

## Common Sense and Outer Space

by Charles D. Walker

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What do you think of when you hear the words "outer space"? I hope you are an enthusiast who is responding with something like "adventure", "fun", or "profit"; if so good-on-you and keep reading. You might find some new ideas here with which to excite others. If you are a cynic or just haven't thought about it, I hope you will read on anyway -- you might be pleasantly surprised.

Look at the question without any veneer of detailed prior knowledge or any thought of personal expectation. What do you see now? Allow me to sketch this basic picture of how one might respond to the question from a neutral attitude: *'Outer space has no other habitable worlds! It is a vacuum! It is both bitter cold and fiery heat! And the radiation, like a nuclear nightmare!*

Thus cry cynics and critics of the human adventure, the human future in outer space. They say it is just common sense that outer space is not a place for human beings; if we send anything there it should be just automated satellites or exploring robots. Those words, describing the environment out there, are facts. Tough to deal with facts. Maybe the cynics are right, huh?

You know, fish have it easy. Their common sense view must be -- *'it's too hot up there, and too cold, too. There's nothing to breathe! And on top of all those big problems there's no buoyancy to enable movement!* But despite what the fish cynics must have thought, sometime, hundreds of millions of years ago natural forces caused adaptation - animate life, fishes, moved ashore -- out of Earth's ancient seas -- and survived. More than just survived -- soon prospered and subjugated that land of that 'outer space', this planet Earth.

Today the force driving humanity off this planet into a greater 'outer space' is not so clearly physical. That force, and the point, is enlightened self-interest. That is the self-interest in spreading terrestrial life around a little bit so that one big mountain of protoplanetary dirt doesn't set us (or rather the lucky ones of us) back several millions of years. It is also the point of intellectual perspective and the acceptance of new perspectives, new ways of thinking. In the movement to spread life -- and people -- off planet we all must be accepting and supporting change to make visions and dreams come true. The present day variety of common sense does not tell the public or our leaders that space is very important.

But outer space is vitally important. It is as important as taking in-hand the tools to solve some of our modern, sometimes seemingly insoluble, earthly problems.

Those tools are fantastic to consider. But let's try. In outer space one has control of gravity -- in another word, acceleration and the forces resulting from acceleration -- and on Earth ALL things are ALWAYS effected by a constant gravity. Energy is virtually unlimited in outer space. Unequaled views of the Earth's physical processes stand out before our eyes in outer space. And outer space gives us a vantage point on the rest of the universe that is impossible from down here at the bottom of our ocean of air.

The greatest need today is to convince enough of our fellow earthlings that overcoming those cruel environments and then boldly exploring and developing space

is very important! How many are enough? I don't know. Enough could be one very wealthy dreamer, but it could also be millions of voting citizens. We, you, who understand what I have written above, must sell the "why" then will come the "how."

The American public interest is focused on the economy, their health, and their safety. They do not see the relevance of space. They have not forgotten space, they just do not see that going there is necessary - they see it as a luxury for better times. I feel it is my job, the job in fact of all believers in the human movement into outer space, to express the necessity of space - explain the "why", the relevance and the romance of space. We all must express outer space in meaningful terms -- if we are to see our vision become reality.

There are many, many messages to reach people with. Thousands of lives have already been saved through storm tracking, millions of dollars made through crop health monitoring and position location. People need to know that the quality of health care is being improved for millions through the discovery that the bone-loss that healthy astronauts experience in the weightlessness of space is caused by the same physiological mechanism that causes osteoporosis. People must learn of the discovery that in weightless space red blood cell production is stopped...then started again when some cell or some process in astronauts' bodies adapts to weightlessness, and physicians are homing in on that process -- and that knowledge will improve the health of millions of hemophiliac patients. People must be made to understand about the discovery of perfect crystalline forms of human proteins grown in space that are speeding medical research in cancer and immune deficiency diseases by 10 to 100 times.

As the creators and custodians of the future let's make it the greatest future possible for humanity. Let's recognize that future includes "outer space" in an ever expanding way. For that to happen we must make these perspectives, and many others, "common sense."

Ad Astra!