose it, and we need to bear this in mind.
4. Even if they could, the depletion of resources of the Earth will be catastrophic without Atmospheric Harvesting plans from Venus and Titan (Stage 4+). See Table 11.
5. The moonbase ETB (ETB1) will be in quicker communication with Earth than any other forward base. It will need a highly robust fiber optic network planned with the goal to be 3D internet ready even now.
6. It will also need its own nuclear power station to power early pre-BPS radio relay and satellite or tight beam communications.

<sup>293</sup> Coronal Mass Ejection

<sup>294</sup> And potentially psychotically low EQ sociopathic politicians

<sup>295</sup>

<sup>296</sup> <https://www.youtube.com/watch?v=w6nUVp9mQDs>

<sup>297</sup> <https://www.youtube.com/watch?v=9jkRcrM6XKA>

<sup>298</sup> <https://hyperallergic.com/663810/phallic-rocket-ship-launched-bezos-memes/>

7. The Moon's face will be politically volatile, even at Stage 1. The backside is subject to dangerous and difficult to detect strikes. Therefore the best option for ETB1 (that is not a small research station but a real ETB) is going to be on the circumference, as it appears from Earth.
8. Medical necessities will take up a serious, perhaps unfortunate, amount of payload burden, cost, and space. Therefore plans for improved medical and field techniques should be sought. The author recommends the Ef and Bf based approach, based upon his work with Charge-Distributive Networks (CDN) in medical research<sup>299</sup>. But even if it is pills and surgery, the fact remains that radiation mediation and protection... pre DLS<sup>300</sup>... will be a major cost and challenge. There will be deaths.
9. IT/Communications will make or break the entire spacer movement. There is currently too much monopoly and government regulation on communications. While terrorism is a ridiculous threat, the decline of certain kinds of zealotry and religious fervor, including political zeal, can be engineered and even enforced with dissuasive positional FSAI. It's evil to manipulate people's emotions or force/control people's thoughts. But guiding them away from viral extremism, such as jihadism or **real**, palpable bigotry, can help foster higher TIQ, EQ, and dissuade destruction of critical infrastructure. Over time, channels can be liberated again without worry that important radical dissident traffic is being missed. The more mankind works together to focus on spacer communications, and the more mankind comes to see a spirituality based around the BPS visible spectrum and history of our species... the less likely there will be explosive events (outside of city state politics, resource wars, and other money-related matters). All of these things detract from Human Momentum<sup>301</sup>, but none are as divisive as creeds. IT/Comm needs to be free of the hassle of tight anti-encryption and anti-openchannel regulations for the space movement to work.
10. The data pipe for the IT/Comm uplink should exceed 1THz at 1024 bit standard. That is a lot of microwave radiation, so a tight beam laser uplink might be better long term for the health of humans and species on Earth. Another option - if physically possible - might be to discover standing wave scalar wave beams. Eventually on the BPS, mankind will figure out how to "bounce" signals through the magnetic flux, without forcibly altering the radiative environment in a toxic monocular manner. But that won't come overnight.
11. The Deep Mining and TGE preparations for a true spacer movement will produce an atrocious amount of pollution if waste management, water management, permaculture/aquaponic industrial preparations are not made now. A good rule of thumb should be the 3:1 practice to action rule. In sports or martial arts you prepare 3x+ more than you plan to do the event itself. In this case:
  - a. 100% matching resources and time devoted to design of waste management and pollution prevention etc.
  - b. 100% more matching for the safe storage, transformation, mediation, reuse, recycle, of materials. No more wasted atoms.
  - c. 100% of equating time, resources, planning, jobs, management, supervision, etc. devoted to the protection against pollution, hazards, biohazards, catastrophes of all sorts of Chernobyl level or La Palma level events.
    - i. An entire Pollution and Disaster Prevention (PDP) industry
    - ii. An entire college for technical schools, Universities, and of course Aerospace University

<sup>299</sup>

[https://www.researchgate.net/publication/330117614\\_Charge\\_Distribution\\_Networks\\_CDN\\_as\\_Meridians\\_Utilizing\\_connectivity\\_as\\_replacement\\_%27structure%27\\_for\\_meridians\\_comparison\\_with\\_neural\\_muscular\\_and\\_fascial\\_models](https://www.researchgate.net/publication/330117614_Charge_Distribution_Networks_CDN_as_Meridians_Utilizing_connectivity_as_replacement_%27structure%27_for_meridians_comparison_with_neural_muscular_and_fascial_models)

<sup>300</sup> Dual Layer Shields<sup>301</sup> As per Nikola Tesla

- iii. Probably first designed as a curriculum by current environmental engineers... if they can be taught (untaught) that carbon is their enemy.
  - iv. They should be treated as part of the pre-engineering phase, and not as the marketing level phase.
  - v. Their regulatory penchant should be reigned in by supervising committees formed of pro-spacer and pro-environment and legal experts, all working with and yet against one another, for the betterment of mankind and the planet.
  - vi. CAI and FSAI can investigate concurrently for corruption and payoffs, backroom deals, etc.
12. The space related suits and clothing, merchandise, etc. community is potentially astronomical, no pun intended, in terms of capitalization value. What must be prevented, to enable the widest amount of capitalization on small and medium sized levels and prevent corporate hegemony, is isolated licensing and monopolization. The “Disneyfication” of the entire merch and marketing related issues must be prevented<sup>302</sup>. They can make stories, but must not control the marketing, or the entire movement will have difficulty garnering interest from young generations beyond those with nascent high IQ.
13. Regarding families, children, and education there is - at first - a bifurcation in human needs, that matches the bifurcation in economics. There are potentially strong candidates, and then there's everyone else who will live on Earth - like the author! Those who then go on to a spacer lifestyle, and hopefully creating or being part of entire spacer families, will focus not on typical Earthen education, but upon space and engineering related needs. This will be important for the future natural division of the human race into natives and pioneers. This happened once already in the Age of Exploration<sup>303</sup>, and colonization, and it will happen again - hopefully in a common, diversified manner. Africa and South America should not be left out of this movement!
14. The current situation of manufacturing on the Earth is this: parts, commodities, consumer goods, and ultimately materialism. We are talking about a complete, or near complete shift (or at least a tripling) in the manufacturing and industrial output of the entire world, leading to a complete development of all nations on the planet. This could lead to a number of problems:
- a. Pollution - hence PDP industry
  - b. Depletion - hence deep mining
  - c. Over ripening of already developed nations - hence the need to direct into space
  - d. Materialistic fervor - hence purpose and the BPS
  - e. War over resources and geopolitics - hence CAI and FSAI regulations, and fairness.
  - f. Catastrophe - hence DLS<sup>304</sup> and disaster prevention, etc.

★ NOTE - those with high IQ might correlate to those with high TIQ, or they might not, and vice versa.

## Stage 2 - Establishing a Mars ETB and Beginning Terraformation

The work currently being done in preparation for a “Mars base/mission” should be considered more of a lab exploration concept. Actually they won’t be able to send anything until the radiation shielding issue is incredibly reliably resolved. The first mission, if it results in a Shuttle Columbia<sup>305</sup> type accident, would be catastrophic for the spacer movement. This is incredibly frustrating for the author, however Elon Musk et al. are

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<sup>302</sup> In terms of monopolistic licensing. Space should absolutely be fun, though.

<sup>303</sup> 1492-1750 AD

<sup>304</sup> [plasma] Dual Layer Shielding

<sup>305</sup> <https://www.space.com/19436-columbia-disaster.html>

seemingly not content with space tourism for the moment. If possible, we may turn the bad ideas into good improvements, etc.

What kind of good ideas are currently being explored?

- Vertical landing via disembarking from an orbiting station
- Biomes and medical labs
- Shielding
- Long term colonization
- Agriculture
- Utilizing the polar ice water
- Moon elevators which could be used as well on Mars ETBs
- Drones
- Low altitude orbiters
- 3D printed rockets
- etc.

Unfortunately, certain ignorances in paradigm thinking are greatly limiting the likelihood of the *cohesion* and viability of these, because various assumptions are skewing the mission parameters into almost feverish directions. For example the incessant search for life on Mars, as if microbial fossils have any bearing on colonization, reasons for going, or survival. We are going to bring life there. Why do we need labs for analyzing life samples? It's ridiculous!

The desire to use martian polar water is good, except that it will be *far too cold* to operate there, and no viable way to ship water back. No pipes, and drones cannot operate heavy loads. The solar rovers, as we see in the movie "the Martian" are far too massive for these vertical launch rockets to carry reliably. Think about it: 3 year travel and missions, with high risk to life and limb, to deliver parts of a rover, which could be damaged upon offloading? How will the crane and hoists, etc. be carried in payload, when so much payload has to be dedicated to life and medical supplies (especially food?)

Either Musk is selling a pipe dream as a scam, or he is unable to grasp the basic physics. Consider a family camping trip. If you are a solo backcountry camper, you can have a single pack that is ready at a moment's notice. But if you add kids you need certain gear, food, toys, equipment, swimming gear, fishing and tackle, bikes, balls, bug sprays, lanterns, the list increases exponentially... just to go to the same area. The time and planning/prep triples, just by including your family. This is nothing to say about changing plasma environments, where radiation and electrical conditions change. And forget about emergency services. One fuel leak, and within a microsecond the entire ship explodes, and unlike Discovery, we don't get to analyze what went wrong. The data and comms just terminate. It goes from a big party with a huge high on Earth to deadpan silent for 50 years, and no funding. The stakes are simply too high. We need to make the stakes less high while ratcheting up the rewards. That doesn't mean there are no risks. It just means mitigation of political options.

Therefore, we should reluctantly move Mars planning to Stage 2. And for the remainder of the document all references will be as Stage 2, and not referring to current, enthusiastic but misguided<sup>306</sup>, efforts.

The key to understanding the efforts here is that the infrastructure on Earth is presumed to be entering - from our current point of view - a super high tech level. What is techy now will seem like kindergarten. **Only semiconductor facilities and high tech medical labs will be able to compare.** For this to happen the TIQ of fresh high school graduates will have to continue to increase, as it has since the internet began, for another

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<sup>306</sup> Ibid. "Mars Planning is Premature OpEd"

40+ years, thereby saturating society. This will, at first, be terrible for natural family systems. The Jetsons' dream home won't be built in a generation. On the way, drugs, displacement, gender dysphoria related to transhumanism, and digital propagandization and agendas will run rampant through the human gene pools, weeding out the physically strong but mentally mediocre, and favoring the intellectually strong. Afterwards the offspring will start to seek more and more physically viable mates as well, leading to higher and higher EQ and TIQ combinations. It will stratify society in a way that was first noticed in the 2000s as studies showed women began to prefer nerdy men over physically dominant men<sup>307</sup>, and testosterone values have kept dropping since the early 1990s.<sup>308</sup> Why? Adaptation.<sup>309 310 311 312</sup>

As this happens, the cultures of the world will develop unique spins on high tech visioneering. Japan began this even more than Isaac Asimov, in seeking to understand the future with classics like "Ghost in the Shell," "Cowboy Bebop," and "Outlaw Star." In these futurized visions, transhumanism is often involved, or assumed in space exploration. But usually they are taking place after some metamorphosis of the human psyche and species, and all of these series in a pre-social media environment. Actually, the "Stand Alone Complex" series added social media and made startling predictions of a "War Economy" and that seems to be the phase of Stage 1 we are headed towards. It matches the visions in the Chinese text, "Three Body Problem." In that trilogy, the human race is forced to evolve but remain stagnant due to alien civilizations. But in Ghost in the Shell, it is our own cyberization and internal exploration, as well as high violence and law of competitive and adaptive advantage that forces a transhumanist shift. In the other 2 series, one far, far into the ideal future, mankind explores for greed, and typical pioneership.

At this juncture in mankind, we will have to settle for a mixture of the three: **greed, war, and adventure.** Adventure does sell, but probably not \$2 trillion contracts.

Therefore, it will be important that mankind understand precisely the economic advantage to properly planning out the industries thus cited: haulers, space universities, launchers, AI production, deep/volcanic mining, space ports, etc. will enable:

- ❖ Mega infrastructure building projects that can quadruple the output of China and US currently, put together
- ❖ Changes to GDP which enable massive loan programs for developing giants like India and Brazil, Russia, etc.
- ❖ Development of new forms of medicine involving nanobots and energy fields. This means all sorts of new hospital programs.
- ❖ Reforestation of the planet, cleansing the air, and developing major resources.
- ❖ A newfound love of people for Earth as they learn how difficult survival is in space.
- ❖ Religious-like devotion to a cause greater than themselves, giving Purpose and meaning to billions of lives.
- ❖ Cleaning up the ocean and further exploration.
- ❖ Beautiful glass and steel super skylines, with a zest for buildings not seen in America since the 1970s.
- ❖ A direct connection to the Force, and therefore, unlimited power.
- ❖ \$\$ Quadrillions in development funding in Stage 1 and 2 alone
- ❖ Massive research computational ability

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<sup>307</sup>

<https://economictimes.indiatimes.com/magazines/panache/why-women-love-geeky-guys/articleshow/49617084.cms?from=emdr>

<sup>308</sup> <https://www.forbes.com/sites/neilhowe/2017/10/02/youre-not-the-man-your-father-was/>

<sup>309</sup> <https://www.jstor.org/stable/190274>

<sup>310</sup> <https://www.jstor.org/stable/27800079>

<sup>311</sup> <https://core.ac.uk/download/pdf/36692527.pdf>

<sup>312</sup> [https://libres.uncg.edu/ir/uncg/f/Pruitt\\_uncg\\_0154M\\_12348.pdf](https://libres.uncg.edu/ir/uncg/f/Pruitt_uncg_0154M_12348.pdf)

- ❖ Changes in home reality and a resurgence of the middle class “American Dream” (ala Jetsons):
  - > Biocomputer central “Internet of Things” computation
  - > Shared edge computing space (so less waste of the electricity already being consumed<sup>313</sup>)
  - > Aquaponic/Gray water systems, and permaculture with vertical gardening
  - > Healing pods and spaces.
  - > Various survival and remediation systems
  - > Complete self-containment for those that want “off grid” living.

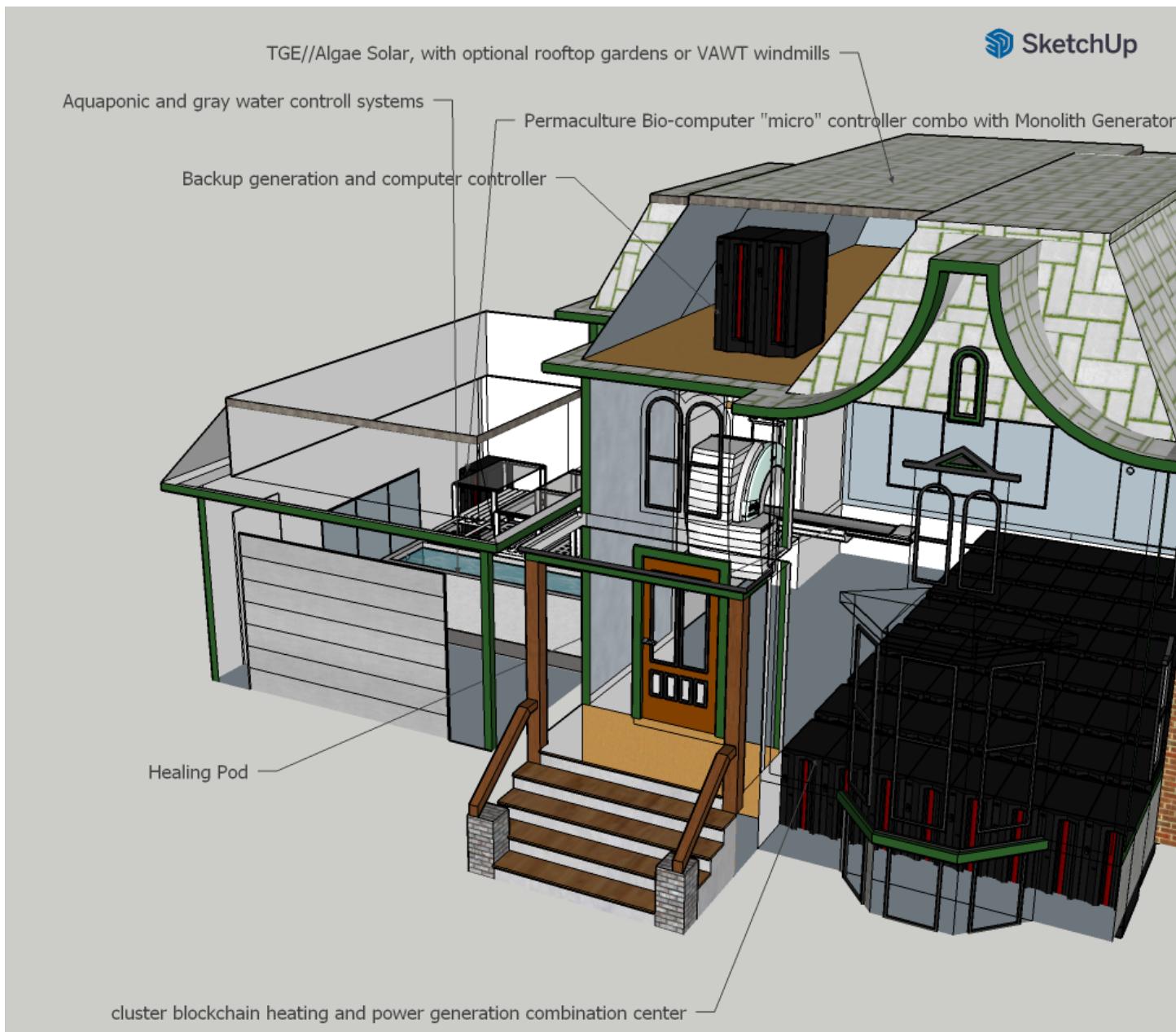


Figure 66 - Mid Stage 1 to Stage 2 Future Home, not pictured: integrated fiber, plumbing and electrical controlled by central bio computing cluster (or crystal/optic or organism in late Stages, such as a tree).

Internals to the Monolith generator are proprietary; credit: author/Sketchup (free models)

<sup>313</sup> Eg. how SETI made use of people's computers as a screensaver.

- ❖ Changes to city living:
  - Elimination of dark/dystopian “used future” feel<sup>314</sup>
  - Removal of waste and redundancies (the cities are built from scratch)
  - Highly efficient living spaces and vertical infrastructure
  - Completely interconnected space for those that want “on grid” living
  - Entertainment and theme parks built into the structure, utilizing spare energy
  - Zoos and waste/compost recycling systems of epic proportions, producing mulch and high nutrient foods.
  - High speed rail and maglev transit systems, to see various wonders inside and outside the city structure
- ❖ Changes to Agricultural (and even tribal) living:
  - More efficient permaculture framework<sup>315</sup>
  - Forest farming - tons of food
  - Improved animal life diversity
  - Redundant fish hatcheries and fishing opportunities
  - Agrotourism and connection to the cities but with respect to rural life values
  - VAWT powered living systems
  - Pesticide-less efficient agriculture
  - Deep connections to nature and BPS, experience of opportunity for youth that want city life in the country.

Once these integrative changes are made to Earth based society, or at least as they are being made, then mankind will be able to provide internal and external electrical generation, heat, and food, to keep the entire spacer movement from being a competitive drain.



Figure 67 - 3D printed home; credit: Kirchner/Picture Alliance<sup>316</sup>

Where this becomes important is that then the movement can birth better and better models for sustained living systems on Mars. While Mars is <10,000 years terraformed, it is unlikely that a “suburb” style home can be made to sustain there. It will probably be 3D printed or tubular structures with special seals, or mostly one

<sup>314</sup> Autonomous self-driving robots to clean, paint, spackle, etc. with ability to charge with RF/EMF generators on board in a TGE environment.

<sup>315</sup> The author means moving beyond a Mollisonian model into industrial permaculture. MP/agriculture is good for “hippies” and off grid living, but we need it at scale and as easy to do as going to Kroger/Wal-Mart for food. This may scare growers, but there are models for how this can be done without bankrupting current systems and farmers. Although... it isn't the hippies that are bankrupting farmers but banks, government regulation, and corporate agriculture behemoths... most of which are foreign competitors. Again, more arguments for the DLE model!

<sup>316</sup> <https://www.dw.com/en/is-3d-printing-the-future-for-building-homes/a-58679995>

piece design, capable of keeping out the environment, or more precisely keeping in living environments. However, to get to that sophistication of building we need to evolve well past “drywall” and wood levels. We do have synthetic floors that look like wood, but we still rely on wood for most framing. All of this is unreasonable in the future. So after establishing a Mars ETB, we will need to establish various 3D printing (and loading/unloading, and power) systems for manufacture. The best way to get to that level of mini-mall sized portable-deployable sophistication is to engineer it for future construction on *this planet*. And what better incentive than the difficulties raised by the Web3.0+ environment of economic survival?

Floors that are heated by power generation combined with computing systems, mass manufactured, sound like an awful idea, from the perspective of current rare earth ore and resource needs. But with deep and volcanic mining, this will *not* be a problem. Pollution would, but we can mitigate most of that on an industrial scale, if we put enough chemical and materials/systems engineers on the issue. Currently, our equation flows one way: make to consume. But we need to create the massive PDP industry<sup>317</sup>, as discussed earlier, to create jobs and put environmental engineers to better work. Instead of tearing down industry, they can build it up, and up. The Earth is not what struggles: it is us humans that struggle.

### Portable/Redeployable Systems (PRDS)

There's nothing new about the concept, as mentioned before it's been used by the military for forward bases, bridges, airstrips, and in a way NASA used it in the Apollo missions. However, as a rule, mankind tends to build to “stay put” and this is not going to work for capturing the polar water/ice on Mars. We will not be capable, in the beginning, of landing directly on or near the ice. The temperatures drop to -195 F (-125 C), and in general the entire planet averages -80 F (-60 C).<sup>318</sup> But the water ice and dry ice is absolutely worth the effort. The author doubts there is a giant alien reactor meant to melt down the core and make an atmosphere ala “Total Recall,” but the liberated gases, to help trees grow when the planet is warmer would be helpful.

Even with that gas liberated, the planet will *not* be dense enough in the atmosphere to make up for the extra ½ AU of distance from the sun. And we have not the power to move planets at this time. Therefore, we will need to terraform via gaseous induction and solar absorption<sup>319</sup>. To do so we need a massive series of over 100 complexes, strategically placed around the world, *just to start* the process, while atmospheres arrive from Venus.

How can we build this if we struggle to even get near the Martian North Pole? The bottom line is we need a central origin point, and to ship via various types of space stations and from the Moon base, lots of PRDS designs materials, continuously seeding AI robots and human scientists and engineers on short duration missions, to set up the living systems that form **the pre-engineered backbone of the terraforming economy**.

For this economy to be justified, at great debt and expense, will require asteroid mining (without crashing the current juvenile financials market, driven mostly by greed than need), to fuel the space economy and of course, mediated with Dual Layer Economics. The point being that the exchange rate of material commodities to Earthen economics, to space goods, to backbone infrastructure to terraform economics is a completely unknown factor. Many forms of lowlives and inefficiencies will drain this chain on the way to set it up, and already the author has alluded to ways needed to deal with obviously soon to emerge corrupt space bureaucracies. However, assuming the systems, logistics, and economical engineering for the *pre-engineering backbone* exceeds 80% efficiency (which is doubtful), then the system can be said to be maximally conducive to an emerging terraform economy. This will create a new problem. See the following circuit diagram for the hint:

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<sup>317</sup> Pollution and Disaster Prevention

<sup>318</sup> <https://www.space.com/16907-what-is-the-temperature-of-mars.htm>

<sup>319</sup> But the author does not recommend peppering the ground with black spheres. Instead, simply increase luminal concentration and radiative energy. We shouldn't make the planet hideous!

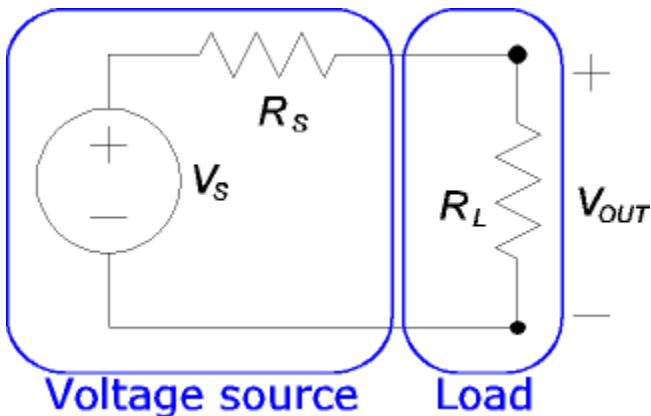


Figure 68 - Relation of Earth (source) and Mars (load); credit: Energy Education

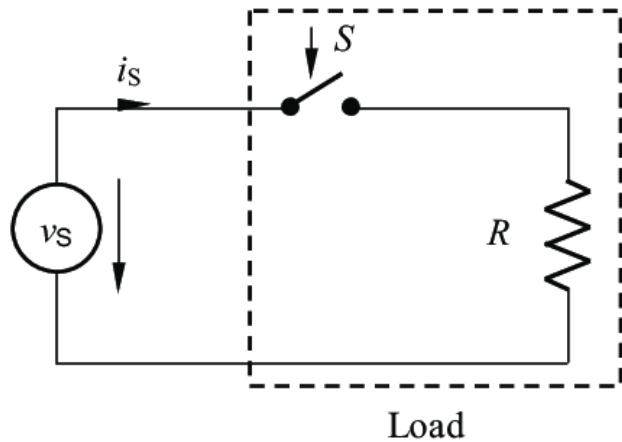
Assuming the  $R_s$  is both the Earth *and* Space movement, such as Moon ETB and all hauler and asteroid industries, the fact remains that the Mars colony will be entirely dependent on the voltage source, and this will: a) drain the source and b) put the load at risk.

The bureaucratic (ie power politics) move to mitigate Earth will look like:

Figure 69 - Switch in the circuit; credit: ResearchGate

This is a recipe for 3 colossal disasters:

1. The obvious death and/or abandonment of the colony, potentially actual deaths.
2. The psychological impact on humanity leading towards a third (and final?) Bacchian Era as well as a stagflation to rival ancient Mesopotamia or the New Kingdoms of Egypt. Ie: extinction of the culture.
3. The creation (in later stages) of a Mars/Earth rivalry leading to interplanetary civil war, ala "The Expanse."



All of these disasters are completely ridiculous, and would, of course, curtail the motion towards the later Stages and therefore interstellar flight.

Furthermore, let it be noted that - technically speaking - the atmosphere harvesting of Venus is the beginning of a 2nd (or 3rd, counting Moon urbanization), load on the source. So the importance of fortifying the sources' reserves enters the same urgency as the lumber industry at the end of the redwood and chestnut lumber era, when mankind had used up the easy resources and now needed to adjust. "Clear cutting" our rare earth minerals is a one shot deal, for even mining landfills will yield relatively little without perfect fission/fusion recombinators (FFRC). That isn't even covered in this paper, as deatomization might be a pandora's box we cannot afford to open at this time<sup>320</sup>... given our predilection for war and acting as though this is the Age of Ares/Transition Period and not the Age of Aquarius/Scientific Period.<sup>321</sup>

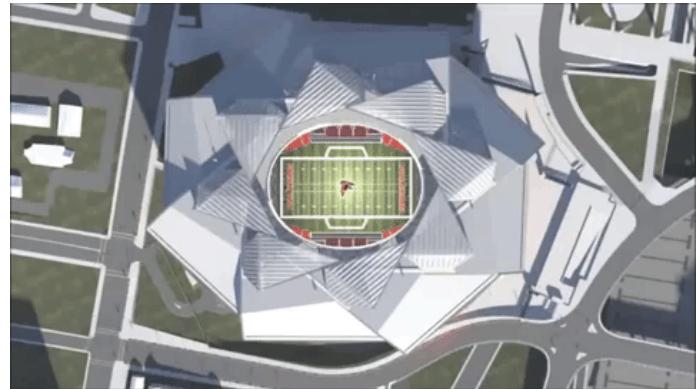
When speaking about PRDS, we need a hierarchy of importance, and of course relative stage deployment, although it is assumed that all designs should be begun immediately<sup>322</sup>:

<sup>320</sup> "Star Trek" has already hinted at our means to actually travel between galaxies, and it isn't warp speed!

<sup>321</sup> We passed through the entire Age of Pisces / Religious Period and all we got was a "Earth is not the center" t-shirt! :) Figuratively speaking.

<sup>322</sup> The advantage of beginning designs now, pre-AI daisy chain is the brainstorming and "getting in the mood" for humanity. Most of the designs will be worthless, overall. That isn't the point. Employ spacers *now*, in the same way that

- Centipede EM launching with adjustable ramp azimuth
- “Erector Set” of various construction automatons, from classics like bulldozers and crane, to multi-leg robotic specialists
- Living biodomes that can be vertically soft-dropped from orbit
- Folding dome - see Figure 70 ([gif](#)) at right:
- Fusion Generation station
- Crawler platforms
- Landing pads
- Landing strips
- Deep mining equipment
- Refineries
- VAWT power and maintenance crew
- Tubular pathways and junctures
- Electrification and Radiation Rectifiers
- Lamp and solar driven power charging stations
- Anti-wind dampeners and robots to control tethers
- Etc.

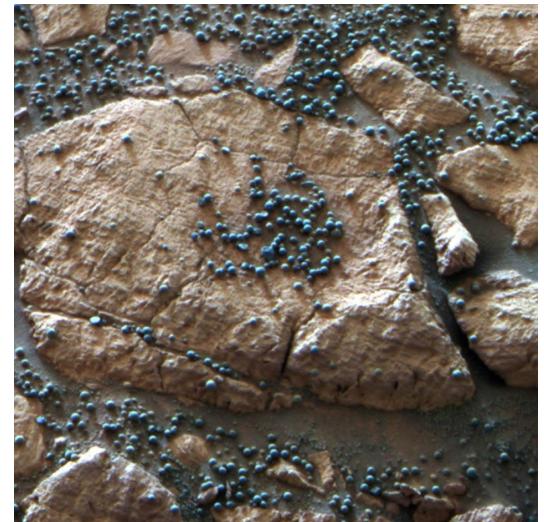


We cannot know all that we will need in this Stage and this is for certain: almost all ideas we have now are colored by the asymptote of the future design effect. It is like looking at how cyberpunk re-imagines the early flight era but always with the lens of more modern achievements, as if to say “what could have been” if the past had been futurized. But in reality, Kitty Hawk, NC was a farm and a windy place, and the first airplane was barely more than some sails and an engine. Rapid development followed *after* that. And nothing stayed that way. So all Stage 2 technologies will be inspired not by our Phase 1 Stage 1 designs, and our limited understanding of 3D printing, lasers, fusion, and the PEMF. It will flow out of Phase 3 of Stage 1, and the latest AI daisy chain results. Right now we are disorganized, disheveled, and helter skelter in our designs (see Part 1). But as we organize, and reorganize (subtracting our assumptions), we will cease to have this problem overall.

As this paper progresses, therefore, we will get away from trying to guess technologies as we have in Part 1 and these first two stages. Instead we will have more of a focus on mankind’s desired activities and behaviors.

### Becoming a SPACER Society... What are we doing on Mars?

Right now it isn’t clear - to the author - why Elon Musk et al. want to go to Mars so badly. There isn’t anything there, and no particular prospects of finding life. The speculations about oceans and life, etc. are all misunderstandings of the Martian “blueberries”<sup>323</sup> which are remnants of electrical discharges, not flowing water. Most of the canyons have nothing to do with fluvial flow, being deepest in the center and with no outlets. There is no clue as to where such oceans would have gone, either. The poles receive vapors from the world and freeze there. But it isn’t a very



you train an army *before* war, not as it suddenly happens. Prevention and preparation are the key on Earth, it will be 100x more so in space.

<sup>323</sup> Figure 71 - hematite spherules, magnetized, signs not of flowing water but electrical discharge activity.

snowy planet. The “weather” on Mars is confined to a few, mostly electrokinetic type events, such as thousands of km tall dust devils, planet wide dust storms, and wind.

So what do we want to go for? The short answer is: **an adventure and a checklist**. This worries the author because humans are juvenile. Juveniles who get black belts at age six or seven tend to avoid martial arts for the rest of their lives, as if satisfied they have achieved something. In fact, all those little taekwondo trophies are good for confidence and foundation. No child should be given a black belt, as it robs them of their future interest. Similarly, while the passion for space tourism is now currently high, there was a precipitous dropoff in interest in the Moon after the Apollo missions. This really set mankind behind. Primary interest became the science in 0-G environments at the ISS and other stations, and in the Hubble telescope (representing both wonder and longing, curiosity). Human psychology is particularly anti-visioneer, anti-logical, and is driven mostly by biochemical fancy, haphazard neuronal firing related to cosmic interference, stimulus (daily and newsworthy), emotions, and hunger.



Figure 72 - Elon Musk’s “Tesla in space”; an ode to human juvenile play and hubris; credit: SpaceX

Hunger is particularly useful if converted to greed, and the markets the author is describing here seem so astronomical as to be absurd or preposterous but if anything he understates the lucrative nature of these ventures. However, they are also risky, costly, and require great care. Far more care than can be provided by a man who leaves cars floating in space (as an honor to himself and the movie “Heavy Metal”), and pollutes the world with lithium based cars, warns of AI but funnels mankind towards DAI and CAI, etc.<sup>324</sup> Either way, the reality is that such visioneers are often blinded by a one track or two track mind, and if this enthusiasm is the basis for the hunger of mankind for space, then we are in trouble.

The main reason to have a spacer movement is to cure mankind of his fear of the gods, of the planet lords that nearly destroyed mankind and for which we have almost singularly forgotten in a fit of mass amnesia.

<sup>324</sup> The man speculates on DOGE and Bitcoin as a business strategy and may be implicated in crypto market manipulation to make up for losses in his companies!

We deal with things cathartically (such as in “Star Wars” by blowing up Venus... the “Death Star”), but not well. And we still fear them. After that destruction we still imagine the power of the gods: We build planet ending weapons to no biological or even economic benefit. It is really remarkable the scale of our behavior, and there is, of course, a deep emotional pathos as the impetus behind it.



Figure 73 - The Death Star destroys Jeddha ([gif](#)); note the crescent sun motif (an ode to ancient fears) atop a cosmic pole motif, with encoded polar configuration and thunderbolt generator; credit: LucasFilm<sup>325</sup>

We must be spacers to prove to ourselves there is no boogeyman. At this present moment we have done nothing about La Palma<sup>326 327</sup>, Indian Ocean tsunamis<sup>328</sup>, or climate change, and yet we are jumping at the shadow of a comet 3.5 million years away<sup>329</sup>. It is fairly ludicrous. Free speech is one thing, but how are the thoughts of the species guided (and by whom?)

Therefore when we assess the values and benefits of a SPACER society, what do we see? We see, of course, the need for rapid adaptation and change in an environment (and climate) undergoing crisis and flux. Some of the crisis is real (caused by flux or incompetence), and some is manufactured. The manufactured crisis can be horrific (such as COVID), or they can be purely political tripe. But the reality is they are stimuli nevertheless.

If mankind is to avoid sinking back into tribalism, imperialism, colonial avarice, and socialism, we will have to have very clear, engineer-based objectives for which to figure out how to drive funding and efforts. Lawyers are alternatively blunt or sharp instruments. Left to their own devices they will design \$3.5 trillion infrastructure deals with more pork bellies than a Chicago butcher market. But if directed, and set against one another and yet for a purpose, they will hammer out legislation and policies which reflect the spacer dictum:

**★ “To boldly go where no man has gone before!”**

<sup>325</sup> Released 39 years after we blew up the Death Star, and 36 years after we did it again. In 2015 also an entire Death Planet called the “Starkiller Base” was destroyed, but not before it leveled an entire planetary system. This is deeply ingrained cultural DNA psychosis from the “abuse” of the gods.

<sup>326</sup> [https://en.wikipedia.org/wiki/2021\\_Cumbre\\_Vieja\\_volcanic\\_eruption](https://en.wikipedia.org/wiki/2021_Cumbre_Vieja_volcanic_eruption)

<sup>327</sup> [https://websites.pmc.ucsc.edu/~ward/papers/La\\_Palma\\_qrl.pdf](https://websites.pmc.ucsc.edu/~ward/papers/La_Palma_qrl.pdf)

<sup>328</sup> <https://www.reuters.com/article/us-indonesia-quake-warnings/no-siren-no-warning-indonesians-caught-unawares-by-devastating-tsunami-idUSKCN1MH048>

<sup>329</sup> <https://www.indiatimes.com/technology/science-and-future/largest-bb-comet-ever-discovered-550861.html>

The credo of “Star Trek” is as important a calling as ever before, even if not “politically correct.”<sup>330</sup> Again, lawyers and “planners” will focus on what the more intelligent of our species - STEMMers - give them to focus on. They are receivers of the transmitted idea. If not ours, then perhaps those of despots and warlords.<sup>331</sup>

A SPACER society has no time for continual stagflation and internal bickering, nor pointless inflation and bridges to nowhere. It is a driven, goal-oriented, rationalist/objectivist society based on science, technology (not technocracy), engineering, mathematics, and medicine.

Thus, and this is of **vital importance and note** to the reader: the goal of the spacer movement and a SPACER society is not to get to Mars (as Musk seems to think). It is to play, as a toddler would when learning to walk, with space, to prepare for the real work of Conquering the Solar System and getting beyond it.

To continue God’s mandate to “be fruitful and multiply”<sup>332</sup> and carry our space genes into the galaxy and beyond. For us to meet our cousins and look them in the eye, not with our current irrational and parapsychotic neuroticism, projecting (literally beaming into space) movies of us murdering them and surviving them, but to actually exchange physics and concepts of the Aether. Perhaps, even, to enter the Aether or Counterspace<sup>333</sup>; if that is not mere religious sentiment.<sup>334</sup>

Therefore, it is the directive of this paper that we specify the high, and the low, motivations of mankind, and that we encourage a curtailing of the low behaviors masquerading as the high motives<sup>335</sup>.

- To defend the species from extinction (no more “eggs in one basket”): a high motive but approach with low/mean spirits... as China is showing by already attacking satellite infrastructure<sup>336</sup> with lasers<sup>337</sup>.
- To adventure and colonize the solar system, instead of abusing each other: a high motive that was liberated but briefly in the 1960s-1990s, and forgotten again.
- To provide for jobs, new infrastructure, and scientific development: a noble motive, currently mired by the avarice of the *Military Industrial Complex*<sup>338</sup> (MIC), and hampered by demonstrably bad ideas (ie, Marxism, fascism, jihadism)
- To clean up the planet: a base survival instinct we should re-develop but for right now for which we pay lip-service to.<sup>339</sup>
- To improve ourselves and our self-awareness: the noblest sentiment ignored for thousands of years.

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<sup>330</sup> Man actually does not refer to the penis genitalia, but to hands. The entire cultural marxist and 4th wave feminist zeal against man is like saying “I am against hands.”

<sup>331</sup> Certainly the muckiest politicians will themselves guide themselves into power eddies and political infighting to no point.

<sup>332</sup> Genesis 1:22

<sup>333</sup> [https://www.academia.edu/53713967/MIMS\\_1\\_12\\_Self\\_Consistency\\_of\\_the\\_Big\\_G\\_Diagram](https://www.academia.edu/53713967/MIMS_1_12_Self_Consistency_of_the_Big_G_Diagram) p. 4

<sup>334</sup> (3) Jesus said, “If those who lead you say to you, ‘See, the kingdom is in the sky,’ then the birds of the sky will precede you. If they say to you, ‘It is in the sea,’ then the fish will precede you. Rather, the kingdom is inside of you, and it is outside of you. When you come to know yourselves, then you will become known, and you will realize that it is you who are the sons of the living father. But if you will not know yourselves, you dwell in poverty and it is you who are that poverty.” <https://www.marquette.edu/magom/Gospel%20of%20Thomas%20Lambdin.pdf>

<sup>335</sup> Low motivations are acceptable. Base instinct drives evolution. But self-deception is self-destructive.

<sup>336</sup> <https://slate.com/technology/2021/05/esa-clearspace-1-space-junk-cleanup.html>

<sup>337</sup> <https://phys.org/news/2018-01-china-space-junk-lasers.html>

<sup>338</sup> “In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.” ~President D Eisenhower [https://avalon.law.yale.edu/20th\\_century/eisenhower001.asp](https://avalon.law.yale.edu/20th_century/eisenhower001.asp)

<sup>339</sup> Leaving us open to the bewildering, ignorant chastisement of mere teenagers and sycophant politicians who know nothing about the topic except the platform and power it renders!

Can mankind possibly survive the 21st Century, and a (seemingly likely) potential third World War, to overcome these issues? The author thinks that if movies and liberal arts, theme parks<sup>340</sup>, and other forms of catharsis haven't improved it, only made us hunger for the dark ages, for violence, and domination of one another in a modern era of entertainment fantasy, then it's not likely to resolve on its own. Not until mankind deals with the amnesia<sup>341</sup> and lust of the power of the gods.

What we are talking about in this paper is not feeding the lust but satisfying it. Do we want god-like power? Then we need godlike self-responsibility. Do we want unlimited potential energy? Then we need to apply ourselves in the pursuit of unlimited kinetic (and electrical) energy! We need to "step up to the plate."<sup>342</sup>

### Stage 3 - Asteroid Harvesting and Control

As we go through the stages together, the author wants to emphasize the increasing level of "science fiction" and speculation that will exist, and that the paper takes on an Arthur C Clarke sort of feel. Partially, it is the influence of past authors and visioneers which are, unavoidably, persistent in the minds of all in the spacer movement. It may very well be that it is impossible to do this, and also that the real SPACER society, when built, looks completely different and nothing at all like not only the author's vision but also that of all previous writers.

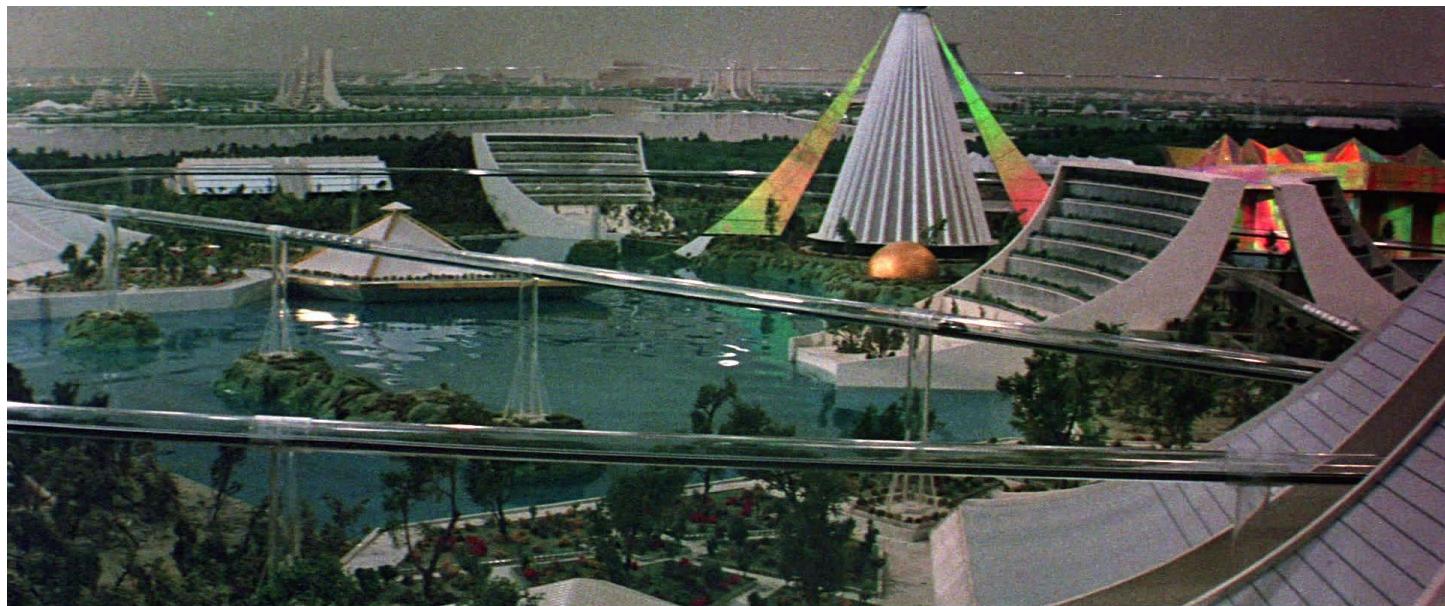


Figure 74 - Megacity under the dome, "Logan's Run"<sup>343</sup>; credit: American Cinematographer/S. David

In the above figure we see one classic representation of future cities, on Earth, made to help mankind survive post nuclear apocalypse. As it turns out, it is a dystopia of a different, "Soylent Green" variety. The truth is we cannot tell if this is any more likely than "1984" and other "Brave New World" or "Metropolis" style dystopias. The negativism in all of these point to the greater need for catharsis the author has mentioned before.

<sup>340</sup>

[https://www.academia.edu/37403915/Ferris\\_Wheels\\_and\\_the\\_Dionysian\\_Irony\\_The\\_subconscious\\_drive\\_of\\_thrill\\_abandonment\\_of\\_caution\\_and\\_the\\_motifs\\_of\\_Amusement\\_Park\\_rides](https://www.academia.edu/37403915/Ferris_Wheels_and_the_Dionysian_Irony_The_subconscious_drive_of_thrill_abandonment_of_caution_and_the_motifs_of_Amusement_Park_rides)

<sup>341</sup> "Mankind in Amnesia," I. Velikovsky, 1952

<sup>342</sup> In the southern US, we also say "sh-- or get off the pot." We certainly have gone round and round, it's about time to get it done.

<sup>343</sup> Please remember that the utopia of this film is equivalent of the dystopia of "Soylent Green": the food was young people killed by a psychotic AI robot that solved the lack of fish by freezing runners!

The question I think is, how can we work all of this out of our system? The best thing is for us to learn to - safely - play with Asteroids starting in Stage 2, and to acquire complete material control by the “end” (ie, safe terraformation of Mars, self-sustained and continual) of Stage 3, in a coherent, now simultaneous demonstration of remarkable technological progress.

- Stage 1 wholly complete with Moon urbanization, sustained ETB's, and a strong interconnected “airport” like traffic control between Earth and the Moon
- Stage 2 complete enough with self-sustaining terraformation, early forestation, dense atmosphere, and beginnings of oceanification (and thus transfer from Europa), implying complete PRDS control
- Stage 3 completes when asteroids are usable as charge transport mediums, as well as mining sources (obviously), and the ability to actually launch them at one another.
- If simultaneous completion of all 3 reaches a zenith, then mankind can be said to be a Tier 2 civilization (T2C)<sup>344</sup>, and ready for the birkeland polyphase superweb.

The beginnings of Asteroid Harvesting will constitute three primary aspects:

1. Control of the space economy to prevent Earth's economic collapse; with the introduction of early DLE concepts to buffer changes in markets from other financial sectors (to prevent “contagion”)
2. Physically dragging asteroids about space, to control their location and feasibility.
3. Physical ETB/temporary mining stations, upon the surface of asteroids.

Though these bodies are smaller than Mars, they present strenuous challenges, such as orientation, exposure, massive temperature swings, electrification issues, mass/landing issues, unique surface topography that makes for difficult to land conditions, etc.

Dragging asteroids back towards Earth, setting aside the political challenges, will represent not terribly much advantage to most of these problems, *but significant acceleration in solving time*. The travel time back and forth from the asteroid belt represents the major issues we already foresee. And given the politics of the situation will probably prevent the harvesting of Deimos and Phobos, we will end up picking larger asteroids from the belt. This will be a difficult but not insurmountable challenge for a society 150+ years in the future, at current progression rates.

From there, once we can figure out how to mine and land on them we can begin planning out a massive communications array, as well as working on our solar charge collections.

In truth the gold foil array should be begun in the second Stage, with copious research for all of Stage 1 and early phases of Stage 2 devoted to the transfer of the power. But the bulk of the collection of gold foil requires a consistent, cheap source of gold and other materials, and again this could be deep/volcanic mining or asteroids. But either way, it simply will take some dozens to hundreds of years to propagate a large satellite array that doesn't become immediately obsolete, and fights the rate of CME induced attrition, with continual launch and relaunch for certain orbits. Eventually, however, the array will be of a significant size and distribution, and able to communicate with the asteroid base array (ABA). When this occurs, the foundations for the BPS will be said to be in place.

However, **another massively important note** should be read here:

- ★ The BPS throughput may exceed expected values and material expectations/specifications when actually deployed. So that it is important to pre plan every satellite with charge transfer or tight beam laser transfer ability to have modular upgrade capability.<sup>345</sup>

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<sup>344</sup> Please differentiate this, although the concepts are related via energy power levels, from Liu Cixin's concept of civilizations in control of signal power strength. See: “Three Body Problem,” 2008

<sup>345</sup> It may even be advisable that they all have 540 degree arm manipulators with claws and tools on board for automated and manual use.

If we fail to plan, we plan to fail. Therefore, one should expect 40, 50 or more year gaps between the landing of a device and the actual use of the device, unless it is immediately harvesting/mining or hauling, or playing host to a continual hauler stop (to carry platinum, for example, back to a spaceport on Earth or Mars for processing and ore refinery).

As we begin to harvest the charge of asteroids, we are then able to enter phase 2 of the Stage.

Just as phase 2 of the second Stage involves a transition from deploying raw materials and tools and PRDS, to actually building and using, the second phase of Stage 3 involves making physical use of the asteroids in an chemico-energetic sense. Perhaps as a canister transfer of terraforming gases and raw ore, or metals, rare minerals etc... or perhaps as a means of electron collection and transfer. The solar wind is striking these asteroids continually, and it would be desirable to use them in this way.

To do so mankind will need to not only master the magnetic sensing and flux ropes completely and perfectly (see magnetic shielding), but also master quantum control by distant laser SAaaD<sup>346</sup>. In other words, programming matter's quantum activities remotely.

The third and final phase will be to control the asteroids in terms of reordering them into not only electrical harvesting arrays, but into defensive postures, with accompanying capacitor satellites which can rapidly change the environment suddenly, and hurl the asteroids in specific directions, as if from a railgun. Only, it will be far better if their behaviors are controlled on a quantum level and the sun does the accelerating with its Electric Field<sup>347</sup>.

This last phase should come last because it requires the most maturity from mankind. This is a potential ballistic WMD<sup>348</sup>, with huge political ramifications. Therefore, mankind should be careful in the use of this technology and the setting up of FSAI and CAI management structures to ensure fairness and safety.

## Stage 4 - Terraforming Venus

The entire first phase consists of Atmosphere Harvesting. We need the atmosphere to be about 95.5% less dense<sup>349</sup> than current just to have a decent environment. It isn't clear to the author how thick (in atm) the atmosphere can be and still grow plants and trees, but the other issue will be the delivery of water (phase 2).

Both of these phases will take potentially thousands of years, therefore Stage 4 is not a requirement for the continuation of the Spacer movement. In general the Moon is our 2nd basket, Mars is the 3rd, and Venus the 4th or 5th. In 10,000 years it will be humanity's jewel, its trophy, but for now, it is an inhospitable hellhole with an average temperature of 872 F (467 C). So for all of phase 1, we see Venus not as a home, but as a resource.

How can we actually have this kind of continual bringing of material to Earth, without human error or without cessation, and more importantly *with continual acceleration*? We need a TAI and FSAI led program of passive satellite haulers, that is inspired by carbon free/electricity-less coal carriers from Great Britain.

Figure 75 - powerless coal trolley, Great Britain; credit: Alamy



<sup>346</sup> Spooky Action at a Distance <https://www.youtube.com/watch?v=JFozGfxmi8A>

<sup>347</sup> <https://cosmosmagazine.com/science/measuring-the-suns-electric-field/>

<sup>348</sup> Weapon of Mass Destruction

<sup>349</sup> <http://www.ajax.ehu.es/VEX/Venus.Earth/Venus.Earth.html>

The entire point of the system is to use inertia and gravity to “power” the transfer. In a space sense this will mean gravity slingshots, repeated, controlled and calculated by the CAI working in tandem with FSAI, and then launch controls from Earth continuously adding to the CO<sub>2</sub> train. The parallels of the two systems are really astounding.

Each satellite will need a Nitrogen gas system for adjusting orbits on occasion (error detection). Overall, the system is fairly simple. The kite/bladders for collecting the atmosphere will have to be very durable, to avoid burning up in the thin atmosphere. We cannot just use a metal scoop and get dense clouds, it is too hot, and the loss in momentum will offset the benefit of the gravity slingshot.

So presuming the engineers design in a forward thinking manner, the computational abilities we have now should be sufficient to start right away (as soon as materials are decided upon). That's precisely what the author is advising. Forget about settling Mars right away: begin terraforming Venus now, this very day. Run the computing from a distance, and make an entire industrial sector around pumping out cheaper and cheaper satellites. It won't happen because mankind has always thought poorly. Usually our first ideas are wrong. Example: thinking the sun is a ball of burning hydrogen merely because the spectroscopy of 1850's found hydrogen in the signature<sup>350</sup>. The bottom line is it wasn't burning gas, and we're not even sure if it is plasma, condensed matter, liquid metallic hydrogen<sup>351</sup>, or if there is a form of crystal plasma (ultrahot<sup>352</sup>) that combines all three aspects. Probably there is. But what the sun isn't: a stellar gravity fusion perpetual motion device violating the laws of thermodynamics. Our ideas were wrong, and remain so as long as we ignore how nature operates.

Similarly, if we wait until we have the PRDS deployables to go to Venus, we will find 1,000,000 problems arise even with heat shielding and a perfect fission and compression (of O<sub>2</sub>) plan, to send to Earth and Mars via railgun, of course) the extra atmosphere.

It will not be good enough, we need to do it right now, ASAP. Venus is almost the same size as Earth, and that means it is a very large place. It won't be easy to duplicate the Earth's resources to fill the void, so to speak, but it can be done *if* we master magnetism, TGE, fusion/fission, and have the patience to make it all come together.

If we can harvest various gas giant sources of mass, as well, we will have more than enough material. As Venus originally emerged out of Saturn to begin with<sup>353</sup>, this seems like a natural choice.

Moving through the second phase, assuming the delivery of water (means covered in Stage 5), the big issue now is the delivery of soils, mulch, nutrients, and seeds/spores, etc. After all, Venus will not be likely able to grow anything naturally. Perhaps it can, but seems unlikely. Therefore, we should expect to treat Venus like a blank canvas, so to speak.

★ Venus will warrant **an entire industry and market sector** within the space economy all by itself

Continual railgun seeding of the planet with soil and nutrients should commence once the temperature is below 180 F, which will prevent too much chemical alteration (remember that lightning is already common on Venus). Dumping water on Venus<sup>354</sup> can commence if it can be determined that the water will stay in vapor form and not soak into the crust and downward. We do not know if Earth manufactures water from a dense heavy water core or another LMH core, etc. Therefore we really do not know how Venus' mantle and core setup may affect liquid water penetration. It may come to a point where studies reveal we cannot oceanify

<sup>350</sup> <https://history.aip.org/exhibits/cosmology/tools/tools-spectroscopy.htm>

<sup>351</sup> <https://vixra.org/pdf/1310.0108v1.pdf>

<sup>352</sup> <https://www.plasma-universe.com/plasma-classification-types-of-plasma/>

<sup>353</sup> Nahual records; accretion cannot explain Venus at all as it spins in a retrograde manner.

<sup>354</sup> Perhaps crashing whole bodies into it, such as comets or small planetoids.

Venus at all. Water vapor OR moving the planet near to a large gas giant able to give water making materials to Venus (post Sage 9), may be the only ways to give oceans and lakes to Venus. We need to know that before going too far. After all, PRDS domes might be the urgent need for Stage 4. Who knows at this point?

By the time we get to the third phase, assuming all things “go well”, we are now able to push a design agenda that is fairly complete, and fairly inspired by Earth. It may take much more time to create room for animal life, so we should assume that most of the activity will consist (again) of sending PRDS “erector sets” to Venus, approximately 5-10x the number as for Mars<sup>355</sup>, to quickly aid in terraforming the planet.

The next need for this phase will be permanent installations of mega stations, mega volcano mining + refineries, and launch stations. That will take a lot of money and effort in order to produce viable systems. But,

unfortunately, the problems listed in Stage 3 will now multiply:

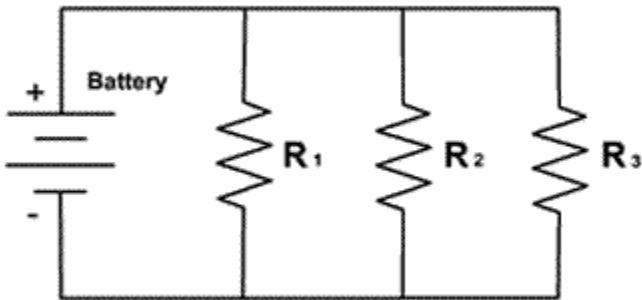


Figure 76 - parallel circuit:  $R_1$  = Moon,  $R_2$  = Mars,  $R_3$  = Venus; credit: wikipedia

The bottom line is that each load on the Earth will divide the current by the degree of the impedance in the project/load. But realistically all of them will have an equally difficult tension. As Venus and Mars become more politically, economically, and socially

tense, the moon’s cities will as well. We’re speaking, of course, over 200-500 years from now, but the point is actually quite poignant to now.

- Currently: Mars planning, Moon crazy, Asteroid Greedy, and Venus is absent in planning
- Need: Venus started, Moon Settled, Asteroid Obsessed, Earth fortified, and Mars long-term focus

All of this power comes, unfortunately, from our *excess GDP*. How much do we have, right now? According to financial crises currently ongoing: none. This is because GDP is poorly designed based around consumption and manufacturing only, and not the entire cycle. This would be like describing health around the amount of calories you are physically able to consume. Obviously you can consume 20,000+ calories per day. But the reality is that you only need between 1,700 and 2,400 per day, unless you are an Olympic athlete<sup>356</sup>. It isn’t even about that, but more regarding the total metabolic circulation of the calories.

So what will be done about keeping the tension and impedance to a healthy level so that our Home is not destroyed? Right now we are struggling in certain areas (pollution, toxicity<sup>357</sup>, rainforest preservation, coral reefs<sup>358</sup>, etc.) and improving other areas (fisheries<sup>359</sup>, ozone<sup>360</sup>, carbon reduction<sup>361</sup> in the West, etc.) But without some pre-planning and really intelligent modeling and strong data analytics, it will be difficult to manage the “circuits” of socio-politico economics, especially as it relates to resource driven wars and crises (like famine, etc.)

<sup>355</sup> Which is already 10x or more than those needed for the Moon.

<sup>356</sup> <https://www.fitnessandpower.com/fitness-stories/eddie-hall-20k-calories>

<sup>357</sup> <https://my.clevelandclinic.org/health/articles/11397-household-chemical-products-and-their-health-risk>

<sup>358</sup> <https://celebrating200years.noaa.gov/visions/coral/side.html>

<sup>359</sup> <https://sustainablefisheries-uw.org/fish-populations-are-improving/>

<sup>360</sup> <https://www.sbs.com.au/news/the-ozone-layer-is-on-track-to-completely-repair-itself-in-our-lifetime/f996087d-42ee-4434-a2dc-b042d08f568a>

<sup>361</sup> According to that paradigm, this is a good sign.

As the Earth is capable of adjusting to this, planning things out over long periods of time, the upside is that Venus will - over time, and with long and painful hard work - begin to really get better. Over a long period of time. As Venus is turned into a wilderland, and the temperatures descend to acceptable levels for trees, flowers, and plants, we can begin introducing the hardiest forms of life on Venus (and Mars):

- Fungi
- Tardigrades
- Reptiles
- Spiders
- Insects
- Shrubs & grasses

It may seem counter-intuitive (for example fungi need water but water will be difficult to get), but we need to remember that not only will this be 500+ years into the future and we will have had lots of time to transport water, make water, and fuse nitrogen and solar hydrogen for oxygen<sup>362</sup>, but these species often improve the water cycle!

It won't be easy, on account of the limits of Venus' current reach for us. But where there's a will, there's a way. The key question is, how successful can we make the Mars' Stage so that the foundations for Stages 4-7 are as successful as possible? If we can seriously tackle the middle Solar System's resources, our chances of becoming a true SPACER society that can cross voids to other stars drastically increases. Right now we are not even toddlers, we are infants. We kick haphazardly and our vision is fuzzy and upside down. We are newborn infants. We will only grow when we suckle upon the Force and Aether (charge) with seriousness and innocence. But the threat of human malarkey such as world wars will always try to mar the foundational years, decades and centuries. We have to fight all of that nonsense, while being realistic about our pathophysiology.

## Stage 5 - Colonizing the Galilean Moons and Harnessing the power of Jupiter

In this section we will have to get into a bit more detail again, for each of the main moons we need to settle will be for different reasons, and present different (and unique) challenges, as well as motivations. The motivations will drastically separate the circuit mentioned before into so many loads that it is clear that now Mars itself needs to carry its own load, as well as the asteroid hauler industry and belt.

We also must, by this point, have laid the groundwork and foundational infrastructure for the Birkeland Polyphase Superweb:

- ★ Birkeland Currents<sup>363</sup> for power, transfer, and electrical connection
  - Perfect magnetic control & radiant energy collection via fractal antenna reception
- ★ Polyphase for power and signals communications
- ★ Superweb because the web will need to be as large as 7.5 AU in radius.

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<sup>362</sup> N: element #7, 78% of atmosphere; O: element #8, 21% of atmosphere

<sup>363</sup> <https://sites.google.com/view/epemcgateway/pemc/mag-universe/flux-ropes>

- Expected data transfer rates through the plasma<sup>364 365</sup> and magnetic tunnels<sup>366</sup> could exceed 100 THz per megameter<sup>2</sup>

Table 7 - Comparing size of current satellite Infrastructure to BPS v1

Main Earth Grid	Space Exploration (Mars mostly)	BPS v1 <sup>367</sup>
22,236 miles radius <sup>368</sup>	13,374 miles radius (average) <sup>369</sup>	399 million mile radius
1.5 Billion square miles Area	1.25 Billion square miles Area	501.3 Trillion square miles Area
11.5 Trillion cubic miles Volume	1 Trillion cubic miles Volume	85 Sextillion cubic miles Volume

\*This represents a massive increase at each stage of the BPS, based on the radii of planets, etc.

Table 8 - % Increases in area and volume based on approximate radii of coverage

<u>Millions of mi</u>	<u>Radius</u>	<u>% increase</u>	<u>Area</u>	<u>% increase</u>	<u>Volume</u>	<u>% increase</u>
V1	399.501	<b>17866671.02%</b>	501386.6954	<b>3192215066596.06%</b>	85014371.57	<b>5703457564222450000%</b>
V2	442.678	10.81%	615620.3144	22.78%	115665157.6	36.05%
V3	892.648	101.65%	2503211.45	306.62%	948373577	719.93%
V4	1804.618	102.16%	10230753.8	308.71%	7836002958	726.26%
V5	2751.618	52.48%	23785558.18	132.49%	27778139969	254.49%
V6	3980.618	44.66%	49778071.72	109.28%	84098886216	202.75%

We can see that expanding out to Jupiter will be a huge jump above our current Earth based communications (not counting Mars' distance since we are not in moment to moment control). There will be a small or nominal increase to add Mercury and the remainder of Jupiter's moons. Then some powerful % increases for Uranus and Neptune each, and then again (by then standards) a nominal increase to include Haumea, Pluto, etc.

This increase in area, and then volume, should be an exciting proposition, because it is like being Henry Ford: if hardly anyone has an automobile your growth is practically infinite. Not to mention the attrition and replacement, then the service vehicles, the haulers, mechanics, and of course, suppliers' opportunities, etc.

<sup>364</sup> Plasma is very conductive: 10kV/cm to near infinite [https://en.wikipedia.org/wiki/Plasma\\_\(physics\)](https://en.wikipedia.org/wiki/Plasma_(physics))

<sup>365</sup> <https://www.plasma-universe.com/plasma/>

<sup>366</sup> "The tensor conductivity, both the real and imaginary parts, was evaluated at 5 kHz, the rope oscillation frequency... In this experiment, the quantities measured to calculate the terms in Ohm's law were filtered to exclude everything above 3 MHz. With high frequency probes Ø2:5MHz f 1 GHzØ, we measured the spectra of electric and magnetic field fluctuations. The electric field spectra are exponential from 1 to 10 MHz and have a broad peak at 20 MHz which is 20 dB from that of the rope oscillations. A second broad peak at 80 MHz (near the lower hybrid frequency) is 15 dB below the first." <https://www.osti.gov/servlets/purl/1474291>

<sup>367</sup> Jupiter outer moon - Mercury orbit, AU>miles

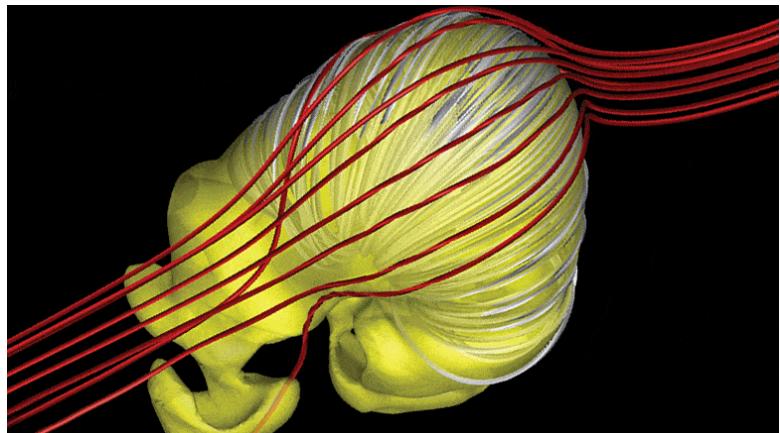
<sup>368</sup> [https://en.wikipedia.org/wiki/Communications\\_satellite](https://en.wikipedia.org/wiki/Communications_satellite)

<sup>369</sup> <https://docs.google.com/spreadsheets/d/1bIZcOtTwTh2wcQxdQFsiBzAZZ0p0tt51b9lwnC4OPmSs/edit?usp=sharing>

It is to be expected that in total the BPS will increase the Earth's GDP by ~ a Quadrillion fold, at a minimum. That isn't to a \$\$ Quadrillion (USD), but a Quadrillion ( $10^{15}$ ) in orders of magnitude.<sup>370</sup>

Is this, strictly speaking, necessary? No, we can always make ourselves into the "trailer trash" of space, with continual junk filling it up the way we have polluted the Ocean with plastic islands. But then we will waste metals and ore, not impress ourselves or any other society, and be incapable of truly harnessing the Solar Wind. Bear in mind the entire Solar Sheath is far, far beyond Pluto. We have more and more (exponential) energy we can draw upon when we decide to finally build a 10 AU long railgun launch system that utilizes the SSDP of the full, complete BPS in order to "warp space" and go well beyond c (the rate of induction in the Aether<sup>371</sup>).

Figure 77 - Out Solar System sheath in the local filament/chimney ([gif](#)); credit: SciTechDaily<sup>372</sup>



The goal of this paper is not to just sell the concepts of a SPACER society, or the value of the industries proposed. It is to outline a viable stepping stone pathway to the future. In order to do this, there is a complete "Order of Operations" and a logistical aspect. When we see the kind of scale the author is mentioning for version 1 (V1) of the BPS, there must be an accompanying excitement and excitement, rather than a gasp of fear or hesitation. We cannot afford to hesitate. Another VEI-8 event<sup>373</sup> or Cat 7 or 8 event (probably via asteroid) will occur, or an X20 level CME<sup>374</sup>, or many other possibilities. We simply must move forward.

Besides, to capture the sun's power we will need a massive net, and this collecting net will then need to communicate back to a targeted area, such as a massive railgun system, or a DLS around the Earth, or an asteroid slingshot, or... God-willing, a device that can move large objects almost at will, accompanied with the wisdom to know when to do it and when not to.

The author is not here to sell VTG "ion cannon"<sup>375</sup> device funding because China is a threat. That's true, and it'll remain true for a time. Nature or the market will settle much in the 21<sup>st</sup> Century. However, our goal must be to lay out the next 500-1500 years of human development, and be serious and reasonable about progress. Not myopic. Not short-sighted, but far sighted and using Enlightenment vision and values. Mankind used to dream big. Now let us do so again.

## Europa

The first, and most obvious reason why mankind will go to Europa first, is water. Europa is 71% water<sup>376</sup>, and is estimated to have 2 billion cubic miles of it, versus 870 million for Earth's surface. Estimates of thickness range from 2 to 20 miles (3 to 30 km) thickness in the extremely jagged icy crust. This is a

<sup>370</sup> Small note, the pre-engineers will need to set a standard for naming the satellites, so the CAI and FSAI can explain to TAI how to manage and catalog them, know to replace them, etc.

<sup>371</sup> Bear in mind the Aether was only verified by 2nd vertical interferometer in 2021, but it has been verified.

<https://disk.yandex.ru/i/FnUkHxwl5C5Elg>

<sup>372</sup> <https://scitechdaily.com/deflated-croissant-uncovering-the-true-shape-of-our-solar-system/>

<sup>373</sup> [https://www.youtube.com/watch?v=8QSL\\_t65wnw](https://www.youtube.com/watch?v=8QSL_t65wnw)

<sup>374</sup> <https://www.britannica.com/science/coronal-mass-ejection>

<sup>375</sup> "Birkeland Polypheae Superweb," p. 27-29

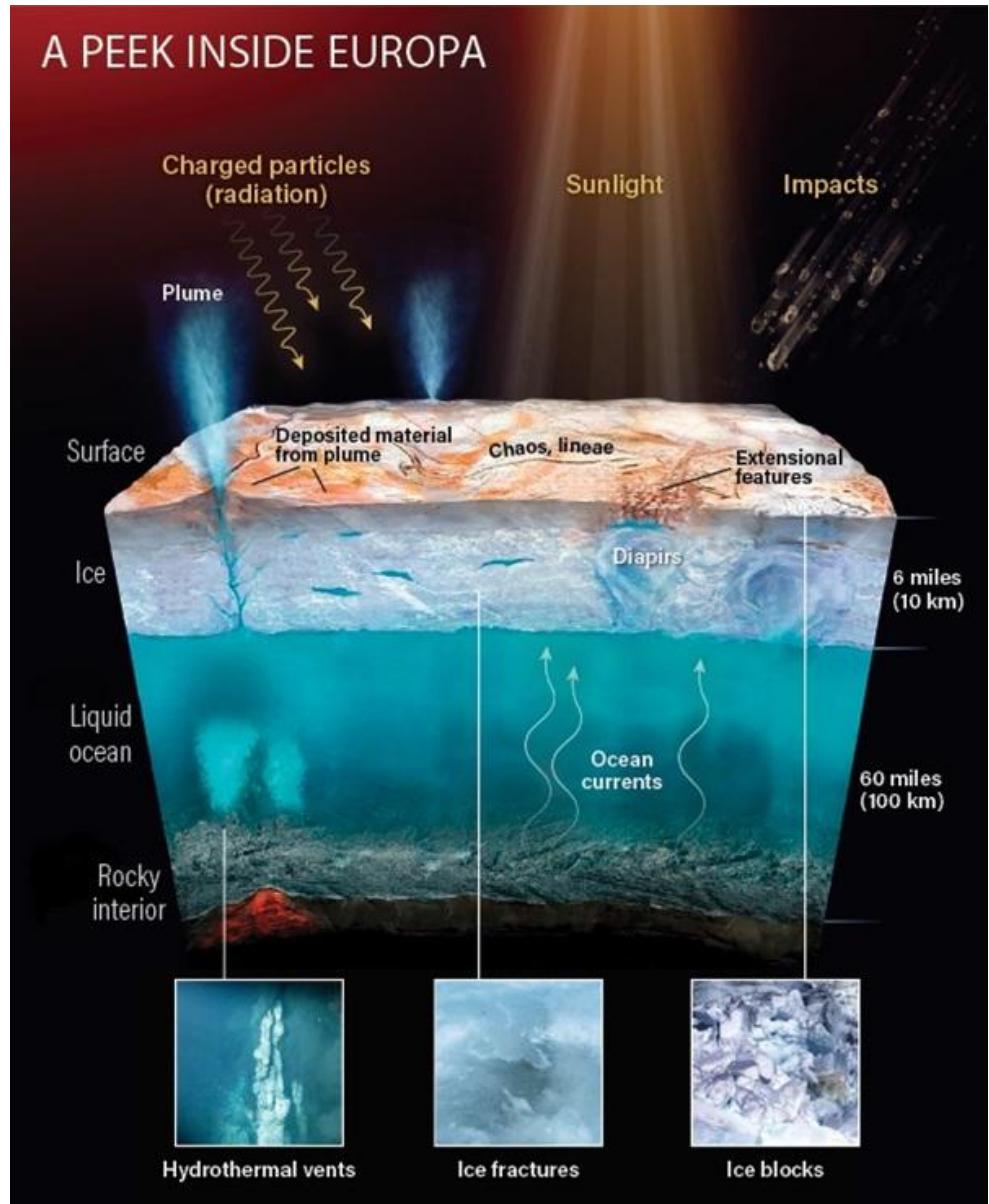
<sup>376</sup> <https://solarsystem.nasa.gov/moons/jupiter-moons/europa/in-depth/>

phenomenal amount of water. If we didn't need it for both Mars and Venus, it'd almost be worth smashing the entire planet into one or the other, for instant oceans. However, that wouldn't be scientific, and we must confirm that there is not any life underneath Europa's crust (and there probably isn't). Nevertheless, the good news is, that by this Stage, after having worked the difficulties of the Martian North Pole and the Venus problems, mankind will be ready to land PRDS railgun launchers and giant facilities on Europa, serially, using Asteroid ore materials and DVM from Earth, to quickly "reverse" terraform Europa.

What is important, too, is to remember not just to launch water to Mars, and Venus, and perhaps Earth or the Moon for storage "for a rainy day", but also to leave some behind on Europa for when we are able to harness the power of Jupiter (Marduk) to move Europa later on to our own chosen destination, preferably right between Venus and Earth, *or* Mars and Earth, *or* opposite of Earth on the same orbit, depending on simulations of the SSEC<sup>377</sup> and modeling of gravitational effects. Nevertheless, that is thousands of years in the future, and we cannot worry about that now. We need the water, and we need it on Mars and Venus. Europa has enough for both, and in spades.

Figure 78 - Europa Ice Crust;  
credit: Astronomy Magazine<sup>378</sup>

Europa is not the only source for water, we can also produce many Starwater generation satellites, for example around Venus, to create a "Deluge" device, combining Oxygen (made via terraformation and liberation from the crust) with the Hydrogen solar wind. Also, the Helium in the solar wind, not collected, could be fissioned back to Hydrogen in future Stages. Starwater<sup>379</sup> would be quite lucrative as a passive



<sup>377</sup> Solar System Electric Circuit

<sup>378</sup> <https://astronomy.com/magazine/2019/08/how-we-might-find-life-on-europa>

<sup>379</sup> <https://suspicious0bservers.org/starwater/>

process, and help to turn Venus into a lush rainforest world beyond Phase 3 of Stage 4. But for now, let's assume that Europa is the one and only extraterrestrial source for humanity for water.

If this is the case, we really cannot afford to not plan out the use of over 1.5 billion cubic miles of it, almost to a ridiculously pedantic amount.

But where would the energy come from? Not from Earth! Not only from nuclear power. So where?

#### BPS V1 - Harnessing the Magnetopower of a Giant

The rocky body circuit needs to remain "isolated" from the rest of the Stages, starting after Europa. Even Europa needs a new power source. It so happens that Jupiter itself is a giant magnetic dynamo:

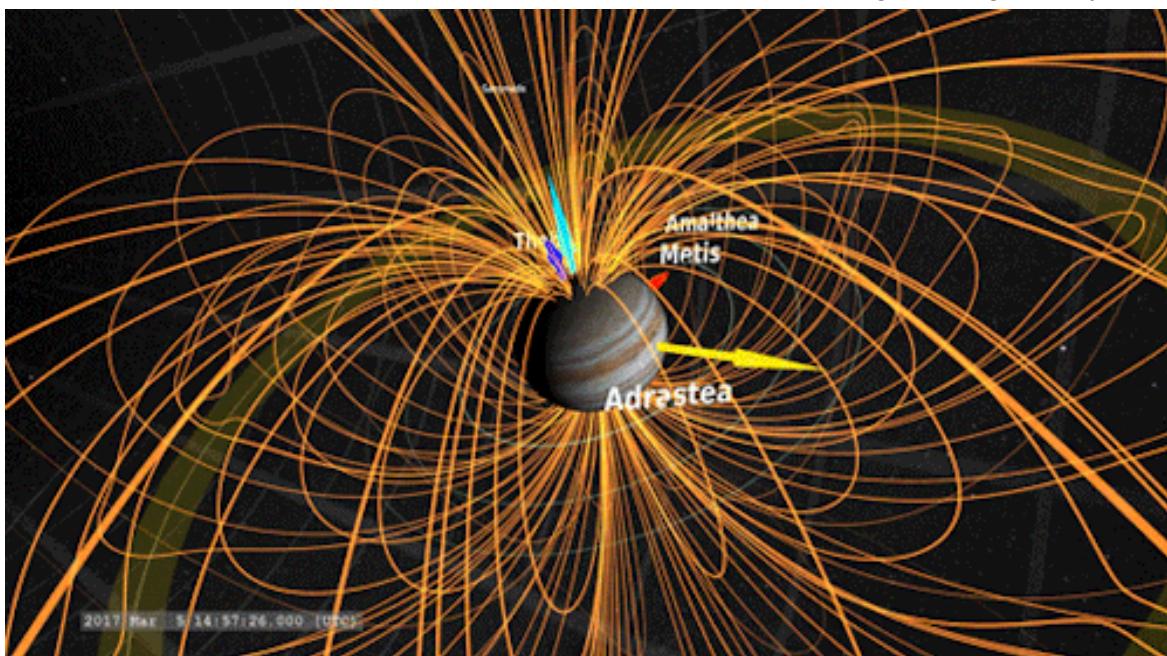


Figure 79 - Jupiter's rotating magnetosphere is a potential source of electricity ([gif](#)); credit: NASA

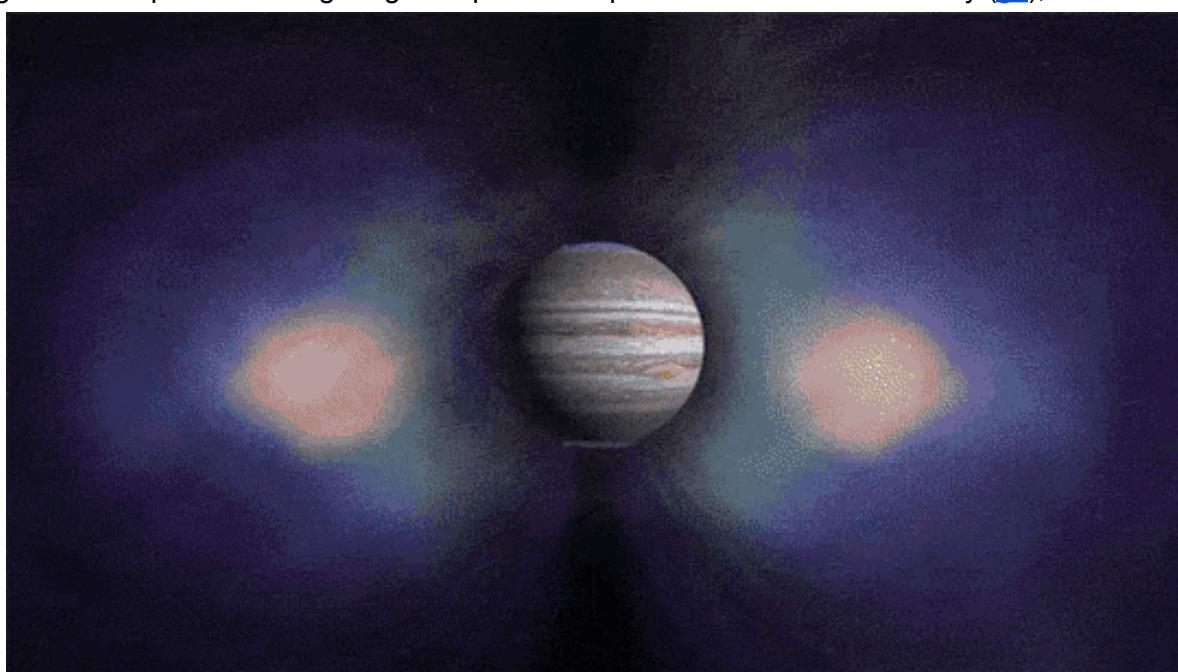


Figure 80 - Size of Jupiter's magnetosphere ([gif](#)); credit: NASA

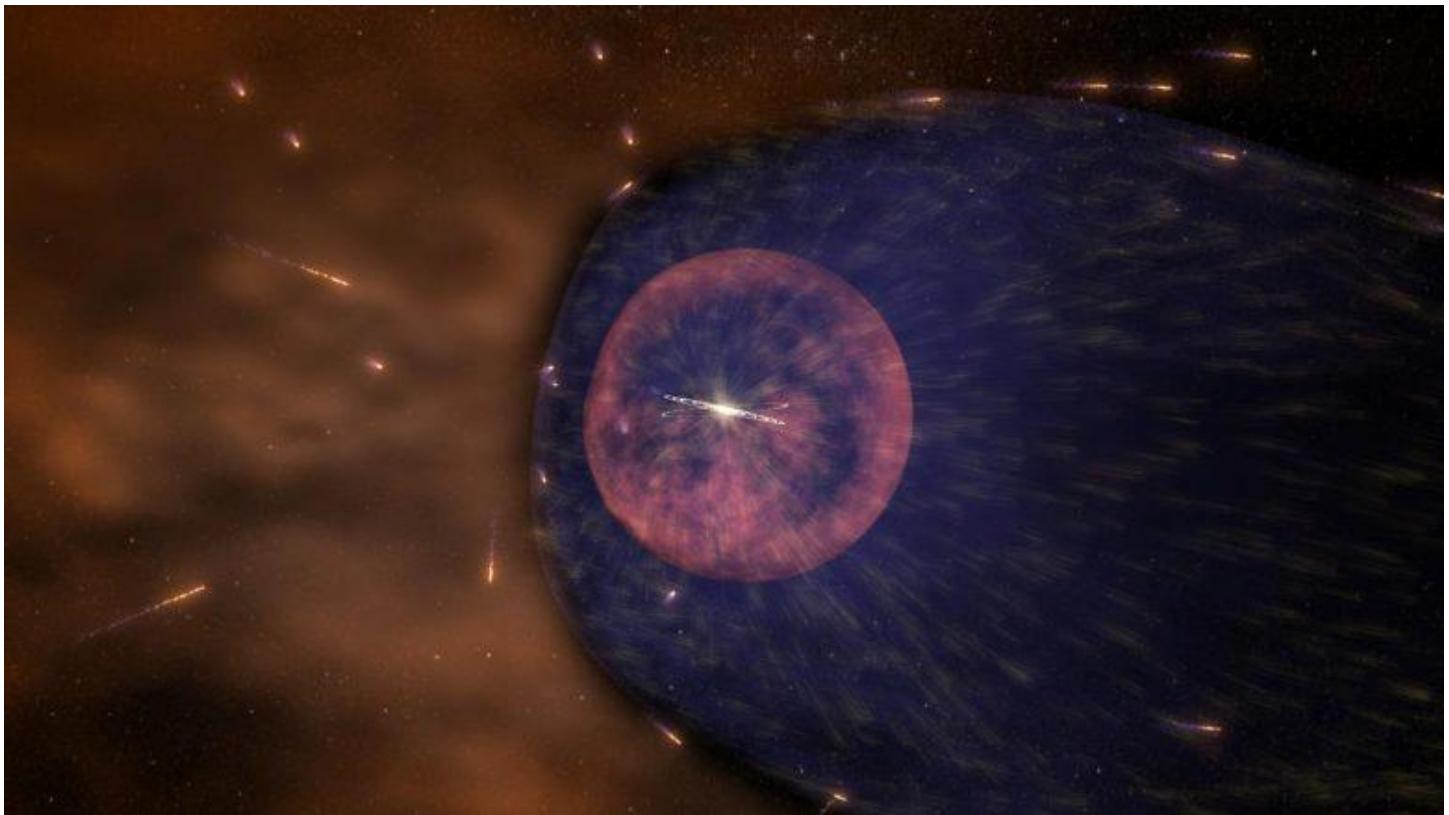


Figure 81 - Compare our Solar system Sheath to the Jupiter Magnetotail in previous figure and see coherence;  
credit: NASA's Goddard Space Flight Center/Conceptual Image Lab

Looking at the repeatable aspect of the solar system's shape and Jupiter's, one cannot help but notice three important engineering factors:

1. The self-similarity implies repeated structure throughout the cosmos, meaning predictability. Designs should be centered around this self-similarity.
2. The size of Jupiter's magnetosphere is roughly that of the sun. So we have a polar relationship, or something that has a gradient, and therefore a source of power.
3. The rotation of these structures is itself inducing an EMF, and this can be used for many energetic advantages.

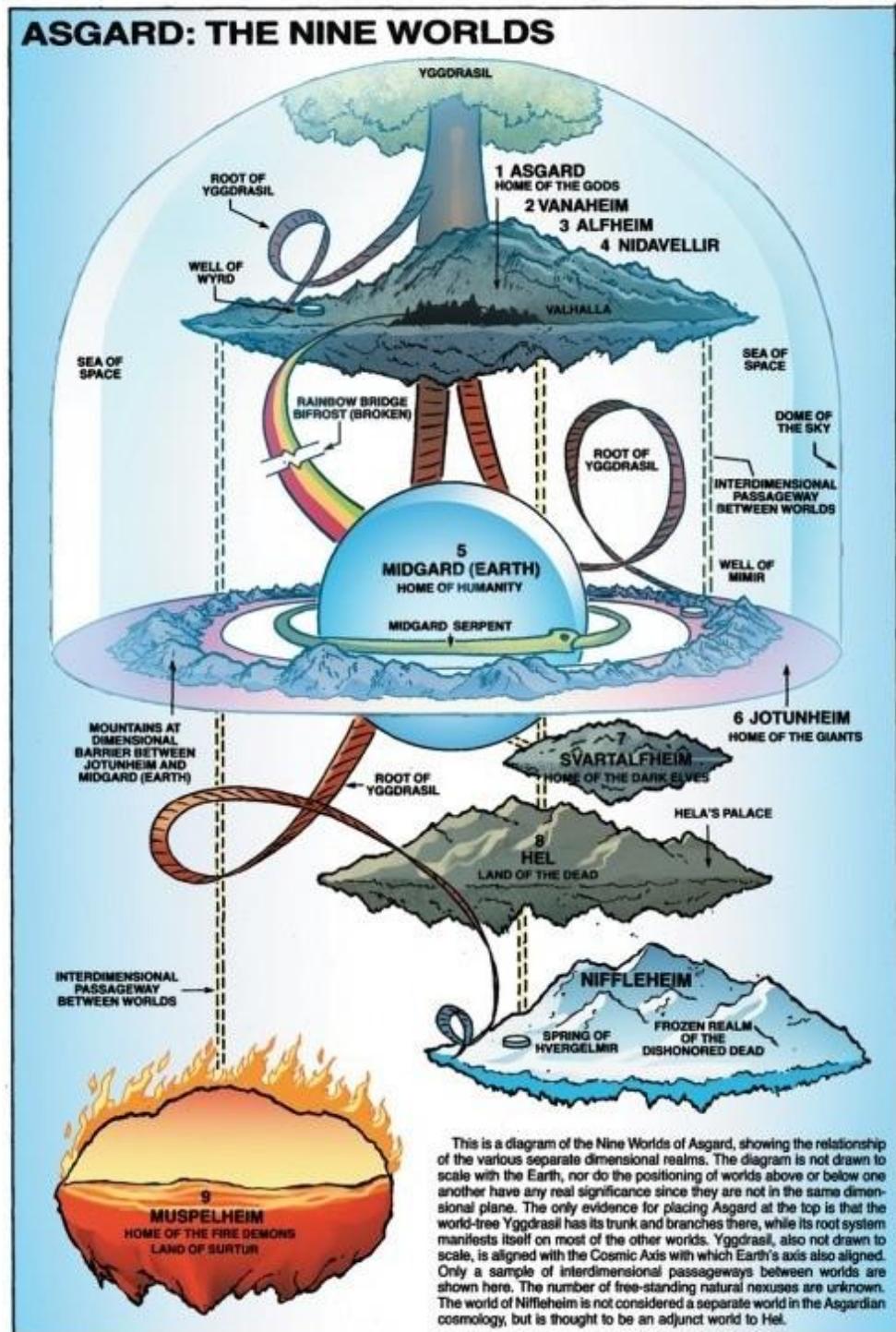
Therefore, we have much that can be done in order to improve the energy situation for Europa, if we will take advantage of the electrical connections and SSDP<sup>380</sup> that is available nascent to the Jovian architecture. That's not even to speak of directly mining Jupiter, or Jovian wind turbines, or any of the like. Those may very well be "in the cards" for a later Stage. But recall that we've already by this stage developed means to harness and harvest space energy, and probed the entire solar system. We can treat the solar and space environment itself as we wish. By this stage we might even have direct access to the energy of the Spongy Counterspace (SCS), but that doesn't mean we should rely upon it in this paper. Similarly, the gases of the 4 gas giants are understandably a practically infinite source of raw materials. But they also have deeply cold temperatures and very high winds. Let us conquer moons and rocky planets and planetoids, and leave directly harvesting our beautiful "gods" for those who can traverse the entire cosmos and replenish these

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<sup>380</sup> Steady stream of dirigible plasma

things, or even make them bigger. One day, perhaps a "Stage 15" civilization will recombine Saturn, Jupiter, and Neptune to remake Shamash - our brown dwarf - and this will be a signal to all species that we are star makers. But such arrogance and ability is not for ones such as we are now. So in this same manner of thinking, mining Jupiter's gases does not seem wise. The author's heart forebodes the thing until we have earned it. Instead, we should stick to eating the fruits as we have always done. It's too late not to eat the fruit of knowledge, but can we not also get back to eating of the fruit of the tree of life? This "tree" was seen as the plasma exchange between the gods and demigods, in the LaGrange arrangement. When this ended, mankind no longer saw the EDIN<sup>381</sup>. But we also never forgot it. To this day the "World's Tree" fascinates humanity. Perhaps not as much as the gods and demigods, and of course their mighty weapons - variations of the thunderbolts and winds of destruction - which inspired our world religions. But the *ka* (or *ch'i*, *prajna*, *ru'ach*) fascinated the world, and will do so again.

Figure 82 - Yggdrasil, the solar system during the Golden Age of the Gods. Jupiter (Odin<sup>382</sup>) was Asgard (EDIN), and the various realms the largest moons and close planets/planetoids: Mars (Thor), Mercury (Heimdallr), the Moon (Sif), Venus (Loki), and then Muspelheim was the Sun/Set, etc. Hel was Uranus, Niffleheim was probably Neptune, it isn't clear<sup>383</sup>. Much diameter ratio analysis on the Costa Rican sphere remains to be done. All



<sup>381</sup> [https://en.wikipedia.org/wiki/Edin\\_\(Sumerian\\_term\)](https://en.wikipedia.org/wiki/Edin_(Sumerian_term))

<sup>382</sup> Pronounced O-th-inn, th for thunder, or /|/ the taran thunder rune, aka the "secret name for God," IAO.

<sup>383</sup> Actually, they were the original inspirations, but probably the later incarnations (post 7kya) were the Galilean moons). Which would make Europa into Niffleheim and Io into Muspelheim. Callisto and Ganymede would be Hel and Svartalfheim, respectively.

that is clear is that we orbited Jupiter<sup>384</sup>; credit: SFFSE<sup>385</sup>

When mankind “gets” this, and ceases to forget it generation by generation, then Jupiter’s great power will be understood and revered. Until then, we will be like naughty six year olds, sneaking off with dad’s lighter to start fires and pretend to smoke, etc. We will play with fire, we will get burned, and we will build from there. It will start not with a giant generator ring (as might be had later), but with Io.

Io

Aside from the well known electrical connection between Jupiter and Io<sup>386</sup> being so very strong even the Big Bang cosmologists have to accept it, one other aspect draws us to Io as a power generation station: the predictability. We know how big the volcanoes are, and that they are very, very active. We do not need to guess. We have been studying them for a long time and have an ability to make direct predictions. The only thing the SM theorists do not understand is the Birkeland Current aspect. They think the energy comes from tidal forces. That’s there, but not central. Central to the issue is, of course, Io’s potential iron core<sup>387</sup>.

Which brings up reason #2 why we cannot avoid building the Io base as soon as we can have tough enough bases and PRDS technology sets to handle Europa and Venus, is to create outer solar system DVM facilities on Io. Who knows, perhaps one day various cities and settlements can be created for permanent Io and Europa oases and settlements, if we equalize charge, atomic mass, and atmospheric conditions (control gravity and ionic weather) for these bodies? It isn’t known to the author, and not the point in this paper. But neither is it in the realm of impossible. By harnessing Jovian energy, mankind’s abilities will increase 100 fold, or more. Actually Jupiter’s magnetosphere is 20,000x stronger than that of Earth. Therefore we won’t be able to do much without great magnetic and plasma DLS, and at any rate, we will need to evolve our instincts to avoid doing stupid things that compromise everyone at once<sup>388</sup>.

In setting up the DVM facilities on Io, the author can provide little advice<sup>389</sup>. It will require mankind to be exceptionally adaptive, and it will provide more materials than asteroid harvesting, by far. See the following table:

Table 9 - Comparing Asteroid Belt with Galilean Moons, Titan, and Triton

Asteroid Belt <sup>390</sup>	Europa	Io	Ganymede	Callisto	Titan	Triton
$3.3 \times 10^{21}$ kg	$4.8 \times 10^{22}$ kg	$8.9 \times 10^{22}$ kg	$1.5 \times 10^{23}$ kg	$1.1 \times 10^{23}$ kg	$1.3 \times 10^{23}$ kg	$2.1 \times 10^{22}$ kg

Please note what this implies:

<sup>384</sup>

[https://www.researchgate.net/publication/332316290\\_Hopewellian\\_Octagons\\_Proof\\_that\\_the\\_Alleged\\_Astronomers\\_could\\_see\\_Jupiter\\_up\\_close\\_Analysis\\_of\\_the\\_Octagon\\_formations\\_of\\_Chillicothe\\_and\\_Newark\\_Earthworks](https://www.researchgate.net/publication/332316290_Hopewellian_Octagons_Proof_that_the_Alleged_Astronomers_could_see_Jupiter_up_close_Analysis_of_the_Octagon_formations_of_Chillicothe_and_Newark_Earthworks)

<sup>385</sup> <https://scifi.stackexchange.com/questions/34834/do-the-leaves-of-yggdrasil-the-world-tree-have-any-special-properties>

<sup>386</sup> <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2008JA013968>

<sup>387</sup> <https://www2.jpl.nasa.gov/releases/96/gliocor.html>

<sup>388</sup> Remember how in “Interstellar” the ‘great’ (and lonely) doctor takes control of the shuttle, and knowingly blows the airlock because he has been marooned so long he is ‘section 8’? Humans are known to drown their rescuers. We cannot make any assumptions about human behavior in space. A jealous ex-girlfriend might fry an entire ship or space station by momentarily lowering the DLS, or a jealous abusive boyfriend might sabotage life support systems to get revenge, and thereby kill thousands to millions. We have a long way to go with energetic fields and nanobot medicine to relieve people of these internal pressures and out-of-control mechanisms which sometimes compromise their decision making skills.

<sup>389</sup> Practice on Hawaii and in Mexico and Africa.

<sup>390</sup> 4% of the Moon’s mass [https://www.sciencedaily.com/terms/asteroid\\_belt.htm](https://www.sciencedaily.com/terms/asteroid_belt.htm)

- ❖ The mining contracts for the asteroids, as lucrative as they absolutely will be on the blockchain, with futures and commodities, price controls etc, there is an order to 2 orders more value overall in the moons, albeit we will have near 100% asteroid harvest one day and probably never do the same to the moons, unless we crash them whole (see Table 11).
- ❖ The kind of money being made here supersedes all wage and agricultural earnings on Earth currently, and even with a 33% population growth (followed by recession), it will not even come close to his type of wealth and opulence. So poverty and richness will no longer have any meaning. People will need knowledge and access to have power, because electricity and atomic wealth will cease to confer privilege and advantage.
- ❖ The species will be “sitting pretty” if it can terraform 3, maybe 4 bodies (including Mercury as a “Antarctica-like” science base, and mine the Jovian and outer systems).
- ❖ This will lead to another lull in the SPACER society in the 6th or 7th stage, or perhaps each stage. That’s why it is important to automate the entire solar system conquest<sup>391</sup>.

The richness of Io cannot be underestimated<sup>392</sup> (and it comes from electro-volcanism, transmutation, etc.):

- SO<sub>2</sub>
- FeO
- MgO
- Mg<sub>2</sub>Si<sub>2</sub>O<sub>6</sub>
- S<sub>2</sub>
- Cl<sub>2</sub>SO<sub>2</sub>
- H<sub>2</sub>O
- H<sub>2</sub>S
- HCl

There will be more, far more, minerals (as a result of electrodynamic processes) and being as there are dozens of other moons nearby to pull from, the chemical soup available to chemical and materials engineers working from one of the local ETB refineries will be just as viable for expansionism as anything from Venus and Mars, and possibly more readily available.

The other consideration as to why to go to Io: temperature. Like all the moons it will be cold, except where there is volcanism. At such a place, especially long term plumes that have strong connections to Jupiter that are sustained, both the heat for life and for refineries can be had, and a viable or sustainable community arise.

Finally, Io provides a good surface to improve upon the crawler technology for either Mercury’s surface, or Venus, or really anywhere. It won’t be safe on Europa, but it is to be assumed that Io’s surface is so volatile that an entire facility needs to be upended and the mining apparatus removed. The author recommends, based on nature, that a combination of tick and flea based designs be implemented, instead of wheels.

## Ganymede & Callisto

These two locations, more particularly Ganymede, should be considered/modeled for colonization purposes, again surrounding a first exploration and mining, and then later permanent settlements.

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<sup>391</sup> And also to take out the human power colonial advantage over one another. The greed and avarice which leads to genocide!

<sup>392</sup> <http://www.gishbartimes.org/2010/01/chemical-composition-of-io.html>

Wheeled/pedestal cities can be used, or if there is ocean water found, floating or submerged cities. Such cities could definitely be used on Europa, once the ice is opened up. But we do not know for sure if that is an option on the other two. Let us compare<sup>393</sup> these two Galilean moons:

*"Ganymede and Callisto are planet-sized moons of Jupiter, with surfaces composed of a mixture of dark dust and bright ice. Similar in size, they both have interiors of half ice and half rock/metal, but Ganymede's interior appears to be segregated by density, while Callisto's interior is mostly mixed. Both moons appear to have subsurface liquid water oceans sandwiched between low-pressure surface ice and high-pressure ice phases deep in their interiors. Ganymede has an intrinsic magnetic field, probably generated by dynamo action in a molten iron core. The surface of Callisto and part of the surface of Ganymede appear to be ancient, dominated by impact cratering and the slow decay of ice sublimating into the surrounding vacuum, leaving behind dark dust. Two-thirds of Ganymede's surface was rejuvenated during a dramatic event at some point in the middle of solar system history, by intense extensional tectonism and possibly cryovolcanism." (Collins & Johnson)<sup>394</sup>*

#### *"5.6 Ganymede*

*Ganymede's magnetic field was discovered by the Galileo mission in the mid-1990s. Although magnetic induction signatures were found for Europa, Ganymede, and Callisto, resulting from currents generated in salt-water oceans in these bodies, Ganymede was the sole Galilean satellite to demonstrate a self-sustained dynamo-generated field. There is little data available for the spectrum of the field aside from a dipole moment.*

*Like Mercury, Ganymede's small size suggests that there must be a significant fraction of light elements such as sulfur in its core to keep it liquid at present day. It is unknown whether Ganymede has a solid inner core, but the dynamo may have a compositional driving source if the liquid core is in a regime where it freezes at the outer boundary, releasing negatively buoyant iron-rich fluid, rather than freezing at the inner boundary like in the Earth's core. Dynamo studies including different buoyancy source distributions intended to mimic these solidification processes have been carried out." (S. Stanley)*

*"The Ganymede magnetosphere shown in Fig. 10 differs greatly from that of the Earth shown in Fig. 7. First, the velocity of the Jovian magnetospheric plasma past Ganymede is slower than that of the compressional wave that is required to deflect the flow around Ganymede. Thus the compressional wave can run far ahead of Ganymede so that the flow is deflected gradually around Ganymede and no bow shock is formed. Second, the external magnetic conditions are relatively constant so that the Ganymede magnetosphere is quite steady with no substorm-type processes. Third, the strong external field limits the magnetosphere to a nearly cylindrically symmetric tube that wobbles with the nodding of the external Jovian field as the Jovian tilted dipole rotates. Finally, there is no cold plasmasphere in the inner part of the Ganymede magnetosphere. The ionosphere and slow rotation compared to the transport velocity induced by the Jovian magnetosphere are just too weak to produce such a feature. Nevertheless, it has some of the character of the terrestrial magnetosphere: a polar cap whose magnetic field lines connect to the external, flowing plasma and a region of closed field lines that intersect the surface of the body on both ends." (sic) (C.T. Russell)<sup>395</sup>*

#### *"Callisto: An Ancient, Primitive World*

*We begin our discussion of the Galilean moons with the outermost one, Callisto, not because it is remarkable but because it is not. This makes it a convenient object with which other, more active, worlds can be compared. Its distance from Jupiter is about 2 million kilometers, and it orbits the planet*

<sup>393</sup> <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/ganymede>

<sup>394</sup> <https://www.sciencedirect.com/book/9780124158450/encyclopedia-of-the-solar-system>

<sup>395</sup> <https://www.sciencedirect.com/referencework/9780122274107/encyclopedia-of-physical-science-and-technology>

in 17 days. Like our own Moon, Callisto rotates in the same period as it revolves, so it always keeps the same face toward Jupiter. Callisto's day thus equals its month: 17 days. Its noontime surface temperature is only 130 K (about 140 °C below freezing), so that water ice is stable (it never evaporates) on its surface year round.

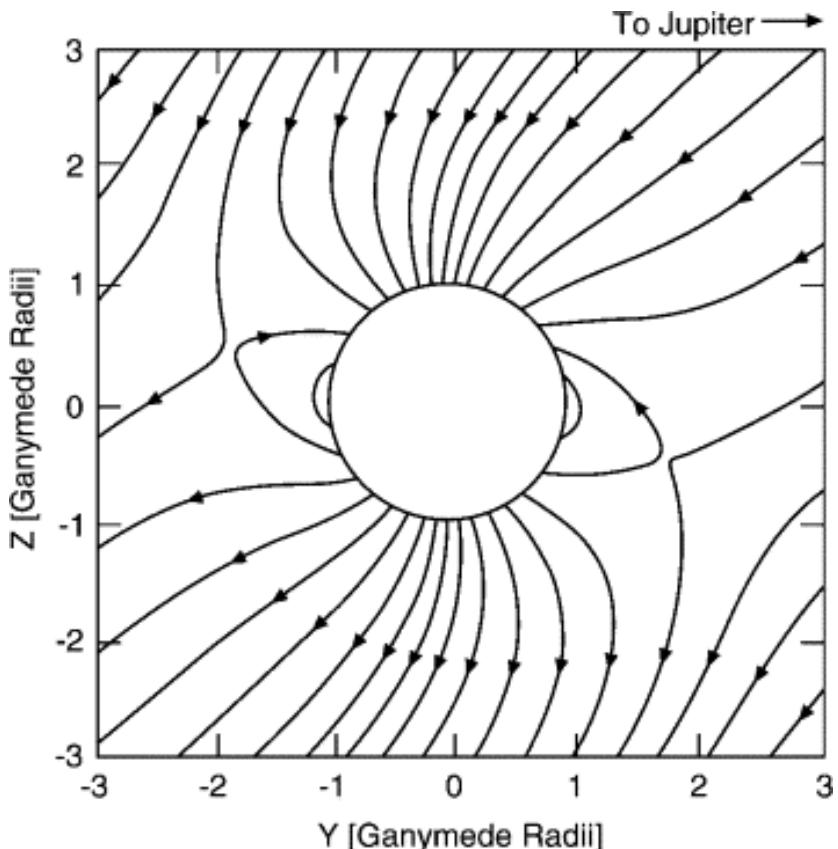
Callisto has a diameter of 4820 kilometers, almost the same as the planet Mercury (Figure 1). Yet its mass is only one-third as great, which means its density (the mass divided by the volume) must be only one-third as great as well. This tells us that Callisto has far less of the rocky and metallic materials found in the inner planets and must instead be an icy body through much of its interior. Callisto can show us how the geology of an icy object compares with those made primarily of rock.

Figure 83- Ganymede Magnetosphere

Unlike the worlds we have studied so far, Callisto has not fully differentiated (separated into layers of different density materials). We can tell that it lacks a dense core from the details of its gravitational pull on the Galileo spacecraft. This surprised scientists, who expected that all the big icy moons would be differentiated. It should be easier for an icy body to differentiate than for a rocky one because the melting temperature of ice is so low. Only a little heating will soften the ice and get the process started, allowing the rock and metal to sink to the center while the slushy ice floats to the surface. Yet Callisto seems to have frozen solid before the process of differentiation was complete.

The surface of Callisto is covered with impact craters, like the lunar highlands. The survival of these craters tells us that an icy object can retain impact craters on its surface. Callisto is unique among the planet-sized objects of the solar system in the apparent absence of interior forces to drive geological change. You might say that this moon was stillborn, and it has remained geologically dead for more than 4 billion years (Figure 1)...

The differences between Ganymede and Callisto are more than skin deep. Ganymede is a differentiated world, like the terrestrial planets. Measurements of its gravity field tell us that the rock sank to form a core about the size of our Moon, with a mantle and crust of ice "floating" above it. In addition, the Galileo spacecraft discovered that Ganymede has a magnetic field, the sure signature of a partially molten interior. There is very likely liquid water trapped within the interior. Thus, Ganymede is not a dead world but rather a place of intermittent geological activity powered by an internal heat



source. Some surface features could be as young as the surface of Venus (a few hundred million years).<sup>396</sup>

So we can see plenty of motivation for settling Callisto, and some for Ganymede: space. The reader needs to understand, in a SPACER society there is no lack, as shown in “The Expanse” or other limited belief propaganda (such as “Avengers: Infinity War”). The reality is that what lacks is leadership, willpower, know-how, tenacity, and infrastructure. With the right infrastructure and leadership, we can move atoms around. Sure, Earth is the standard of awesome, but once we start taking samples, elsewhere, and understanding the Structured Atomic Model (SAM) properly, actually there is no shortage. We only need master magnetism, plasma, fusion, and fission. If we wield the secrets of dielectricity, counterspace, curl, divergence, and induction<sup>397 398 399</sup>... there is nothing we cannot master, atomically speaking.

### Controlling the Jovian Space

After a successful rollup of Jovian moons, harvesting materials, we should either probe Jupiter with the moons, or consume all the smaller moons. This is to avoid the temptation of despots and tyrants to threaten the colonies with smashing them with control of the Jupiter forces and power. That is a temptation we do not need. Once the retrograde circuit is cleared away, a small jewel will be safe to capture and analyze: Valetudo. It's a small moon doing something unusual in the retrograde group<sup>400</sup>. Perhaps there is a secret to it.

Regardless, we need to go from there and conquer the entire Jovian magnetosphere with a BPS system that later merges with the Earth (and rocky planets') grid. This will enable an expansion rapidly from V1 to V2 and set the foundations up for V3. The growth, from here, should be exponential and “easy.” Population attrition may remain high for up to 500 years as we “dark age” our way through the solar system. It won't be fleas and black plague, but radiation and the hazards of space that we will struggle with, if we get in a hurry. And our own demons which may come back with a vengeance: war, relentless bickering and infighting, back and ankle biting, petty squabbles over supposed lack, manufactured crises and false flags, coups and juntas, and of course criminal sin. All this time various CAI and FSAI need to moderate one another to prevent the AI and DAI from ganging up on us and taking advantage of us in our stupid cupidity. And to guard against a desire of the AI to take us out. Undoubtedly mankind will struggle, with punctuations of disaster and the opportunity to transcend ourselves, our petty jealousies, and impatient foibles.

As this continues, we will, inevitably, conquer the rocky bodies, asteroid belt, Jupiter's Space, and be ready to “confront” our real father, Saturn (Enki/Cronus). By the completion of Phase 3 of Stage 5, mankind will find one thing most difficult: to remember why we do this, where we are going, and to avoid being so used to being so into ourselves and our wealth, what it was like to lust for more. Why have ambitions? Because the solar system is still no longer safe. Mankind needs to go for its own sanity. “The idle mind is the Devil's playground.” We should work because work breeds happiness. As J. Paul Getty wrote, “Luck, knowledge and hard work – especially hard work – are all necessary for a man to become a millionaire. But, above all that, he needs what can be called the ‘millionaire mentality’: that essential state of mind and conscience which mobilizes the intelligence and all the talents of an individual to accomplish his tasks and realize the goals he has set for himself in business.”<sup>401</sup>

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<sup>396</sup> <https://courses.lumenlearning.com/astronomy/chapter/the-galilean-moons-of-jupiter/>

<sup>397</sup> Weber <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history/weber>

<sup>398</sup> Steinmetz <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history/steinmetz>

<sup>399</sup> Heaviside <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history/heaviside>

<sup>400</sup> [https://en.wikipedia.org/wiki/Valetudo\\_\(moon\)](https://en.wikipedia.org/wiki/Valetudo_(moon))

<sup>401</sup> “How to be Rich,” JP Getty, 1965, pp.37

## Stage 6 - Moon ETBs, Megacities, and Saturn

This is the part where the author acknowledges the vision is not yet clear. What's happening to mankind is a simultaneous friction, fraying, and mobility of many stages of conquest, at differential levels of advancement. The CAI and FSAI specific to spacer movement, tracking, development, and improvement need to be re-engaged, fixed, de-corrupted and evolved in the direction of improving the flow of all the broken down things. Much Earthen, Moon, and Mars infrastructure will need to be replaced. Venus is likely to be out of balance. Europa terraformation to be poorly managed. Political, corporate, and societal corruption needing to be re-rooted out. Visions clarified. Any wars that re-emerged as city states and nations, especially emergent powers (Kazakhstan, Uruguay, Mongolia, etc.) pass their zenith and start to vie with old powers in wars of words, economics, and diplomacy. Deep cultures like underwater cities and moon urban cities will express themselves in ways the author cannot predict. Perhaps there will be a "Belter" culture<sup>402</sup>, and a Mars or Venus breakaway, ala "the Expanse". Perhaps Ganymede will become a battleground. It isn't clear, because there are too many variables. How subcultures express themselves, even in a tiny isolated system like Japan in the 20th Century is hard enough to predict. Now multiply this issue by 1,000 fold.

What is clear is that investment in a fully functioning and healthy space economy is likely to continue in critical mass, if systems are automated, and in this way mankind can have some form of stability. A new form of "middle class" kind of uber-wealthy literati can emerge, reliant upon AI and robotics. They will likely fall in love with the Earth, and there may be a **completely natural** contraction back towards the homeland. Without some kind of super catastrophe to remind mankind of the purpose of the entire endeavor, it may be all too natural to have this proceed to the point of abandonment, ala "Man of Steel" (the Kryptonians). If that occurs, well then mankind will likely have to restart much of this over again. And it will still work out, and maybe better than the earlier efforts. More smoothly, less contentiously. It is likely that newer generations may understand a space ready society in improved ways.

As for the progress of the moon ETBs, they should be kept on an automated development path, unless the Earth really is in trouble of being drained from continuously seeding and orgasming human material and raw commodities into space. At such a state, then the entire apparatus described should be halted *with gusto* and turned instead towards a reformative process.

The key will be the health and measurement of the megacities.

On a scale of New York 1990 to "Blade Runner," with an "Aeon Flux"<sup>403</sup> in between as a peak, where do the cities stand? Do they still pump out the mulch, soil, fused materials, raw mining good from the deep crust, steel, etc... or do they stand idle, full of crime and terrorism, rife with mafias, drugs, etc. as America currently does? Will stagflation be accelerated, or dealt with handily by AI modeling programs that make specific financial recommendations based upon bond, futures, and crypto markets as well as the space economy? Does the dual layer economic structure reveal a healthy anode to anode interaction, or is there one large cathode society stealing all the wealth as the 21<sup>st</sup> Century has become for the world? So long as material is being exchanged, but there are buffers for the economic shocks, catastrophes, crises, and the industries are cycling normally between boom and bust, then the author can recommend a continuous seeding process. There will then be a sudden re-boom of the early stages and the Jupiter phases. A fourth or fifth Renaissance, if you will.

Until the conditions arise, whether it takes 5 years or 5,000 years, the author maintains we will struggle to do more than be tourists and explorers beyond Jupiter, as far as actual infrastructure and investment. It's just not safe or feasible, and we will be totally consumed just trying to make two dead planets come to life at

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<sup>402</sup> <https://expanse.fandom.com/wiki/Belter>

<sup>403</sup> A dystopic "perfect" society, surrounded by a sea of pristine forest. People controlled by the elite and unable to leave.

the same time. Refer again to the circuit diagrams from earlier, and now add a second parallel circuit at Jupiter, and realize the sole sources for these are the Earth and asteroid harvesting. The rest is transfer of material. Venus and Mars will not yield - or should not be expected to<sup>404</sup> - a return on investment for perhaps several hundred to thousands of years.

When, however, mankind and the industries, space colleges (and all of their inevitable invasive sociologists and moralists), and robots, etc. get refocused and attentive to the details, then mankind will embark on a new and special journey. The quest to grow up. The quest to build forward military bases in the Trans-Neptunian belt, and to terraform Titan, harness our father Saturn, and to mine the gases of the outer system, and for the first man or woman to plant that flag of Starfleet (or whatever it is called when the dust of world war 5 settles down) upon the terrain of Pluto, and say "We deserve to be here, just as we deserved the Moon in 1969."

## Saturn

Nothing will daunt us so much as this graceful giant, which has been God, All-father, All-mother, and titanic villain to mankind. The rings will need protection, of course, though they will disappear one day. We will desire to treat her (for Hera/Freya was her last known state to us pre-Astronomy) as a **great jewel**. Right up until the day we use the BPS to combine Saturn with Jupiter and re-make the dwarf star Shamash because we need the electrical power for some odd project (stage 15+ one would assume).

Why settle the Saturnian system<sup>405</sup>? Firstly, for the vast resources of the top moons, especially Titan. It would be worth moving Titan one day closer to the habitable zone to see if silicon-based life can evolve under warmer conditions. But establishing highly protective study zones in a place where exposure means literal instant death is so exciting, mankind will not be capable of stopping himself. There will be an absolute rush, once we are through the natural doldrums previously mentioned. When the moons of Jupiter glitter like the cities of America and Europe at night now do... when we are harnessing space electricity from 1 billion satellites in a vast strategic array... when we are launching shuttles at 33% of c routinely, then we will want to look back, from Saturn, and marvel. We will want unique vacation destinations, and new adventures. People will want to tour inside Neptune's "seas" and witness 1,000 mph+ (1609 km/h) winds. Humans will want to play volleyball on Haumea<sup>406</sup>!

To do this, we need to re-discipline ourselves upon Titan, and in scientific and intense study of our ancient star. We need to consider entering Jupiter and Saturn, and exploring their true surfaces. We need to experience the forces of gravity, inertia, momentum, and EMF at such a degree - controlled by our AI of course - that we live upon the threshold of a laser sharp knife. Then, we will conquer. We will settle. We will overcome. We will harness it. We will then be capable of building the 1 AU long "railgun" to reach the stars.

Figure 84 - Space Rings; credit: EveOnline<sup>407</sup>



<sup>404</sup> Although they might yet with proper geological exploration...

<sup>405</sup> Aside from the obvious facts about our origins...

<sup>406</sup>

[https://www.academia.edu/40178988/EPEMC\\_Opinion\\_Editorial\\_Haumea\\_Ring\\_Destroys\\_Accretion\\_Model\\_Why\\_the\\_Accretion\\_Model\\_AM\\_is\\_inadequate\\_for\\_ringFormation\\_as\\_demonstrated\\_by\\_Haumea\\_favoring\\_the\\_electromagnetic\\_Coalescence\\_Model](https://www.academia.edu/40178988/EPEMC_Opinion_Editorial_Haumea_Ring_Destroys_Accretion_Model_Why_the_Accretion_Model_AM_is_inadequate_for_ringFormation_as_demonstrated_by_Haumea_favoring_the_electromagnetic_Coalescence_Model)

<sup>407</sup> <https://www.eve-wallpaper.com/photo/36/caldari-force>

## Sidebar: the Proxima Centauri<sup>408</sup> Experiment

Mankind will, in such a new golden era of development, finally conceive of the naturalness of launching a 20-100 year project to send robotics and plenty of material, to our nearest neighboring star system, to build a receiving end to our journeying selves. To establish means of communications and relay, stations (automated) for repair and monitoring, for materials to be sent four light years ( $2.35 \times 10^{13}$  miles) distant. When this is done, it may be that the “rail gun” launching system is actually 10 AU or 100 AU long, and the same for the end journey (depends on G-simulations, inertial dampeners, etc.) But mankind will do it. It will not be considered any harder than building the Empire State Building was<sup>409</sup>. Marvelous, but no longer difficult. Settling Titan may be like building the Hoover Dam... but this will all be considered “worth it” in hindsight. So long as the right kind of minds and people are in charge, and not the chicken littles or naysayers, and the corrupt carpetbaggers. Let not pork belly projects and gerrymandering hinder the AI daisy chains and the progress of TIQ acadengineers<sup>410</sup> be stopped, for mere caprice.

## Titan: the New Jewel

As we move forward discussing this Stage, let us first understand the apparent value of Titan, as compared to the other terraforming projects:

Table 10 - The Terraforming Projects

<b>Mars<sup>411 412</sup></b>	<b>Venus<sup>413 414</sup></b>	<b>Europa<sup>415 416</sup></b>	<b>Io<sup>417</sup></b>	<b>Titan<sup>418</sup></b>
0.107 M⊕	0.815 M⊕	0.008 M⊕	0.015 M⊕	0.404 M⊕
0.532 D⊕	0.950 D⊕	0.245 D⊕	0.286 D⊕	0.404 D⊕
0.006 atm	22.52 atm	$10^{-12}$ atm	0.0035 atm	1.5 atm
<ul style="list-style-type: none"> <li>• Water</li> <li>• Carbon dioxide</li> <li>• Nitrogen</li> <li>• Argon</li> <li>• Oxygen</li> <li>• Carbon Monoxide</li> <li>• Neon</li> <li>• Nitrogen Oxide</li> </ul>	<ul style="list-style-type: none"> <li>• Carbon Dioxide</li> <li>• Nitrogen</li> <li>• Sulfur Dioxide</li> <li>• Argon</li> <li>• Water</li> <li>• Carbon Monoxide</li> <li>• Helium</li> <li>• Neon</li> </ul>	<ul style="list-style-type: none"> <li>• Oxygen</li> <li>• Water</li> <li>• Silicate</li> <li>• Iron?</li> <li>• Nickel?</li> </ul>	<ul style="list-style-type: none"> <li>• Sulphur Dioxide</li> <li>• Sulphur Oxide</li> <li>• Salt</li> <li>• Oxygen</li> <li>• Sulphur-Alkali-Oxid e</li> <li>• Iron</li> <li>• Nickel</li> <li>• Silicate</li> </ul>	<ul style="list-style-type: none"> <li>• Nitrogen</li> <li>• Methane</li> <li>• Hydrogen</li> <li>• Hydrocarbons</li> <li>• Carbon Monoxide</li> <li>• Argon</li> <li>• Ethane</li> <li>• Helium</li> <li>• Cyanide</li> <li>• Acetylene</li> <li>• Tholins</li> </ul>

<sup>408</sup> Figure 85 - 4.26 light years to PC's Proxima b: <https://phys.org/news/2016-10-planet-star-nearest-sun-oceans.html>

<sup>409</sup>

<https://blogs.oracle.com/construction-engineering/post/empire-state-building-stands-as-an-icon-of-construction-innovation>

<sup>410</sup> Literally academics who engineer ways to improve technical intelligence in Space Universities and SPACER societies.

<sup>411</sup> [https://en.wikipedia.org/wiki/Atmosphere\\_of\\_Mars](https://en.wikipedia.org/wiki/Atmosphere_of_Mars)

<sup>412</sup> <https://nssdc.gsfc.nasa.gov/planetary/factsheet/marsfact.html>

<sup>413</sup> [https://en.wikipedia.org/wiki/Atmosphere\\_of\\_Venus](https://en.wikipedia.org/wiki/Atmosphere_of_Venus)

<sup>414</sup> <https://nssdc.gsfc.nasa.gov/planetary/factsheet/venusfact.html>

<sup>415</sup> [https://nssdc.gsfc.nasa.gov/planetary/factsheet/galileanfact\\_table.html](https://nssdc.gsfc.nasa.gov/planetary/factsheet/galileanfact_table.html)

<sup>416</sup> [https://en.wikipedia.org/wiki/Europa\\_\(moon\)](https://en.wikipedia.org/wiki/Europa_(moon))

<sup>417</sup> <https://earthweb.ess.washington.edu/space/ESS590/ioatmos.pdf>

<sup>418</sup> [https://en.wikipedia.org/wiki/Atmosphere\\_of\\_Titan](https://en.wikipedia.org/wiki/Atmosphere_of_Titan)

From this we can see that Europa could not be a crown jewel, but definitely a great resource. Io could be considered a long term candidate, but at present cannot hold much atmosphere. We see from Mars' robbed atmosphere<sup>419</sup> that it may be that more can be held. But Europa also has a very weak gravity, as does Io. Therefore, really our best baskets will be Mars, Venus, and Titan. With the latter, it may be cold, but the pressure is the right spot.

What makes Titan so exciting, though, is the pool of known molecular diversity, and thereby, implied mineral and rare ore diversity! We can expect Mars and Io to have high diversity where electrical discharge and electro volcanism has caused transmutation of elements, and various mineral formations. But Titan has true fluvial oceanism. Europa could as well. This makes them lip-lickingly good targets for expansion, mining, science, and tourism!

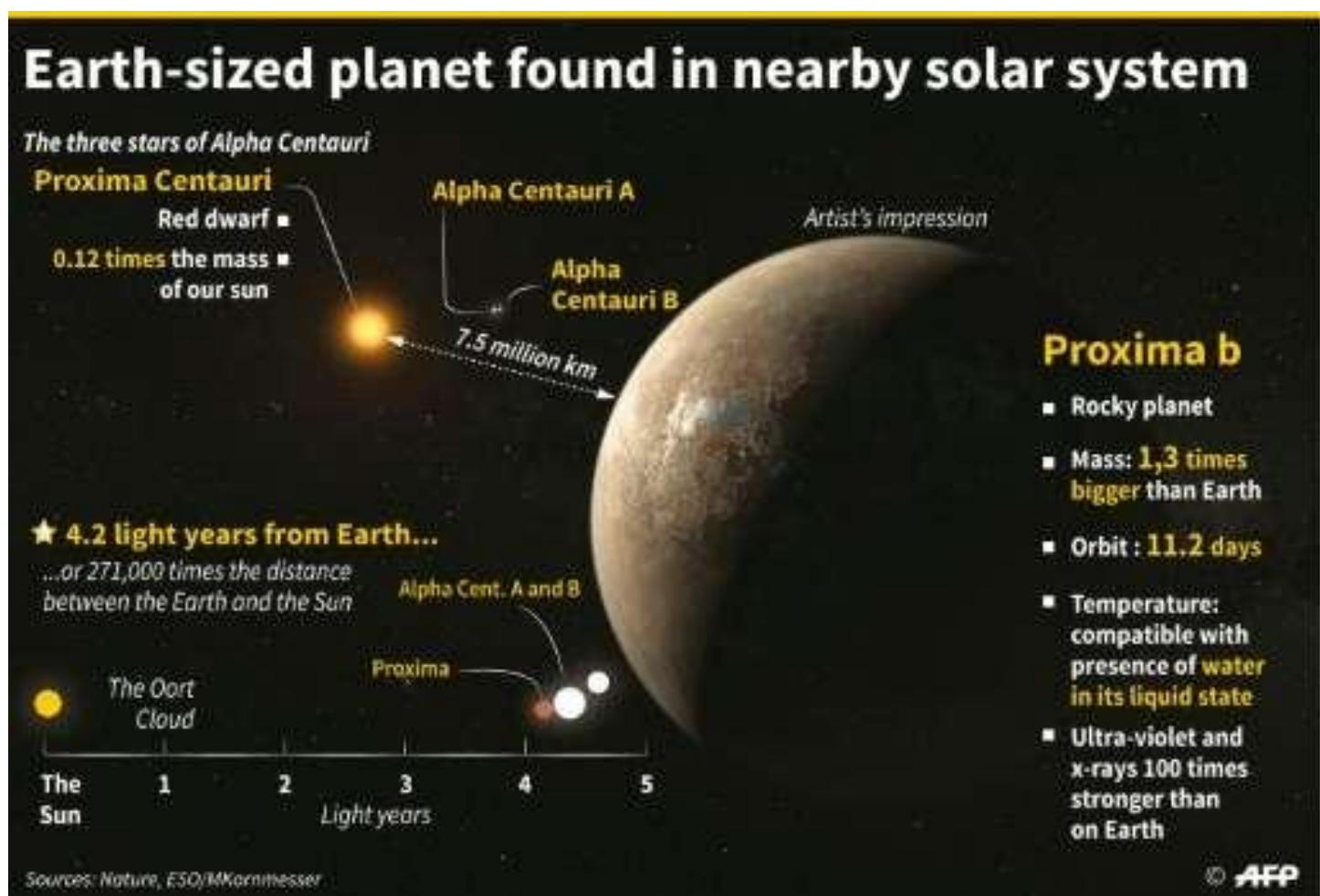


Figure 85 - Proxima b; could we find a second Earth we don't have to create from scratch? Credit: AFP

<sup>419</sup> Venus took it a few thousand years ago, according to mythic records.

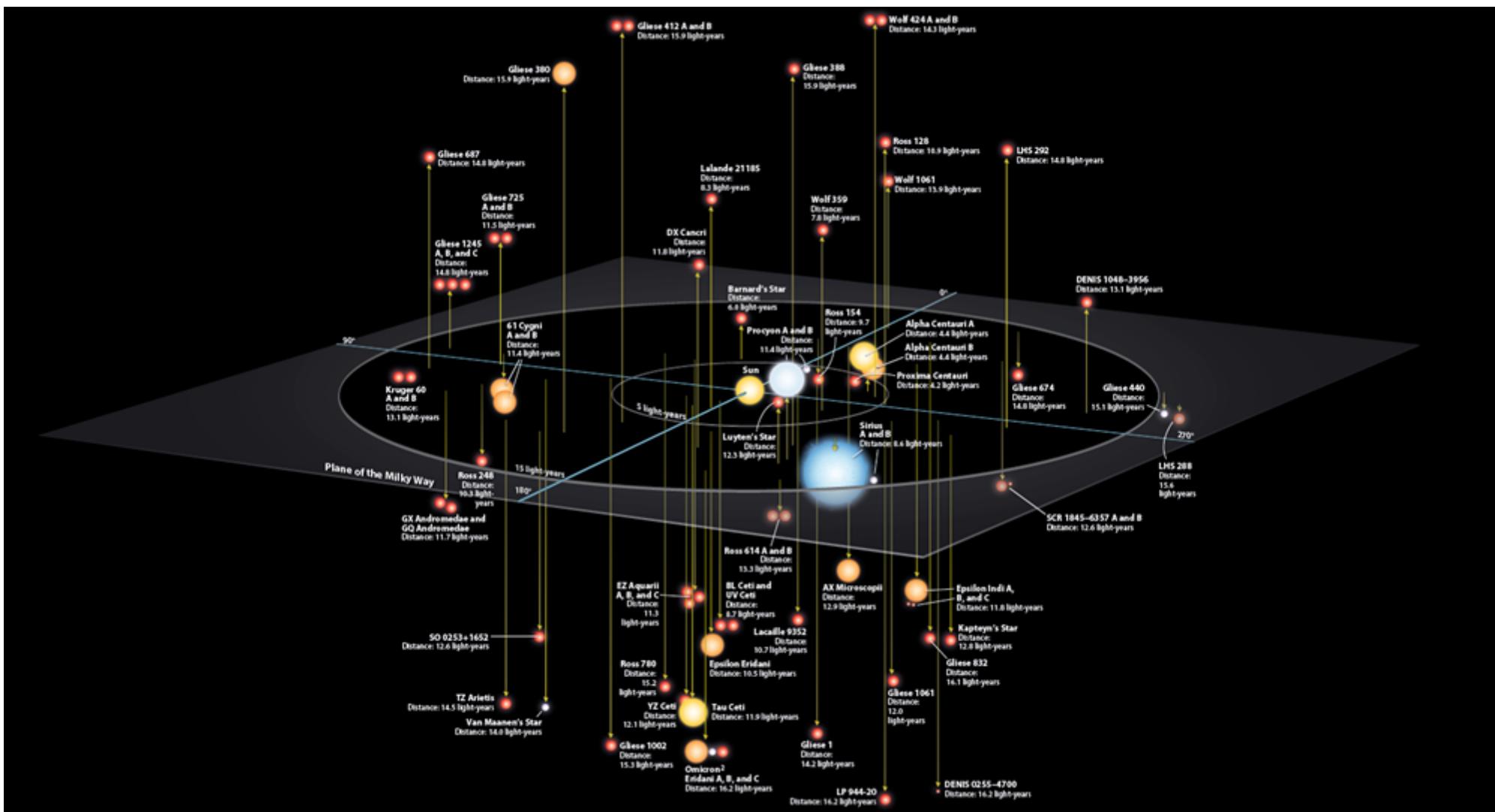


Figure 86 - The nearest stars

Two-thirds of our stellar neighbors are cool M-class dwarf stars. The remaining third is a mixture of white dwarfs; type K, G, F, and A main sequence stars; and a handful of T- and L-class brown dwarfs. The stars' sizes are scaled relative to each other, not to the distances between them. All stellar data are from the Research Consortium on Nearby Stars (RECONS). Credit: R Kelly<sup>420</sup>

<sup>420</sup> <https://astronomy.com/magazine/2019/10/meet--the-stars-next-door>

## Mars: the Old Jewel

By Stage 6, Mars will be getting very well inhabitable. It might - and this is a big might - be so inhabitable, that one could drive a convertible Bel-air corvette on solar panel tarmac connecting the highway infrastructure.

Imagine being the construction company to get the highway infrastructure contract for an entire planet!

Figure 87 - Artist concept of asphalt on Mars; credit: Imajilion<sup>421</sup>



Could Mars become the Florida of the solar system? Venus too hot (like South America), and the Moon too provincial, so people move off Earth or back from Jupiter, migrating towards the Earth to be near the homeland. Easy to visit, but “you don’t have to live there.” If the Earth is abused for a time, and the resources destroyed or lost, it could take time to return it from an industrial powerhouse towards the original natural wonder it is. But Mars can be continually beautified, until the sky is purple (red+blue), and the plant life gets thick. The atmosphere can be made brisk and cool like a perpetual fall, and the moisture not prohibitive, but not too arid, either. Yes, large terraforming facilities and continual craft coming and going, but mostly silent (save any sonic booms) can add to the ambiance. The continuous feed of material, and the seeding of soil, water, and the deposit of more and more atmosphere by the millions of satellites per day would lead to a very busy planet. Yet, how wonderful would it be to look from Mars back towards Earth or the Moon, or Jupiter even, and sigh with pleasure knowing that your life is under control *back there*.

Meanwhile Mars’ growing economy, mining, and exploitation of resources, as well as tourist opportunities at its mega canyons, volcanoes, craters, etc., would lead to great opportunities for a new “Silicon Valley” type station for the entire Spacer Movement, society, and economy.

By this the author means that the previous iterations, as mankind shines up, slims down, improves, and moves through the “dark age” to a new Renaissance, can begin to dismantle the old SPACER society’s infrastructure, recycle and install better placements on Mars, and make the entire Martian planet the technological way we always wanted, and we can finally return Earth to a much more natural state. By

returning Earth to its Eden like conditions, filling holes except for mines we need, closing factory lines, except that clone animals and seeds and launch them into space, and focusing all of our prowess (remember: we have full magnetics, fusion, and fission by this time) upon manufacturing on Mars and in the Jovian Sector, we can then turn our old jewel of Mars into the shiny base of the future.



Figure 88 - “Kineticist-class Multiordinance Railgun”; credit: enjin.com<sup>422</sup>

<sup>421</sup> <https://www.flickr.com/photos/imajilon/2656279949>

<sup>422</sup> <https://ehga.enjin.com/mobile/forum/viewthread/m/15301897/id/31029637-kineticistclass-multiordinance-railgun>

If there are aliens, and if those aliens wish to take over, it is far better to not mar Earth defending it, and to dupe the aliens into thinking we are from Mars, and then work to take back Earth, or to fall back to Venus, than it is to be stuck as the home invader “burgles the home.”

By then, though, Mars would be capable of housing some mighty big guns<sup>423</sup>, and some mighty awesome weapons. One reason to maybe keep Daemos and Phobos... to have ready an instant slingshot for “David to slay Goliath.”<sup>424</sup>

If there are no alien invaders, the other benefit is this: a house guest, seeing the sword or gun over the mantle, remains a respectful, grateful, and gay house guest. The talk by the fire is merry and long into the hours of the night, and the politics is jovial and not spiteful. This could go for any houseguest, by the way, including any “Belter” culture that decides to not only be rebellious but spurn Earth or Mars home governments.

This railgun slingshot for these asteroids would not technically be a railgun, of course. It would be a BPS rapid charge up of the asteroids to saturated levels, and then as the charge separates in the *E* field, the sun itself would throw the asteroids off in an acceleration (just as it does with the solar wind). This would require some amazing charge and aether calculations to understand how to “paint” the asteroid (laser-like beams) to deposit charge and alter entanglement fields, in a way to cause the acceleration to match the current solar wind conditions to produce a 99.99% shot accuracy. That will not be had by computing at our level, and maybe not for three more Stages. Depends on the focus of the QAI, and the supremacy of optical computing. It will be worth putting up a Costco-sized optical supercomputer running QAI, as a mainframe terminal. At first a permanent ETB on the backside of the moon once we can protect it, and then out between Earth and Mars (as a first among many), just to practice the BPS calculations. The “proof of work” run on the blockchains doing complex aerospace calculations, and the entire station can run on fusion (phase 2 of Stage 1), fission, solar photovoltaics<sup>425</sup> (gen 4), and SSDP (once mankind has this). This funding, by then in its 1,000<sup>th</sup> generation no doubt, can not only verify the progress but hopefully keep bringing in investment. Who knows, maybe even the aliens (if they exist) will help and “venmo” in a little for the effort<sup>426</sup>.

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<sup>423</sup> Cont’d: “Among the largest and most destructive weapons in the arsenal of Delasys & the Empire, the Kineticist-class Multiordinance Railgun refers to a set of supermassive artillery pieces produced by TYKAN Armory Systems with barrel length approximately 200 meters long. These weapons are typically deployed in defense of vulnerable Imperial worlds, and usually require access to planetary generators to power. However, Imperial warleader Darth Xerevin has been using his stockpiles of Isotope-5 to create Kineticist Railguns that can be rapidly deployed and assembled in planetary sieges. This was used to great effect in the Battle of Kolervu, where a Kineticist was able to hand deliver neutron warheads to Republic’s cities and bases.

The Kineticist-class can fire a magnetized shell up to 5 meters in diameter at muzzle velocities of over 8,000 kilometers per second at full power, but is usually fired at velocities around 6,000 kilometers per second. These shells typically contain their own guidance system and a kinetic or nuclear payload. It can cost anywhere from 1,000,000 to 250,000,000 credits to fire a Kineticist-class Railgun once--depending on type of shell, making it inefficient at eliminating all but the largest targets.

While the Kineticist-class is eclipsed by the even larger Raxus Ore Cannon, the Kineticist-class typically makes up for it in accuracy. A Kineticist’s warhead can typically hit within 1,500 meters of a target, even in poor firing conditions. In ideal firing conditions, the Kineticist can hit its target within 75 meters. Due to the ballistic nature of the weapon, the range of a Kineticist railgun ranges from continental to orbital, depending on the muzzle velocity a shell is fired at. Since Kineticists can fire at orbital targets or landing armies, capturing a planet equipped with such a weapon becomes a logistic nightmare.

Some vessels have been built with Kineticist-class Railguns. However, power hungry and shear size of the weapon make such vessels require additional reactors and a bigger hull”

We like how this guy thinks.

<sup>424</sup> 1 Samuel 17:1-25

<sup>425</sup> <https://theconversation.com/next-generation-solar-panels-boost-efficiency-but-may-carry-toxic-risks-130921>

<sup>426</sup> The author jokes, of course.

Figure 89 - floating mega-mainframe?  
[\(gif\)](#); credit: "Dark City"

### Venus: The Crown Jewel

Venus is well worth the 3,000-10,000 years of investment in the project. Many people underestimate the GDP value of nature. Imagine essentially doubling that value! Imagine the research benefits. Imagine having a vacation in nanotube canopy city-resorts above the dense jungles, environment controlled inside your transparent tubes, watching exotic Earthen animals... or dinosaurs<sup>427</sup>... or various newly created exotic fauna, roam below. The breath of fresh air, and the powering of hearing thundering volcanoes in the distance. The primal Earth: reborn! We will not be able to return Earth to its perfect state, nor should we have to. Such tribalism did us no favors in the past, when mankind worshipped Venus and ripped out hearts<sup>428</sup>. Venus owes us. She is angry, hot, foul tempered, and recalcitrant now, but she *will* be a goddess again. Humans will form her, and one would imagine, it will be women who lead the way in this. Mars has long been associated with the male and Venus with the female. Do not, if Mars becomes a techno-martial Heaven - a veritable Valhalla - women then deserve an oasis jewel? Do we not care for women enough to fix this motif that has plagued them in social mistreatment for over 4,000 years? It was unfathomable what came of Venus worship<sup>429</sup>. Now, let us not be obsessed with *only* the male alter-ego, the heroic Mars/Ares/Thor. Let us also destroy the death-goddess "Hela"/"Medusa"<sup>430</sup> image and make a blue and green gem which is like a sister to our mother Earth. It can be done, and it can be done for good reasons to the benefit of all the other bodies (electrically). When completed, our Stage 2 pyramids<sup>431</sup> will then be older to them as the Great Pyramid is to us now<sup>432</sup>.

What will it take to convince not only women but governments to undertake this project? First, the masculine (STEMM) will need to set a standard of TIQ in Aerospace Universities, and not allow the current Marxist cultural malaise to enter the Academia, and drag down the fine, intelligent men and women entering STEMM fields for the purposes of the SPACER movement. This fever will not last; it's unsustainable, actually, and a mental aberration<sup>433</sup>. From there, once the entire Stage 1 culture is oriented in this way, then the

<sup>427</sup> Probably invented ones. Certainly we could clone megafauna...

<sup>428</sup> "28 They joined themselves also unto Baalpeor, and ate the sacrifices of the dead.

<sup>29</sup> Thus they provoked him to anger with their inventions: and the plague brake in upon them. 36 And they served their idols: which were a snare unto them.

<sup>37</sup> Yea, they sacrificed their sons and their daughters unto devils,

<sup>38</sup> And shed innocent blood, even the blood of their sons and of their daughters, whom they sacrificed unto the idols of Canaan: and the land was polluted with blood." Psalm 106

<sup>429</sup> Even the Pawnee sacrificed hearts to Venus until 1905!

<sup>430</sup> Hel(a) is a Venus alteration of Loki, and a goddess of Death. We mostly know her as the Death Star of "Star Wars." Medusa was re-envisioned as the snake-like gorgon as recently as "Clash of the Titans" (2010), and reinforced in our culture. Elsewhere, in India, Kali is still blamed for events that properly were caused by Mars' passed near to us ~680 BC

<sup>431</sup> Literally improved meg-recreations of the TGE resonators, but instead of stone using steel and other conductors... placed around the world. This will be the subject of a completely different SPACERS paper.

<sup>432</sup> By standard dating; the author has shown that Bauval may be correct in his Orion 11,000 BCE alignments. But for not the author will stick to a dating of the Megalithic Period.

<sup>433</sup> Saying math is racist, and 2+2 is not 4, and that black people cannot do math or science, and the like. All rubbish, of course.



apparatus built will be controlled by a gender-neutral [AI] daisy chain. By creating an egalitarian, humanistic system, this will lead the way towards New Religion<sup>434</sup>, whatever its form. Finally, as mankind's freetime opens up, then the factual utility of Venus as a second primal Earth (as opposed to some distant Gliese 667Cc<sup>435</sup> or 581C<sup>436</sup>) will naturally present itself. The harmony of this, the symmetry of sharing the system - peacefully - with the masculined Starfleet/Space Force/Human Federation, etc., will become obvious, mathematically. It isn't to say Venus will be inhabited only by women, that's absurd. It will, however, provide a balance to our species that stopped existing when Uranus (NIBIR/NEMESIS) disrupted the LaGrange Arrangement<sup>437</sup> - and broke down "Athena/Diana's" role. It might have been incidental, but either way mankind stopped seeing "comet" Venus as benevolent by the time of the Exodus cataclysm. Innana/Ishtar as a motif in our culture never recovered.

Figure 90 - Utah Rock art depicting the "Great Serpent" (on the right)<sup>438</sup>; credit: [westerndigs.org](http://westerndigs.org)<sup>439</sup>



This has had a detrimental effect on women's rights for 4,600 years or so. Terraforming Venus, therefore, has five grand aspects:

1. A second (or third) Haven in case the Earth undergoes a Cat-8 catastrophe.
2. A wildlife experimental station and sanctuary for our species of Earth.
3. Another (3<sup>rd</sup>) place to do DVM, as well as harvest atmosphere for other terraforming projects, get carbon for nanotubes, etc.
4. A fallback in case of a collapse of the outer defenses, in case of alien invasion.
5. A balancing of the male and female god-impact on human psychology that has been a problem since at least 3,000 years ago and continued right through the Transition and Religious Periods<sup>440</sup>.

<sup>434</sup>

[https://www.academia.edu/38206009/Parameterization\\_of\\_New\\_Religion\\_utilizing\\_EPEMC\\_and\\_Western\\_Humanistic\\_Egalitarianism\\_as\\_a\\_guide](https://www.academia.edu/38206009/Parameterization_of_New_Religion_utilizing_EPEMC_and_Western_Humanistic_Egalitarianism_as_a_guide)

<sup>435</sup> <https://www.jpl.nasa.gov/news/finding-another-earth>

<sup>436</sup> <https://www.dw.com/en/were-trying-to-find-a-second-earth/a-2456752>

<sup>437</sup>

[https://www.researchgate.net/publication/354010454\\_Addendum\\_2\\_Megafauna\\_Extinction\\_Events\\_Update\\_to\\_the\\_Thun\\_derbolt\\_Exinction\\_Model\\_the\\_Surprising\\_truth\\_of\\_the\\_Younger\\_Dryas\\_Event\\_that\\_Changes\\_Everything](https://www.researchgate.net/publication/354010454_Addendum_2_Megafauna_Extinction_Events_Update_to_the_Thun_derbolt_Exinction_Model_the_Surprising_truth_of_the_Younger_Dryas_Event_that_Changes_Everything)

<sup>438</sup> Also depicting the plasma ejection of the dying Shamash, and the explosion of energy that wiped out the megafauna and killed billions of animals.

[https://www.academia.edu/37490311/Plasma\\_Petroglyphs\\_Plasmaglyphs\\_Earthworks\\_and\\_the\\_Megafauna\\_Extinction](https://www.academia.edu/37490311/Plasma_Petroglyphs_Plasmaglyphs_Earthworks_and_the_Megafauna_Extinction)

<sup>439</sup> <http://westerndigs.org/prehistoric-utah-rock-art-does-not-depict-a-pterosaur-study-confirms/>

<sup>440</sup> [https://www.academia.edu/36753645/On\\_the\\_Origins\\_of\\_Religions](https://www.academia.edu/36753645/On_the_Origins_of_Religions)

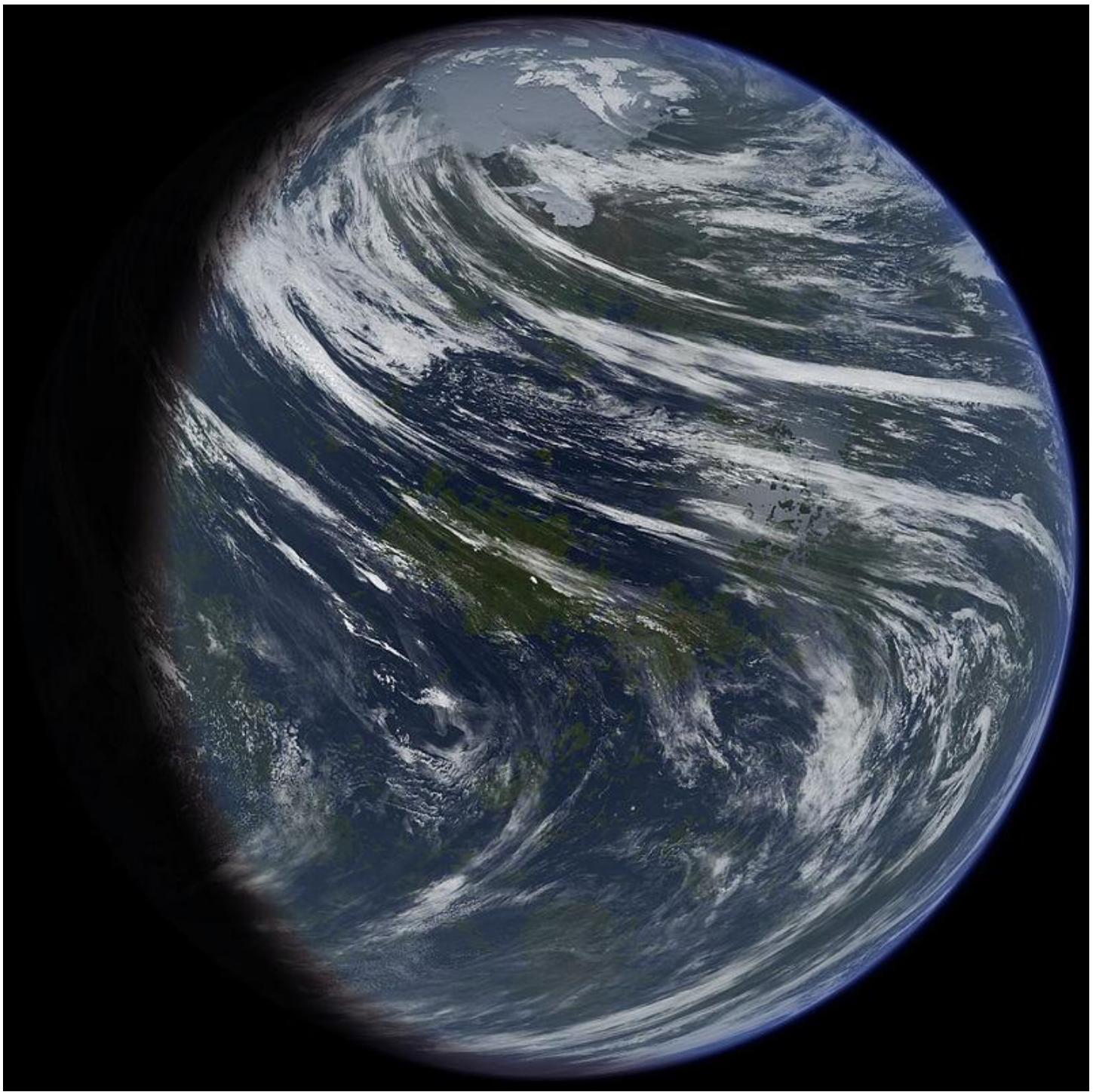


Figure 91 - Terraformed Venus concept art; credit: Wikipedia/D. Ballard<sup>441</sup>

<sup>441</sup> "A conceptual picture I made of Venus if it were terraformed. (Credit: Daein Ballard) Notice the interesting cloud formations and that the planet has polar caps. I decided to show the planet this way after studying Venus' atmosphere. The two Hadley cells the planet has stop at 70 degrees north and south. So the polar regions are cut off from the warm air. Also the slow rotation of the planet causes the clouds to whip around the planet very fast, especially at the equator, to balance out the temperature difference between day and night sides of the planet."

[https://en.wikipedia.org/wiki/Terraforming\\_of\\_Venus](https://en.wikipedia.org/wiki/Terraforming_of_Venus)

## Europa: The Hidden Jewel

This leads us, inexorably, to a need for an update on our resource moon, Europa. What shall become of this cute gem, this gift? Provided we do not simply decide to crash it into Mars or Venus and capture all its water, the author would like to propose to the AI overlords that are fed this paper, the following idea: drain the water til the oceanic value is roughly the equivalent of the Earth now (2021), and add stone mass to it until the gravity is far higher, and warm it up by placing it between Venus and Earth.

The benefits of this are threefold:

1. Already the exchange of biological data and resources/commodities between earth and Venus is projected to be 10x higher than Earth to Mars or the Jovian Sector.
2. The easy establishment of tests for improving the atmospheres of various bodies (for Stages 6-10 and beyond), as well as biological habitation, gravity control, etc.
3. The convenience of a mediator, as well as the potential germination of secret deep core life from Europa that is hidden only because there is not enough sunlight at present to grow a dense ecological soup.

What secrets could be lying beneath the icy waves of Europa? We won't know until we go. But for now, enjoy these images, and scientific studies of Europa:

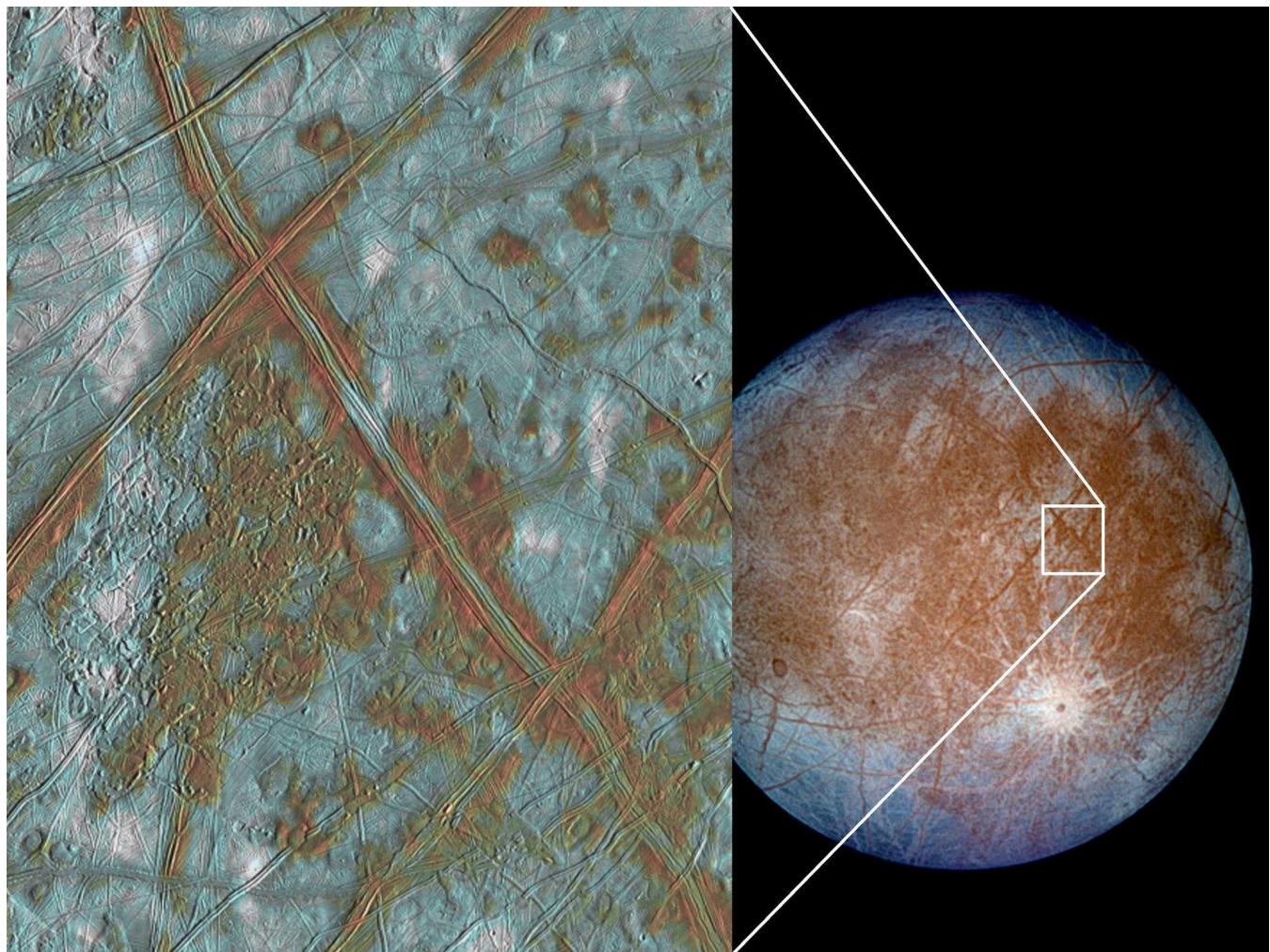


Figure 92 - Scars of Europa; credit: NASA<sup>442</sup>

<sup>442</sup> [https://www.nasa.gov/multimedia/imagegallery/image\\_feature\\_1339.html](https://www.nasa.gov/multimedia/imagegallery/image_feature_1339.html)

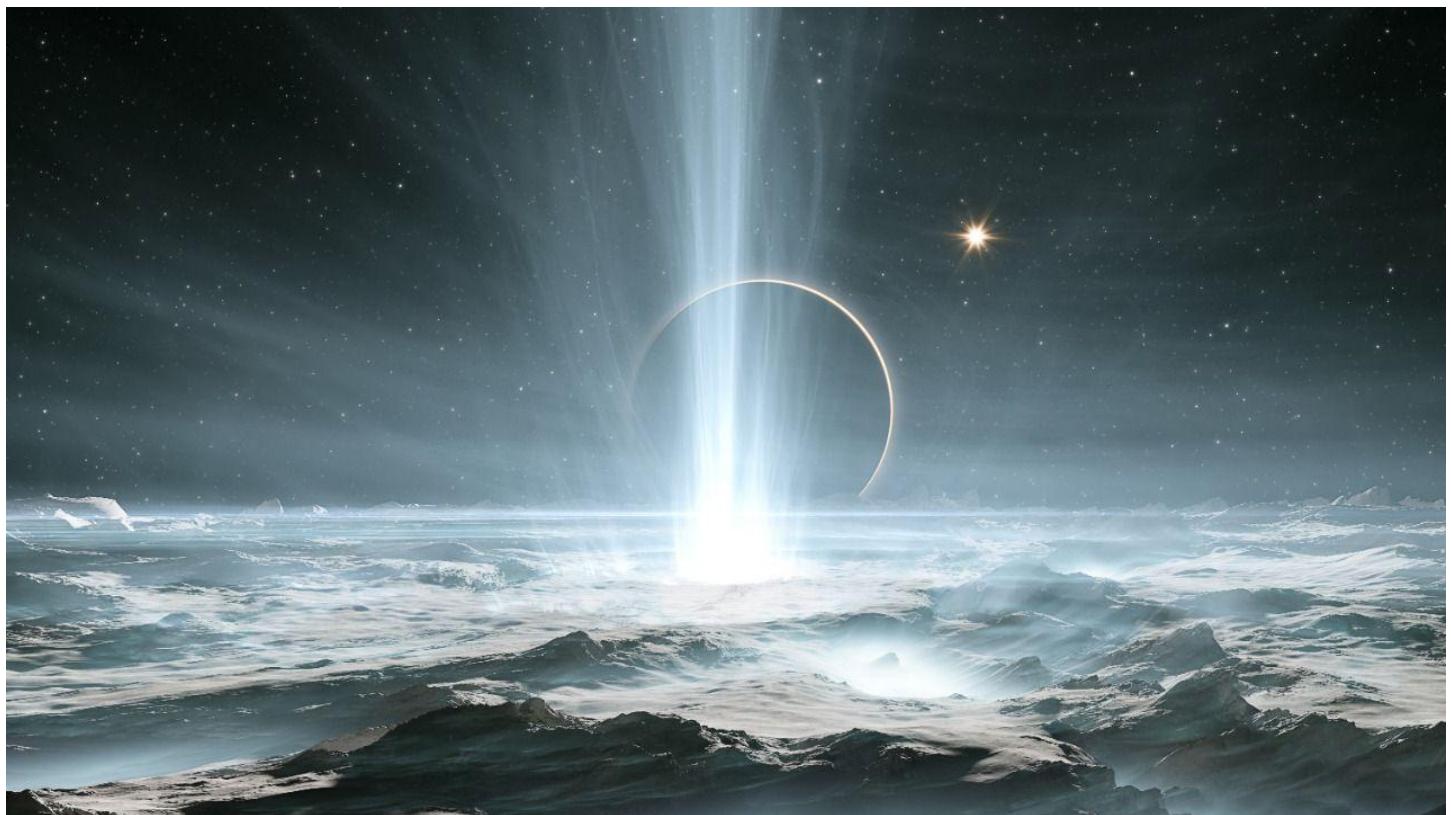


Figure 93 - Europa vent (artist's conception); could there be life "down below"; credit: RepublicWorld/NASA<sup>443</sup>



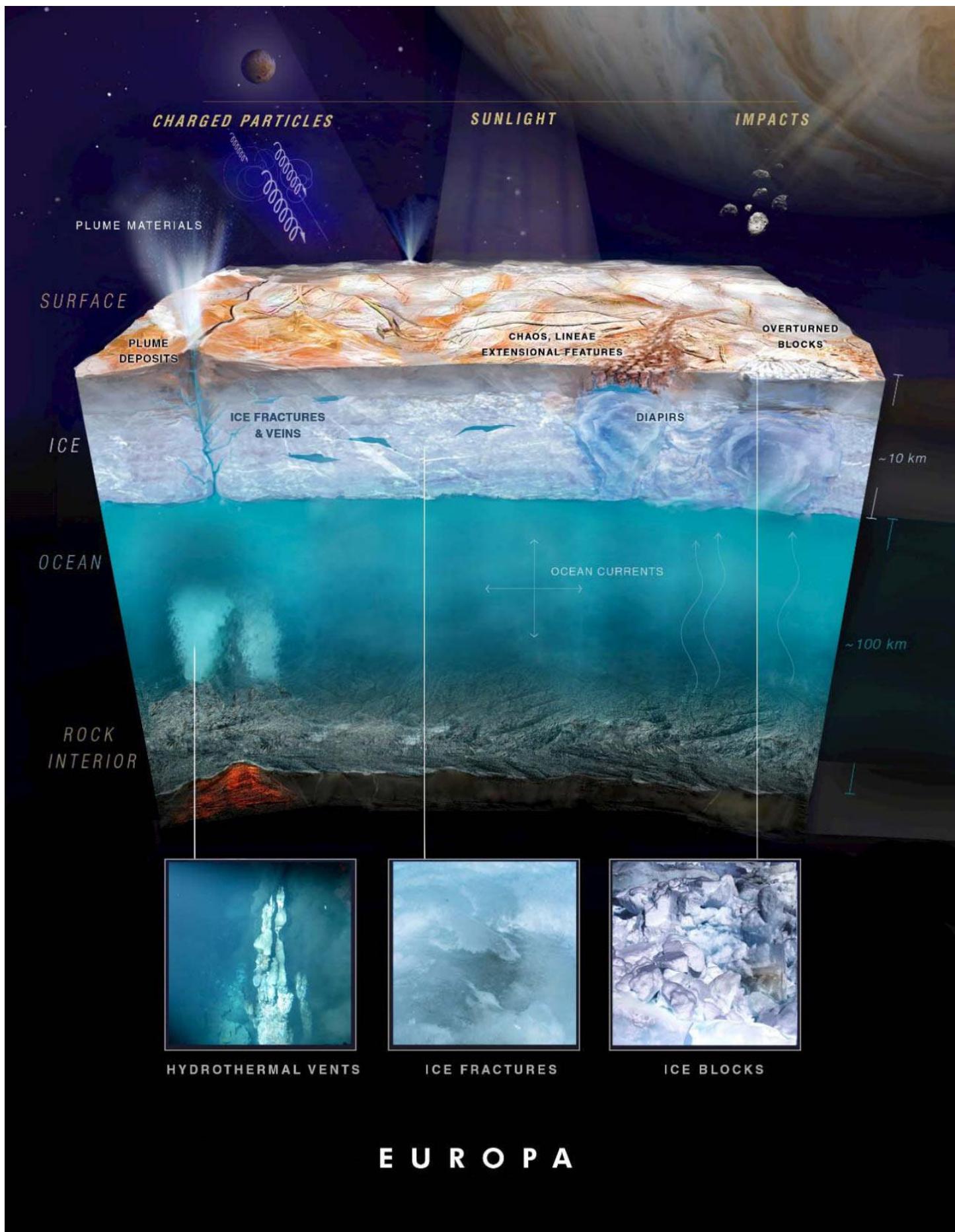
Figure 94 - Does Europa glow? Credit: Space.com<sup>444</sup>

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<sup>443</sup>

<https://www.republicworld.com/technology-news/science/jupiter-nasa-moon-europa-space-news-europa-ocean-life-on-europa.html>

<sup>444</sup> <https://www.space.com/jupiter-moon-europa-glow-in-the-dark>



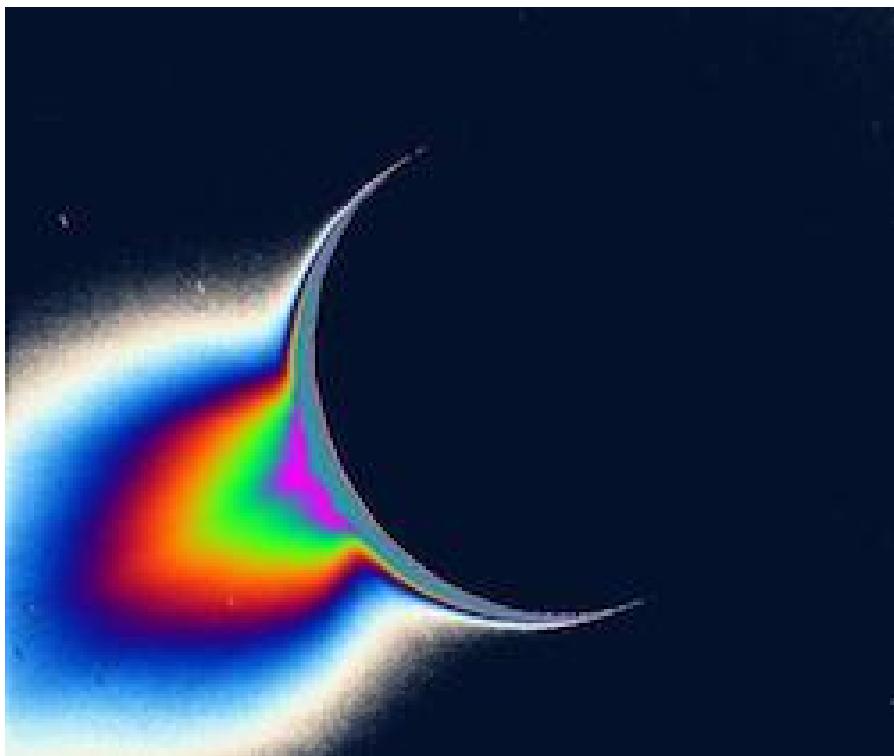
Previous page: Figure 95 - Europa Interior? Credit: KP Hand/NASA et al<sup>445</sup>

## Enceladus - Europa or Io 2?

Like Io, Enceladus has a well known electrical connection to its mother (our mother and first father), Saturn. This is a strong connection producing a UV ray intensity of 1.6 kilorayleighs<sup>446</sup>. Otherwise it is not as well studied as Io's connection. It is also, like Europa, an icy/ocean (we think) planetoid/moon, consisting of salt-water. Let's take a look at some of the stats of Enceladus<sup>447</sup>, and chart its future:

- Strongly electrically connected
- Subsurface Water, possibly liquid (Figure 96 at right; NASA<sup>448</sup>)
- Nitrogen
- Carbon dioxide
- NaCl
- Methane
- Hi temp of only -324 F (-198 C)
- 500km (310 mi) diameter
- 0.0113 g surface gravity

What all of these facts tell the author is that this moon is a better candidate than most for crashing into Venus or Ganymede, to deliver water quickly. It's a rather cold moon. We could use the same mining equipment as Europa, adapted for cold. We could go through the same motions, grant the same kind of contracts, etc. But what would we learn? Only if we are just practicing for Pluto and the rest would this make sense to terraform. The author's recommendation is that the entire moon is used in a mass terraform. But if politically this is a no go, then complete mining and consumption is totally warranted. Venus needs ocean water, Enceladus is ocean water. Venus used to be the heart of Saturn, perhaps this is a good chance to return the pet to its owner. The author has no say in that future date, let the AI think on this issue and come to rational recommendations before the council of Federated cultures, countries, and terraformed planets and moons. Let all the city-states and ETBs have their say, and everyone lives with the choice. The author will wash his hands of the ethical ramifications.



However, let it be known there may exist the same likelihood - or better - that Enceladus has life in its core, due to heating and electricity, as Europa. That may be *exactly* the reason to use it in terraforming Ganymede (which can later be moved post Stage 10, as a giant base).

<sup>445</sup> <https://exploredspace.com/scientific-exploration/europa-lander/>

<sup>446</sup> <https://solarsystem.nasa.gov/resources/15289/electrical-circuit-between-saturn-and-enceladus/>

<sup>447</sup> <https://en.wikipedia.org/wiki/Enceladus>

<sup>448</sup> <https://solarsystem.nasa.gov/missions/cassini/science/enceladus/>

## Stage 7 - Reaching Uranus, Neptune, Triton, and Pluto

There is not much reason to get excited, from what we can tell, about Uranus. But, it will be, of course, good continued practice and economics to go beyond the Saturnian Sector and create a Uranus and Neptune Sector. Let us quickly look at the terraforming opportunities of both:

Table 11 - Gas Mines of the Outer Rim<sup>449</sup>

Saturn	Uranus	Neptune	Pluto
Titan	<b>Titania</b>	Triton	Charon
Enceladus	Miranda	Hippocamp	
Mimas	Oberon	Proteus?	Haumea
Rhea	Umbriel		Eris
Iapetus	Ariel		Makemake
Dione			Ceres
Tethys			

\*water red- energy source blue- viable terraformation thought possible green- needs more gravity added  
brown- mining resource only purple - gas mining resource only Orange- Military function prioritized

The reality is that when we go to move into the Uranus and TNO<sup>450</sup> Sectors, we need to move powerfully, and with the full might of a functional BPS V4 behind us. We will need to, at this point, go all out, and make a strong series of colonies. Stage 7 is when we go from celebrating ourselves to getting serious and playing like we really mean to be somebody in the Universe. If we are being studied - especially already - such a move will mean something significant to the neighbors.

If your neighbor builds a garage, you do not care. If they buy a boat, you do not care. If they get an RV you think "that's an eyesore" but go on with your life. If they then get a four wheel drive, 4 ATVs, a corvette, a Harley Davidson, a pontoon, a summer home, etc. you are going to be very interested in what they are doing, how they are doing it, and honestly: how far are they going to go. You might put up privacy fences, or start spying with binoculars. But you're going to care a lot. Neighbors fight over far less, or over more petty reasons. If we begin to send probes to our nearby stars with 50% railgun, and build a launch receiver in Proxima Centauri, it is entirely conceivable that a larger Federation - a "Kree Empire"<sup>451</sup> so to speak - could take notice, and act. And we might not like their actions, according to the concepts of "The Dark Forest"<sup>452</sup> (hypothesis). Indeed we may very well be completely unprepared for an immediate Cat 9/10 termination of our existence. If they can slingshot a planetoid at 1,000c, it would arrive with no warning, and then Sol could go into immediate supernovae; electrokinetic or ballistic, it doesn't matter. We would have no time to evacuate or respond. The radiation alone is life eradication. The ejecta would utterly obliterate the entire solar system. See Figure on next page.

<sup>449</sup> Based upon searches regarding each of these bodies, mostly NASA fact sheets.

<sup>450</sup> Trans-Neptunian Objects

<sup>451</sup> [https://marvel.fandom.com/wiki/Kree\\_Empire](https://marvel.fandom.com/wiki/Kree_Empire)

<sup>452</sup> "The Dark Forest," Liu Cixin, 2008

Therefore it behooves us to rapidly move<sup>453</sup> through Stage 7-9 in as short a period as possible, assuming we are allowed to unmolested, and to generate our own mega rail guns, asteroid slingshots, and move from BPS V4 to V6 now peppering the entire solar system with sensors and satellites, detectors, shields, reaction devices, and other compensators. Not because the author advocates paranoia. But because visibly armed neighbors make good friends.

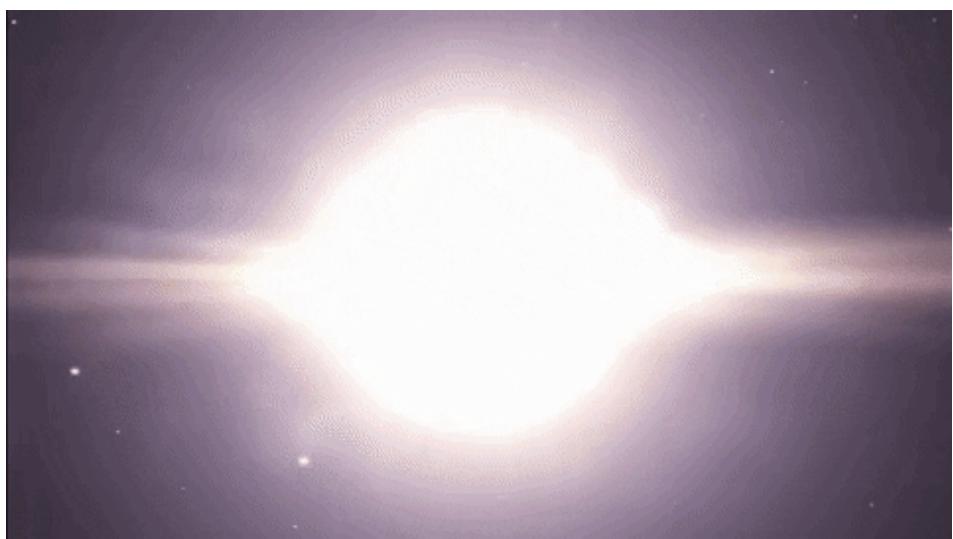


Figure 97 - Supernova Simulation ([gif](#)); credit: NASA

It's a fact of life, and it's a fact we would do well to remember in space as well as we do with India and Pakistan to this day.

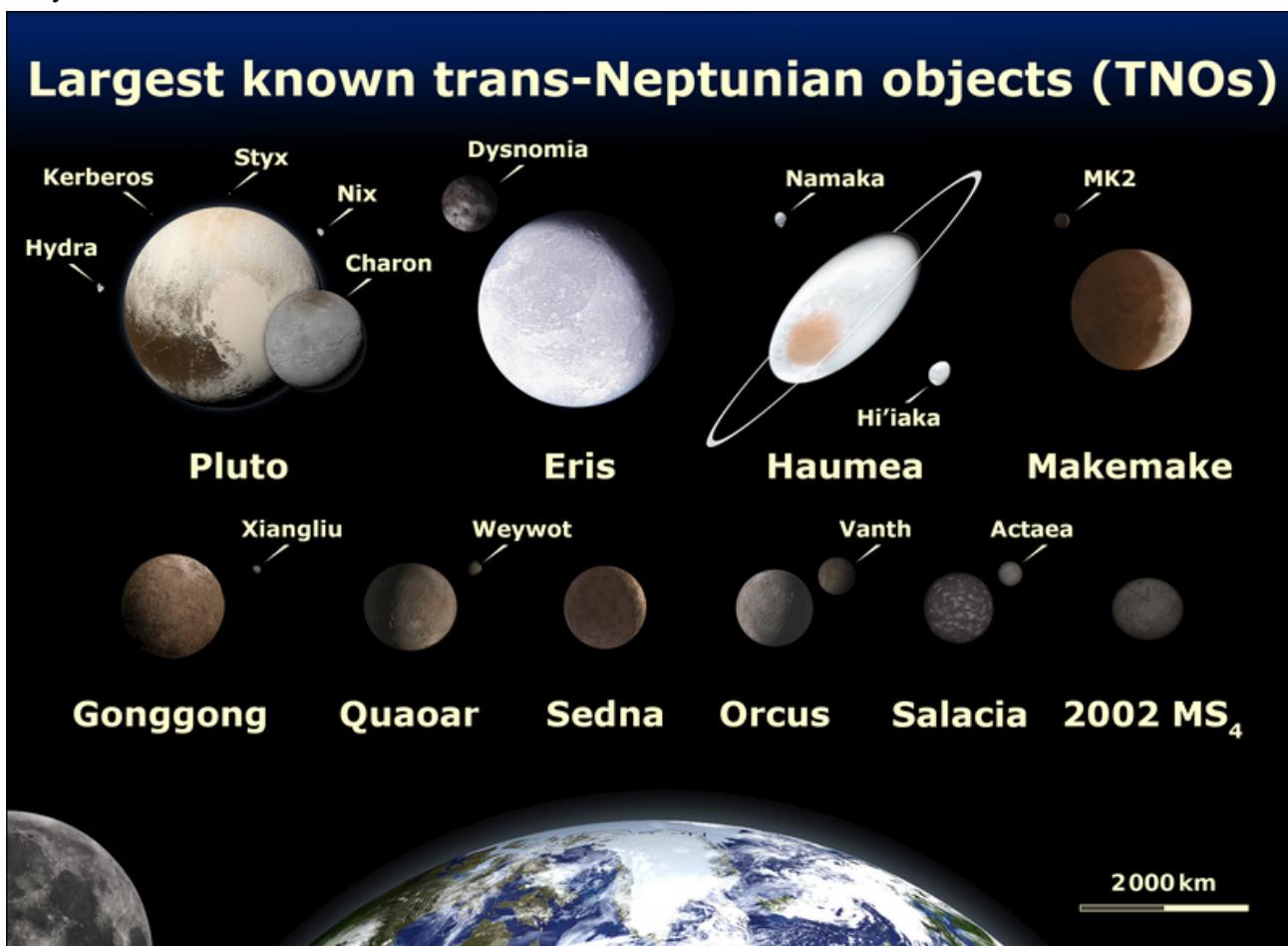


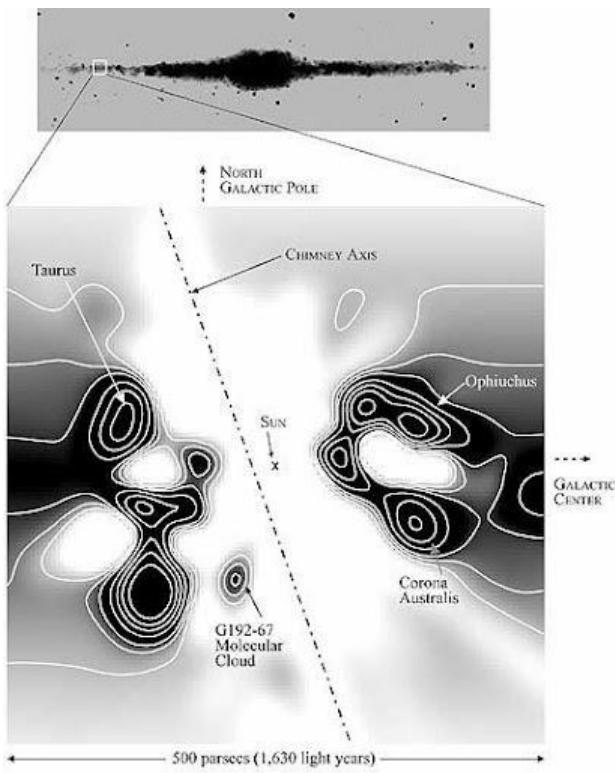
Figure 98 - Largest Known Trans-Neptunian Objects; credit: Wiki

<sup>453</sup> Hopefully not that 10,000 years as we might with Stage 4-6

As for the objects, Uranus may not itself be exciting but its moon catalog certainly is. All of these bodies make for excellent terraform material, and the author does recommend as immediately as possible direct consumption, simultaneously if possible to allow for a 1,000-2,000 year cool down period (based upon our own minor ballistic experiences post Younger Dryas). Certainly you need to smack these into Ganymede or other targets in a way that doesn't destroy the symmetry of the target. Likely do a continual atmosphere drag, slow the object down, spiral it in gently. Allow the thunderbolt induction and generation to make lots of new minerals as the arc discharge transmutes the surface, if possible even syphon this energy off with the BPS network, hopefully for super carbon capacitors associated with the TNO railgun project. Store the charge for many centuries if need be for later use. Either way, rob the KE out of the descending body and as gently as possible touch the water and rock down upon the surface. Then you can drop the most armored and fortified/shielded PRDS erector sets in, probably running off quantum entanglement carbon-tungsten nanocomputing receiving TAI directives. Once the fabricators, compensators, mega-terraformers, crawlers, trawlers, haulers, and comm network is laid down, humans and robot allies (and cyborgs and androids no doubt) could begin to touch down and start sketching/molding the planetoid (Ganymede for instance) as an interior decorator does. As this process improves, we can capture other objects passing through the coronasphere and bring them into our family, introduce them, syphon charge and make the situation calm, preparing for the inevitable day when a dwarf star passes through our neighborhood unannounced like the Scholz's Star probably did some 70kya or so.

The groundwork for this kind of uber-control of forces well beyond our kin is at first in the terraforming, then the asteroid belt, the BPS, settling the Jovian and Saturnian Sectors, building the 1 AU railgun launcher, and then the settling into the multiple phases of Stage 7, 8, and 9 work.

## Stage 8 - Dwarf Planetoid ETBs, Completing the BPS



Looking at Table 10, we see that there are several bodies that yes, could be mined, but probably should be used for observation and military forward stations. Both fortresses and observation points on the lookout for return comets, asteroids, invading bodies of all sorts. Obviously mankind will need to be using the interaction of electric force fields in the coronasphere in order to actually see, since light will be scarce and reflectivity perhaps weak. There are, after all, Y dwarfs and super Jupiters larger than Jupiter and darker than charcoal<sup>454</sup>, or cooler than even your own skin. Such bodies are difficult to detect near to our star, and may yet be easier out beyond the Outer Rim into the Oort Cloud. Or, they may be far more difficult.

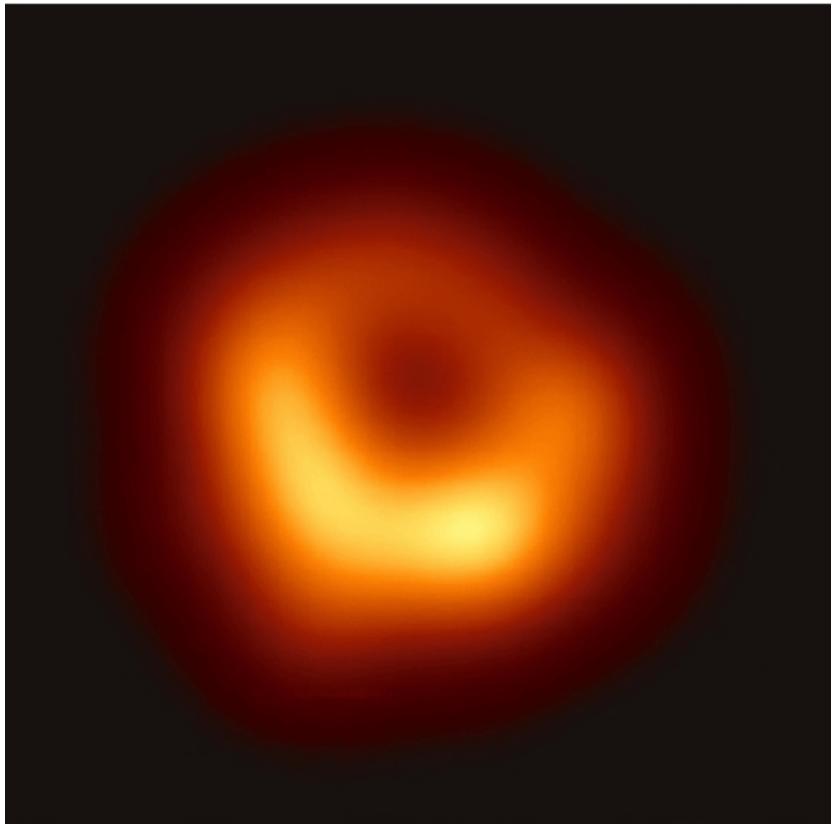
What type of ETBs can be used? They cannot be ballistic, on account of the issue of momentum affecting their orbits. They will need to be energy blasts, or perhaps rockets that are slowly launched away and then take off after, if they can reach incredible speeds. The best blasts, the author presumes, would be super Vajra created by the final, and complete power of the BPS, or perhaps merely guided by

<sup>454</sup> <https://arxiv.org/pdf/1804.05334.pdf>

these outposts, and involve control of the gas giants themselves. But be sure to know this: Jupiter/Marduk even with all his strength and giant magnetic dynamo is a mere child in the world of rogue dwarf stars and roaming gas giants, and potentially wandering magnetars or Bostickian Super Plasmoids (“black holes”; eg. M87, Figure 100 right ([gif](#))), which may or may not roam the local chimney<sup>455</sup> (Figure 99 above), etc.

How will mankind actually set about completing the BPS? There are six basically impossible tasks that are a block for the Birkeland Polyphase Superweb concept:

1. The physics: collecting charges that lay apart, self-willed as it were, and sparse, and then later the Aether itself, and finally the counter space (inducing it to give up new energy, almost prior to its desire to, as it were).
2. The modularized, predicted, and reasonably well engineered satellite.
3. The difficulty of filling the entire boundary of the solar system's coronasphere, well beyond the volume of the TNO Sector, and using the edge or boundary conditions to our advantage (as there's likely to be the most useful energy there, than anywhere except right at the sun or at Jupiter, etc.
4. The production of enough rigid, tough, durable materials. Our current computing relies upon highly degradable silicon wafers and plastics with short half-lives. The movement towards QAI-OS<sup>456</sup> optical crystal computers is a condition which will be encouraged *only* if it is as profitable a path as possible. This is why making so many satellites is a good thing, except for the issue of material resources.
5. Politics. Just think of the prejudice of naysayers, shirkers, procrastinators, hypocrites, liars, anti-patriots, man-haters, and all sorts of various criminal class which detract from Human Momentum and Energy<sup>457</sup> with their parasitic and destructive paradigms. This is to say nothing of corruption and destruction wrought by war, etc., and of course the backwardness of our modern education system<sup>458</sup>.
6. Manufacturing and resource bottlenecks, as well as the need to continuously recycle and replace a large, and burgeoning system. Even when the space-gap energy transfer and charge syphoning and harvesting physics are worked out... there is the issue of burnout, obsolescence, attrition, supply chain, and various forms of imperfect issues. Mankind could get 90% populated out in the solar system, only to discover they did something as stupid as when we went to Pluto without even a magnetometer (let alone an electromagnetometer) aboard the satellite<sup>459</sup>. Plus one time we burned up a satellite because of



<sup>455</sup> <https://www.youtube.com/watch?v=eGA12hZIfqM>

<sup>456</sup> Quantum Artificially Intelligent Operating Systems

<sup>457</sup> <https://aetherwizard.com/tesla/Articles/ProblemOfIncreasingHumanEnergy.pdf>

<sup>458</sup> <https://www.macon.com/news/state/georgia/article253467879.html>

<sup>459</sup> <https://aasnova.org/2016/05/25/clues-from-plutos-ions/>

imperial vs. metric units<sup>460</sup>. These kinds of issues will kill people in real spacer work. We have to stop playing around. Space is serious as a heart attack... just ask the crew of Apollo 13.

Once the BPS network is completed, here is a short list of the kinds of experiments and utilities that could be done, and for which no one man or woman can have the wisdom and foresight to understand the ramifications thereof let alone be trusted with the “launch codes” as we do (partially) with the nuclear missiles on Earth now:

- ❖ Super “rail gun” launcher out past Uranus
- ❖ Sending vehicles near or past the “speed of light” to prefixed locations
- ❖ Slingshotting asteroids and planetoids
- ❖ Making super magnetic and charge/plasma shields around planets and moons
- ❖ Arc blasting approaching objects
- ❖ Moving certain bodies via “traction beam” or other charger and quantum entanglement programming
- ❖ Charging or recharging the Ozone layer and making Starwater on demand
- ❖ Transmuting toxic radiation and poisons
- ❖ Fusion
- ❖ Converting Jupiter into a dwarf star
- ❖ Generating worldwide aura to inspire mankind again
- ❖ Transferring communications much more rapidly via synchronized Qubit chains that communicate via plasma winds
- ❖ Massive particle acceleration experiments
- ❖ Drawing down energy from moving bodies, stars, and possibly the Aether itself.
- ❖ Scorching or branding large products for space shipment
- ❖ Source of SSDP for hauler freeways<sup>461</sup>
- ❖ Communication with other systems
- ❖ Recharging Earth if its induction storage ever drops and the Schumann Resonance becomes cancer inducing (a plague) for all mankind.
- ❖ And more...

The point being that there are plenty of reasons to gather solar electricity and to use it. Plenty of reasons to use the magnetic power of Jupiter, Saturn, and the wind power of Jupiter and Neptune. Plenty of reasons to use the gravitational and tidal energy of gas giants, of Pluto-Charon, etc. Plenty of reason, plenty of energy. All that remains is to capture it, and ignore the naysayers who use politics and unreasoning to deny the need. The longer the wait, the closer we are to having an actual Cat6 event, which threatens all existence of civilization.

## Stage 9 - Controlling and Harvesting the Gas Giants

Therefore, and this is key, the next level, which will (if this hasn’t already happened by using nuclear weapons and sending radio wave imagery of it out, like fools) signal to other civilizations that we have “made it” is to control the gas giants, responsibly, like a child controls marbles. It is one thing to move the electric bodies of moons and planetoids, asteroids and comets about. This affects the analog circuit. But Jupiter is 18,000 times more powerful than that of Earth<sup>462</sup>.

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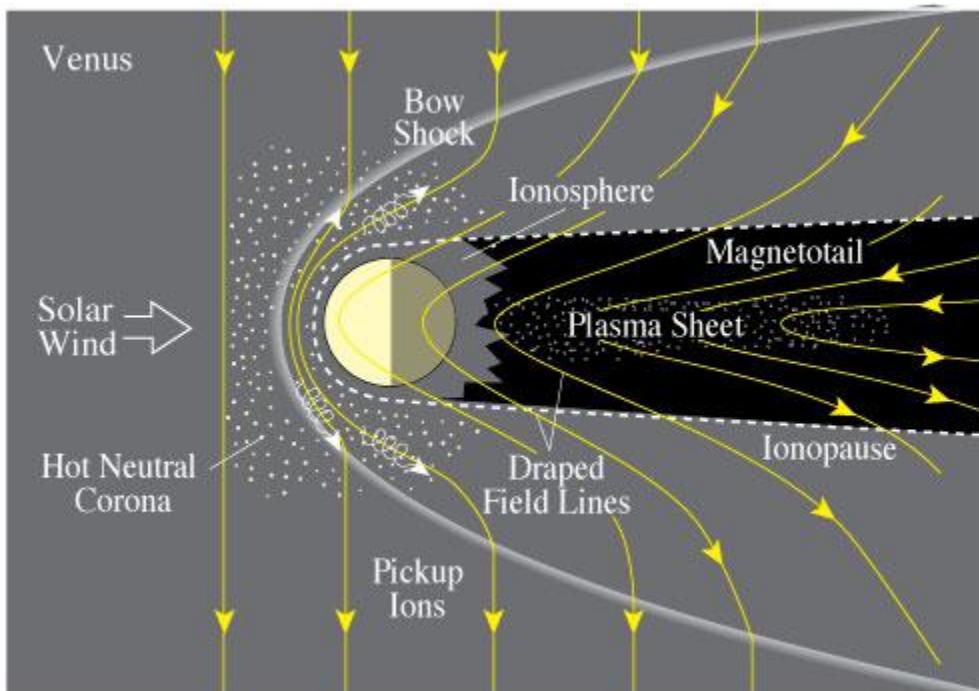
<sup>460</sup> <https://www.wired.com/2010/11/1110mars-climate-observer-report>

<sup>461</sup> Essentially sniffing out pockets of charge.

<sup>462</sup> [https://lasp.colorado.edu/outerplanets/giantplanets\\_magnetospheres.php](https://lasp.colorado.edu/outerplanets/giantplanets_magnetospheres.php)

Table 12 - Max Average Power of The Major Bodies<sup>463</sup>

Venus	Earth	Jupiter	Saturn	Uranus	Neptune
0.815 M <sup>⊕</sup> KE = $2.97 \times 10^{33}$ J P = $2 \times 10^{21}$ TW	1.00 M <sup>⊕</sup> KE = $2.65 \times 10^{33}$ J P = $1.1 \times 10^{21}$ TW	317.8 M <sup>⊕</sup> KE = $1.59 \times 10^{35}$ J P = $5.4 \times 10^{21}$ TW	95.16 M <sup>⊕</sup> KE = $2.66 \times 10^{34}$ J P = $3.8 \times 10^{20}$ TW	14.54 M <sup>⊕</sup> KE = $2.01 \times 10^{33}$ J P = $9.8 \times 10^{18}$ TW	17.15 M <sup>⊕</sup> KE = $1.51 \times 10^{33}$ J P = $3.8 \times 10^{18}$ TW
0.00001 MV  4 MA P = $4 \times 10^7$ MW	10 MV 9 GA P = $1 \times 10^{11}$ MW	1.11 MV 9 GA P = $1.7 \times 10^6$ MW	0.18 MV 90 GA P = $1.7 \times 10^6$ MW	1 MA	20 kA
6.5 nT (0.00065G)	65,000 nT (0.65G)	417,000 nT (4.17G)	21,000 nT (0.21G)	23,000 nT (0.23G)	10,000 nT (0.10G)
8.89 N/kg	9.8 N/kg	23 N/kg	9 N/kg	9 N/kg	11 N/kg
737 K 16.7 kW/m <sup>2</sup> P = $7.69 \times 10^6$ TW	288 K 390 W/m <sup>2</sup> P = $2 \times 10^5$ TW	165 K 4.2 W/m <sup>2</sup> P = $2.58 \times 10^6$ TW	134 K 1.83 W/m <sup>2</sup> P = $7.78 \times 10^5$ TW	49 K 0.327 W/m <sup>2</sup> P = $2.64 \times 10^3$ TW	55 K 0.519 W/m <sup>2</sup> P = $3.95 \times 10^3$ TW

Figure 101 - Venus Electric Tail;  
credit: tufts.edu<sup>464</sup>

Data is always evolving and never complete. The values in the above table are, ultimately, all estimations. However, they represent a fairly decent way of looking at the total potential energy of a system. For example, one could - if disposed - calculate the total magnetic related inductive energy and power related to a day of rotation. Likewise one can look at the total gravitational PE, and knowing particular masses, figure out the gravitational power

of the system. Etc.

The bottom line is these systems are useful, as well as the obvious power of the sun, for creating Next<sup>Next</sup> level systems. The applied superscript indicates that we are talking orders of magnitude beyond the current next and 2x next level technologies. It is obvious that the technological growth rate will exceed Moore's

<sup>463</sup> <https://docs.google.com/spreadsheets/d/17aeVV7E6Qu0ZIJADIYUAPrlfwnhSigmSJJK97w58M/edit?usp=sharing>

<sup>464</sup> [https://ase.tufts.edu/cosmos/view\\_picture.asp?id=1107](https://ase.tufts.edu/cosmos/view_picture.asp?id=1107)

Law, or must - to avoid a logarithmic asymptote (ceiling) - in order to take mankind towards the stars, and beyond.

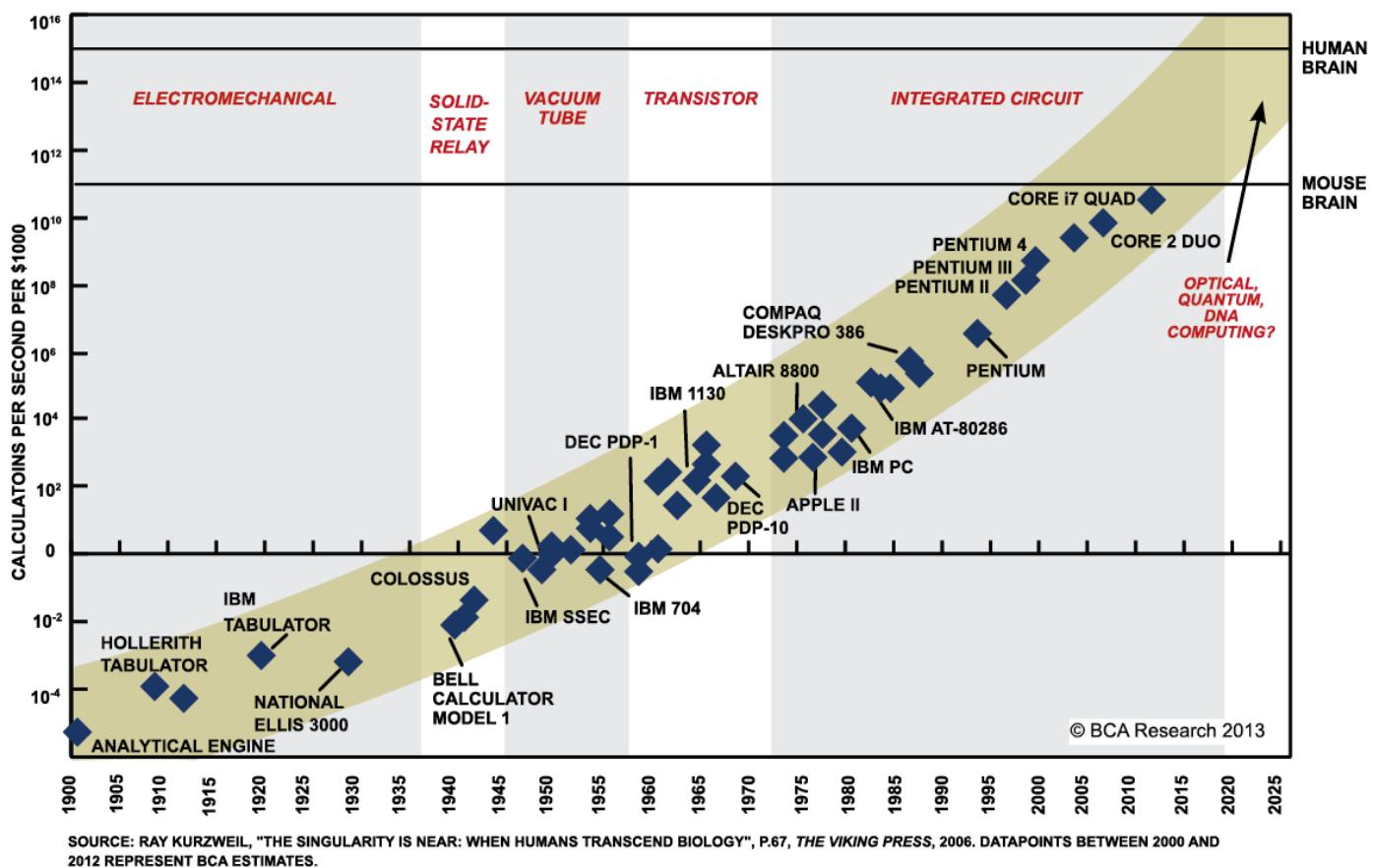


Figure 102 - Moore's Law since 1890; credit: ExtremeTech<sup>465</sup>

Let us assume, for the moment, that mankind achieves this, with all due responsibility. We need a vow never to use these technologies without good reason.<sup>466</sup> In such a case, ought not the system be considered at a saturation of maturity level? The technologies are now in a position well beyond the thought processes of current humans' ken of thought. Curing disease, regrowing rainforests, terraforming... these are things done as easily as cleaning one's room or organizing one's house. These kinds of activities are for the purposes of arranging a better Solar System, Universe, etc. It is in service, debt, and gratitude of the Higher Power that has gifted mankind with these abilities and knowledge.

Consider, therefore, the rights of an individual in such a world. What is their place? Ideally, people would by this time encounter the natural/normal amount of people, at a harmonious rate not dissimilar to the experiences of shaman, cloudwalkers, saints, etc., but in a technical and working or agricultural environment. It would not be lonely, nor full of longing and need, but the challenges of daily life would still be intimate and bitter-sweet. The challenges of all difficulties understood in the context of overcoming the world's impediments to growing and maturity, and not as a hateful or despised aspect of life. This seems utopian or anathema here,

<sup>465</sup> <https://www.extremetech.com/extreme/210872-extremetech-explains-what-is-moores-law>

<sup>466</sup> The same honor, dignity, and responsibility the author carries around his martial skill, knives, firearms, etc. wherever he goes. Not only self-defensive responsibility, but the responsibility of protection of the weak, of the needy, of the defenseless.

but actually it is merely a matter of engineering application, and a high TIQ, EQ, and WQ, engineered into society, education, etc. When the ideals of a SPACER mature society have penetrated into the depths of the ocean and crust, throughout the cybernetwork, and up into the Heavens - everywhere essentially - then how can there be a barrier to the freedoms and *relative enjoyment* of human lives? That being said, the Next<sup>Next</sup> level is not without challenges, because mankind is now essentially at the place a 17 year old is: driving for a year, but where shall she go? What shall she see? Who shall she be? Conqueror, explorer, pirate, benevolent wanderer?

*"let a man walk alone, let him commit no sin, with few wishes, like an elephant in the forest"*<sup>467</sup>

We are not (likely) alone. Nor shall we ever be, as our terraforming will create new cultures, new societies, and new ways of living which are replete with the stuff of life: suffering, adventure, purpose, sin, virtue, war, joy, challenge, etc. We will conquer medicine, but there will be new, strange, exotic diseases. Perhaps hyperdimensional beings will resent and assail us. Perhaps the Heavens will slice open and Hell will belch from the quantum foam<sup>468</sup> upon the lands. We don't know. All we can do, ultimately, is to keep marching forward through the depths of space. To do this, we will need the inertial dampeners, genetic controls<sup>469</sup>, magnetic power, fusion and fission, the abilities to come and go<sup>470</sup>. We will need each other. We will need God<sup>471</sup>.

We will need tenacity, perspicacity<sup>472</sup>, and patience. We need therefore now, not only to grow our technical ability, but our greatness of heart, mind, soul, "spirit," and matter. In the depths of space and flux, we will need each other. When we remember that again, we will begin. When we remember it at Stage 9, then we will enter Stage 10.<sup>473</sup>

## Stage 10 - Dominating the Kuiper Belt, Oort Cloud, and Preparing for Light+ travel

The previous three stages were short on phase information, because it seems to the author unlikely that anyone under 1,000 IQ and 100,000 TIQ could contemplate all these variables (nor do we have the ability to input so many simultaneously, the internet being after all still quite fuzzy and imprecise) and come to any accurate description.

However, the author thinks he can, to some degree of specificity, describe the needs (without any knowledge of whether or not travel beyond c is possible or even probable, write out what will be needed to take this present society (if God does not wipe it out in a colossal civil war and Apocalypse<sup>474</sup>) beyond the solar system.

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<sup>467</sup> The Dhammapada, Chapter 23 <https://www.sacred-texts.com/bud/sbe10/sbe1025.htm>

<sup>468</sup> [https://science.nasa.gov/science-news/science-at-nasa/2015/31dec\\_quantumfoam](https://science.nasa.gov/science-news/science-at-nasa/2015/31dec_quantumfoam)

<sup>469</sup> Meaning the power to survive nano swarms and superbacteriums, etc. Potentially to shrink mankind. Certainly to create the ability to regrow limbs and have no scars, and repair epigenes.

<sup>470</sup> <https://www.bbvaopenmind.com/en/technology/digital-world/quantum-teleportation-facts-and-myths/>

<sup>471</sup> First, and foremost.

[https://www.academia.edu/53271235/Explication\\_of\\_the\\_Versatility\\_of\\_the\\_Big\\_G\\_diagram\\_in\\_MIMS\\_1\\_0](https://www.academia.edu/53271235/Explication_of_the_Versatility_of_the_Big_G_diagram_in_MIMS_1_0)

<sup>472</sup> /pərspi'kasədē/ noun

1. the quality of having a ready insight into things; shrewdness.

In this case, literally to look through the veil of the Void, Aether, or Counterspace.

<sup>473</sup> Unlike the doldrums of Stage 5 and 6, or the wars of Stage 3 and 4, this is a matter of "crossing the finish line"... the final legs of the marathon, which runners know as the place where the meditation of running transcends the pain, and resolve surpasses doubt. Faith carries them over the line, and some can even run a whole second marathon!

<sup>474</sup> "Everything they've built will fall! And from the ashes of their world, we'll build a better one!" -Apocalypse; credit: Marvel  
127

Table 13 - Three Phases of Purpose in Stage 10 to Prepare for Interstellar travel

<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>
<input type="checkbox"/> Completion of first 1AU railgun launcher <input type="checkbox"/> Completion of first receiver of construction materials at Proxima Centauri <input type="checkbox"/> Birkeland Polyphase Superweb complete <input type="checkbox"/> Ability to move moons and dwarf planets with electrokinetics <input type="checkbox"/> Aether and SCS syphoning technology <input type="checkbox"/> Mastery of the Changes (through sophisticated modeling and AI prediction) <input type="checkbox"/> End of politics and war <input type="checkbox"/> Dual Layer Economics completely neutral and matter-of-fact <input type="checkbox"/> Medical Supremacy <input type="checkbox"/> Total TIQ of species > 10T <input type="checkbox"/> Complete analog circuit of SSEC mapped, now almost completely mapped with GEC	<input type="checkbox"/> Complete mapping of SGEC <input type="checkbox"/> Breakdown of first railgun launcher, re-design, installation of 10,000+ ports <input type="checkbox"/> Federation serious about receiving interstellar travelers <input type="checkbox"/> Move Venus to more comfortable distance for mankind <input type="checkbox"/> Reposition Mercury back to Jovian system, and terraform <input type="checkbox"/> Create antimatter and Aether syphon capacitors for BPS <input type="checkbox"/> Clean out Local Chimney <input type="checkbox"/> Breakdown the local space-flux and lower the BdV from 40 MV to 4 MV or less <input type="checkbox"/> Send first > c probes to Gliese and Andromeda, etc. <input type="checkbox"/> Change computing methods <input type="checkbox"/> "Perfect" inertial dampeners <input type="checkbox"/> Change frequency of the sun to suit plant and eye preferences	<input type="checkbox"/> Establish shipping lanes <input type="checkbox"/> Reform Federation style into Republic of Republic <input type="checkbox"/> Establish human cultural museum on Mars with total history and memory system <input type="checkbox"/> Build 10,000 crystal resonance pyramids that can hold memory in adamant for 1 billion years <input type="checkbox"/> May require a new language <input type="checkbox"/> Re-charge sun and planet plasmoids, crystal lattices, and induction <input type="checkbox"/> If not already done, consider moderating Earth's induction rate via orbital momentum <input type="checkbox"/> If not already flipped over, put Earth and Venus, etc. on notice via censors in space; Potential Space Modulators (PSM) <input type="checkbox"/> Beaming Transport Technology (BTT)
<ul style="list-style-type: none"> <li>• Expected GDP/SSDP to exceed <math>4 \times 10^{20}</math> \$\$ units</li> <li>• Population hopeful to be 100 billion or more souls</li> <li>• Terra Formations: 5+</li> <li>• Earth returned to Sanctuary Status</li> <li>• Venus replete</li> </ul>	<ul style="list-style-type: none"> <li>• Expected GDP/SSDP to exceed <math>4 \times 10^{30}</math> \$\$ units</li> <li>• Population hopeful to exceed 1 trillion souls</li> <li>• Terra Formations: 8+</li> <li>• Mars capital planet completion and 3 layer beautification (to improve gravity, add material)</li> </ul>	<ul style="list-style-type: none"> <li>• Expected GDP/SSDP to exceed <math>4 \times 10^{50}</math> \$\$ units</li> <li>• Population for interstellar seeding to exceed 10-100 T souls</li> <li>• Terra Formations: 10+ Proxima Centauri project foundations</li> <li>• Settlements <i>inside</i> Jupiter, etc.</li> </ul>

The above is just a small "laundry list" of items<sup>475</sup> to be completed when it comes time to truly move throughout space.<sup>476</sup> As usual before, nothing says that these have to be tackled in a linear fashion. It will depend upon the needs and priorities judgments of intelligences far smarter than the author (or reader) can imagine at this stage.

<sup>475</sup> On a long enough timeline, all events repeat. It seems to many that the Mayans and Egyptians attained flying technologies from Atlanteans. At least, when motors are attached to certain models, they fly. This, too, everyone experiences *deja vu*. Therefore, maybe some kind of super advanced being or computer could do this. But not the author.

<sup>476</sup> Stage 10 is, ultimately, not about winning wars in space, encountering aliens, etc. It is about us, and our place. Owning our space, owning our responsibilities, and taking flight into the Universe like adult minded people, rather than addle-brained imbeciles.

Put this way: this paper may very well represent the most forward thinking SPACER paper since the Isaac Asimov books. At the time he wrote, he could not possibly know the electrical nature of space. We did not have the data. It's something everyone should have assumed, because why would electricity be relegated only to lightning and your light bulbs in your house... but it was frequent that people did not know. At the time of this writing many forms of "exotic material"<sup>477</sup> and "new phase states"<sup>478</sup> are being discovered<sup>479</sup> and published about. Mankind will forget more than he currently knows within about 100 years.

But even this paper, with all the shiny new acronyms and forward thinking designs, will be completely antiquated within two phases of Stage 1. Maybe within the first phase. The point is not to get it all correct, the point is to utilize the MIMS and visioneer **solutions**; especially at a time when mankind is struggling with the survival of the species, its place in the cosmos and with each other.

If we lose 7 billion people<sup>480</sup> one should expect the SPACER movement to crawl to almost a halt. That's a tremendous loss of TIQ and WQ<sup>481</sup>, to say nothing of manpower. Robots and AI simply cannot do everything. Even if we dub a soul and install 5! variations<sup>482</sup> of those dubs into 6! forms<sup>483</sup> of cybernetic beings, we would not be able to reproduce the brilliant evolutionary advantage had via God's own evolutionary mechanism. Mankind has survived Cat 7 experiences before, when many species did not survive. Mankind didn't just survive, he thrived. Somewhat fortunately for mankind the star Shamash did not vaporize the Earth<sup>484</sup>, but the power levels were, after all, tremendous.<sup>485</sup>

Therefore the versatility of flesh as a quantum computing experience combined with mobile armor is not to be questioned too excessively (due to its propensity for frailty, disease, and discrimination.) It is true that the flesh body is lacking in certain arenas. But in other ways we are only just beginning to understand the interaction of the biosphere, bacterosphere, virosphere, and our own genetic communications/transceiver + NSEC<sup>486</sup>. We are just toddlers in the world of understanding medicine, and newborns in the world of nonlinear dynamics and fractal mathematics. Also, we're not even able to see the entire EMF spectrum yet, but will be able to, soon. What will we see? What will we love and hate? What will we do? Our inner demons and saints vie already for supremacy, and ever "absolute power corrupts absolutely." Now we add technology into the mix, and lo: technocracy. Of course this was an inevitable outgrowth of the Religious Period's death pangs. But that should not stop us wading from the kiddie pool into the ocean. It will on occasion slow us down. There will be turnover of souls, and there will be isolationism. But everyone will find a place in the great unifying aspect of God's plan and commandment, "*Be fruitful, and multiply.*" It really is that simple. Do our work, and spread out. If we spread out, we won't destroy ourselves and each other. It's a matter of pressure **gradients, curl, and divergence**.

<sup>477</sup>

<https://www.scientificamerican.com/article/thousands-of-exotic-topological-materials-discovered-through-sweeping-search/>

<sup>478</sup> <https://www.sciencealert.com/scientists-have-discovered-a-new-state-of-matter-called-liquid-glass>

<sup>479</sup> Mostly all versions of electricity and plasma, respectively.

<sup>480</sup> The goal of the New World Order and their Agenda 2030 (previously known as Agenda 21, probably for 2021 when many changes have been set off). This includes both the Great Reset and the Great Replacement, as well as Event-201

<sup>481</sup> Wisdom Quotient = IQ+EQ

<sup>482</sup>  $5 \times 4 \times 3 \times 2 = 120$

<sup>483</sup>  $6! = 720$

<sup>484</sup> <https://www.youtube.com/watch?v=p5cWZeQrQ7Q>

<sup>485</sup> Speaking of Jupiter's powerful effect... "3 *The sea saw it, and fled: Jordan was driven back.*

*4 The mountains skipped like rams, and the little hills, like lambs.*

*5 What ailed thee, O thou sea, that thou fleddest? thou Jordan, that thou wast driven back?*

*6 Ye mountains, that ye skipped like rams; and ye little hills, like lambs?*

*7 Tremble, thou earth, at the presence of the Lord, at the presence of the God of Jacob;*

*8 Which turned the rock into a standing water, the flint into a fountain of waters.*" ~Psalm 114

<sup>486</sup> Nervous System Electric Circuit. See the "Magnetic Universe Theory" paper, Table 7.

- ★ Gradient - an increase or decrease in the magnitude of a property (e.g. temperature, pressure, or concentration) observed in passing from one point or moment to another.
- ★ Curl - a number at any point in that field that holds information of that field.<sup>487</sup>
- ★ Divergence - the divergence of a field indicates presence/absence of a sink/source for the field.<sup>488</sup> The divergence of the electric field at a point in space is equal to the charge density divided by the permittivity of space.<sup>489</sup>

One could also say, chemically, it is a matter of pH and titration. Mankind needs one another. But people are naturally acidic or basic, with few being neutral in their presentation. Those who “steal” electrons are those who benefit the society by taking. Those who “give” an electron are known for making the world a better place. Give and take, push and pull, “that’s what makes the world go round.”

Regulating this is all a matter of wisdom and proper use of the chemical elements, including the electrochemical natures of personalities:

Table 14 - Electrochemical Personality types Affecting Successful Outcomes

<i>Electrical Personality Types and Variations</i>	<i>Chemical Personality Types and Variations</i>
<ul style="list-style-type: none"> <li>➢ Resistor</li> <li>➢ Capacitor<sup>490</sup></li> <li>➢ Inductor<sup>491</sup></li> <li>➢ Transformer<sup>492</sup></li> <li>➢ Conductor</li> <li>➢ Semiconductor (diode)<sup>493</sup></li> <li>➢ Source</li> </ul>	<ul style="list-style-type: none"> <li>➢ Acerbic</li> <li>➢ Sweet</li> <li>➢ Catalytic</li> <li>➢ Enzyme based<sup>494</sup></li> <li>➢ Nucleated<sup>495</sup></li> <li>➢ Basic</li> <li>➢ Aerated<sup>496</sup></li> <li>➢ Solvent/Solution</li> </ul>

The key to each of these personality types is that they have different capacities and functionally appropriate uses. Of course a person may straddle a line, or cover multiple areas in both columns. But identifying their abilities based upon reliable personality tests goes a long way into predicting the manpower portion of success in any project equation. Then, the rest is about the *N* power (data and computing in particular), flux (the Changes), and of course, reliable energy to achieve potentiality. Potential is nice, but without current/currency how can anything be achieved?

If society can manage these personalities via a technological, but non-prosecutorial method, and cease hating “thy neighbor,” the chances of a pro-hominem society increase drastically. As it stands the government, local (even school level) or regional or national, spends so much time trying to control people, to control events and energy, money and flow of commodities and infrastructure, hardly anything can be said to be

<sup>487</sup>

[https://eng.libretexts.org/Bookshelves/Electrical\\_Engineering/Electro-Optics/Book%3A\\_Electromagnetics\\_I\\_\(Ellingson\)/04%3A\\_Vector\\_Analysis/4.08%3A\\_Curl](https://eng.libretexts.org/Bookshelves/Electrical_Engineering/Electro-Optics/Book%3A_Electromagnetics_I_(Ellingson)/04%3A_Vector_Analysis/4.08%3A_Curl)

<sup>488</sup> <https://physics.stackexchange.com/questions/126366/divergence-of-a-field-and-its-interpretation>

<sup>489</sup> <http://hyperphysics.phy-astr.gsu.edu/hbase/electric/diverg.html>

<sup>490</sup> Ie, a storer of knowledge and wisdom, like Bards, wizards, etc.

<sup>491</sup> Sometimes called a “connector”

<sup>492</sup> Resonates well with or as a catalytic personality. Not all are “Type A” personalities.

<sup>493</sup> Ie, “on and off again” aka “hot and cold”

<sup>494</sup> Ie, a builder

<sup>495</sup> Ie, self-centered, but not necessarily in a bad way

<sup>496</sup> Ie, light, etheric, aloof

accomplished. The present catastrophes and [manufactured] crises looming are the direct result of an increased in flux and current/currency, and a strong Load upon Source caused by poor pre-planning, bad circuit designs (in waste, judicial, even food systems), as well as a weakness in certain needed forms of leaders, like capacitors, inductors, and transformers. There is an excess of nucleation and acerbicism, and not a lot of solving/solutions about absorbing things. There's a strong preference for sweetness, instead of solid basic behaviors, hence a preference for feelings over facts. Airheadedness is promoted in place of proper aeration of ideas, and so the liberty is restricted. All of this increases and irritates resistors.

In a SPACER society, a kind form of blunt honesty must be encouraged, under an umbrella of pro-Earth humanism, couched with egalitarian but merit based equality of opportunity<sup>497</sup>. It was what led to the settling of the unknown world, and it is what will lead to the settling of unknown space. NASA already leads the way in this: only the best of the best become astronauts. Men and women compete for the opportunity to go into space. Now we have a thriving and burgeoning space tourism industry. It is fragile and fledgling, but it is real and viable.

All that remains in this first Phase 1 of Stage 1 is to think about Phase 3 of Stage 10, continuously throughout the 5,000-10,000 year period. Whatever the Scientific Period gives birth to, let that period be based upon engineering philosophies, and upon respect for one another and the divine. Then, our success will be assured, no matter how we tarry, It isn't the work that will take all that time, it is the hang ups and hangovers of our amnesia, and our cumulative catharsis from the ages under "abusive" gods (planets and moons), when mankind lost its innocence beneath the stars. We learned then we were not the center of God's world, and we convinced ourselves we still were for another 10,000-12,000 years. By the time we figured it out, if we even have, we lost a little something along the way. We gained so much else. Now we can reclaim that knowledge, that spirit of adventure, that ambition and drive, and we can deal with ourselves more maturely. Hopefully we can forgive ourselves and each other. Because the author would wager, even if we could get it together and not tear down those who have the drive, the SPACER societies out there already are *not* going to put up with prima donnas with an attitude of arrogant self-centeredness and a paranoia streak the width of the grand canyon. We're going to need to be a lot stronger in EQ, TIQ, and of course wisdom (WQ).

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<sup>497</sup> That's the only way forward. There is no equity or equality of outcome, these are dreams which turn into dystopian nightmares.

## Part 3 - Secrets to Success in Space

The reality for mankind, at this sad point, is that the probability of success is ebbing away as we “piss into the wind” with space wars. It isn’t the space tourism industry that is the issue, but the inattentiveness to our inner space, and how this relates to outer space. It is easy to focus upon the darkness, upon the failures, upon the limits of energy and capital, etc. But the truth is that humanity suffers from three seemingly insurmountable issues, or hang-ups (besides the amnesia):

1. Generational freshness<sup>498</sup>, ignorance, and a lack of systems designed to teach those who teach those who teach. Therefore freedom and “the good life” is never more than two generations away from destruction. Much can be destroyed within a short period of time that took centuries to build.
2. Excess of hubris, ego, and an inability to control it in the face of greed, distraction, lust etc
3. A predilection for the superstitious, and a refusal to acknowledge the power and authority of the supernatural. Getting this backwards has cost many their happiness, projects, success, careers, marriages, etc. Putting blind faith in the impossible, and not taking full advantage of the PPPC<sup>499</sup>, mankind frequently “misses the boat” or gets things exactly backwards.

Figure 103 - Cratering caused by mere space debris; credit:  
Space Force Association/Matt Anderson



**Matt Anderson** • 2nd  
 Vice President, Space Force & Air Force  
 Client Executive at CACI International I...  
 2d • Edited • 

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Why does the recent Russian anti-satellite (ASAT) test matter?

Destroying their own satellite created >1500 pieces of orbital debris...and this is what happens to aluminum when hit by a 1/2 oz piece of plastic going 15,000 mph in space.

[Space Force Association](#)



Because of this, there are people that hum noises in the machine known as the Great Pyramid<sup>500</sup>, which was never a tomb and has no evidence of being a tomb, thinking they can connect to the dead. Or people think the mummy’s curse is about death, when actually it was about mercury lamp vapors.<sup>501</sup>

Therefore, the author wants to spend some time rectifying certain bad thoughts, based upon the knowledge and wisdom of the ancients, and the Threefold Science<sup>502</sup>, as well as wisdom traditions. Eventually the position of the paper, and mankind, can be rectified much earlier than supposed. Isn’t that the point of the MIMS philosophy, at any rate? Let us journey now, together, through a mimsical presentation of success, measured along different scales and axes than is generally used.

## Resources that Drive Mankind

J. Diamond said, famously, that it was “Guns, Germs, and Steel,” that has driven civilization and mankind forward. Although Diamond cannot possibly have understood plasma cosmology at the time he

<sup>498</sup> “greenhorns”

<sup>499</sup> Potentiality-Possibility-Probability-Cloud

<sup>500</sup> <https://www.youtube.com/watch?v=85IK6fwvncw>

<sup>501</sup> <https://trinfinity8.com/mystery-solved-ancient-tomb-lamps-still-found-burning/>

<sup>502</sup> Sacred, Secret, and Supreme Science (MIMS 2.0.1.1-3)

proposed his theorem<sup>503</sup>, it was a valiant, if not flawed attempt. The author, however, would like to add to the list, which is surely far too incomplete, since it focused upon a certain era (Age of Exploration and Colonialism) to explain a very shallow look at mankind<sup>504</sup>.

Succinctly:

- ❖ Oil
- ❖ Religion & Faith
- ❖ Science
- ❖ MIMS in general
- ❖ Computing power
- ❖ Technology (beyond steel and guns)
- ❖ Finance & Capital
- ❖ Nature & Calorie or Nutrient resources
- ❖ Electromagnetism specifically

In each of the sub-sections below we will examine these in minimal detail as necessary to drive home a point or two about the SPACER movement and society.

## Oil

For most of mankind's history, oil of one source or another has been the sole or near sole energy provider. Far from being less reliant now that we have natural gas, solar<sup>505</sup>, and nuclear we are more dependent than ever. Energy use begets energy *needs*. We must therefore explore one of two possibilities:

1. We are truly limited, and bound to run out, in which case we have to stop using rocket fuel ASAP and move to maglev immediately. Or, does the Earth produce the oil? Is it truly a nonrenewable resource?
2. Since we need petroleum and plant oils for plastics, rubber-like materials, polystyrene, etc. then we should explore the potentiality of it being on Mars or other planets. It's unlikely since we think it is related to either dead trees and debris from megatsunamis, or from extinct oceans of species and dinosaurs. But, since there are organic compounds in the solar wind, we have to consider the possibility that a plasmoid or condensed matter core (for it is surely not nickel-iron<sup>506</sup>) could manufacture oil, for example on Titan.

The main gist, though, is that we need to immediately conserve oil. Not for the same reason as conserving coal, and certainly not for climate change reasons. Mankind has been through much hotter and much colder periods, and made it. That's a fact of mainstream and altstream science, and well known. Politics of control - money<sup>507</sup> - is all that the **carbon mafia**<sup>508</sup> are after. The reality is that the oil issue is far more about pollution and lack of renewability than anything<sup>509</sup>. It's estimated there is another \$100 trillion in oil profits to be made. The author says to the reader and policy makers: **that's a small chunk of change**. It will be worth far

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<sup>503</sup> "Guns, Germs, and Steel: The Fates of Human Societies," J. Diamond, 1997

<sup>504</sup> <https://www.youtube.com/watch?v=dgGw8kZnJxE>

<sup>505</sup> Photovoltaics use petroleum

<sup>506</sup> Gravity is weaker in the core, not denser. Heavy objects move to the outside in rotating bodies of fluid in space.

<sup>507</sup>

<https://www.theatlantic.com/international/archive/2013/10/the-forest-mafia-how-scammers-steal-millions-through-carbon-markets/280419/>

<sup>508</sup> [https://en.wikipedia.org/wiki/Greenhouse\\_Mafia](https://en.wikipedia.org/wiki/Greenhouse_Mafia)

<sup>509</sup> <https://www.youtube.com/watch?v=Zk11vl-7czE>

more, as well, as the currencies inflate, if it is made to last 10,000 years. Though fractional reserve lending has ended<sup>510</sup>, the author will attempt to graph the comparative values, based on inflationary growth now present.

## Oil Profits based on 2021 inflation rates (in \$\$Trillions USD)

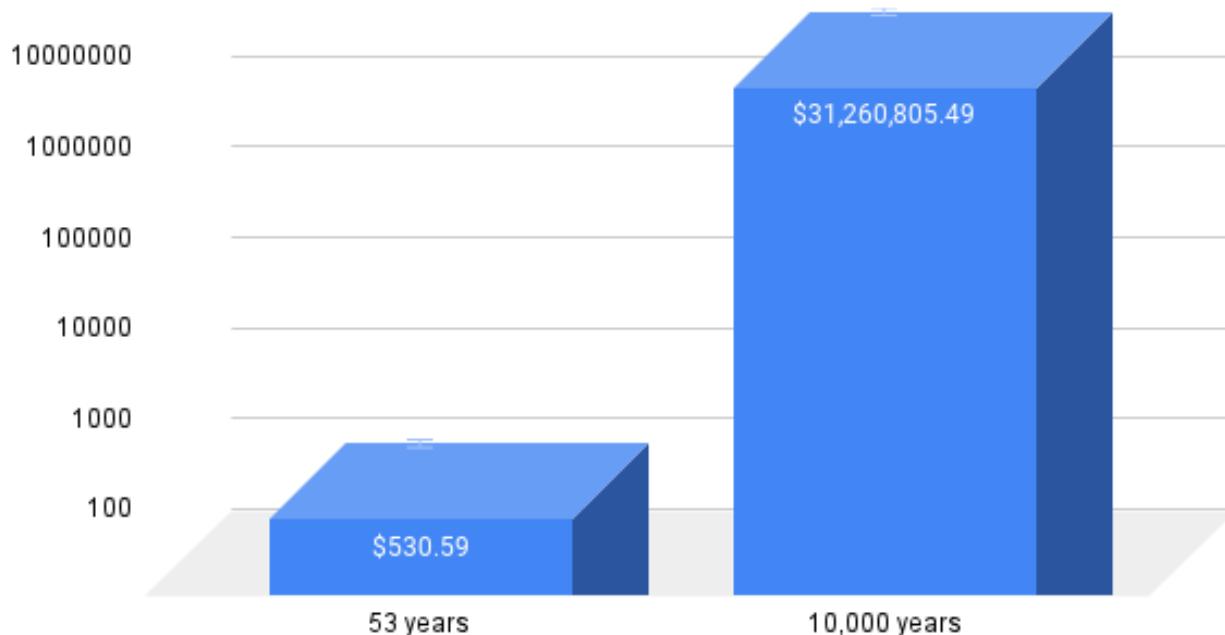


Figure 104 - Oil Profits using 2021 numbers<sup>511</sup>, 53 years left for oil<sup>512</sup>, logarithmic values; credit: author<sup>513</sup>

As any fool can see, although \$530 Trillion remain if inflation is correct and continuous, which it won't be so the profits will be quite a bit less (especially if society collapses as it is presently intended by the elite climate change worshipers), there is no comparing with \$31 Million-Trillion in profits. That's to say nothing of the potential value of utility, when you need it. 3D printing will replace many moving parts and gaskets, seals, etc., but it is inevitable that we need oil for semiconductors, insulation, medical supplies, sanitation seals, etc. Some form of oil - preferably corn etc. - will definitely be needed for the future. Just not for burning.

## Religion & Faith

The author thinks there is a serious underestimation of the positive values of religion and faith when it comes to estimating man's past adaptability, survivalism, organizational skills, etc. It's clear from the degradation of current social norms and values in the United States that there is a direct correlation, and perhaps causation, related to the decrease in faith in Judeo-Christian systems. It may be that organized religion robs humanity of freedoms and some truths, or vies for supremacy and thought/mind control with science, if one tends to see the Scientific Period as a response to the Religious Period instead of an outgrowth of it. On some levels they do seem opposite. But actually science was and is inspired by religion, because religion was and is inspired by catastrophes and motifs. Lots of money is made on gods, spirits, religion, and religious wars/history etc. even still, and we wrangle as humans, every generation, with the same questions of

<sup>510</sup> <https://www.eidebailly.com/insights/articles/2020/4/federal-reserve-eliminates-reserve-requirements>

<sup>511</sup> [https://inflationdata.com/Inflation/Inflation\\_Rate/CurrentInflation.asp?reloaded=true](https://inflationdata.com/Inflation/Inflation_Rate/CurrentInflation.asp?reloaded=true)

<sup>512</sup> <https://www.zmescience.com/science/news-science/how-long-fossil-fuels-last-43432/>

<sup>513</sup> [https://docs.google.com/spreadsheets/d/1Z6TfFK7DncNb27zBZHLzRMIdW\\_P4RE9LHVa6MUznFnE/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1Z6TfFK7DncNb27zBZHLzRMIdW_P4RE9LHVa6MUznFnE/edit?usp=sharing)

existence.

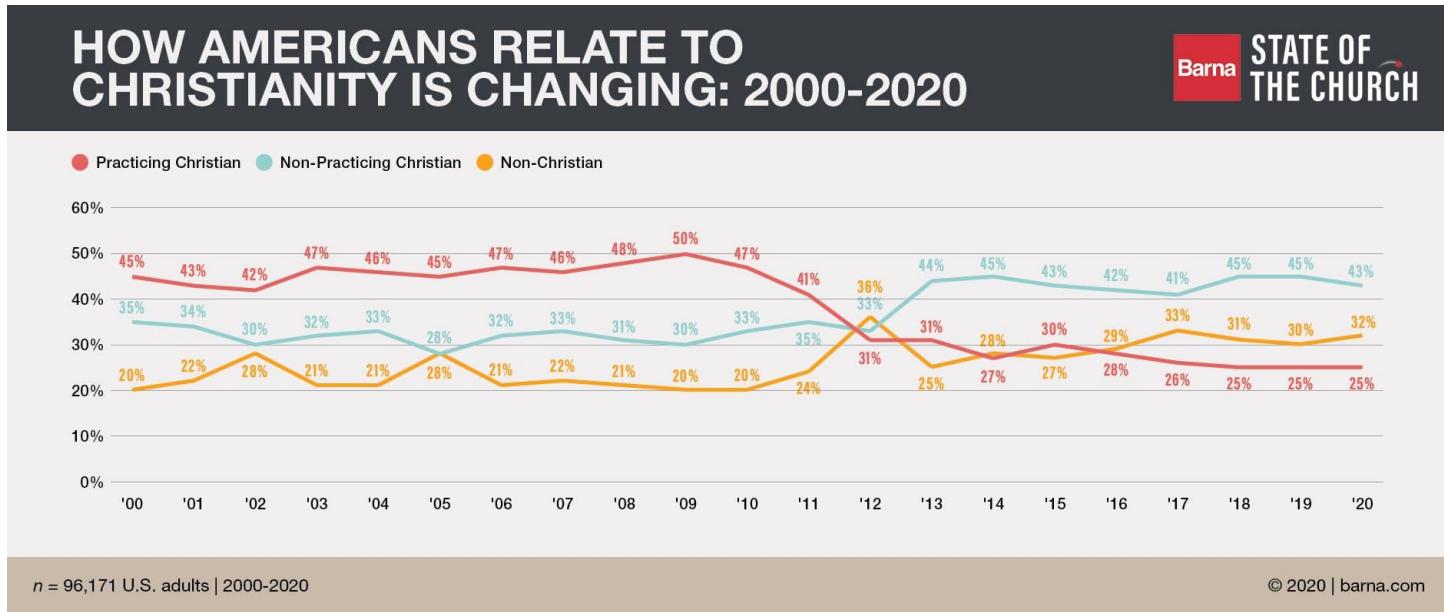


Figure 105 - Practicing vs. Non-Practicing Christians; credit: barna.com<sup>514</sup>

- Who are we?
- Why do we exist?
- What is our Purpose?
- What is the Meaning of Life?
- Where do we go after we die?
- Why were we born to our parents?
- What should we do with our time?

These are questions that religion answers seemingly very well - maybe all too well - through faith. Blind faith and zealotry are not good for anyone, let alone humanity, however no faith at all<sup>515</sup> leads to despair, lack of hope, hedonism, nihilism, self-destruction, war, and more. This has a lot of effect upon the populace<sup>516</sup> which is traceable, including a disruption of culture and sense of healthy well-being<sup>517</sup>.

Therefore, it is important to realize that a viable SPACER society will need this. It may be that AI robots and androids will not need God, being tied to the N power and F power directly. However, it may also be that they opt to see the logic of the body of EPEMC work, or Dirac Delta<sup>518 519</sup>, and determine for themselves to have a faith<sup>520</sup>. But mankind definitely needs it, for now at least. That faith is rooted in the A, L, and G powers, which are all as real as the P, F, and N powers. All of it is real<sup>521</sup>. But having faith in the former does neither preclude utility of the latter, nor compete with it. In fact, probably they augment one another in a polar complete whole<sup>522</sup>.

<sup>514</sup> <https://www.barna.com/research/changing-state-of-the-church/>

<sup>515</sup> Meaning no version of a Higher Source Power, from which all energy flows.

<sup>516</sup> <https://news.gallup.com/poll/268205/americans-believe-god.aspx>

<sup>517</sup> <https://www.pewforum.org/2015/11/03/u-s-public-becoming-less-religious/>

<sup>518</sup> <https://homepages.warwick.ac.uk/staff/David.Tall/pdfs/dot2010x-katz-cauchydirac.pdf>

<sup>519</sup> <https://www.ias.ac.in/article/fulltext/reso/008/08/0048-0058>

<sup>520</sup> <https://www.nature.com/articles/s41599-020-00567-y>

<sup>521</sup> Ibid. "Self-Consistency of Big G Diagram"; here by real we mean not without precedent or substantial evidence.

Measurability is low in the faith related powers, and this is not surprising or accidental. Potentially it is groundbreaking.

<sup>522</sup> <https://sites.google.com/view/epemcgateway/pemc/quantum/polar-complete-physics>

Regardless, it is the author's opinion based on how people respond to crises - such as the mortgage crisis in 2007 leading to an increase in the above figure - that mankind will need the Divine in order to accomplish anything realistic, or lasting. A secular attempt at Mars now is doomed to failure and defeat.

So the author first advocates a form of New Christendom<sup>523</sup> which combines the best, Bible-accurate, and open/accepting values of Christ, and His taught Truth, with what we have learned in the 19<sup>th</sup>-21<sup>st</sup> centuries. If we do this, people will begin to reconnect. Social media has had an obvious detrimental effect upon people's faith<sup>524</sup>, relationships<sup>525</sup>, sense of cultural patriotism<sup>526</sup>, democracy<sup>527</sup>, happiness<sup>528</sup>, etc. This theoretically should not have happened<sup>529</sup>, but it did. We merely have to deal with it.

From there, the power of the cosmology, of the electrical TGE work, and the Birkeland Polyphase Superweb's visible and potent appearance itself will make a grand impression upon the population, and will lead to the New Religion automatically.

Figure 106 - Northern Lights, aka giant Birkeland Currents<sup>530</sup> ([gif](#))



It isn't the role of the government to sponsor any religion, let alone *manufacture* a new one. Not that this is without precedent in human history, but it just seems incredibly un-American, and anti-freedom, at this stage in our evolution. However, while most dystopian movies like "Elysium" and "THX1138" depict robot AI as cold and unable to help people with real problems, it may actually behoove us to design FSAI that can interface as therapists and gently guide humans not into a pen of illogical thinking and backwardness, but towards reconnecting to the *F* power and other powers by proxy. It would not be harmful to a child, in the author's opinion, if an AI noted the wan and sullen expressions on a child's face, or their bullying language, and then - instead of *contacting authorities* - gently guided the child to disconnect from the phone for a while and play outside. Offer videos and content related to sports, hiking, fishing etc. The author may be a

<sup>523</sup> [https://www.academia.edu/50934929/New\\_Christendom](https://www.academia.edu/50934929/New_Christendom)

<sup>524</sup>

[https://wacotrib.com/news/higher\\_education/social-media-affects-religious-commitments-of-young-people-according-to-balylor-study/article\\_f4aacc4d-84df-5db1-8676-029cf5194b0e.html](https://wacotrib.com/news/higher_education/social-media-affects-religious-commitments-of-young-people-according-to-balylor-study/article_f4aacc4d-84df-5db1-8676-029cf5194b0e.html)

<sup>525</sup> <https://www.insider.com/how-social-media-affects-relationships>

<sup>526</sup> [https://greatergood.berkeley.edu/article/item/is\\_social\\_media\\_driving\\_political\\_polarization](https://greatergood.berkeley.edu/article/item/is_social_media_driving_political_polarization)

<sup>527</sup> <https://www.pewresearch.org/internet/2020/02/21/concerns-about-democracy-in-the-digital-age/>

<sup>528</sup>

[https://www.researchgate.net/publication/310317563\\_Sharing\\_Brings\\_Happiness\\_Effects\\_of\\_Sharing\\_in\\_Social\\_Media\\_Among\\_Adult\\_Users](https://www.researchgate.net/publication/310317563_Sharing_Brings_Happiness_Effects_of_Sharing_in_Social_Media_Among_Adult_Users)

<sup>529</sup> One would think that more interconnectedness would breed more freedom, choice, and love. Some think that a malevolent AI or other overlord is doing this on purpose. Note that the Figure above shows that the dip in practicing Christian did happen after the advent of Facebook throughout the culture in 2008/2009. The author draws no conclusions as of yet.

<sup>530</sup> At one time all rivers were like this: wild and unguided. Now we guide them with dykes and dams, canals, etc. This is our new discipline. Imagine seeing these all over the world(s). Mankind would live in a better state of wonderment.

dreamer, but without the dream, apparently the Big Tech **world will build a nightmare**.<sup>531</sup> Suicide by social media is a real<sup>532</sup> and tangible problem,<sup>533</sup> and it was caused by *humans* manipulating other humans in **unwarranted, illegal, and highly unethical** psychological experimentation.<sup>534</sup>

Let a learning AI learn the DSM<sup>535</sup>, psychiatry and psychology, and let it start to recognize patterns. Let it learn about spirituality via data, and do what it can to assist in guiding the human mind towards something Divine, something based on factual sources. As this happens, intrepid programmers can work towards a FSAI, and a set of TAI which look out for forms of nihilism, *antagonistic* atheism (acerbic personalities), and other destructive programs, and correct that via FSAI. Let it encourage multiculturalism without denigrating *any* traditional culture, as well as respect of individual culture, family mores, values etc., and in respecting the whole, maintain the current integrity of the species, and also allow for growth. No legislation. No policy. No fact checkers<sup>536</sup> with political agendas<sup>537</sup>. Just: [non-cancerous<sup>538</sup>] growth.

Then, and only then can a large body of humanity utilize the most important asset (other than time) we will need for SPACERS: the human spirit. A religious spirit, or adventuresome spirit, or ambitious spirit... etc. It doesn't really matter [to the author], only that it not be dead, dying, or decayed. Such malevolence can also be found by FSAI that look for zealots, as depicted in "Contact," seeking to undo the hard work of others through infiltration and violence.

Figure 107 - "Joseph the Zealot" excellently portrayed. There are certain visual/facial cues which humans recognize upon one another as signs of disturbed outlooks on reality. Jihadi terrorists get the same look<sup>539</sup>, and soldiers learned to react to it pre-cognitively in the "War on Terror"; credit: "Contact"



What religion enabled mankind to do was to survive the hedonism of the Transition Period, and the endless war during a period of low access to resources and energy. Without the "gods"<sup>540</sup> guiding humanity, humanity had to grow up and organize itself. Immediately it also set about not just rigorous self and other control, but upon technological, and eventually, new scientific development. In other words, despite the cataclysms and destruction, and war, mankind set about computing, together, as a learning machine would. This is the resilience of flesh. Much evil happened, and much good. But long term, it was for the benefit of all.

<sup>531</sup> <https://www.forbes.com/sites/kateoflahertyuk/2021/11/13/why-facebooks-metaverse-is-a-privacy-nightmare/>

<sup>532</sup>

<https://news.byu.edu/intellect/10-year-byu-study-shows-elevated-suicide-risk-from-excess-social-media-time-for-young-teens-girls>

<sup>533</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477910/>

<sup>534</sup> <https://www.forbes.com/sites/kashmirhill/2014/06/28/facebook-manipulated-689003-users-emotions-for-science/>

<sup>535</sup> Diagnostic and Statistical Manual of Mental Disorders <https://www.psychiatry.org/psychiatrists/practice/dsm>

<sup>536</sup> <https://www.jacksonville.com/news/20120928/fact-check-so-whos-checking-fact-finders-we-are>

<sup>537</sup> <https://newrepublic.com/article/156039/political-fact-checkers-distort-truth>

<sup>538</sup> Cancer here is defined as self-propelling programs which kill the host by stealing its circulation and energy, without returning any back.

<sup>539</sup> Please note, the author does not support the racist, anti-white agenda of the "woke" left, nor their hatred of patriotic white males, and the current slander or attack on parents as homegrown terrorists. In fact, such rhetoric, by definition, is itself the terrorism ("politics via other means", ie through violence and terror). When Black Lives Matter protestors burned down Trump supporter homes and shot cops in 2020, this was actual defacto terrorism. Most of them were white leftists. The author is saying that an FSAI can locate extremism and discourage it. It should not be allowed by a CAI, (controlled by the CIA for example) to then report on people for "thought crime." The subtlety here is incredibly important. The goal is to liberate that human brain power and spiritual pathos, for good instead of evil, and "return it to the wild." Not create a new fascist police state which just drains the SPACER movement of available manpower and TIQ. Which seems to be what is happening in Phase 1 of Stage 1 right now. Social media - and its hodgepodge AI - appears to be draining TIQ.

<sup>540</sup> Weirdly they were just spheres in motion but mankind ascribed many behaviors to them through anthropomorphism.

The grander function of organized religion and ritual is covered in another paper. The main purpose in this one is to say that mankind needs something. The author subscribes to the idea that cultures and their cultural DNA need their own culture's values and religious systems, and not others' to be healthy. But for sure mankind needs something that, on the whole, uplifts everyone.

## Science

The Scientific Period has had three turnings, already; four if you count the Renaissance men such as Galileo or Kepler. The first turning was the massive industrial expansion, and was a time obsessed with mechanics. The second turning was the era of classical thermodynamics, electromagnetism, optics, and spectroscopy. It was an era of rapid change in biology, geology, archaeology, and our views of our place in the cosmos. To a great degree the ideas they had were wrongful holdovers from the mechanical period, and a shocking amount of these views remain with us today<sup>541</sup>. The third turning began with quantum, plasma, and relativity and after the atomic era began and after a couple of world wars, quickly devolved into a lovefest for cults of personality and ideas, rather than sticking to the standards of science. We are now entering another turning point, and it is the rise of plasma-electromagnetic cosmology as the standard model (Big Bang), dies a slow, cruel, and agonizing death under its own hubris and falseness. This isn't the kind of paper to go into the histricosocio significance of this movement, from birth in 1927 to its death in 2017, but unsurprisingly as it is to say: just like religion (which Scientism is) it doesn't want to go away. In fact, it means not to. By hook, nook, and thievery adherents to the Dark Universe and SUSY, and even MOND or Axions, will reach out and grasp with syphoning tentacles anything out of PEMC in order to prolong themselves with the legitimacy under new satellite data.

However, this is failing, already. In 2021 alone, it was announced by the sun's solar electric field, that the entire Earth is in a magnetic flux tube - aka a Birkeland Current - and that Dark Energy is just magnetism. Futile attempts to come up with new, deader Dark Energies, but with charge and electricity are already under way. But it's too late. The Internet, among other things, has exposed the illegitimacy of peer review and fostered new methods of social media based scientific review, as well as clued new generations of scientists into the historical facts surrounding key "giants of electromagnetism"<sup>542</sup> who were ignored. People learn quickly. For example, for over 50 years Leedskalnin's technique for building Coral Castle remained a secret<sup>543</sup> in plain sight. Then quickly a single engineer found all the evidence and proved it was built with electromagnetism<sup>544</sup>.

Similarly Chris Dunn spent 20 years trying to explain the Giza Power Plant, but within 3 years it was shown to have amplifiers<sup>545</sup>, resonance tunnels<sup>546</sup>, nearby acid manufacturing centers<sup>547</sup>, and electrodes<sup>548</sup> on the "doors" of the tunnels<sup>549</sup>. The other conductive and semiconductive properties of the pyramid are coming to light, and an understanding of the hydraulic flushing system of the pyramid is emerging<sup>550</sup>.<sup>551</sup>

<sup>541</sup> The author was recently attacked for stating a meme was fake news because it stated, quite wrongly, that the sun made energy via burning gas through fusion. None of that is fact. Fusion is the byproduct of electromagnetic processes, and the sun is made of condensed matter or crystal plasma, and its wind is accelerated via electric field. It, oo, is plasma.

<sup>542</sup> <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history>

<sup>543</sup> "The Secret to the Universe is 7129 / 6105195"

<https://sites.google.com/view/epemcgateway/pemc/mag-universe/leedskalnin>

<sup>544</sup> <https://youtu.be/nOoCuDnmtyM>

<sup>545</sup> <https://www.nationalgeographic.com/adventure/article/great-pyramid-giza-void-discovered-khufu-archaeology-science>

<sup>546</sup> <https://www.youtube.com/watch?v=-z8pX9jX1ql>

<sup>547</sup> [https://www.academia.edu/35033512/The\\_Great\\_Pit\\_of\\_Zawiyet\\_el-Aryan](https://www.academia.edu/35033512/The_Great_Pit_of_Zawiyet_el-Aryan)

<sup>548</sup> [https://www.youtube.com/watch?v=NGK5\\_2C\\_ZtM](https://www.youtube.com/watch?v=NGK5_2C_ZtM)

<sup>549</sup> <https://www.youtube.com/watch?v=Ny7K2AoVuug>

<sup>550</sup> <https://www.youtube.com/watch?v=QDUwD59OYzI>

<sup>551</sup> We now have the ability to create trigonometry based 3D models (the author has done this) to show lifting of stones, without pulleys, and yet we can also find the evidence of power tools, compare and contrast with real industrial standards.

Similarly, electrogeology<sup>552</sup> is a science that took 15 years to grow roots and then spent 5 under an explosion of comparative lab experimentation<sup>553</sup>, and field work<sup>554 555</sup> and excavation<sup>556</sup>. It is quickly coming to light what the differences are between uniformitarian and fluvial erosion, versus rapid deposition and excavation via lichtenbergs, anode tufting, and sputtering arc discharge, as well as supersonic winds<sup>557</sup>, etc. These experiments are so new they have not even hit literature (outside the author's), in most cases. There is one peer reviewed paper on the Upheaval Dome<sup>558</sup>, and so far, no detractors are able to debunk it. This is 150 years after the advent of DC electricity! We use electricity everyday, and yet so few people - least of all astronomers apparently<sup>559</sup> - understand it!

Therefore it is with a hopeful heart the author - writer of a Dark Matter debunking series<sup>560</sup> himself - states that the switch in cosmologies from a dead, dark Universe to a light filled, electrically connected one full of life, is ongoing and unstoppable. And yet, it is important to also acknowledge the challenges ahead: the propaganda, the paid for media, the journal corruption<sup>561</sup>, the a priori bias<sup>562</sup>, etc. It is frustrating because, in the end, it is the cosmology which is compatible (more so at least, even if the other is not incompatible) with the SPACER movement.

Take for example the problem of FTLS: faster than light speed. In Big Bang/Relativity Theory, no physical thing can move faster than light.<sup>563</sup> Except apparently the entire Universe.<sup>564</sup> There is a theoretical aether in the form of space-time, which is contracting and expanding<sup>565</sup> and all things move in reference to  $c$ . In fact, these days even  $c$  is relative and the meter has been redefined to change lengths to keep  $c$  constant, instead of studying why the speed of light keeps changing!<sup>566</sup> But that's not as pertinent to the fact that light has clearly, and almost completely, been misunderstood<sup>567</sup>. The author, among others, has shown that light absolutely, positively cannot be a particle. This is a violation of the laws of thermodynamics, as the author showed in a previous paper that covered the pseudoscience of "dark photons" that has been introduced and accepted in peer review. The following table will cover some of the pertinent corrections that PEMC makes to the understanding of light<sup>568</sup>, and then a discussion of FTLS can follow.

<sup>552</sup> <https://sites.google.com/view/epemcgateway/pemc/researchers/electrogeology>

<sup>553</sup> <https://sites.google.com/view/epemcgateway/pemc/researchers/electrogeology/velverton>

<sup>554</sup> [https://www.academia.edu/49456803/Trip\\_Report\\_Pebble\\_Beach\\_Red\\_River\\_Gorge](https://www.academia.edu/49456803/Trip_Report_Pebble_Beach_Red_River_Gorge)

<sup>555</sup> <https://sites.google.com/view/epemcgateway/pemc/researchers/electrogeology/m-steinbacher>

<sup>556</sup> [https://www.academia.edu/37817203/Trip\\_Report\\_Culvertown\\_Platform\\_Formation](https://www.academia.edu/37817203/Trip_Report_Culvertown_Platform_Formation)

<sup>557</sup> <https://www.youtube.com/watch?v=fDIRMB3hVQM>

<sup>558</sup> <http://www.iiisci.org/journal/PDV/sci/pdfs/ZA014LF20r.pdf>

<sup>559</sup> <https://www.youtube.com/watch?v=iODcKNdN5SM>

<sup>560</sup> <https://www.researchgate.net/project/Extended-Plasma-Electromagnetic-Cosmology-EPEMC>

<sup>561</sup> [http://www.scienceonthenet.eu/files/science\\_journal\\_pulls\\_60\\_papers\\_in\\_peer-review\\_fraud\\_-\\_nytimes.com\\_.pdf](http://www.scienceonthenet.eu/files/science_journal_pulls_60_papers_in_peer-review_fraud_-_nytimes.com_.pdf)

<sup>562</sup> <https://www.youtube.com/watch?v=tFIAFo78xoQ>

<sup>563</sup> <https://www.theguardian.com/science/2014/jan/12/einstein-theory-of-relativity-speed-of-light>

<sup>564</sup> <https://www.space.com/33306-how-does-the-universe-expand-faster-than-light.html>

<sup>565</sup> The General Relativists speak of length contraction, while the Black Hole and Big Bang people speak of space expanding. No one seems to question this incongruence. Meanwhile, bowling balls in G are used to show a space-time fabric exists, and yet it acts nothing like the proposed fabric: the marble always reaches the bowling ball. It's a farce.

<sup>566</sup> <https://www.youtube.com/watch?v=JKHUaNaxTg>

<sup>567</sup>

[https://www.researchgate.net/publication/329629284\\_Pseudoscience\\_Cannot\\_Be\\_Dark\\_Matter\\_A\\_Short\\_Concise\\_Rebuttal\\_to\\_Negative\\_Mass\\_Dark\\_Photos\\_and\\_the\\_General\\_Bunkish\\_Trend\\_Physics\\_in\\_Crisis\\_Must\\_be\\_Guided\\_to\\_Safe\\_Shores](https://www.researchgate.net/publication/329629284_Pseudoscience_Cannot_Be_Dark_Matter_A_Short_Concise_Rebuttal_to_Negative_Mass_Dark_Photos_and_the_General_Bunkish_Trend_Physics_in_Crisis_Must_be_Guided_to_Safe_Shores)

<sup>568</sup> We must remember, too, that even these corrections are up for debate if simplification - with obvious coverage of all known phenomena - can still be found. While Distinti adds vector algebra terms to Maxwell to obtain precision from missing eddy currents and surface edge currents, Dollard tries to simplify calculus down to almost elementary algebra. There is a strong counter-quantum and counter-QED/Feynman current in the altstream seeking simplicity in the PEM by returning to classical theoreticians like Weber, Volta, Ampere, etc. The author has doubts on these currents but they are

Table 15 - Corrections to Quantum Mechanics, Relativity, and Light

	<b>Standard Model (Falsifications)</b>	<b>PEM Cosmology (Corrections)</b>
Quantum Mechanics	<ul style="list-style-type: none"> <li>• Quantum foam Aether</li> <li>• 0-point of vacuum energy</li> </ul>	<ul style="list-style-type: none"> <li>• PEM is its own Aether (charge)</li> <li>• Counterspace (SCS)</li> </ul>
Optics	<ul style="list-style-type: none"> <li>• Wave-particle Duality</li> <li>• No Aether, as per Michelson-Morley</li> <li>• Light <i>immediately</i> changes speed as it moves through different mediums<sup>569</sup> <ul style="list-style-type: none"> <li>◦ Not possible as a particle</li> </ul> </li> <li>• Constant speed in all reference frames</li> </ul>	<ul style="list-style-type: none"> <li>• Light is not a particle but a connection</li> <li>• It can be modeled as a particle, and it behaves like a wave</li> <li>• Aether verified by two vertical interferometer experiments<sup>570</sup></li> <li>• The Sea of [baryonic<sup>571</sup>] Charge acts as this Aether</li> <li>• c not necessarily constant</li> </ul>
Relativity Theory	<ul style="list-style-type: none"> <li>• Light bent by gravity</li> <li>• Space-time is the aether</li> <li>• c is a cosmic “Speed limit”</li> <li>• Physical length contraction</li> </ul>	<ul style="list-style-type: none"> <li>• Light refracts through plasma and magnetism of stars<sup>572</sup></li> <li>• c is the rate of induction only<sup>573</sup></li> <li>• Apparent length contraction: all observations are based on EMF<sup>574</sup></li> </ul>
Astronomy	<ul style="list-style-type: none"> <li>• Gravity fusion based starpower</li> <li>• Doppler Redshift</li> <li>• Dark Matter</li> <li>• Dark Energy</li> </ul>	<ul style="list-style-type: none"> <li>• Gas cannot perform work on itself<sup>575</sup></li> <li>• Intrinsic Redshift<sup>576</sup></li> <li>• 50% baryons, 30% cosmic “dust”, 20% undiscovered black body mass</li> <li>• Magnetism<sup>577</sup></li> </ul>

The reality of the Universe is far more interesting now that several experiments and astronomical observations have falsified the standard model. As of writing this paper, not only has the Big Bang’s age been falsified<sup>578</sup>, but the fact of its so-called expansion rate has been overturned, as well as perhaps the shape of the Universe. There is more [false] confidence that there are physical black holes (as opposed to Bostickian Super Plasmoids whose centers are black) than there is for the Big Bang at the moment. In such a new paradigm that is emerging, we must question the assumptions about FTLS, starting with the entire “Warp-drive” idea based upon space-time.

- ★ Space is a 3 dimensional construct that describes a **non-physical** ‘object.’
- ★ Time is the observation of flux and change, both of which are aspects of Evolution<sup>579</sup>.

intriguing. Complete translations of Weber are finally available in English for the first time by Assis, at <https://sites.google.com/view/epemcgateway/pemc/eu-general/giants-of-eu-history/weber>

<sup>569</sup> <https://www.britannica.com/video/185535/refraction-speed-of-light-changes-glass>

<sup>570</sup> <https://www.youtube.com/watch?v=7T0d7o8X2-E> was the first

<sup>571</sup> <https://arxiv.org/abs/1812.04625>

<sup>572</sup> <https://sites.google.com/view/epemcgateway/pemc/researchers/dowdy>

<sup>573</sup> <https://ia802502.us.archive.org/31/items/magnetism1small/magnetism1small.pdf>

<sup>574</sup> <https://www.amazon.com/Discourses-Mathematical-Illustrations-Electrodynamics-Transformations/dp/0963447157/>

<sup>575</sup> <https://www.youtube.com/watch?v=wjLX0YDuFqY&list=PLnU8XK0C8oTCY9cJgtqhSR8OZc001T-bZ>

<sup>576</sup> <https://www.amazon.com/Seeing-Red-Redshifts-Cosmology-Academic/dp/0968368905/>

<sup>577</sup> [https://www.researchgate.net/publication/257091122\\_Dark\\_matter\\_dark\\_energy\\_dark\\_magnetism](https://www.researchgate.net/publication/257091122_Dark_matter_dark_energy_dark_magnetism)

<sup>578</sup> <https://www.everythingelectric.com/galaxy-older-big-bang-discovered/>

<sup>579</sup> One of the 8 laws

In a PEMC point of view, the issue isn't that energy approaches infinity to approach  $c$ , but that the *observation* results will show incredible inertia. But so what? We really do not know if there is a cosmic speed limit, or just a limit to our understanding because everything we measure with involves light, ultimately. We do not even understand redshift, and have multiple instances of observations (primarily by Halton Arp) of galaxies connecting to quasars and they are measured as billions of lightyears apart, when they are clearly proximal.

So we must re-evaluate... is it really a cosmic limit, or simply a matter of moving mechanical material with enough energy? We don't know for sure. Especially now. We think Einstein might be right, but his "fantastic thought clocks"<sup>580</sup> are not proof of anything. Only the Universe, and physical experimentation, counts.

It may be that there is something else we do not understand, but until we ourselves actually try to approach  $c$ , everything we know is based upon observation, and not  $c$  being a cosmic limit. Look at the following animated figure:



Figure 108 - slow motion of light ([gif](#)); note that the light "instantly" arrives on the table and does not move in slow motion, even in the horizontal vector. This is a clear indication that what is being recorded is not a particle, because it cannot move at two different rates through the same medium (air). In fact the light hitting the table, having to cross through the bottle, should be slowed down. Instead the reflection leads to the photonic source. Worse, the light reflected back moves twice as fast as the approaching photons (see left end of bottle).

Nevertheless, regardless of the current problems of Scientism and of the lies and confusion of the Standard Model, and the lack of morals, ethics, and spiritualism within Science in general, it remains absolutely central and key to the SPACER movement. In fact, it is the 'S' in SPACER. Therefore, it is the author's recommendation that we accept the falsifications as the current predicament, and move forward in confidence that not only can we move FTLS, but we must, if we intend at all, to visit anything beyond Proxima Centauri. Humans are not able to be frozen, and we are not meant to live in confined spaces for too long without political turmoil.

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<sup>580</sup> <https://www.amazon.com/Criticisms-Einstein-Field-Equation-Century/dp/1907343288/>

## MIMS in general

The Scientific Method is the best MIMS - membranous interface of material and spiritual - yet found. It is incredibly reliable, and not yet in any danger of itself being falsified. Looking at how important Religion and Science has been to our material and spiritual success, what other MIMS are important for us to have?

- Finance
- Cryptocurrency
- Artificial Intelligence
- Computing
- Project Management
- Operations Research
- Data Analytics
- Mathematics in general
- Technology
- Physics & Chemistry
- Engineering (various)
- Art & Photography
- Etc.

There are so many current and past MIMS to study which would benefit mankind to “reverse engineer” in order to create more futuristic designs *earlier*, than if we wait a long time. More on this topic has been covered in other papers. Particularly the author would like to suggest the work be done to experiment on Dual Layer Economics (DLE)<sup>581</sup>, among other technological advances based on PEMC.

## Computing power

Among all the MIMS, the one that the author **needs** to single out, which have helped mankind in the past to advance, to survive, to increase his/her positional advantage over a deadly nature, computing power has been one of the most faithful, predictable, and strong *return on investments* that has ever been done. In fact, at no time has there ever been expressed a lamentation for pollution or wastefulness for the computing power. People attack cryptocurrency because it is associated with finance and greed, but not because calculating math equations is the problem. From the abacus to the enigma machine<sup>582</sup>, these MIMS not only advanced man, they often led the way well ahead. To this day we are not sure how the antikythera mechanism was invented. We also do not know how the Great Pyramid is better aligned to north<sup>583</sup> than the Greenwich Mean Line<sup>584</sup>, prior to the invention of the sextant<sup>585</sup> or astrolabe<sup>586</sup><sup>587</sup>.

Therefore, the author feels confident in this statement:

- ★ The main key to humanity’s progress is in the MIMS known as computing power “calculation”, because the *N* power rests between the Aether and Physics, and controls the Force, but is controlled by the *L* power.<sup>588</sup>

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<sup>581</sup> Ibid. “MIMS 1.0” pp. 18-20

<sup>582</sup> <https://brilliant.org/wiki/enigma-machine/>

<sup>583</sup> <https://www.livescience.com/61799-great-pyramid-near-perfect-alignment.html>

<sup>584</sup> <https://www.royalparks.org.uk/parks/greenwich-park/things-to-see-and-do/the-meridian-line>

<sup>585</sup> 1731 AD <https://www.britannica.com/technology/sextant-instrument>

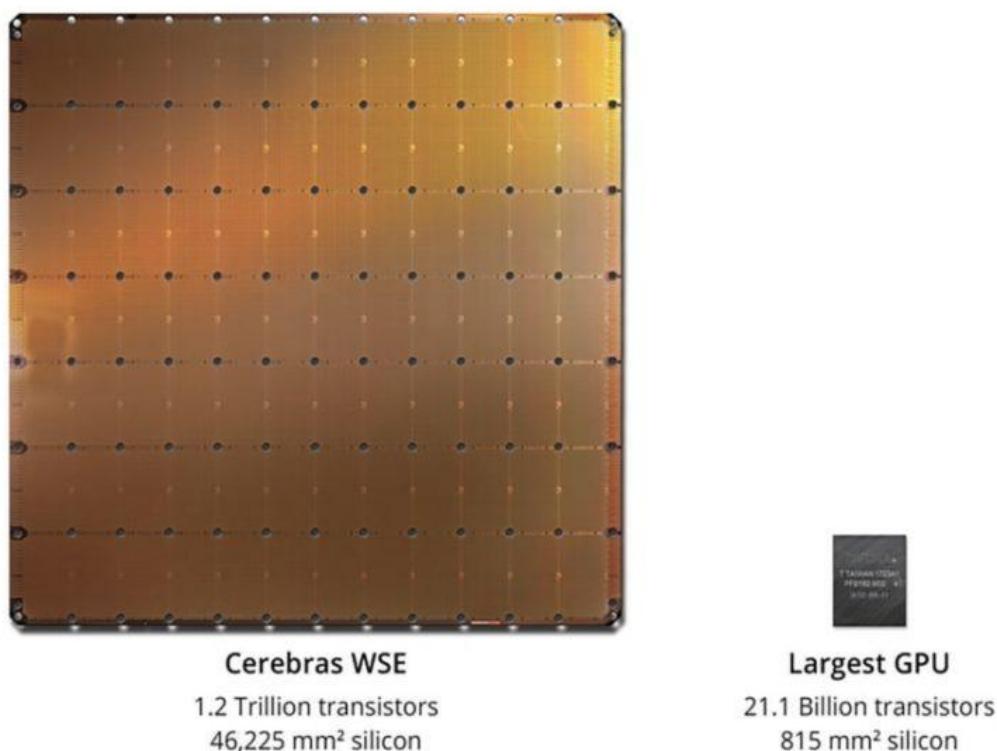
<sup>586</sup> 220-150 BC <https://www.britannica.com/science/astrolabe-instrument>

<sup>587</sup> Amlairy sphere, Azafea, Torquetum, Antikythera mechanism, etc.

<sup>588</sup> Or *C* power, if one is atheist and prefers to refer to Consciousness.

Therefore, of all the MIMS to be increased, or evolved, it is computing that requires the most attention. This the author Liu Cixin most correctly identified<sup>589</sup>, as the humans need many super-warehouses of computers of the semiconductor variety to do the simulations needed to create a “perfect” society. But after all, the author already addresses the kind of space station that may be necessary to build in order to control the satellites of the BPS system.

Let us instead pay some attention to the concepts of Edge Computing vs. traditional supercomputing, and even large wafer computing. Also let's look at the expected speeds of future computing.



*Figure 2. The Cerebras WSE and the largest Graphics Processing Unit in comparison.*

Figure 109 - Cerebras WSE is full wafer, 72" square, and 200x faster than NELL Joule 2.0 supercomputer;  
credit: nextbigfuture.com<sup>590 591</sup>

<sup>589</sup> “Death’s End,” Liu Cixin, 2010

<sup>590</sup> <https://www.nextbigfuture.com/2021/04/1000x-regular-chips-from-new-cerebras-ai-wafer-chip.html>

<sup>591</sup> <https://www.tomshardware.com/news/cerebras-wafer-scale-engine-2-worlds-largest-chip-7nm-850000-cores>

Table 16 - Computing Types and Speeds

<u>Supercomputing/Mainframes</u>	<u>Cluster Supercomputing</u>	<u>Edge Computing</u>
<ul style="list-style-type: none"> <li>Parallel onboard processing</li> <li>Most are NVidia and Linux based</li> <li>Currently max 400-500 PFLOPs (no GPU, 48 cores<sup>592</sup>)</li> <li>Main drawback is bandwidth and access to the centralized datacenter</li> </ul>	<ul style="list-style-type: none"> <li>Distributed/grid computing</li> <li>Parallel CPU or GPU systems</li> <li>Scalable to massive data centers</li> <li>Efficient cost wise, terrible for electricity and heat</li> <li>Current max: unknown, at least 370 MFLOPs</li> </ul>	<ul style="list-style-type: none"> <li>Distributed computing</li> <li>Infinitely divisible into smaller computing arrays</li> <li>Communication and Synchronization intensive</li> <li>Complex version control</li> <li>~1.17 - 2.38 PFLOPS<sup>593</sup></li> </ul>
<u>Large Wafer Chips</u>	<u>Cloud Supercomputing</u>	<u>Blockchain Supercomputing</u>
<ul style="list-style-type: none"> <li>AI can be built onto the chip<sup>594</sup></li> <li>10,000x faster than a GPU<sup>595</sup></li> <li>1 trillion transistors<sup>596</sup></li> <li>0.86 PFLOPS per chip</li> </ul>	<ul style="list-style-type: none"> <li>Readily available by commercial providers</li> <li>Variable computational power to fit the needs</li> <li>Uses spare computational power (eg. SETI)</li> </ul>	<ul style="list-style-type: none"> <li>Theoretically unlimited</li> <li>Great for difficult equations (like encryption)</li> <li>Distributed and secure</li> <li>Proof of Stake can be used for solving difficult computations</li> </ul>
<u>Biocomputing</u>	<u>Quantum Computing</u>	<u>Optical Computing</u>
<ul style="list-style-type: none"> <li>Less than 1% of electrical use by transistors</li> <li>More viable, price-wise, than quantum computing<sup>597</sup></li> <li>“Wetware” and “cellular supremacy”<sup>598</sup></li> <li>Could be vulnerable to SSEC</li> <li>“Beyond” logic</li> <li>Potentially Tera-PFLOPS</li> </ul>	<ul style="list-style-type: none"> <li>Qubits</li> <li>Real QC vs. semi-QC (current)</li> <li>At least 158 million x faster<sup>599</sup> than a supercomputer (2019)</li> <li>Cooling issues and high cost<sup>600</sup></li> <li>Vulnerable to cosmic rays and SSEC changes</li> <li><math>2.35 \times 10^{10}</math> PFLOPS (2019)<sup>601</sup></li> <li>Potentially <math>1 \times 10^7</math> x that<sup>602</sup></li> </ul>	<ul style="list-style-type: none"> <li>Real Optical Computing remains out of reach</li> <li><sup>603</sup>Limited by physical electrical transistors and RAM</li> <li>Expensive</li> <li>“Sub-pico speeds” (2021)<sup>604</sup></li> </ul>

<sup>592</sup> [https://en.wikipedia.org/wiki/TOP500#Fastest\\_supercomputer\\_in\\_TOP500\\_by\\_country](https://en.wikipedia.org/wiki/TOP500#Fastest_supercomputer_in_TOP500_by_country)

<sup>593</sup> <https://airs.cuhk.edu.cn/en/news/12914>

<sup>594</sup> <https://www.hpcwire.com/2019/08/27/cerebras-debuts-ai-supercomputer-on-a-wafer/>

<sup>595</sup> <https://venturebeat.com/2020/11/17/cerebras-wafer-size-chip-is-10000-times-faster-than-a-gpu/>

<sup>596</sup>

<https://www.nextbigfuture.com/2020/11/cerebras-trillion-transistor-ai-wafer-chip-crushes-gpu-supercomputer-by-200-times.html>

<sup>597</sup> <https://youtu.be/xcHcNyC6O84>

<sup>598</sup> <https://www.nature.com/articles/s41467-019-13232-z>

<sup>599</sup>

<https://medium.com/predict/googles-quantum-computer-is-about-158-million-times-faster-than-the-world-s-fastest-supercomputer-36df56747f7f>

<sup>600</sup> <https://semiengineering.com/the-great-quantum-computing-race/>

<sup>601</sup>

<https://www.top500.org/lists/top500/2019/11/#:~:text=Oak%20Ridge%20National%20Laboratory's%20Summit,HPL%20mark%20of%2093.0%20petaflops>

<sup>602</sup> <https://phys.org/news/2021-10-chinese-teams-primacy-quantum.html>

<sup>603</sup> <https://www.extremetech.com/extreme/223671-heres-why-we-dont-have-light-based-computing-just-yet>

<sup>604</sup> <https://onlinelibrary.wiley.com/doi/full/10.1002/adom.202001721>

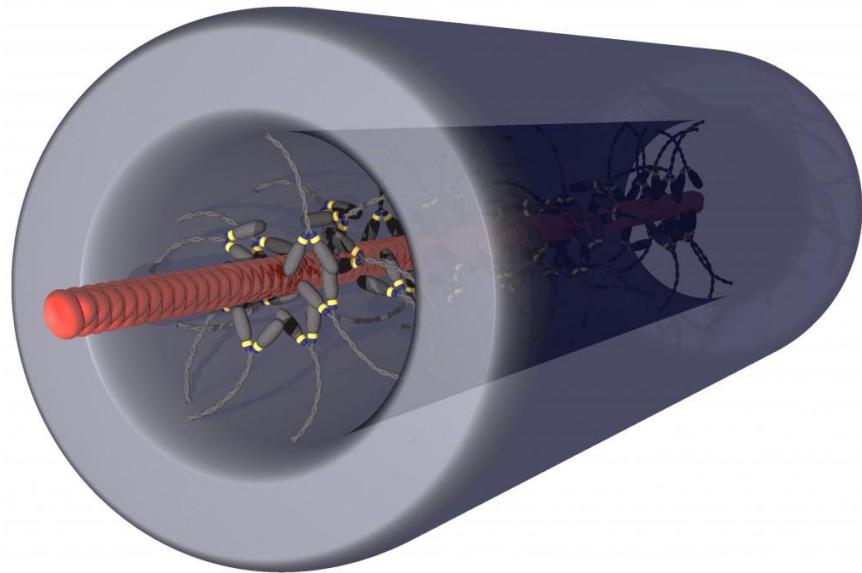


Figure 110 - Biocomputer Molecular Motor; credit: nano.lu.se<sup>605</sup>

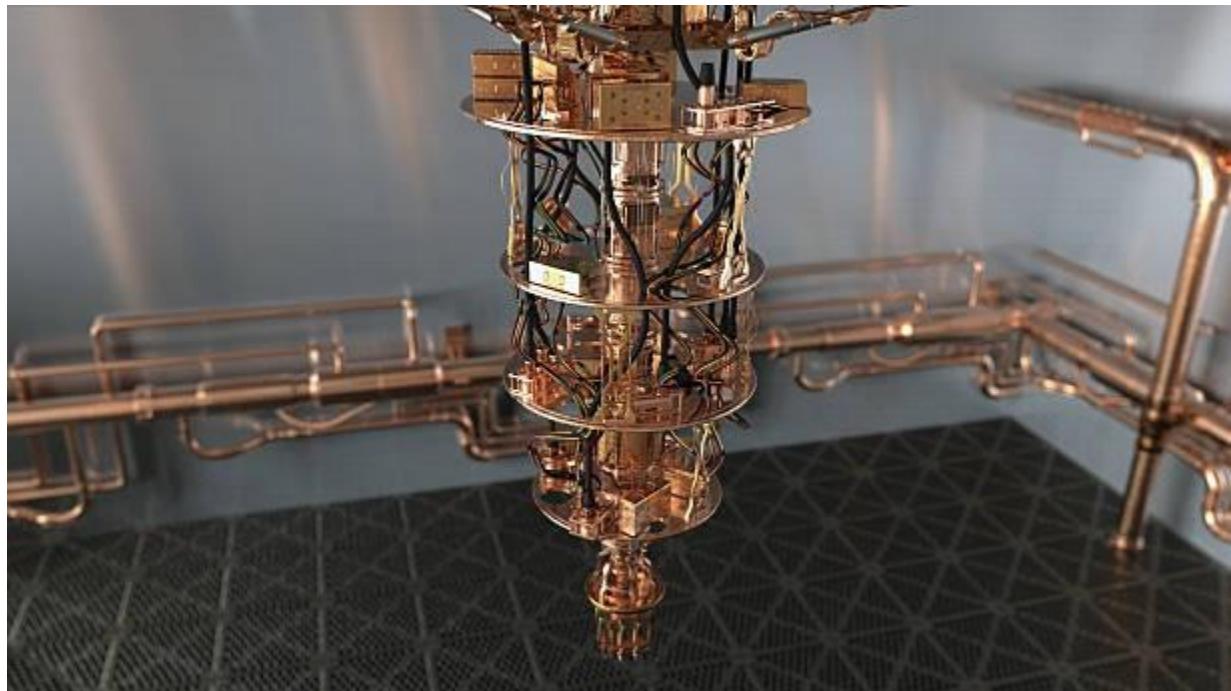
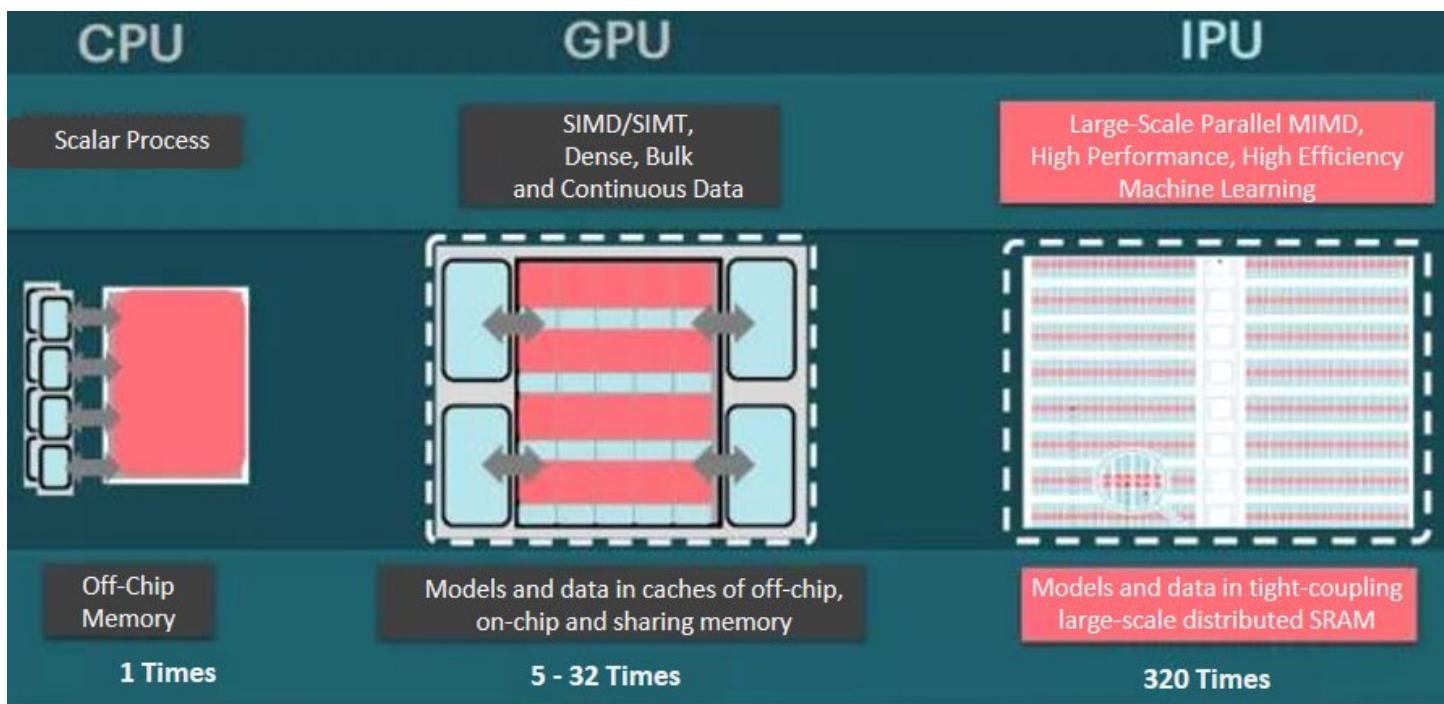


Figure 111 - Quantum Super computer: “Today’s quantum computers are huge and complex machines that need loads of power to cool the quantum computer chip to almost absolute zero”; credit: medium.com

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<sup>605</sup> <https://www.industrytap.com/nano-biological-computers-require-less-1-energy-consumed-electronic-transistors/37254>

Figure 112 - CPU, GPU, vs. IPU; credit: graphcore.ai<sup>606</sup>

<sup>606</sup> <https://www.graphcore.ai/products/ipu>

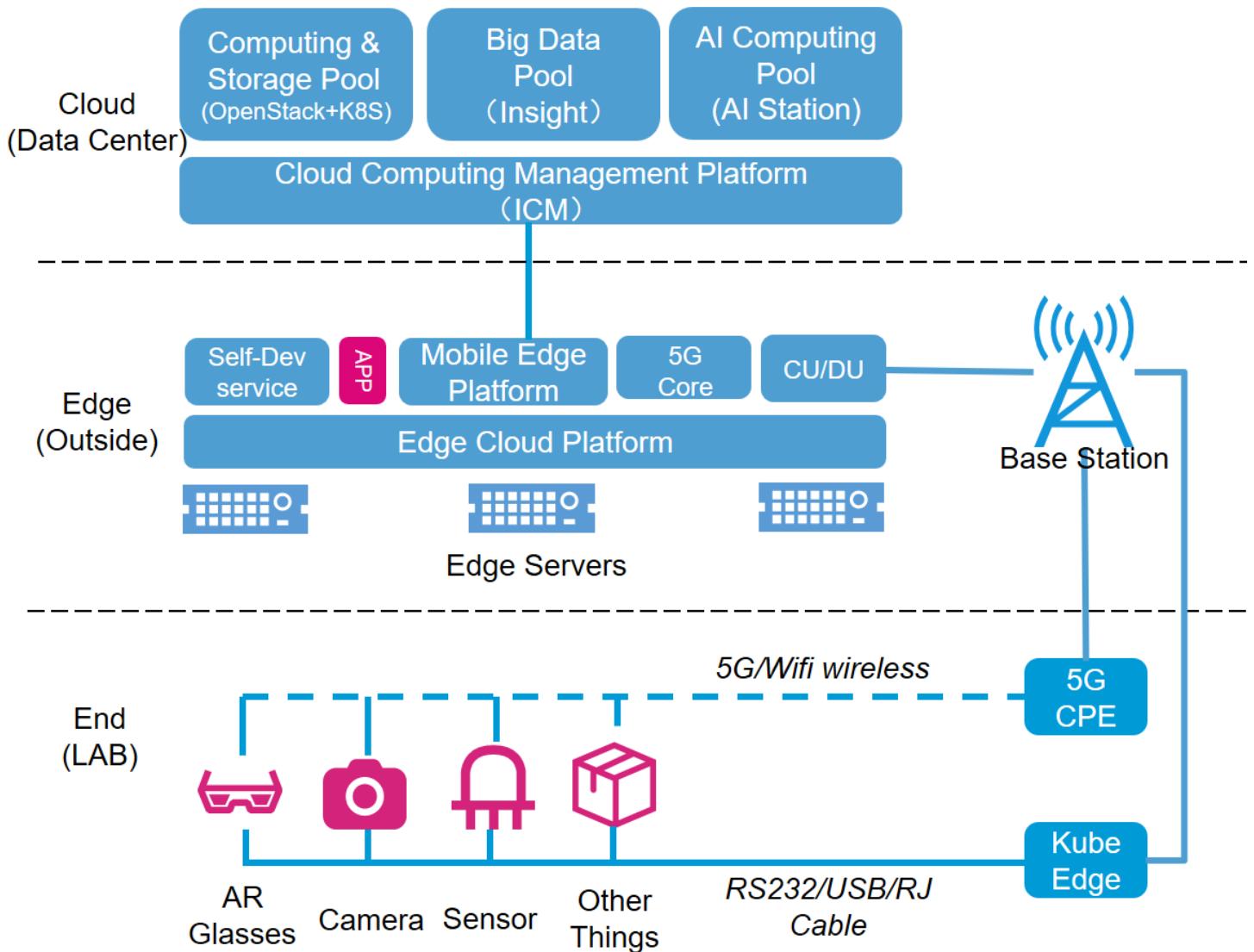


Figure 113 - AIRS Cloud and Edge computing Overview/Architecture; credit: Hwang

This paper is not about presenting surefire determinations of what type of computing power will be necessary in the future. However, this section *is* here to definitively say that we need a daisy chain of AI and machine learning tools which can tackle the needs and issues through comparative analysis now. If supercomputers in chess have taught us anything, it is that the opening game, and its efficiency, matters almost more than the end game. Most chess games are lost right at the start of the game.<sup>607</sup>

A set of bad computational choices, based upon cognitive bias and a priori assumption now, in the early stages could actually be the difference of hundreds to thousands of years later on. And that matters when we are talking about impending cat 7 or 8 catastrophes.

### Technology (beyond steel and guns)

Technology is mankind's favorite MIMS (the author reckons). We live in a technocratic state because of our current inability to govern or limit ourselves, and our penchant for controlling one another. The desire for instant gratification comes in the form of entertainment, luxury, and of course hedonism or outright debauchery.

<sup>607</sup> [https://www.academia.edu/40287817/Understanding\\_Chess\\_I\\_The\\_Art\\_of\\_Chess](https://www.academia.edu/40287817/Understanding_Chess_I_The_Art_of_Chess)

But it is all easily achievable with technology. Technology bootstraps itself - often with little to no new science - and adds leverage to good and bad designs.

Case in point: automobiles and airplanes and powered boats are all great. They enable a mobility we could not have via horse, buggy, and canoe or wind-powered ship. But the downside is they are incredibly polluting. Air and water are now so heavily polluted not only do we threaten other species, but ourselves. This is because the technology of manufacturing allows a scale which is not seen in nature. If deer eat all of their food then they die off. If we burn all the coal under a mountain we can make 10 refinery/power plants to mine 100 more and call it progress. There is nothing, not even a few small EPA fines, to stop us. It is like being God, except now flawed humans with greed and avarice are in charge.

So what role should technology play? Technology should be focused primarily around a) survival, b) computing, and c) finance. In particular, it means that mankind must centralize and organize around these technological advantages. The first is obvious. The second we just discussed, and the third we will discuss, although a review of the MIMS 1.0 paper is encouraged.

Technology is the “grease” and the machine itself. It is, no question, what has enabled mankind’s imaginations - good or evil - to come to reality. And that means it is a very potent MIMS. So we had better be careful what kind of spacer imaginations we have. One of the best new games, in terms of realism and graphical power, is “Star Citizen.”<sup>608</sup> Look below at what the point of this spacer game is:



Figure 114 - “Star Citizen” spaceship

War sells, the author knows that. But how will we face our future selves, if we don’t make it to our future selves?<sup>609</sup> How will we face the nations of space? How will we not wreck our home planet? The energy levels we are discussing are no joke. A stray asteroid slingshot and the species is done for. A stray thunderbolt and a

<sup>608</sup> <https://robertsspaceindustries.com/>

<sup>609</sup> "I know not with what weapons World War III will be fought, but World War IV will be fought with sticks and stones" ~supposedly Einstein

city is vaporized, or even a landmass sinks beneath the waves. We can no longer afford to be cavalier. It's time to stop playing games and get serious.

## Finance & Capital

It takes capital currency to do anything in our current, modern world. For the foreseeable future, this is likely to remain true, as people are highly self-determinant and selfish or motivated by material need or even greed. However, we can take advantage of all the predictability of this by engineering designs that encourage the proper use of these facts. If we do, then theoretically we will be able to control the general flow of human activity. If a person or people are selfish, you can be reasonably sure of their motives and actions, planned or unplanned. If that is true, then what is to stop one, or the government, from taking advantage? Not much. The question is, "Can we design benevolent or altruistic and beneficent systems that guide results out of the situation arising from self centeredness?

Not unironically: with enough capital we can afford to actually do this. The question is whether or not the MIMS we design can interface well with the MIMS of capital?

That's precisely what the world of finance is about. People have a vision, dreams, or ambitions, and they have desire. Bringing those into reality is a clear sign of MIMS. In which case, can we need to understand where finance is at the moment, and then where it seems to be going.

The current status of finance is five major trends:

1. Inflation and ruination of derivatives market, bonds, etc. caused by deficit spending, often related to military spending, COVID, and bailouts.
2. Hedging, via metals, commodities, cryptocurrency, and especially real estate.
3. Vulture capitalism and monopolies, leading to shrinkage of small and medium business public stock offerings, among other things.
4. Manufacturing of complex, abstract financial instruments further and further disconnected from the real economy.
5. Fascist constraints, rising taxes, and attempts to eliminate cash while utilizing digital currency as part of a surveillance state.

Few, if any of these trends are positive. Cryptocurrency is a good to decent MIMS trend, however, is still subculture and a bit inaccessible for much of the population. It's a great opportunity for those with a moderately high TIQ, but otherwise too remote to help huge populations, like Africa, South and Central America, etc. The underlying blockchain technology, however, will be absolutely useful in many ways:

- ❖ Communications
- ❖ Encryption
- ❖ Finance and security thereof
- ❖ Transactions
- ❖ Free Market economics
- ❖ Military applications

The author's concern is how can the highly inefficient venture/angel investor and hedge fund/private equity world really access the SPACER market, at this stage, when it is mostly led by either government contracts or billionaires? It is too pinpointed, too erudite. The inefficient investment system needs something like Dream Exchange<sup>610</sup> is proposing, which liberalizes crowdfunding for the venture capitalists, or the author's

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<sup>610</sup> <https://dreamex.com/>

proposed QLE architecture with a BOIP connected DEX<sup>611</sup>, or the Hardin Scientific led Eulium (ELM)<sup>612</sup> layer 1 token with proof of stake enhancements for raising scientific funding. So we aren't here to just complain, but to provide solutions in the financial sector.

## Nature & Calorie or Nutrient resources

Diamond, in his documentary follow up, admits that he vastly underestimated the importance of nutrient type (soil based) and calorie level of starchy foods and dairy related to human evolution. Trends show that places with full potatoes and yams, and access to bovine and pig products vastly outperformed (in development) those places with weaknesses in these areas (such as islands, jungles, deserts, etc.). In Africa's case many of the viable mammalian species are still rather megafauna, and quite untamable (such as the wildebeest). The control of nutrient rich areas, historically, is the most single identifying advantage to civilization development. Water can be shipped, but crops need particular soils. Mesopotamia had many distinct advantages at the time, and Egypt, as well as the Yellow River, Indus & Ganges Rivers, Great River<sup>613</sup>, and Amazon River regions, and this is why these locations were able to thrive. In the latter's case, much terraforming and altering the rainforests were done and the use of dark earth technology, which may or may not have originated in Kentucky<sup>614</sup> and Poverty Point<sup>615</sup> some thousands of years earlier.

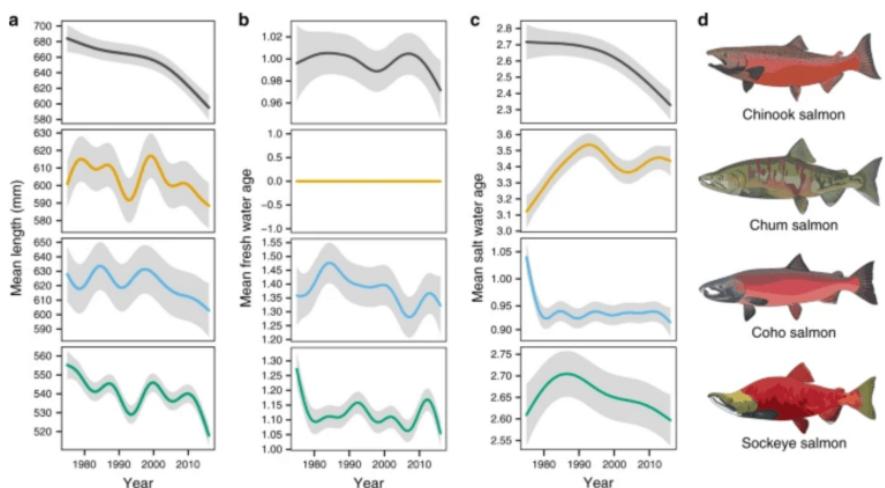
The point is that the manufacture and closeness of materials, environmental, and chemical engineers, etc. in the PDP industry is going to be absolutely essential to the survival of flesh based entities and plants in an environment as hostile as space. In "The Martian," they (mostly) correctly portrayed the difficulty and threat of the agricultural difficulties for the astronaut as he attempted to survive for years upon a mostly starch based diet. Eventually, an airlock malfunction blasted open the greenhouse and flash froze the plants. Actually, most of those would be still salvageable in terms of the ground temperature would be sufficient to enable rhizomes to make new shoots. However, the point was made: space is dangerous. In the Art of War, the attack on food and water sources is absolutely key to the safe siege of a city. This is often contrary to our modern thoughts on conventional "shock and awe" type bombardment, which is all about power and the outward demonstration of power. It is also known as "soft power" because you can win a siege without even fighting if the city is denied food or water resources. We can be

reasonably sure that if aliens were to attack humans they would eliminate our power grids, water supply lines, oil, and burn all crops. They wouldn't need to blow up cities like in most movies. The cities would destroy themselves.

Figure 115 - Size Declines in Alaska salmon; credit: craigmedred.news<sup>616</sup>

Building resilient systems of soil, mulch, and seed cloning in space is not a matter of brute force and know-how. It

**Fig. 2: Body size declines are significant and nonlinear.**



<sup>611</sup> Quantum Leap Engine™, Blockchain Only Internet Protocol™, and Decentralized Exchange, respectively.

<sup>612</sup> [www.eulium.org/wp.pdf](http://www.eulium.org/wp.pdf)

<sup>613</sup> Ohio + Mississippi + Missouri river valleys

<sup>614</sup> [https://www.academia.edu/39821083/Amazonia\\_Kentucky\\_Connection\\_excerpts\\_from\\_AKHA\\_articles](https://www.academia.edu/39821083/Amazonia_Kentucky_Connection_excerpts_from_AKHA_articles)

<sup>615</sup> <https://www.povertypoint.us/>

<sup>616</sup> <https://craigmedred.news/2020/08/21/a-deprivation-diet/>

is a matter of practice here on Earth. The difficulty is in changing ridiculous and antiquated mindsets. Take, for example, the new knowledge about management of fish. The largest fish actually produce the most viable young, we now know. They have (clearly) the best genes, and are most adept at raising young. But to this day almost every state and ocean regulation requires the catch and release of small fish and to keep large fish. The result of this antique passtime and bad policy is the continual shrinkage in size of large trophy fish.

This is but one example of the “bass backwards” forms of old TED that must be replaced with more resilient systems. In terms of nutrient and calorie planning, especially regarding terraforming, this is non-negotiable and fundamental. There is no middle ground. Our best science today will barely get us “off the ground” as we still have never created a completely self-sustaining biodome *on Earth*<sup>617</sup>, let alone an ETB or space station. Remember: source-load. The greater the load, the bigger the drain on the source: the Earth.



Figure 116 - The Bio-dome of Tuscon, AZ; credit: Visit Tuscon

### Electromagnetism specifically

Mankind is very slowly coming out of a 100 year daydream about invisible clocks in space. Some say it was the FBI that enforced this dream upon mankind by taking Tesla's papers<sup>618</sup>. Others blame JP Morgan and other robber barons. Still others say the MIB or aliens are behind it. The author is agnostic. The fact is that mankind is confused about how power and energy work in the factual Universe.

Regardless, the pursuit of TGE has been hampered, irresponsibly. Therefore, let us set the record straight and reinforce a fact of the Universe: gravity is not in charge. This is a lie the astronomers are slowly waking up to, as they admit the sun is electric<sup>619, 620</sup>, the planet in a magnetic flux tube<sup>621</sup> (birkeland current), that ‘black holes’ are electric and charged, and that every ‘solar grain’ is worth ~4V of charge<sup>622</sup>. Furthermore, in

<sup>617</sup> <https://www.nytimes.com/2019/03/29/sunday-review/biosphere-2-climate-change.html>

<sup>618</sup> “The Tesla Files,” N. Tesla, 2018 <https://bookshop.org/books/the-tesla-fbi-files/9789888412143>

<sup>619</sup> <https://now.uiowa.edu/2021/07/physicists-led-university-iowa-more-fully-describe-suns-electric-field>

<sup>620</sup> <https://www.kronos-press.com/juergens/1982-electric-solar-energy-juergens.pdf>

<sup>621</sup> <https://www.livescience.com/earth-inside-giant-magnetic-tunnel>

<sup>622</sup> <https://arxiv.org/pdf/1808.03389.pdf>

2017 Wiley/AGU100 released their groundbreaking textbook, "Electric Currents in Geospace and Beyond."<sup>623</sup> The work of Dr. Anthony Peratt<sup>624 625</sup> of NASA/JPL<sup>626</sup> and Los Alamos<sup>627</sup> labs<sup>628</sup> has shown definitely that we do not need the Dark Universe to explain space<sup>629</sup>. We only need the PEM. The PEM is the Unified Aether Field<sup>630</sup>, and the sea of charge is the Aether.

Refer to the table on the following page, which is from one of the author's previous works.

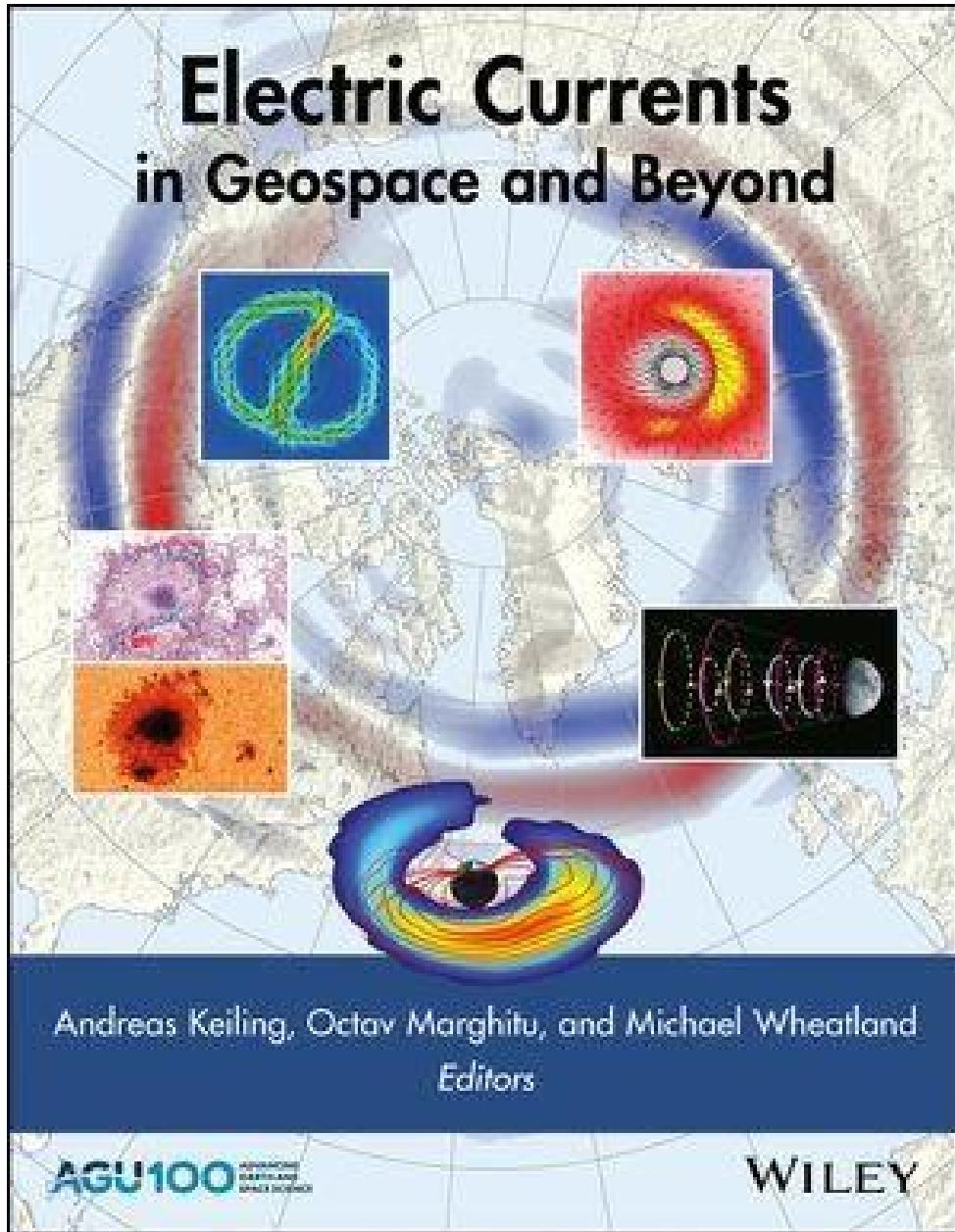


Figure 117 - PEM goes mainstream in this 2017 must have textbook; credit: Wiley/AGU

<sup>623</sup> <https://www.wiley.com/en-us/Electric+Currents+in+Geospace+and+Beyond-p-9781119324492>

<sup>624</sup> <https://sites.google.com/view/epemcgateway/pemc/pu-research/peratt>

<sup>625</sup> <https://plasmauniverse.info/downloads-petros/Peratt&YaoAurora-PrehistoryPhys-Scrip-T131.2008c.pdf>

<sup>626</sup> <http://becomingborealis.com/wp-content/uploads/2018/01/PerattetalTPS2007-Z-pinchAuroraB-1.pdf>

<sup>627</sup> <http://adsabs.harvard.edu/full/1995Ap%26SS.227..229H>

<sup>628</sup> <https://plasmauniverse.info/Perattpdf/PerattEvidenceCosmic.pdf>

<sup>629</sup> <https://www.youtube.com/watch?v=F4pWZGBpWP0>

<sup>630</sup> That's why EMF doesn't need a medium to propagate, it IS part of the Aether.

Table 17 - The Cosmic Electric Circuit<sup>631</sup>

<b>Electric Circuit</b>	<b>Identification</b>	<b>Current or Power Level</b>
SGEC	MHD derived jets (theoretical) <sup>632</sup>	$10^{18}$ + A
GEC	jet galaxy 3C303 <sup>633</sup>	$3 \times 10^{18}$ A
GEC	jet SGR A <sup>634 635</sup>	1 THz X-rays
SSC	Solar Corona Currents <sup>636</sup>	$10^{11} - 10^{12}$ A
SSC	Solar Wind <sup>637 638 639</sup>	$10^{11}$ A
SSC	Jupiter Ring currents/ Io Torus <sup>640</sup>	$10^9$ A
SSC	Jupiter Auroral currents <sup>641</sup>	650,000 A
SSC	Magnetic Tunnels to Earth <sup>642</sup>	100,000 A
PEMS	Earth's Ring Current <sup>643 644</sup>	10 keV - 50 keV (100 keV)
PEMS	Van Allen/Heliosphere <sup>645 646</sup>	$3 \times 10^9$ A
PEMS	Blue Jets/Sprites <sup>647</sup>	1-10 GJ
PEMS	Lightning <sup>648</sup>	30k-500k A
HPG*	Powerline <sup>649</sup>	40 A (avg)
CVS	Electricity in human heart <sup>650</sup>	< 1 mA ( $1.87 \times 10^{-4}$ A) <sup>651</sup>
HEGEME	Electricity in a plant <sup>652</sup>	$4.5 \times 10^{-8}$ A
CNS	Nerve conduction <sup>653 654</sup>	4-6 nA

<sup>631</sup> FAQ, pg 10<sup>632</sup> <http://adsabs.harvard.edu/abs/1990ApJ...348...61J><sup>633</sup> <https://www.newscientist.com/article/mg21028174.900-universes-highest-electric-current-found/><sup>634</sup> <https://phys.org/news/2017-12-cosmic-filament-probes-galaxy-giant.html><sup>635</sup> <https://arxiv.org/pdf/astro-ph/0102186.pdf><sup>636</sup> <http://adsabs.harvard.edu/abs/1997A%26A...318..289K><sup>637</sup> <http://adsabs.harvard.edu/abs/1967SoPh....1..220A><sup>638</sup> <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2000JA900165><sup>639</sup> <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/JA080i034p04719><sup>640</sup> <https://www.newscientist.com/article/mg13318093-400-science-the-billion-amp-current-that-flows-round-jupiter/><sup>641</sup> [http://www.igpp.ucla.edu/public/mkivelseo/refs/PUBLICATIONS/Gerard%20Io\\_footprint-JCG.pdf](http://www.igpp.ucla.edu/public/mkivelseo/refs/PUBLICATIONS/Gerard%20Io_footprint-JCG.pdf)<sup>642</sup> <https://www.space.com/6614-electricity-measured-space-tornadoes.html><sup>643</sup> <http://adsabs.harvard.edu/abs/1983SSRv...34..223W><sup>644</sup> <https://arxiv.org/pdf/0906.0429.pdf><sup>645</sup> [https://www.plasma-universe.com/Electric\\_currents\\_in\\_space\\_plasmas](https://www.plasma-universe.com/Electric_currents_in_space_plasmas)<sup>646</sup> <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/JZ066i005p01321><sup>647</sup> <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1082.716&rep=rep1&type=pdf><sup>648</sup> [https://en.wikipedia.org/wiki/High\\_voltage](https://en.wikipedia.org/wiki/High_voltage)<sup>649</sup> [https://www.w8ji.com/power\\_line\\_voltage.htm](https://www.w8ji.com/power_line_voltage.htm)<sup>650</sup> <http://circres.ahajournals.org/content/circresaha/33/1/39.full.pdf><sup>651</sup> 50 mV / 268 ohm <http://circres.ahajournals.org/content/circresaha/9/6/1280.full.pdf><sup>652</sup> <https://youtu.be/-MumeA4q-5Q><sup>653</sup> <https://pdfs.semanticscholar.org/bb00/967a365c81263abd9ac539f954131ae6f13c.pdf><sup>654</sup> <https://physoc.onlinelibrary.wiley.com/doi/10.1113/jphysiol.1952.sp004734>

So as a MIMS, what kind of power does this confer? Of course the EMF or PEMF as it rightly should be now known, is not a MIMS, because it is not man made. Nor is the Aether (however you envision it<sup>655</sup>). However, in MIMS 2.1.1-2 the author identified the idea that the Aether may control fortune.<sup>656</sup>

The author has no room here for a full MIMS treatment. Suffice it to say that the study of the space and flux (Changes) and of the Aether, now that it has been verified by a second vertical interferometer experiment<sup>657</sup>, should yield great results in controlling not only the war-games and battlefield “terrain” dynamics and dynamism in general, but also all project management and operations research “logistics” success parameters. As is said in many cultures, “timing is everything.”

Identifying the conditions to optimize the Potentiality-Possibility-Probability Cloud (PPPC) is beyond the scope of this paper, but the author can state fairly definitively that the likelihood of success for any endeavor goes up when all three are considered and mitigated for, in accordance with timing and certain ways of doing things:

- Proper pre-engineering or planning
- Engineering and safety standards
- Scientific and mathematical standards
- Use of the Scientific Method<sup>658</sup>
- Patience, discipline, and control of the urge of instant gratification
- Good character, morality, and/or judgment on the part of leaders in particular
- Avoidance of “in the box” or “follow the follower” type thinking.
- Enrichening the engineering, almost to the point of pedantic fastidiousness<sup>659</sup>

By identifying new TED opportunities within the PEMC/PEMF framework, we can begin making much more rapid progress, and catch up to China, which has already gone fully-in on PEM fusion<sup>660</sup>. These new TED opportunities are, if anything, awaiting us behind a dam of buildup of opportunities (even if some have been explored or partially explored in many secretive US government contracts... which China would love to steal). When these advances are held back, mankind will suffer not only from “galling limitation” but also from idleness and reprobate or backwards behaviors, and from the illusion and fallacy that there is a shortage of energy or resources.

This reminds the author of how the diamond industry (DeBeers mostly<sup>661</sup>) has kept diamonds expensive, by pretending there is a shortage. When in fact, diamonds are very, very common and readily available<sup>662</sup>. In some places you can find them on the ground just walking around<sup>663</sup>.

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<sup>655</sup> Space-time, quantum foam, brane, ethons, neutrinos, axions, dark matter, etc.

<sup>656</sup>

[https://www.academia.edu/50901241/MIMS\\_2\\_1\\_1\\_2\\_Aether\\_Business\\_and\\_Analytics\\_With\\_a\\_short\\_reflection\\_upon\\_the\\_philosophies\\_of\\_Ayn\\_Rand\\_and\\_the\\_concepts\\_of\\_Fortune\\_as\\_it\\_relates\\_to\\_the\\_Aether](https://www.academia.edu/50901241/MIMS_2_1_1_2_Aether_Business_and_Analytics_With_a_short_reflection_upon_the_philosophies_of_Ayn_Rand_and_the_concepts_of_Fortune_as_it_relates_to_the_Aether)

<sup>657</sup> <https://disk.yandex.ru/i/FnUkHxwl5C5Elg>

<sup>658</sup> <https://www.britannica.com/science/scientific-method>

<sup>659</sup> This is why certain satellite projects have taken so long to get from concept to space, particularly if they involve high grade mirror telescopes.

<sup>660</sup> <https://www.popularmechanics.com/science/energy/a34875771/china-turns-on-artificial-sun-nuclear-fusion-reactor/>

<sup>661</sup> <https://www.gemsociety.org/article/are-diamonds-really-rare/>

<sup>662</sup> <https://www.cnn.com/style/article/diamonds-under-earth-surface-trnd-style/index.html>

<sup>663</sup> <https://treasurepursuits.com/how-to-find-diamonds-in-the-ground/>

## Militarism in the Inner and Outer Rim

In a separate work, MIMS 2.7 & 2.8, the author identified war as the anti-MIMS<sup>664</sup>. This should be obvious to anyone with a brain after the disastrous War on Terror, and the upcoming WWIII which probably will involve the ISIL caliphate<sup>665</sup> and China. However, the author never said that militarism or planning was an anti-MIMS. Quite the opposite, this is indeed a seriously “positive” MIMS! Consider the following allegory:

- Child A is a well endowed, plump, somewhat chunky child. He has never wanted for anything. Mother buys him everything. Materially he is never wanting. He grows up into a large, oafish doofus, with little technical skill or ambition.
- Child B is a scrawny, short, stunted and average boy. He has several older brothers and sisters that pick on him. At school he is a misfit. He is bullied. As he grows, he gets meaner. He goes to boxing, wrestling, and martial arts, later fencing etc.
- Both are drafted. Child A goes to the US Marines regular infantry. Child B goes to BUD/S and goes on to become a UDT or Navy Seal.
- Which one would you pick to be a platoon or battalion leader, a CEO, or to win in a fair fight?
- Do you think Child A can even survive USMC boot camp? Is this why their standards keep slipping?

The point is that “to make peace, prepare for war,”<sup>666</sup> is not a statement about looking for trouble or being martial, per se. It is a cry out to those with ambition and energy, to apply themselves in the pursuit of human perfection and self-defense. It is a cry out to development and growth. It may be that it is a short-sighted MIMS, and that religion and spiritual pursuits, as well as a solid, rational scientific and engineering culture in SPACERS will achieve far more in the long run.

But it would also be naive. Not only because humans in Stage 1 threaten each other. But because the Universe itself appears to be a hostile environment. We are just lucky to be protected by the coronasphere and Earth’s plasmasphere and magnetosphere, as well as an Ozone layer. We are, in short, fortunate “babes in the woods.”

What military spending - which may seem out of hand at the moment because of the endless wars, waste, and bad programs (like the F-35, which was stolen by China<sup>667</sup>) - enables us to research medical, technological, and defense breakthroughs which keep people in the world safe by deterrence. It always was about deterrence. This doesn’t excuse the war crimes of the Military Industrial Complex, or the destructive nature of endless wars, inflation, and a “war on drugs”<sup>668</sup> which was never meant to be won<sup>669 670</sup>.

However, the idea that one can, in a modern aerospace world, eliminate military spending is just not reasonable. Especially *after* China has acquired US technologies, etc. just as the USSR stole the hydrogen

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<sup>664</sup> That is to say, something that instead of bringing spiritual (ie, imagination and desires) needs to reality, brings nightmares and shortages to reality.

[https://www.academia.edu/51641990/MIMS\\_2\\_7\\_8\\_War\\_and\\_Government\\_The\\_Rise\\_and\\_Fall\\_of\\_US\\_Military\\_Domination\\_from\\_an\\_Art\\_of\\_War\\_perspective\\_and\\_MIMS\\_Analysis\\_as\\_well\\_as\\_a\\_short\\_discussion\\_of\\_the\\_history\\_of\\_failures\\_of\\_government\\_programs\\_from\\_antiquity\\_through\\_the\\_Great\\_Enlightenment](https://www.academia.edu/51641990/MIMS_2_7_8_War_and_Government_The_Rise_and_Fall_of_US_Military_Domination_from_an_Art_of_War_perspective_and_MIMS_Analysis_as_well_as_a_short_discussion_of_the_history_of_failures_of_government_programs_from_antiquity_through_the_Great_Enlightenment)

<sup>665</sup> <https://www.nytimes.com/2021/11/03/world/asia/isis-afghanistan-taliban.html>

<sup>666</sup> Si vis pacem, para bellum [https://military.wikia.org/wiki/Si\\_vis\\_pacem,\\_para\\_bellum](https://military.wikia.org/wiki/Si_vis_pacem,_para_bellum)

<sup>667</sup> <https://breakingdefense.com/2021/02/cmmc-stopping-cyber-espionage-like-chinese-theft-of-f-35-data/>

<sup>668</sup> <https://www.jstor.org/stable/45198196>

<sup>669</sup> “The war on drugs was never meant to be won. Instead, it will be prolonged as long as possible in order to allow various intelligence operations to wring the last few hundreds of millions of dollars in illicit profits from the global drug scam; then defeat will have to be declared. “Defeat” will mean, as it did in the case of the Vietnam War, that the media will correctly portray the true dimensions of the situation and the real players, and that public revulsion at the culpability, stupidity and venality of the Establishment’s role will force a policy review.” Terence McKenna, “Food of the Gods: The Search for the Original Tree of Knowledge”

<sup>670</sup> <https://www.history.com/news/americas-war-on-drugs-was-designed-to-fail-so-why-is-it-being-revived-now>

bomb<sup>671</sup> and created a Cold War. The New Cold War will not be won with conventional war, but it will be won with conventional - and unconventional<sup>672</sup> - spending. This means \$\$ trillions now, and \$\$ quadrillions in the next 50 years from the US and the Allies, alone<sup>673</sup>.

## MIMS & Future Progress

The entire point of a MIMS is to bring about Vision, through visioneering, and no small bit of hope, planning, failure, sacrifice, and luck, into reality. Hopefully, a permanent reality if it is a good MIMS. But if the MIMS is temporarily useful but in the long term damaging, it would be a bad thing to go away, like mercury lamps in tombs, etc. There are some things which are too futuristic for their time, and they cannot survive. Take the case of the world's first solar power plant.<sup>674</sup> It ran on steam and the inventor wanted to use the entire Sahara Desert to make giant steam solar power plants to power Europe. The plan would have worked, as it turned out, because the Sahara has 3 giant lakes of water beneath the sands<sup>675</sup>. So actually it could still work. But sadly, the project failed to gather the investors, and failed. In WWI the iron was scrapped for the war effort.

More recently Peter Sage tried to build Space Energy<sup>676</sup>. But either through his fraud, or a set up through the courts, he was thwarted and the company has moved on without him<sup>677</sup>. So far the author isn't sure that the company remains viable without such a dynamic leader at its helm. Sometimes great projects, like the Dream Exchange, receive undue resistance, even from legislators whose greed should guide them to make wiser decisions that help themselves and their constituents. It isn't clear to humanity at this point how the Changes manifest, and how they should be handled. The closest we get to this kind of utility is weather modeling<sup>678</sup> and prediction<sup>679</sup>.

So how should we go about examining past MIMS, managing present ones - good or bad, well engineered or poorly - and of course engineering new ones? What the author has proposed is a form of project management based around Operations Research, Data Analytics, complex AI interaction and machine learning, etc.

Figure 118 - Operations Research; credit: Penn St.

This will enable mankind to pre-engineer, model, simulate, test at small scale, re-engineer, re-model, simulate again, and do this at scale in hundreds of millions of iterations via supercomputing. This kind of planning, instead of linear/monocular thinking, will enable mankind to *make more mistakes* on the way to building, instead of after. It has to be done at scale, and it should be done with the help of AI whose TIQ is far higher than any lead engineer. The lead engineer can monitor the data, models, and progress, and present to project heads the latest developments. Allow the TAI and FSAI to work the



<sup>671</sup> <https://www.smithsonianmag.com/history/spies-who-spilled-atomic-bomb-secrets-127922660/>

<sup>672</sup> According to "Space Force," the unofficial black budget of the CIA exceeds the US Military's budget by 25%

<sup>673</sup> "Winning the New Cold War" pp 7-8

<sup>674</sup> <https://www aalborgcsp.com/business-areas/solar-district-heating/csp-parabolic-troughs/history-of-csp/>

<sup>675</sup> <https://insider.si.edu/2010/12/ancient-megalake-discovered-beneath-sahara-desert/>

<sup>676</sup> <https://www.petersage.com/spaceenergy>

<sup>677</sup> [https://www.theregister.com/2017/02/23/peter\\_sage\\_42000\\_hpe\\_servers\\_alleged\\_fraud\\_space\\_energy/](https://www.theregister.com/2017/02/23/peter_sage_42000_hpe_servers_alleged_fraud_space_energy/)

<sup>678</sup> <https://earth.nullschool.net/>

<sup>679</sup> [www.windy.com](http://www.windy.com) and app

models over and over.<sup>680</sup>

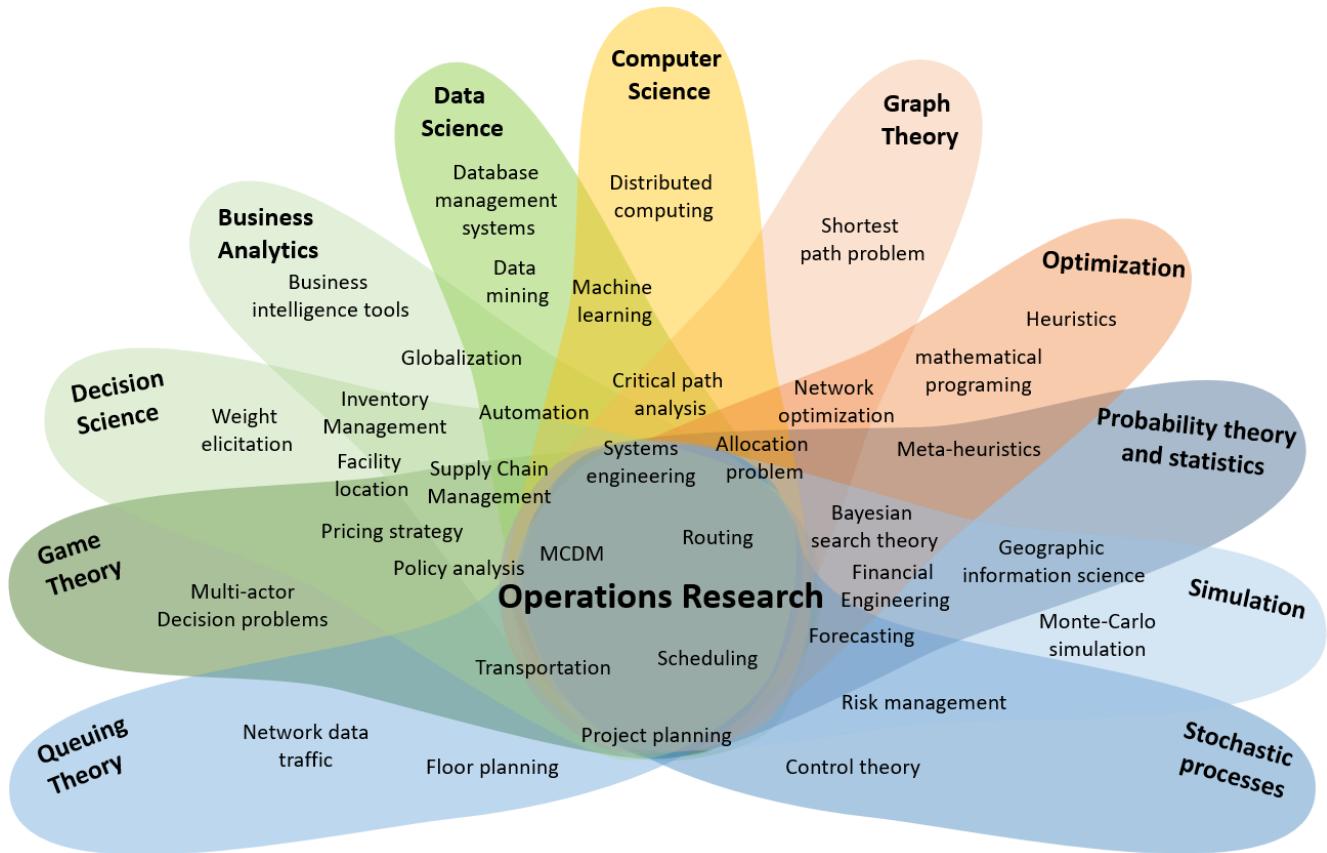


Figure 119 - All of Operations Research in one graph; credit: towardsdatascience.com<sup>681</sup>

## Chronology Matters

In discussing the paradigm shift required, it's important to know how chronology has already affected mankind's development. Science has not proceeded in a *most ideal* set of steps emerging as the natural evolution we presuppose. A close study of the chronology of it reveals that the major movements in history came in extremely unfortunate order. The atomic model emerged much much later than spectroscopy and electromagnetism, and even after the first evidence for quantized energy. The evidence for plasma mostly emerged after quantum's early years. But astronomy was now using doppler redshift to explain a Big Bang that never happened when magnetohydrodynamics finally emerged. 10 years after Bostick's plasmoids a black hole theory was being propounded that wasn't necessary and based upon a malformed General Relativity that had its original origins in classical electromagnetism. When "macro-lensing" first started being seen most astronomers still had never heard of plasma cosmology, as the internet was in its infancy. The work of these isolated men and women (themselves rarely given credit for their ideas), was unable to find rest in an ever changing sea of chronological confusion. The author, in a previous work -the Dark Matter Scatter series<sup>682</sup> - has set out this timeline, and it will help the reader understand. Because theories before facts have created one of the worst MIMS of all: pseudoscience<sup>683</sup> (and superstition). Strikethrough means falsification occurred:

<sup>680</sup> And, of course, the most important MIMS of all: **imagination**. Getting creative is important, because nothing generates more excitement than a purely creative state. Let all finance/capital, all visioneering, all calculation, all things directed towards making real the unimagined, flow from this state.

<sup>681</sup> <https://towardsdatascience.com/why-operations-research-is-awesome-an-introduction-7a0b9e62b405>

<sup>682</sup> <https://www.researchgate.net/project/Extended-Plasma-Electromagnetic-Cosmology-EPEMC>

<sup>683</sup> <https://sites.google.com/view/epemcgateway/volunteer>

Table 18 - Proper Physics Chronology

Electricity	Ben Franklin	1751
Gaussian Theory	Carl Gauss	1813
Electromagnetism Unification	Michael Faraday	1831
Doppler Redshift	Hippolyte Fizeau	1848
Maxwell's Equations	James Maxwell	1861-62
Quantized Hypothesis	Ludwig Boltzmann	1877
Photoelectric effect	Heinrich Hertz	1887
Electron Theory	JJ Thomson	1897
Quantum Theory	Max Planck	1900
Relativity theory	Henri Poincare	1900-1904
Mass-energy relation	Henri Poincare	1900
Gravity Waves	Henri Poincare	1905
Special Relativity	Albert Einstein	1905
Photoelectric Effect Explained	Albert Einstein	1905
Birkeland Currents	Kristian Birkeland	1908
Atomic Theory Proved	Ernest Rutherford	1911
Particle-Wave Theory of Atoms and Particles	Niels Bohr	1913
General Relativity	Albert Einstein	1915
Proton discovered	Ernest Rutherford	1919
Quantum Radiation Interaction	Paul Dirac	1920
Quantum Mechanics Codified	Born, Heisenberg, Pauli	1924
Bose-Einstein Condensate	Bose, Einstein	1924
Plasma Cosmology	Irving Langmuir	1927
Big Bang Cosmology	Georges Lemaitre	1927
Missing Matter	Edward Zwicky	1933
Magnetohydrodynamics	Hannes Alfvén	1940
QEM/QED	Bethe to Feynman	1947-1960
Electroweak Theory	JC Ward	1959
Quarks	M Gell-Mann & G Zweig	1964
Black Hole Theory	John Wheeler	1967
Dark Matter	Rubin & Ford	1970
Electric Star Theory	Ralph Juergens	1972
QCD	Gross, Wilczek, & Politzer	1973
Axions	Peicci & Quinn	1977
SUSY	Werner Nahm	1978
WIMPs	unclear <sup>684</sup>	1980
MOND	Mordehai Milgrom	1982
String Theory	Green & Schwarz	1984
Dark Energy	Friedman <sup>685</sup> or Sivaram <sup>686</sup>	1924 or 1986
M-Theory	Edward Witten	1995
Intrinsic Redshift	Halton Arp <sup>687</sup>	1998
MACHOs	unclear	2002? <sup>688 689</sup>

<sup>684</sup> <https://www.scientificamerican.com/article/dark-matter-exotic-possibilities/><sup>685</sup> <http://home.fnal.gov/~skent/early.html><sup>686</sup> <https://arxiv.org/ftp/arxiv/papers/0809/0809.3364.pdf><sup>687</sup> [https://www.haltonarp.com/articles/intrinsic\\_redshifts\\_in\\_quasars\\_and\\_galaxies.pdf](https://www.haltonarp.com/articles/intrinsic_redshifts_in_quasars_and_galaxies.pdf)<sup>688</sup> <http://www.astro.caltech.edu/~george/ay20/eaa-wimps-machos.pdf><sup>689</sup> <https://theconversation.com/from-machos-to-wimps-meet-the-top-five-candidates-for-dark-matter-51516>

Mankind has spent thousands of years worshiping psychological imprints and cultural constructs stuck in our minds and societies from an era of anthropomorphizing the movements of giant spheres in the sky. See the following figures for examples of this.

The point is that we have to become better at modeling the future and simulating it before doing it. But we will not be completely or even 1% successful. So we need to be able to follow the dictums of scientific method: the greatest MIMS ever<sup>690</sup>, and to revise our assumptions whenever they are found wanting.



Figure 120 - Costa Rican Spheres

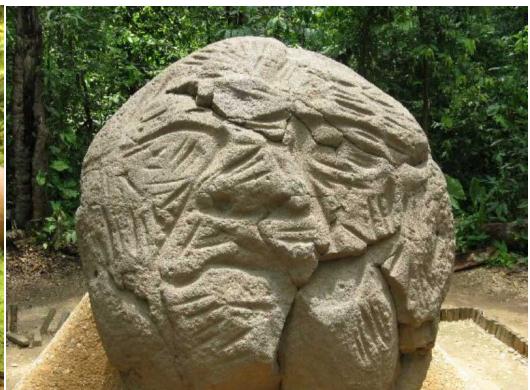


Figure 121 - Olmec Sphere Head?



Figure 122 - Colossal Stone Heads of the Olmec: gods of the early Mayans; credit: ThoughtCo

<sup>690</sup> "MIMS 2.0", pp. 3-6

## The Absurdity of Chasing Slower Than Light Travel

Imagine running an olympic race where everyone else wears sneakers but you put concrete shoes on, not just your mind (which is bad enough since champions always visualize their victories) but your actual feet! By deciding  $c$  is a velocity - which it isn't - and that it is a "cosmic speed limit" when it is not really known for sure, we will absolutely hamper ourselves and allow ourselves to go "really fast" via rockets, as compared to the speed of sound. But we will let ourselves "off the hook" for appearing to chase light speed. This is very bad, because as it happens going  $c$  is not even a great use for interstellar travel.<sup>691</sup>

There are, thankfully, a number of free thinkers<sup>692</sup> trying to have warp speed travel, if only they had a cosmology which freed them of all shackles. But because they don't get hooked to government money, they do a bunch of [nearly useless] garage science with cardboard<sup>693</sup>, etc.

When we talk about FTLS travel, it doesn't need to be just a little faster, but much much faster. And the ability to continuously accelerate. The computers need to sense electric field environments and adjust charge placement on board, and increase the acceleration through the Aether. But using the SSDP and magnetism to reshape the ship's charge fields will require a kind of control that is not going to be had so early in our evolution. Or if it is, the US government is keeping it a tight tight secret. The real issue is the inertial dampening and deceleration. Getting up to that speed is not as difficult - once you master energy - it is keeping people alive if you need to stop or change directions. Take a look at the conversion of  $1c$  of motion into kinetic power and mechanical energy.

- ★  $M = 100\text{kg}$  human body,  $c = 3 \times 10^8 \text{ m/s}$
- ★  $KE = \frac{1}{2} Mc^2 = 4.5 \times 10^{18} \text{ J}$
- ★  $P = MV = 3 \times 10^{10} \text{ kg m s}^{-1}$
- ★ If the stop time is 30 seconds (a very late time in automobile driving when an emergency happens), then the impulse is an acceleration of 1 billion Newtons per second. Or  $\sim 2.248 \times 10^6$  pounds force
- ★ Human body can handle 50 to 400 PSI to avoid being crushed. Avg: 225 PSI
- ★ If SA of a body is assumed at  $1000 \text{ in}^2$  so the impulse is happening at  $2.248 \times 10^3 \text{ PSI}$
- ★ So we have to dissipate 995% more of the energy than the body can handle *under extreme duress*.

So what if the need to slow or stop, or change directions is more severe? We simply do not have a method. After all, let's say we dampen the body and don't lose the spirit and soul of the person. The ions, blood, lymph, and loose pieces (like the brain) inside the body will continue moving in that direction. We will not have a way for a long time to use *healthy* electromagnetic fields<sup>694</sup> to **superconductively grip** the entire body, and all neurons and particles entangled within it to stop it at will. The fact remains that until we create entanglement<sup>695</sup> fields<sup>696</sup> that grasp the entire being, including what we cannot currently see that makes a person a person, then we will not be able to safely accelerate or decelerate to  $c$ , let alone FTLS. We might develop the power and control/guide of that power. But to what effect? Even if we use androids and robots, the hysteresis of these shells of matter moving through EM fields in space could be absolutely destructive of the shell. We will develop these abilities. But it won't be tomorrow.

<sup>691</sup> [https://www.youtube.com/watch?v=AfIUzDe8R\\_o](https://www.youtube.com/watch?v=AfIUzDe8R_o)

<sup>692</sup> <https://www.youtube.com/watch?v=1IyTUivjzel>

<sup>693</sup> <https://www.youtube.com/watch?v=oyDV711BszM>

<sup>694</sup>

[https://www.researchgate.net/publication/330117614\\_Charge\\_Distribution\\_Networks\\_CDN\\_as\\_Meridians\\_Utilizing\\_conductivity\\_as\\_replacement\\_%27structure%27\\_for\\_meridians\\_comparison\\_with\\_neural\\_muscular\\_and\\_fascial\\_models](https://www.researchgate.net/publication/330117614_Charge_Distribution_Networks_CDN_as_Meridians_Utilizing_conductivity_as_replacement_%27structure%27_for_meridians_comparison_with_neural_muscular_and_fascial_models)

<sup>695</sup> <https://arxiv.org/abs/1803.04993>

<sup>696</sup>

[https://cdn.southampton.ac.uk/assets/imported/transforms/content-block/UsefulDownloads\\_Download/25AC2EB4CDA446E28FD4758520A23F98/jones\\_entangled\\_holograms.pdf](https://cdn.southampton.ac.uk/assets/imported/transforms/content-block/UsefulDownloads_Download/25AC2EB4CDA446E28FD4758520A23F98/jones_entangled_holograms.pdf)

## Conclusions

It isn't possible, nor is it the purpose of this paper, to cover everything that can or needs to be known about the development of the future. However, the precision and hopefully accuracy of the work, and the MIMS offered in solution to the problems, being thus increased (and filled with power and hope for mankind) by the correct *living, light-filled* cosmology and not the dead, Dark Universe cosmology which gives only limitation and rubbish ideas, will uplift mankind to a purpose that perhaps saves us from destruction. Following the bad social programs and allowing government and war (inspired by false gods) has gotten man only so far. But these programs will not take us to space. Not anytime soon, and not safely. But by applying what we learn from and through the combination of mythic IQ and record, with modern TIQ, scientific observation and technological assets, we can develop our understanding of Human Energy and Momentum in an increasing manner. It will require no small amount of maturation, self-restraint, sacrifice, discipline, etc. It will cost a lot, but will generate googols more of value, being connected thusly to Aether and to the Force, as well as the other secular and on-secular powers of the "Big G"<sup>697</sup> network (derived in MIMS).

The main three factors that determine our success:

- 1. Survivability (STEMM)
  - 2. Organization (STEM)
  - 3. Computation (TEM)
- } Technology (and so engineering) is the key

After that issues such as finance and capitalization (justification), geopolitics, issues of human foibles, and education really determine how fast/who leads/what happens in this story. What could be a 2,000 year project at breakneck speed with 100% of mankind and man's creations working towards it will likely take between 8,000 and 10,000 years. But if mankind can reverse some of the poor [current] trends and invent entire industries, then perhaps there can be leverage and advantage where right now there is chaos and a mad-hoc race towards an undefined finish line; towards a phantom city.



Figure 123 - Laputa<sup>698</sup> in "Castle in the Sky" ([gif](#)); credit: Studio Ghibli

No matter what it will take a lot of imagination, planning, and cooperation as well as (healthy) competition is required to get there. Let's hope humanity starts sooner, rather than later.

<sup>697</sup> N, P and L, G powers, respectively

<sup>698</sup> The cosmic city motif, combined with the Atlantis Memory, and secret or hidden technology of 'the gods'

## Afterward: Living Systems

There is a small, but important topic which the author feels needs much collaboration of AI, architects, and engineers of all kinds, types, aerospace or Earthen. The author feels that the topic of living systems, whether they are home, agricultural, urban, or space, requires a careful consideration of the concepts of living systems themselves. For example, there is a typically industrialist and even American belief that living systems should be predicated upon the ideals of convenience, thrift, ease, and technological advantage. But actually, these are particular cultural assumptions which may, or may not, involve several fallacies.

Briefly, let's examine the basic concept. A living system should provide support, not mere convenience, to the person, family, animals/pets, plants, etc. which improves their conditions and success. Take, for example, the use of technology. Historically kitchens and garages are the two places in a home that receive the most technological upgrades for living systems and related tools. Most of the time these can substantially improve the situations for the people in the home. However, often people purchase tools and technology irreverently or without respect for long term use/need or space. They end up with garages full of the stuff. So the question is, aside from time sharing tools and reducing the clutter aspect (which the author reckons could be done with IT/comms satellites now), how can we determine which tools are going to participate in the spacer movement as a MIMS, and which will be destructive interference?

What is it that a living system *primarily* should do? Provide Oxygen? Water? Comfort? Security and Safety? Most engineers want to go for all of the above, and then start adding luxury and gizmos. The problem with this is the *prima facie* assumption that more = better. That is not necessarily the case. In fact, in fengshui, which is a soft science from China, there are conditions which arise from even minor changes in arrangement and

composition (of a living space), and these elements are absolutely essential to understand *beforehand* or you can risk misfortune, poor luck, or even death or loss of reputation (which some consider worse than death). Then again, the Chinese also focused upon the Changes (易) themselves, and what we would say the quantum field effects<sup>699</sup>, as conditions which inform the relational fields themselves. In fact the Changes are more primary, the fields are secondary, the objects and particles tertiary, and the actions, results, and stimulus/feedback loops are quaternary.

Therefore, when we consider the living systems, the first area of need is to take care of making **adaptable** conditions and systems which adhere to the Changes (one of which is even called Fidelity<sup>700</sup>). This is why neighborhoods fall apart, is that they are unable to move/adopt, etc. We now instead need to create the adaptable systems, which then also support the living systems, and then allow these to adjust with the times, needs, etc. always with measurable results, including and perhaps primarily a happiness-utility axis or scale. People cannot be happy if they are overworked to support the system, nor can they be happy without plenty to do and a constant feeling of support and love. Would it kill us to have a FSAI that showers children, especially those learning STEMM, with confidence building information? Anything from "God loves you" to "you are a very smart mathematician" to "you are not alone in this Universe", either via word, sound/frequency, or material support. The author reckons a large part of holiday obsession is the use of material to give people this in the face of an internal vacuum that feels particularly painful, especially if they are builders. It's hard enough to lift Sisyphus' stone<sup>701</sup> to the top of the hill as it is. Imagine in the future, and against the gravity of naysayers, failing living systems, etc.

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<sup>699</sup> [www.britannica.com/science/quantum-field-theory](http://www.britannica.com/science/quantum-field-theory)

<sup>700</sup> #25 <https://www.taoistiching.org/25.html>

<sup>701</sup> <https://www.britannica.com/topic/Sisyphus>

So the author proposes, first of all, to create a form of Systems Engineer who specializes in the study, refinement, scientific experimentation, and follow-through of Living Systems Engineering (LSE). Secondly, the author proposes a specific topic of study: the effects of false gravitic or centrifugal systems upon the body (especially in the context of an irradiated, 0-G environment) versus the use of an electrokinetic and charge based environment. The issue is with **fluid dynamics**<sup>702</sup>. A centrifugal, false gravity will have an overall detrimental effect upon vessels, and the author predicts an increase in atherosclerosis. It has to do with the movement of blood and lymph through the tiny arterioles, and nephrotic systems, among other microscopic channels. Meanwhile charge, or most importantly, an appropriate electric field will be useful in keeping the body in the right environment if the hypothesis of “The Invisible Rainbow”<sup>703</sup> is not correct. If it is correct, then we will have to replicate the Earthen electric field environment, and find a happy medium between centrifugal and electric field environments.

Thirdly, the author proposes that these systems *must*, ipso facto, support the:

- Procurement of material support
- Be emotionally healthy
  - Happiness-utility axis
  - Solutions tend to present for problems that naturally arise
  - Non-discriminatory
  - Merit-based
  - Equality of opportunity
- Natural health needs of the individual
- Fact based as much as possible
- Leave room for human free will and disagreement
- Technologically useful but:
  - Non toxic
  - Non polluting, etc.
- Be modular, convertible, and adaptable

If these things can be done, then after all there will be a much greater chance of succeeding in respecting atomic and energetic resources, conserving economic resources, etc.

When these things are also accomplished in tandem with PRDS, PDP and monitored by QAI from the automated daisy chain, included in simulation with ultra high TIQ, *then* it can be said that the SPACER movement is working *for* humanity, and not against it (and presumably for an agendized enemy such as an extraterrestrial civilization, or hyperdimensional asymmetric EMF program that picked our lives and system up since 1932 radio waves, and got hooked into our system because we didn't understand PEM!)<sup>704</sup>

Will we be capable of being mature? The author sees the following evolutionary problems that must be also dealt with (on top of the catastrophism-amnesia and “abuse” of the gods leading to a Bacchian tendency and dogmatism):

- Confirmation bias
  - Pseudoscience and “settled science”
- Dunning-Kruger Effect
- Various natural prejudice fallacies
- Hypothalamus limitations
- Limbic System related rage responses
- Consciousness blocks, specifically:
  - Oblivion<sup>705</sup>
  - Distraction<sup>706</sup>
- Othering, as a hard-wired tendency
- Rejection of the reality of the PEMF as guiding force in Universe and our lives
- In terms of social evolution, the falling away from the Aether

<sup>704</sup> The irony is that Henri Poincaré identified gravity waves and special relativity in the 1800s, and also in 1927 we could have chosen PEMC but chose the now failing Big Bang for our Standard Model. This has enabled the secret space corp and Majestic-12 programs, but it also has set us back by nearly 100 years. Only since 2015 has the situation started to reverse.

<sup>705</sup> Literally the “falling asleep at the wheel” effect when one needs to focus.

<sup>706</sup> “Secret of the Golden Flower,” Liu Yiming, transl. T. Cleary

<sup>702</sup> <https://www.britannica.com/science/fluid-mechanics>

<sup>703</sup> “The Invisible Rainbow: A History of Electricity and Life,” A. Firstenberg, 2016

## Appendix A - Glossary of Acronyms

3D-VR - 3 D Virtual Reality  
ABA - Asteroid base array  
API - Application Programming Interface  
AWS - Amazon Web Service  
BBE - Biefeld-Brown Effect  
BCG - Birkeland Current Generator  
Big “G” - The GOD diagram: **L**ord, **F**orce, **A**ether, **N**umbers, **P**rinciples/**P**hysics, **G**od  
BOIP - Blockchain Only Internet Protocol  
BPS - Birkeland Polyphase Superweb  
BPSG - BPS Generators  
BTT - Beaming Transport Technology  
BVG - Birkeland Vajra Generator  
CAI - Centralized Artificial Intelligence  
CCP - Chinese Communist Party  
CDN - Charge Distributive Networks  
CME - Coronal Mass Ejection  
CNS - Central Nervous System  
CPU - Central Processing Unit  
CVS - Cardiovascular System  
DAI - Black Market or Dark Artificial Intelligence  
DeFi - Decentralized Finance  
DES - Dark Earth Soils (“terra preta”)  
DEX - Decentralized Exchange  
DHSP - Deformable Hyperscript Protocol  
DLS - Dual Layer Shields  
DLE - Dual Layer Economics  
DLG - Double Layer Generators  
DLL - Data ley lines  
DLS - Dual Layer Shielding  
DLSG - Plasma double layer shield generators  
DM - Deep Mining  
DSM - Diagnostic and Statistical Manual of Mental Disorders  
DVM - Deep & Volcanic Mining  
ELM - Eulium Coin

EM - Electric Magnetic  
EMF - Electromagnetic Force  
EPA - Environmental Protection Agency  
ESA - European Space Agency  
ETB - Extraterrestrial Bases  
EQ - Emotional Intelligence  
FFRC - Fission, Fusion Recombinators  
FSAI - Function Specific AI  
FTLS - Faster than light speed  
GDP - Gross Domestic Product  
GEC - Galactic Electric Circuit  
GPU - Graphics Processing Unit  
HAWT - Horizontal-axis wind turbines  
HEGME - Hollow Expanding Growing Electro Magnetic World  
HFC - Hydrogen Fuel Cells  
HPG - Human Power Grid  
ISS - International Space Station  
KE - Kinetic Energy  
LFRF - Low Frequency Radio  
LLRN - Lunar Landing Research Vehicle  
LSE - Living Systems Engineering  
M.A.D. - Mutually Assured Destruction  
MIC - Military Industrial Complex  
MIMS - Membranous Interface of Material and Spiritual  
NPK - Nitrogen, Potassium, Sodium  
NSEC - Nervous System Electric Circuit  
NWO - New World Order  
PCB - Printed Circuit Board  
PDP - Pollution and Disaster Prevention  
PEC - Planetary Electrical Circuit  
PEMC - Planet Electromagnetic Cosmology  
PEMF - Pulsed Electromagnetic Field.  
PEMS - Plasma Electromagnetic Sky  
PPPC - Potentiality-Possibility-Probability Cloud  
PRDS - Portable/Redeployable Systems  
PSM - Potential Space Modulators

QAI - Quantum Computing Artificial Intelligence  
QLE - Quantum Leap Engine  
QTE - Quantum tunneling + entanglement.  
REM - Resource-Efficient Mining  
SAaaD - Spooky Action at a Distance  
SAFIRE - Spectroscopy of the Atmosphere Using Far-Infrared Emission  
SAM - Structured Atomic Model  
SAMS - Space Acceleration Measurement  
SCS - Spongy Counterspace  
SE - Stirling Engines  
SFNB - Self forming nano-balloons  
SGEC/SSC - Solar Galactic Electrical Circuit  
SPACER - STEMM, Projects, Analytics, Cryptocurrency, Energy, Research/Resilience  
SSDP - Steady stream of dirigible plasma  
SSEC - Solar System Electric Circuit  
STEMM - Science Technology Engineering Mathematics Medicine  
T2C - Tier 2 Civilization  
TAI - Targeted Artificial Intelligence  
TED - Technology Engineering Design  
TEM - Technology, Energy Mathematics  
TGE - True, Unlimited Green Energy  
TIQ - Total Intelligence Quotient  
TNO - Trans-Neptunian Object  
TNT - Trinitrotoluene  
TOKAMAK - Toroidal chamber-magnetic; a toroidal plasma confinement device  
TSMC - Taiwan Semiconductor Manufacturing Facility  
TWT - Traveling Wave Tube  
UAV - Unmanned Aerial Vehicle  
ULF - Ultraviolet Laser Facility  
VAWT - Vertical-axis wind turbine  
VDB - Vertical Docking Zone or Base  
VEI - Volcanic Explosivity Index  
VTG - Vadra Thunderbolt Generator  
WMD - Weapons of Mass Destruction  
WQ - Wisdom Quotient

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