The White Paper

Increasingly governments and corporations are limiting our ability to self-govern or even effect reasonable change in our supposedly "democratic" institutions. The censorship of dissenting voices on platforms like YouTube and reddit is almost complete, and Google has even pulled advertising of political candidates in order to manipulate US elections. Meanwhile, restrictive and fascist governments the world over are colluding with large corporations to maintain a stranglehold on the Internet, on Internet Infrastructure, and also tracking and recording the movements and activities of citizens globally effectively ending all humanity's right to privacy, right to travel, freedom of speech and in many cases, even our right to live, grow food, obtain fresh potable water, or even raise our own families.

Regardless of advances in technology such as cryptocurrency, onion routing, and ever more sustainable and freedom focused software and hardware, the network itself is still a point of control and economic genocide.

The only way to truly combat this ever-increasing dystopian nightmare of corporate genocide is to allow the global citizenry the ability to quickly and cheaply deploy a new physical network that is decentralized, untrackable, incentivized, and impossible to control or manipulate by bad actors, primarily the existing power structures that stand to lose control: The IMF, World Bank, UN, US Empire, Verizon, Charter, Google, Amazon, and all the other corporations and governments colluding with them to continue to dominate and manipulate all human commerce and life.

Through Open Source, Low Cost 3d Printing, advanced blockchain and p2p mesh networking, we believe OpenAirShips.com has a potential solution to truly free humanity from all previous forms of fascism and genocide.

The Network

The network will consist of a wireless p2p mesh network of highly secure blockchain encrypted real-time frequency switching ultra wideband radio hardware offering an incentivized blockchain based high bandwidth and long distance peer to peer network that is truly decentralized, infinitely scalable, uncensorable, and untrackable.

> *In order to understand where UWB fits in with the current trends in wireless communications, we need to consider the general problem that communications systems try to solve. Specifically, if wireless were an ideal medium, we could use it to send*
> *1. a lot of data,*
> *2. very far,*
> *3. very fast,*
> *4. for many users,*
> *5. all at once.*
> *Unfortunately, it is impossible to achieve all five attributes simultaneously for systems supporting unique, private, two-way communication streams; one or more have to be given up if the others are to do well. Original wireless systems were built to bridge large distances in*

order to link two parties together. However, recent history of radio shows a clear trend toward improving on the other four attributes at the expense of distance. Cellular telephony is the most obvious example, covering distances of 30 kilometers to as little as 300 meters. Shorter distances allow for spectrum reuse, thereby serving more users, and the systems are practical because they are supported by an underlying wired infrastructure– the telephone network in the case of cellular. In the past few years, even shorter range systems, from 10 to 100 meters, have begun emerging, driven primarily by data applications.

-From Ultra-Wideband Technology for Short- or Medium-Range Wireless Communications Jeff Foerster, Intel Architecture Labs, Intel Corp. Evan Green, Intel Architecture Labs, Intel Corp. Srinivasa Somayazulu, Intel Architecture Labs, Intel Corp. David Leeper, Intel Connected Products Division, Intel Corp.

Currently UWB has been monopolized and restricted by the FCC in the US, making it all but worthless as a networking technology. Our decentralized peer to peer network will be illegal in the US and a form of civil disobedience from the outset.

Civil Disobedience FOR PROFIT.

The BlockChain

The Blockchain that will be developed to operate and incentivize this network will have the following capabilities:

Mineable through network hop data transfer.

Mineable through network database storage and access.

Mineable through deployment of new hardware (nodes) on the network.

Mineable through development of the technology and infrastructure that is ratified and approved by the open source community.

Mineable through provision of 3d and image data of the surrounding area.

Mineable for providing transportation (Replacing UPS, Amazon, Uber, et al).

Mineable for providing housing (Replacing AirBNB, et al).

Mineable for providing 3d printing services.

Mineable for providing fresh water, sewage treatment, electricity, organic heirloom food, organic heirloom seeds, organic hemp based sustainable 3d printing filament.

Mineable through other smart contracts agreed to by parties on the network.

Mineable through staking, masternodes, and helping to secure the network by verifying transactions.

Mineable by providing text, video, and images to the network.

Mineable by providing an audience for any entity hoping to promote their own media.

Mineable by offering real time exchange of other goods, services, and also exchanging other assets and cryptocurrencies.

Mineable by offering education and providing hardware to new nodes.

Mineable by offering new governance suggestions that are adopted by the network.

Mineable by voting for governance proposals.

The Blockchain will be completely privacy focused, impossible to mine as proof of work, and loosely based on existing blockchain masternode technology, such as Pivx, Social Send, Vitae, or Neutron.

Why AirShips?

AirShips offer the most efficient way to distribute hardware quickly and cheaply on a truly global scale. By operating on a buoyancy principle, the AirShip does not require energy to provide lift, but can maintain it's elevation by decompressing or compressing hydrogen real time, into and out of ballonets and pressurized tanks. Because hydrogen is explosively reactive with oxygen, which is abundant in our atmosphere, the hydrogen systems will be kept in an oxygen-free nitrogen gas environment, as is commonly done in commercial hydrogen systems now.

By operating as an actively mobile node, the network will be uncensorable globally by operating as a real time infiltration of a truly free network that is beyond government or corporate control. Even in areas where a government or corporation have captured or destroyed nodes, new nodes will quickly move in to fill the gaps as the network is incentivized via blockchain reward. The more destructive the environment, and the more AirShips have been lost in a locality, the higher the blockchain reward for that network region. Incentivizing aggressive destruction of censorship and fascistic control of airspace or radio spectrum.

Larger AirShips can also provide transportation away from fascist and corporate properties and regions both over land and water. Ensuring that people in that region can escape war, famine, or other debilitating forms of genocide that are usually the result of economic factors driven by traditional power structures we are aiming to rapidly supplant. Furthermore, large AirShips can provide real-time emergency housing for people displaced by violence or natural disaster.

The AirShips

Materials:

Hydrogen is the most abundant element in the universe. Hydrogen in it's purified gas form is lighter than air or any other gas, allowing for free transport to any altitude in any atmosphere. Water covers most of the earths surface. Hydrogen can be extracted from water by electrolysis, which can be done using solar power.

Carbon is the 12th most abundant element on earth, and can be freely harvested from the air as Carbon Dioxide, a greenhouse gas that is currently at a higher atmospheric concentration than what climatologists feel is ideal. Carbon can be used to make carbon fiber, a very strong and light structural material. Carbon can also be used to make Graphene, one of the strongest materials known to man, and an excellent conductor. Graphene can also be used to make extremely energy-dense ultracapacitors, and also carbon nanotube based solar cells, which are an extremely efficient type of photovoltaic.

Nitrogen is the 5th most abundant element in the universe, and can freely harvested directly from the atmosphere. Nitrogen will be used to encapsulate the hydrogen ballonets and compressed hydrogen storage in order to prevent an explosive reaction between hydrogen and oxygen.

Design:

The AirShip design will be highly modular. A circular design means that each section of the structure is homogeneous. This will lead to low-cost mass production, and also simplify and speed iterative design. This will also lead to higher safety, as any failure of any single section will not compromise the stability or operation of the entire craft.

The design will be open source. This will ensure that engineers all over the world will submit rapid improvements and design iterations. This will also ensure the lowest possible cost for acquisition globally.

Each structural and mechanical piece should be designed with the goal of being 3d printable by anyone who already owns an airship. Allowing for iterative upgrades.

The actual networking and operation will be handled by low cost open source hardware, such as the raspberry pi. By having a pi in each section of the AirShip and operating them as a cluster, utilizing the open source ProxMox virtualization container as a template, we will ensure that even in a catastrophic event, some part of the operating system will always be running.

The AirShip will have a Sun Deck at the top, and a spiral staircase from the sun deck down to the main living area, and also continuing down to exit the bottom of the AirShip.

The bottom of the Spiral Staircase will be retractable during flight, and also for security.

Traversal from one AirShip to another will be effortless by exiting the bottom of the AirShip, and then stepping off onto the Sun Deck of the AirShip below. Or vice versa, exiting the Sun Deck of one AirShip, by stepping aboard the Spiral Staircase of an AirShip above.

The entire surface of the exterior of the AirShip top, other than the sun deck, will be covered in high density, high efficiency photovoltaics made from the cheapest materials possible.

Construction:

In order to rapidly deploy a global uncensorable and inexpensive network completely supplanting government and corporate controlled networks (current internet), we will need to rapidly expand the human capacity to construct additional AirShip nodes.

The best way to ensure logarithmic growth of the network is to devise a system that is capable of self-replication and rapid iterative design improvements.

3d printing and open source are the cornerstone of rapidly advancing all human technological capability as quickly and safely as possible. But the current generation of 3d printers are not actively capable of self-replication. Too many moving parts, too many stationary design choices, and a lack of mobility all limit the current 3d printing industry.

By having an AirShip 3d printer, one that can carry filament, and also move the active hot end accurately and safely in space to any location, construction of any physical object (including more AirShip 3d Printing Nodes) is possible at a lower cost, with less moving parts, and also more inexpensively.

In addition to rapidly lowering the cost and complexity of 3d printing by having an actively movable and controllable hot end with sub millimeter accuracy, multiple AirShip 3d Printer Nodes can 3d print multiple materials, simultaneously, creating meta-materials vastly superior to any single homogeneous material. For example one AirShip 3d printer can be printing in a sustainable and edible non-toxic hemp based plastic, while another AirShip 3d printer can be printing segments of graphene in the same structure. This can make the graphene an electrical grid, or merely part of the structure in a way that is structural. Not only that, but SEVERAL different materials can be printing on a single structure at the same time, millimeter by millimeter, and at unlimited scale.

In this way, the smaller initial AirShip 3d printers can easily begin constructing larger AirShips collaboratively, and iteratively.

All materials used for this endeavor should be completely reusable, and recyclable. So that outdated AirShip designs can be immediately melted down, and re-purposed for new AirShips or other construction.

Additional Infrastructure, and Specialized AirShips

The teams constructing AirShips will need to be fed and have access to fresh water while they are building the initial wave of AirShip 3d Printer swarms.

By creating AirShips with the FarmBot style tool heads, we can have a swarm of dedicated specialist AirShips that are actively creating an entire ecosystem food forest based on permaculture principles.

In this way, we will be able to create a radical abundance of organic heirloom food, not just for the initial AirShip production and design team, but for the entire global populace.

This will also be the way in which we can farm and harvest industrial hemp on a vast scale, for more hemp-based plastic filament, HempCrete, Hemp AirCrete, and Hemp based textiles.

Eventually we can build large hydroponic hemp farms that float on the ocean and harvest and desalinate all the water they need directly from the ocean and photovoltaic solar arrays. Leading to an infinite abundance of building and construction materials, not just for more AirShip 3d Printer Nodes and AirShip housing, but for literally any conceivable human construction and design need.

The Intent

The intent of this project is not to abide by FCC or FAA or IRS rules. The intent is to radically decentralize all human systems and society, giving individuals and families the ultimate freedom from all current control paradigms. By allowing free travel globally, including over international waters and international airspace, we are eliminating government control, taxation, conscription, and law enforcement. By helping to ensure infinite production of food, water, electricity, hydrogen, and construction materials, we are freeing all individuals and families from a life of labor for large corporations or other exploitative businesses and governments. By providing a high bandwidth long range blockchain encrypted network that is untrackable, uncensorable, and unstoppable, we are providing true freedom of speech, freedom of information, and rapid technological development to every person on the planet, without extorting from more fortunate groups through taxation and other forms of violence.

The Intent is total liberty. For all humanity. The Intent is a complete and utter paradigm shift away from all previous systems of governance, finance and lifestyle.