



Name	Arthur Woods
Email	arthur.woods@arsastronautica.com
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Co-Authors	Marco C. Bernasconi

Abstract

The Space Option Star ($S\oplus S$) is a Space Solar Power (SSP) demonstrator and represents a logical early step for any Astrostrom development program. The $S\oplus S$ mission has a dual purpose: first, its technical mission represents an in situ demonstration of energy from space technologies and, secondly, its communication mission is to raise public awareness about the potential of the Space Energy Option to address the Energy Dilemma and the Climate Emergency facing the world population. The space segment of the Space Option Star would perform an early demonstration of the basic technological elements of space solar power. Electricity generated by the $S\oplus S$'s solar arrays would flow to co-located microwave transmitters to beam power toward a companion spacecraft, which will then use this power to transmit video and other interactive communications from orbit to public locations around the world such as art and science museums and schools. The societal context for the development of the Space Option Star is the Energy Dilemma and Climate Emergency. In addition to $S\oplus S$ being an acronym for the Space Option Star project, we are using this project to send the message "save our spaceship" with "spaceship" being modern civilization. As all art is fundamentally political and, as the $S\oplus S$ project powerfully conveys a truthful and important message, it should impact the policy discourse related to energy use on Earth. As an orbital artwork, the Space Option Star will have a more flexible envelope for development than a pure engineering project and will directly involve the public in a variety of ways.

A short bio

Arthur R. Woods is a Swiss independent researcher and astronautical artist with two art projects successfully flown on the Russian Mir space station: the Cosmic Dancer sculpture in 1993 and Ars Ad Astra: The First Art Exhibition in Earth Orbit in 1995 during the EuroMir95 mission. His work has been exhibited in a number of international space and art exhibitions, most recently (2019) in 'Fly me to the Moon. The Moon Landing: 50 Years On' at the Kunsthaus Zürich. He has co-managed several studies for the European Space Agency. He is a member of the International Academy of Astronautics and co-chair of the Moon Village Association's Cultural Considerations Working Group.