

January 24, 2001  
NSS Policy Committee

## **SETTLING SPACE**

### **"The Importance of Space Settlement to Our Society and to Humanity"**

Settling space will energize our world, much as the settlement of the "New World" and then the "American West" energized the societies of their times, economically and spiritually.

Societies that have pushed their frontiers have prospered; those that have not have withered. In the long term, settling space will benefit humanity in many ways. In the settlement process we will learn to manage and sustain closed ecosystems. That knowledge could eventually transform and maintain Earth as a natural habitat world for all species, with an indefinitely sustainable economy based on complete recycling of products and renewable energy resources.

Space settlement is already technically feasible, and the scientific and engineering advancements to be expected in its implementation are likely to spur the rest of our economy as space technology has done for the past four decades.

Settlement is energetically feasible; the energy cost of transporting people into space is modest and repaid by their absence within about 2 years. As early space settlements become self-sufficient, large-scale settlements and space commerce will become economically possible.

Further, off-world settlements will provide a reservoir of civilization and terrestrial life, including vital food plant species and varieties, that no single planet-wide catastrophe can destroy, whether of natural origin as asteroid strikes, volcanic upheavals or pestilence, or of human miscalculation as nuclear or biological war or experimentation. The solar system can eventually support a human population many times that of the Earth.

The space pioneer Tsiolkovskii said a century ago, "The Earth is the cradle of civilization. But one cannot live in the cradle forever." To begin the environmentally and economically beneficial process of space settlement is to begin replacing a pessimistic future of "limits to growth" with a hopeful future of ample opportunity and prosperity for all.

As a first step, NSS urges NASA to fulfill the requirements of the Space Settlement Act as required by Congress in the NASA Authorization Bill for 1988, and to adopt space settlement as the overarching long-range goal of the human exploration and development of space (HEDS) enterprise.