

IAF SPACE POWER SYMPOSIUM (C3)
Solar Power Satellite (1)

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KEYNOTE: FIFTY YEARS OF SPACE SOLAR POWER

Abstract

2018 is the 50th Anniversary of Dr. Peter Glaser's initial invention and his first paper in the Journal "Science" on the topic of the solar power satellite (SPS). We are now at a turning point in progress toward the realization of the SPS. Increased availability of affordable energy has never been more important to economic growth. And, it has never been clearer that the climate change represents a major threat to global security and prosperity. Moreover, as outlined in recent works (e.g., "The Case for Space Solar Power", 2014), the economic viability of SPS concepts in the nearer term (e.g., within the next two decades) has never been more probable – particularly in light of the dramatic reductions in the cost of access to space that are now occurring. And finally, the availability of affordable and abundant SSP has never been more important to advancing global ambitions vis-à-vis the development of space resources for the benefit of humanity.

Beginning in the early 1990s, every few years the international space solar power (SSP) community has come together to organize a symposium on the topic of the SPS. For example, SPS 2004 was held in Granada, Spain (Europe); then SPS 2009 was held at the Ontario Science Center in Toronto, Canada, and SPS 2014 was held in Kobe, Japan. Tragically, since 2014 the SSP community has lost both the inventor of the solar power satellite, Dr. Peter Glaser, and the leading international champion of the SPS concept, former President of India, Dr. Abdul Kalam. In addition, at the end of May 2018, "SPS 2018" is planned to be held in Los Angeles, California. This paper will present key recent events including both a retrospective on the fifty years since the invention of the concept and a prospective view on the next fifty years for space solar power.