

Call for a Global Space Revolution

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The world faces imminent global change. The challenges currently being presented to human society by instabilities in global climate and economy are significant, and finding solutions will occupy most of our attention over the coming decades.

However, we also find ourselves at the doorstep of the greatest evolutionary leap Earthian life has encountered since crawling out of the oceans. We are poised to enter space.

The development of new systems for global environmental and economic management is understood to be urgent, and steps are being taken in this direction by great thinkers around the globe. What seems less apparent are the astronomical rewards for humanity that will result from our expansion into the Solar System:

The Overview Effect

By all reports, nothing compares with viewing the entire Earth from space. The planet appears as a single entity – a living, breathing organism with no separation between its inhabitants. The observer sees the entire planet as "home", rather than any specific nation. Everyone appears equal, connected by the planet that we are all part of.

This perspective of Earth will lead to a greater unity among its peoples; an effect that will increase as we colonize other worlds.

This profound shift in perception of Earth from a collection of distinct tribes to a single living world, experienced by increasing numbers of people, will automatically lead to new, holistic ways of thinking about our planet.

Access to Abundant Resources

Space contains infinite resources, which humans can access by developing the necessary technologies and systems. Conflict on Earth is almost always over resources.

- Solar power, collected where the sun never stops shining, can be efficiently and safely beamed to Earth to provide continual, abundant, clean energy.
- The Solar System is estimated to contain over 1 million asteroids, many of which orbit near Earth and are abundant sources of metal, carbon and water. Access to these resources will mean an improved Earthian economy, reduced damage to Earth's environment through mining, and an abundance of materials for constructing space cities and vehicles.
- Mars's surface area is approximately equal to the land area of Earth. The terraforming of Mars will therefore provide the human race with almost double the territory. Furthermore, the experience of colonizing one such planet will enable us to colonize many thousands.

Survival

Mass extinctions caused by asteroid impacts have occurred several times in Earth's history, and will probably occur again. To ensure the survival of humans and other Earthian species there are only two realistic options:

1. Establish colonies in space so that humanity will survive a major impact, and can re-inhabit Earth afterwards.
2. Learn how to modify the orbits of asteroids, or break them into pieces, so that impacts can be prevented.

Both of these solutions are required for an optimal survival strategy, and both require increased technical capability in space.

Increased Global Collaboration

Space development is expensive and complicated, and the results are often global in application, hence there is overwhelming incentive for international collaboration.

The ISS has brought together some of the greatest countries of Earth into a noble exercise. Continued international collaboration on space development will draw the nations of Earth into an even closer partnership, which can only lead to increased peace and a better life for everyone.

Technological Innovation

Many technologies developed for space have far-reaching applications on Earth.

When given a challenging problem the human mind begins experimenting with solutions and gathering information, consciously and subconsciously, with the result being eventual inspiration and breakthrough. The challenging problems of space tend to attract the most brilliant minds, the result being innovative solutions with enormous application and value on Earth.

- Technologies developed for space settlements can open up huge uninhabited regions of Earth, while improving the efficiency and function of existing cities.
- Robotics developed for space can be applied on Earth to a wide variety of tasks, decreasing the cost of products and services while improving safety.
- Energy technologies developed for space can be applied on Earth to produce abundant electricity and thus improved living standards for everyone.
- Biotechnology and planetary engineering strategies developed for space agriculture or terraforming can drastically improve Earth's environment, food production and health.
- Nanotechnology developed for space elevator applications or manufacturing can be used to create advanced structures and equipment on Earth and in space.
- Vehicles developed for space applications will increase efficiency of travel and resource distribution on Earth.

Colonization of space offers hope. It is simply the only path to an abundant and peaceful future for an expanding human civilization, and will bring us everything we need to grow; without it, our future will be one of increasing restriction and difficulty. If the population continues to expand while the amount of available resources remains the same, then, logically, this means a reduced share for all.

With the challenges now before us, opening up space should be made an absolute global priority. It should not be something of marginal interest, or a heavy load to be pulled along by a dedicated few, or something we will do "when things are better". The sooner we become a space-faring civilization, the sooner tensions on Earth will be relieved and we can enter an golden era of peace, freedom and abundance. It should be commenced immediately, and undertaken with wholehearted commitment by the entire planet.

The following strategy is suggested:

1. The establishment of an Earth Space Consortium (ESC) comprised of government agencies, private corporations, academic institutions and space organizations. The ESC will coordinate an intensive global program of space development.
2. Government-sponsored financial benefits, including tax exemption, discounts or investment should be given to all space companies or those developing critical technologies such as solar power and robotics.
3. An organized and well-funded global program for reducing the cost of space travel. Everything depends on it; our primary obstacle is currently the exorbitant cost of leaving Earth. A unified space program should initially focus primarily on advancement of space vehicle technology.
4. Develop space solar power as a method of providing abundant clean energy to Earth, while increasing our capabilities in space and developing technologies for on-orbit construction.
5. Develop space tourism as an economic motivator for the space industry, a source of inspiration to the people of Earth, and a precursor to colonization.
6. Develop a space mining industry, thereby simultaneously providing an economic incentive for space development, an abundance of materials needed to construct a space civilization, and the capacity to defend Earth from asteroid impacts.
7. Build human settlements in space and on Luna and Mars, thus ensuring the long-term survival of humans and other Earthian species while producing advanced technologies that can be applied with tremendous benefit on Earth.

The time is now. It will only become more difficult over the coming years. The past doesn't matter; all that matters now is creating a positive human future. The sooner we open up space for the people of Earth, the sooner we enter an amazing new chapter of human civilization. We need to pull together as a team, get organized and focused, and create an exciting future of peace and freedom – in space.