

MGW08—AGEE/ROWE  
AFF—SPACE GOOD  
SUPPLEMENT FOR SPACE SOLAR POWER

## **SPACE GOOD**

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## **SPACE GOOD: STOPS EXTINCTION**

### **Space is key to prevent extinction**

James **Oberg**, space writer and a former space flight engineer based in Houston, 1999, Space Power Theory, [http://www.jamesoberg.com/books/spt/new-CHAPTERSs\\_w\\_figs.pdf](http://www.jamesoberg.com/books/spt/new-CHAPTERSs_w_figs.pdf)

We have the great gift of yet another period when our nation is not threatened; and our world is free from opposing coalitions with great global capabilities. We can use this period to take our nation and our fellow men into the greatest adventure that our species has ever embarked upon. The United States can lead, protect, and help the rest of [hu]mankind to move into space. It is particularly fitting that a country comprised of people from all over the globe assumes that role. This is a manifest destiny worthy of dreamers and poets, warriors and conquerors. In his last book, Pale Blue Dot, Carl Sagan presents an emotional argument that our species must venture into the vast realm of space to establish a spacefaring civilization. While acknowledging the very high costs that are involved in manned spaceflight, Sagan states that our very survival as a species depends on colonizing outer space. Astronomers have already identified dozens of asteroids that might someday smash into Earth. Undoubtedly, many more remain undetected. In Sagan's opinion, the only way to avert inevitable catastrophe is for mankind to establish a permanent human presence in space. He compares humans to the planets that roam the night sky, as he says that humans will too wander through space. We will wander space because we possess a compulsion to explore, and space provides a truly infinite prospect of new directions to explore. Sagan's vision is part science and part emotion. He hoped that the exploration of space would unify humankind. We propose that mankind follow the United States and our allies into this new sea, set with jeweled stars. If we lead, we can be both strong and caring. If we step back, it may be to the detriment of more than our country.

**Extinction is inevitable unless we expand to space. Aside from survival, space exploration promotes hegemony, economic growth, technological advances, and world peace.**

**The Arizona Republic 99** [Sylvia Dahlby, December 18, 1999, HEADLINE: Lander's failure no reason to take eyes off stars"]

At a time when we face serious domestic and economic problems, the cost of space exploration may seem too high. But planetary exploration delivers many immediate returns and long-term benefits, from geological meteorological and environmental sciences to aviations, computers, and telecommunications. Space technology has given unprecedented advances in agriculture, manufacturing, automotives, consumer electronics, medicine and other fields of business and industry. Space science promotes advanced education, a skilled workforce, and high-paying jobs. As a nation, we also benefit from international prestige and leadership. Space science promotes visionary thinking, lofty ideas, principles and values, such as cooperation, commitment, and faith. Space exploration promises the next generation of American scientists, engineers and soldiers' peaceful missions, and a challenge to learn and create a more hopeful future. Space science also promotes opportunities for the United States to do what we do best: invent, innovate and lead The history of the United States has a rich tradition of space exploration. Who could ever forget the elation and national pride of Apollo's moon landing? The photo of Earth from the surface of the moon served as a unifying force for

Americans and the people of all nations. U.S.-led space missions continue to promote world peace through international cooperation in science and technology. Human history is replete with great civilizations with traditions of science and space exploration. Whether Chinese, East Indian, native American, Islamic, Judaic or Christian, all the world's religions reflect the same story of man's quest for enlightenment and knowledge. The Egyptians built might pyramids to challenge time itself. The Mayans mapped the drift of the constellations and charted the eclipse with astonishing precision. In ancient Sumeria, Greece and the Roman Empire, the stars and planets inspired art, architecture and culture, and that spirit persists in modern times. It is the nature of life itself to push outward and grow. Anthropologist Loren Eiseley suggested that perhaps it is human nature to spread the seeds of Earthly life to other worlds, just as the dandelions scatter their seeds to the wind. With evidence that the dinosaur's demise is the result of a meteor collision, other scientists have suggested that the colonization of other worlds is the only hedge against inevitable human extinction.

### **We'll all be dead by 2050 unless we colonize space**

**Daily Record, 7/8/2002**

THE Earth will be so gutted, wrecked, over-exploited and the barren seas so fished out that we will have to find a new planet - or even two - by 2050. Environmentalists at the World Wildlife Fund say we have just another half century of luxury living left before the Earth becomes a spent husk. By that time, we will either have to colonise space or risk human extinction as population and consumption expand.

## **SPACE GOOD: GET OFF THE ROCK**

An asteroid will hit it's not a matter of if it's a matter of when

Alok Jha, [http://www.guardian.co.uk/space/article/0,14493,1660485,00.html#article\\_continue](http://www.guardian.co.uk/space/article/0,14493,1660485,00.html#article_continue), December 7<sup>th</sup> 2005

A fitting name, astronomers reasoned, for a menace now hurtling towards Earth from outerspace. Scientists are monitoring the progress of a 390-metre wide asteroid discovered last year that is potentially on a collision course with the planet, and are imploring governments to decide on a strategy for dealing with it. And, scientists insist, there is actually very little time left to decide. At a recent meeting of experts in near-Earth objects (NEOs) in London, scientists said it could take decades to design, test and build the required technology to deflect the asteroid. Monica Grady, an expert in meteorites at the Open University, said: "It's a question of when, not if, a near Earth object collides with Earth. Many of the smaller objects break up when they reach the Earth's atmosphere and have no impact. However, a NEO larger than 1km [wide] will collide with Earth every few hundred thousand years and a NEO larger than 6km, which could cause mass extinction, will collide with Earth every hundred million years. We are overdue for a big one."

### **The Rock Will Destroy the Planet and everything on it**

**Exit Mundi** Accessed: July 31, 2006.

It all comes about within moments. Suddenly, there's a big, fiery ball in the sky, just for a few seconds. And then: impact. The atmosphere will be on fire. A huge column of fire and debris towers up miles into the sky. Hundreds of thousands die instantaneously. For thousands of miles around, everyone outdoors is incinerated. People nearby simply evaporate. The impact sends out a shockwave around the globe, just like a stone thrown into a pool makes a circle of waves. But this wave rolls through the Earth's crust itself, causing death and destruction everywhere. There are massive earthquakes. Huge tsunamis. Volcanoes popping open. Millions die, cities are shaken into oblivion. On the opposite side of our planet, the waves of destruction slam into each other again, causing the earth's crust to tower up, forming a massive mountain-ridge within seconds.

## **SPACE GOOD: GET OFF THE ROCK**

**If Planet X Comes there is no escape**

**Exit Mundi** Accessed: July 31, 2006.

They say it triggers earthquakes. That it rips open volcanoes, and unleashes massive tsunamis. They say it can kick the Earth's axis over, pushing Africa to the pole and Antarctica to the equator. It may even stop our planet from rotating! Or worse: peel the Earth's crust off, tear our planet to bits. Or perhaps it simply sweeps our world aside, pushing it into the Sun. That's the way it goes when suddenly, a HUGE planet zooms by. They say. The demon planet that is supposed to do the trick goes by many names. Some call it Nibiru, or Marduk. Others named it The Ottawa Object, or Vulcan, or Transpluto. But most people prefer X, just X. 'Planet X', to be precise. Planet X is the supposedly eleventh planet of our solar system. It should be as big as many Earths, dwarfing it perhaps even hundreds of times. Some people think X isn't even a real planet, but a 'brown dwarf': a massive ball of dust and gas that almost succeeded in becoming a star. Planet X has something no other planet has: a huge orbit. Its orbit around the Sun lasts 3,600 years. Most of the time, it is far off, invisible to the eye. But every 3,600 years, the lost planet returns. Once here, it accelerates, and swings close past the Sun, disrupting everything it encounters.

**If the Moon Goes it will be devastating**

**Exit Mundi** Accessed: July 31, 2006.

Without the moon, we could be doomed. There's always the small but alarming possibility that some dreadful cataclysm takes out the moon. Some billions of years ago, this almost happened. On one terrible day, a vast comet struck the moon, carving out what's now known as the biggest impact crater of the entire solar system: the Aitken Basin, a huge, 2,500 kilometers wide scar on the moon's South Pole. Ok, but what's the big deal?, you ask. Well, not too many people know this, but the moon is what keeps our planet stable. Without it, we would find ourselves on a hostile rollercoaster world. Our planet would go berserk. For one thing, the moon tugs at the oceans. This gives us the tides. No moon, and the floods would immediately be about 2.5 times lower -- some minor tidal motion would remain, because the Sun pulls at the oceans, too. The consequences would be dramatic. Many fertile deltas would dry up. Other areas would become permanently inundated. There would be all kinds of changes to nature. All over the world, people would face droughts, famines, diseases and wars.

## **SPACE GOOD: SOLVES DISAD IMPACTS**

**We solve the internal links to the disad impacts.** Extend our Asimov evidence – it says that it solves all wars by building a spirit of unity and cooperation.

**We solve the terminal impacts of your disads.** We get everyone off the rock.

**The terminal impacts are inevitable.** Our Oberg evidence indicates that if we do not get off the rock we'll all die when an asteroid smashes into the earth.

**The movement toward space exploration, increases deterrence, solving all of their terminal impacts**

**Falconi, Oscar, Author, THE CASE FOR SPACE COLONIZATION - NOW!,**  
<http://www.nutri.com/space/>, 7/31/06, **1981**

Unfortunately, the U.S. is in the position of having to strike only after being struck first. A situation could arise where we'd be reluctant to retaliate because more radioactivity injected into the atmosphere by us, even over Russia, could end all human life on earth. By having a self-sufficient backup colony, capable of recolonizing the earth at a future time, we'd eliminate this reluctance. By knowing beyond doubt the U.S. is fully committed to a 2nd strike, come what may, the Russians would be less wont to initiate their first strike. It's tragic that we humans, capable of love and the appreciation of life and nature, must think in these terms. However, the Russian-American policy of Mutual-Assured-Destruction (MAD) requires it. Thus a space colony results in 2 more benefits: (1) the probability of an atomic war is decreased, and (2) if there is a war, the probability is greater that human life will survive. Yes, the Russians could try to destroy our colony, but the questionable rationale and complicated logistics of such a pointless act of war would need further study. The best solution to this dilemma might be to construct a double space colony, the two halves being dependent upon each other for mechanical balance and stability, one half built and populated by the west and the other half by the east. Such a configuration has in fact been designed: It consists of two parallel contra-rotating cylinders, connected side by side, each about 4 miles in diameter and 20 miles long. The destruction of one cylinder would soon mean the end of the other, along with its thousands of inhabitants. Such an arrangement just might spell peace and save our civilization. And finally, the U.S. is moving aimlessly - no national goal. Our moon landing was merely a victory that hasn't been followed up, a victory in name only. A commitment toward space colonization will put spirit back into America. People will once again be proud to be patriotic Americans. Any further benefits to our technology, our economy, unemployment, the energy shortage, etc., are bonuses of incalculable value, not to mention the preservation of the human race.

## **SPACE GOOD: SOLVES DISAD IMPACTS**

Space power critical to stop economic collapse and protect U.S. hegemony

**Doleman**, everet associated professor on comparative military studies,  
[http://muse.jhu.edu/journals/sais\\_review/v026/26.1dolman.html#authbio](http://muse.jhu.edu/journals/sais_review/v026/26.1dolman.html#authbio) 2005

No state relies on space for its military and economic security more than the United States, a reliance that grows daily more precarious. The United States Air Force has been charged with protecting American and allied space assets in peace and in war, and, at the direction of civilian authority, denying access to space to adversaries in times of crisis and conflict. It is a stark reality of international politics that great power shapes the arena in which state interaction takes place, and yet the exercise of power should be neither capricious nor arbitrary. The United States should endeavor at once to establish military supremacy in space, as it has already done at sea and in the air, for the purpose of stabilizing peace and extending into the foreseeable future its ongoing period of liberal hegemony. No nation relies on space more than the United States—none is even close—and its reliance grows daily. A widespread loss of space capabilities would prove disastrous for American military security and civilian welfare. America's economy would collapse, bringing the rest of the world down with it. Its military would be obliged to hunker down in a defensive crouch while it prepared to withdraw from dozens of then-untenable foreign deployments. To prevent such disasters from occurring, the United States military—in particular the United States Air Force—is charged with protecting space capabilities from harm and ensuring reliable space operations for the foreseeable future. As a martial organization, the Air Force naturally looks to military means to achieve these desired ends. And so it should.

## AT: Space Debris

### Space debris is inevitable

Russell Hoffman, host of High Tech Today, 1/23/1998,

<http://www.animatedsoftware.com/spacedeb/spacedeb.htm>

And--I've only touched the surface of this problem. For example, scientists recently calculated that the problem is so bad that in the future, near-earth orbit space debris will collide with itself so much and so often that there will be a permanent cloud of debris rather than the millions of discreet items that exist now. In other words, without doing a thing to add more debris to the equation, we've put so much up there the equivalent of a nuclear explosion will occur--actually is occurring--wherein pieces of debris collide with other pieces of debris, creating more pieces of debris, which in turn collide with each other, creating still more debris.

### Militarization induced space debris doesn't ruin satellites or space exploration

SpaceDaily, April 22, 2002, <http://www.spacedaily.com/news/milspace-02l.html>

Space-based missiles will generate huge amounts of small debris particles, said Primack. Some will arise from weapon explosions, but even more will come from the resulting small projectiles hitting larger objects already in orbit and fragmenting them. According to Primack, so many bits of junk could eventually be orbiting the Earth that no satellite or space station could be operated in Low Earth Orbit, 200 to 1,250 miles above the planet. Space shuttles and other space vehicles would need heavy armor to pass through the debris. Most communications satellites are located in higher orbits that would not be as affected by the debris, but some, such as those for mobile phones, are in lower orbits and already in danger. No methods to remove space debris now exist.

### Space debris will impact into tiny pieces

Joel R. Primack, Professor of Physics at the University of California, Santa Cruz, May 28-29, 2002, <http://physics.ucsc.edu/cosmo/Mountbat.PDF>

With enough orbiting debris, pieces will begin to hit other pieces, fragmenting them into pieces, which will in turn hit more pieces, setting off a chain reaction of destruction that will leave a lethal halo around the Earth.

### Shielding protects objects against small debris

Jennifer Seymour, J.D., Georgetown University Law Center, Spring 1998, Georgetown International Environmental Law Review

Attempts to protect newly-launched space objects from fragmentation or damage due to collisions with debris focus largely on shielding techniques. These employ the installation of buffers on the outside of space objects and, in the case of some U.S. space shuttles, on the inside of the cargo bay doors "to protect the coolant pipes of the shuttle's heat radiator system . . . ." "Shielding, while an added expense, can protect a spacecraft against some of the smaller items. The international space station that begins assembly in orbit [in August 1998 is protected against items up to almost an inch by sandwiched layers of foil and fabric similar to bulletproof vests." While this protection does not prevent larger objects from damaging space objects, most of the collisions in near-earth orbit involve debris particles that are smaller than four inches.



## **SPACE GOOD: COLONIZATION SOLVES DISAD IMPACTS**

### **Space colonization solves all wars**

Isaac Asimov, visionary genius, 1985,

<http://info.rutgers.edu/Library/Reference/Etext/Impact.of.Science.On.Society.hd/3/4>

I have a feeling that if we really expanded into space with all our might and made it a global project, this would be the equivalent of the winning of the West. It's not just a matter of idealism or preaching brotherhood. If we can build power stations in space that will supply all the energy the world needs, then the rest of the world will want that energy too. The only way that each country will be able to get that energy will be to make sure these stations are maintained. It won't be easy to build and maintain them; it will be quite expensive and time-consuming. But if the whole world wants energy and if the price is world cooperation, then I think people are going to do it. We already cooperate on things that the whole world needs. International organizations monitor the world's weather and pollution and deal with things like the oceans and with Antarctica. Perhaps if we see that it is to our advantage to cooperate, then only the real maniacs will avoid cooperating and they will be left out in the cold when the undoubted benefits come in. I think that, although we as nations will retain our suspicions and mutual hatreds, we will find it to our advantage to cooperate in developing space. In doing so, we will be able to adopt a "globalist" view of our situation. The internal strife between Earthlings, the little quarrels over this or that patch of the Earth, and the magnified memories of past injustices will diminish before the much greater task of developing a new, much larger world. I think that the development of space is the great positive project that will force cooperation, a new outlook that may bring peace to the Earth, and a kind of federalized world government. In such a government, each region will be concerned with those matters that concern itself alone, but the entire world would act as a unit on matters that affect the entire world. Only in such a way will we be able to survive and to avoid the kind of wars that will either gradually destroy our civilization or develop into a war that will suddenly destroy it. There are so many benefits to be derived from space exploration and exploitation; why not take what seems to me the only chance of escaping what is otherwise the sure destruction of all that humanity has struggled to achieve for 50000 years? That is one of the reasons, by the way, that I have come from New York to Hampton despite the fact that I have a hatred of traveling and I faced 8 hours on the train with a great deal of fear and trembling. It was not only The College of William and Mary that invited me, but NASA as well, and it is difficult for me to resist NASA, knowing full well that it symbolizes what I believe in too.

### **Population is increasing now – Space colonization is key to solving**

**Shiles 4** [Gene, is a scientist and former university professor. He holds a PhD degree in Physics from the University of California, <http://www.booksaboutthefuture.com/space-colonization.htm>, June 2004]

Earth's human population, now well over 6 billion, has more than doubled in the 40-year period from 1960 to 2000. This is an average increase of 75 million per year. (A more recent rate of increase is about 80 million per year; click on "Over Population" at the site map above if you want more details about population and growth.) Is space colonization a way to mitigate future over population? If so, where does one go? Consider the possibilities: planets (in a particular size range, of a particular composition and orbiting at a particular distance from a long-lived star), and the larger moons of larger planets, are the only "common" classes of celestial object that can support life as we know it. We first look at our own solar system. Note: We will consider here only the number of people that may be accommodated; the daunting logistics problems involved in "getting them there" will not be discussed. You will, of course, form your own opinions about what you read here. Please keep in mind the recent growth rate of about 80 million people per year and the fact that this numerical rate has been increasing.

## **SPACE GOOD: COLONIZATION SOLVES DISAD IMPACTS**

**Space colonization is key to survivability of the human race – Avoids extinction from nuclear, biological war, natural disasters, overpopulation and resource depletion**

**Benjamin N. Cardozo 2008** [<http://www.tqnyc.org/NYC074772/why.html>, March 11]

1) All of human species is contained within the biosphere of planet Earth, a place more fragile than many of us realize. Biological warfare, nuclear warfare, meteoric impacts, and of course global warming can result in annihilation of the majority, if not all, of human life and technology. Other underlying threats persist as well, particularly environmental destruction. Overpopulation is a big demographic problem. Earth alone will not be able to sustain the geometric growth of the human species. The overpopulation issue grows increasingly serious as larger populations reproduce even faster. Increased taxing of resources on Earth and the lack of sentiments towards nature will be catastrophic. This issue will cross its own boundaries and facilitate the other problems. Overpopulation causes vying for resources, and as world powers clash for these resources, highly destructive warfare increases in likelihood. In addition, overpopulation will accelerate the spreading of dangerous viruses should they be released in the warfare. A destructive virus or a prolonged nuclear war could threaten the entire human species, or eliminate enough of the population to cripple society. Another option must be left open should Earth's population be decimated. Not only would the human species be threatened, but numerous other species might become extinct. The likelihood of a large meteor impacting the Earth is slim, but will disrupt the entire biosphere of the Earth, causing dust clouds that block the sun apart from the initial impact. All of the ecosystems on Earth will be disturbed, making life hard to sustain. "Unless we turn human growth and energy toward the challenges and promises of space, our only other choice may be the awful risk, currently demonstrable, of stumbling into a cycle of fratricide and regression which could end all chances of our evolving further or of even surviving." -Gene Roddenberry, Planetary Report Vol. 1, 1981 The need for resources and energy sources are becoming bigger problems on Earth. Continued burning of fossil fuels hurt the environment. Ecological issues aside, the fuels will eventually be fully depleted. Alternate sources of energy are not efficient and are relatively expensive compared to fossil fuels. New sources must be found.

# **SPACE GOOD: COLONIZATION SOLVES DISAD IMPACTS**

## **Space colonization solves – multiple reasons**

**Benjamin N. Cardozo 8** [<http://www.tqnyc.org/NYC074772/why.html>, March 11]

- 1) A space colony or society could be the refuge for living things on Earth. The human species, along with other Earth-bound species, could be preserved in this refuge should the Earth become uninhabitable. In the event of a catastrophe, the colony would survive, and in time, reverse-colonize Earth to reestablish society.
- 2) The creation of a space observatory in outer space, where there are no obstructions such as gravity, atmosphere, and clouds, will allow far quicker detection of threatening comets or meteors. Early detection is a key to preventing astronomical disasters.
- 3) Colonies in space will have far greater ease in securing renewable energy. The moon, for example, does not have an atmosphere. Implemented solar cells or solar satellites can absorb light energy at an efficiency of 90%. The energy produced would be in excess and could be rerouted for use on Earth. Materials for building solar cells, such as silicon, are abundant on the moon.
- 4) Other resources will be available as well through mining on asteroids. Recently, a platinum asteroid worth \$5-\$6 trillion was detected, as well as an asteroid containing more steel than all that exists on Earth. These resources will provide cheap materials for all of Earth's population if mined, creating better lifestyles.

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# **SPACE GOOD: COLONIZATION SOLVES**

## **KRITIK IMPACTS**

### **Space colonization leads to a new ecological consciousness**

Frank **White**, author, 1987, The Overview Effect, p. 123-124

As humans begin the task of building the new civilizations, we will continue to look inward and outward, forward and back. There is a New Earth in the way we ourselves see it. No longer “the world,” Earth is a planet, our “mother” in a real sense, and this implies a change for us. Apollo astronaut Russell Schweickart said, “I viewed my mother quite differently when I was in the womb than I did after birth. Afterward, I was able to take more responsibility for her. “

### **Space colonization leads to increased commitment to ecological preservation**

#### **\*gender modified**

Marshall **Savage**, Founder of the Living Universe Foundation, 1994, The Millennial Project, p. 267-268

Prophets of doom are currently in fashion. Some of these Cassandras strike me as being decidedly anti-human. A few of them seem to think the world—even the universe—might be a better place without us. This is so wrong. Humans are the source of all light: poetry, music, art, love, laughter, hope, dreams; none of these would exist without us. Without us, the universe itself might not even exist. Reality may depend on our consciousness to perceive it and give it tangible form. Without us, all might be without form, and void; and darkness would remain upon the face of the deep. I believe that humans are good, and that more humans are better. True, a population explosion, within the confines of a single ecosphere, is certainly suicidal. But we need not remain restricted to our present land mass. We can expand. First, into the unsettled frontiers of the world’s oceans. Then, into space. Once we are out of the bottle, we need never turn back. As we expand our presence in space, the importance of Earth as the tap-root and well-spring of all Life will become ever more compelling. Preserving and maximizing natural diversity and ecological complexity is sure to become one of hu mankind’s top priorities. Within the next Millennium, we will come into an era when the Earth is actually benefited by the growing magnitude of man’s powers. When we have entered such a phase, the continued growth of our species will become an unmitigated anti-disaster. Our maturing powers will allow us to repair the ravages of the past. We can restore our Mother planet to health and then protect her— forever.

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**\*gender modified**

Marshall **Savage**, Founder of the Living Universe Foundation, 1994, The Millennial Project, p. 267-268

Prophets of doom are currently in fashion. Some of these Cassandras strike me as being decidedly anti-human. A few of them seem to think the world—even the universe—might be a better place without us. This is so wrong. Humans are the source of all light: poetry, music, art, love, laughter, hope, dreams; none of these would exist without us. Without us, the universe itself might not even exist. Reality may depend on our consciousness to perceive it and give it tangible form. Without us, all might be without form, and void; and darkness would remain upon the face of the deep. I believe that humans are good, and that more humans are better. True, a population explosion, within the confines of a single ecosphere, is certainly suicidal. But we need not remain restricted to our present land mass. We can expand. First, into the unsettled frontiers of the world's oceans. Then, into space. Once we are out of the bottle, we need never turn back. As we expand our presence in space, the importance of Earth as the tap-root and well-spring of all Life will become ever more compelling. Preserving and maximizing natural diversity and ecological complexity is sure to become one of hu mankind's top priorities. Within the next Millennium, we will come into an era when the Earth is actually benefited by the growing magnitude of man's powers. When we have entered such a phase, the continued growth of our species will become an unmitigated anti-disaster. Our maturing powers will allow us to repair the ravages of the past. We can restore our Mother planet to health and then protect her— forever.

## **MGW08—AGEE/ROWE**

### **SPACE GOOD: COLONIZATION SOLVES KRITIK IMPACTS**

#### **Space colonization leads to a transformation of consciousness that solves war**

Frank **White**, SETI researcher, 1990, The SETI Factor

Many scholars and scientists see benefits in opening up the “space frontier.” It provides an opportunity to divert nationalistic energies away from war and toward peaceful cooperation ventures; it also offers an expanded range in which to work out new forms of societal and political interaction. In the Overview Effect, I pointed out that space exploration also provides an opportunity for human awareness to evolve and transform itself because it provides us with a new perspective on the earth, the universe, and ourselves. The defining feature of the space development subculture is a refusal to consider the future of humanity as confined to the surface of one planet. While members of the space development community may be concerned about the future of Earth, it is not because they plan to stay here. They see themselves as the leaders in creating a “spacefaring civilization,” and making humanity into a “multi-planet species.”

#### **Space colonization allows humanity to transcend conflict**

Frank **White**, author, 1987, The Overview Effect, p. 166

The universe is so enormous and awesome that it becomes a unifying force in itself as more people become experientially aware of it. In addition, it provides opportunities for humans to interact in wholly new and different ways. The space environment will cause certain behavior patterns to mutate because they will become increasingly less viable. Special factors in the environment may promote a form of thinking that will take humanity far beyond the current understandings of unity and disunity, war and peace, competition and cooperation.

#### **Encountering extraterrestrials would unite all Earthlings**

Carl **Sagan**, David Duncan Professor of Astronomy and Space Sciences and Director of the Laboratory for Planetary Studies at Cornell University, 1994, Pale Blue Dot, p. 365

The realization that such beings exist and that, as the evolutionary process requires, they must be very different from us, would have a striking implication: Whatever differences divide us down here on Earth are trivial compared to the differences between any of us and any of them. Maybe it’s a long shot, but the discovery of extraterrestrial intelligence might play a role in unifying our squabbling and divided planet. It would be the last of the Great Demotions, a rite of passage for our species and a transforming event in the ancient quest to discover our place in the Universe.

Working towards space exploration allows humans to transcend conflict

Frank **White**, author, 1987, The Overview Effect, p. 166

The universe is so enormous and awesome that it becomes a unifying force in itself as more people become experientially aware of it. In addition, it provides opportunities for humans to interact in wholly new and different ways. The space environment will cause certain behavior patterns to mutate because they will become increasingly less viable. Special factors in the environment may promote a form of thinking that will take humanity far beyond the current understandings of unity and disunity, war and peace, competition and cooperation.



## **MGW08—AGEE/ROWE**

### **SPACE GOOD: MORAL OBLIGATION**

#### **Moral obligation to explore space**

**Stephens 3** [Rex, Quantum Theorist, The Preparation, <http://www.thepreparation.net/Chap1.html>]

There is only one solution. Humans must remove themselves from the Earth's ecosystem before they destroy it. We can build and colonize worlds of our own making in space. The asteroids alone represent enough building material to build over 1000 space colonies with a habitable surface area the same size as the Earth's ( including the 72% of the surface covered by oceans). This is enough habitation space to allow the entire human population to live in any manner they wish, without infringing on the rights of others who want to live differently. The advantages of living in these space colonies will be delved into more fully in the following chapters. The colonization of space by humanity is inevitable. The only question is will we leave this Earth to colonize space because we want to save this place which gave us life from destruction, or will we leave because we have destroyed the Earth to such an extent it will no longer support us. Leaving before humanity destroys the Earth is the only moral path. To flee the Earth and all its troubles after we have plundered and pillaged the Earth to the fullest extent possible, would burden all mankind with a grievous sin, a sin so terrible we would never forgive ourselves. Our children would never forgive us. If there be other life in the universe and we eventually do make contact with older and wiser alien species, they will be appalled by what we did to our mother Earth and they will look upon all humanity with the utmost contempt and mistrust. These aliens will say to one another, "Humans had the ability to leave their birth place, take their place among the advanced races of the universe, and yet, they maliciously destroyed their mother when they could have saved her. What kind of selfish, arrogant and untrustworthy beings humans must be to be capable of doing such a dark deed."

### **SPACE GOOD: NOT IMPERIALIST**

#### **Colonization won't be imperialistic**

##### **\*gender modified**

Alexander **Howerton**, Business Editor for Countdown, 1995, Free Space: Real Alternatives For Reaching Outer Space, p. 38.

True, many evils were perpetrated in the over-zealous spirit of discovery, and whole civilizations were wiped out in the process, but there are two main differences between that era of discovery and this one: first, there are no lives or civilizations to destroy in our solar system (the question of life on Mars has not been totally resolved; I therefore advocate we learn as much as possible about the Martian geography and ecosystem before we engage in any grand plans of terraforming). Secondly, we have the benefit of advanced historical knowledge and appreciation to guide us. We know more about our world and our past than our great exploring forefathers [bearers], thanks in part, already, to the increased communications provided by the economic exploitation of space, in the form of communications satellites.