

SPACE POWER SYMPOSIUM (C3)

Joint Session with IAA Commission 3 (Space Technology & System Development) on "Solar Energy From Space" (1)

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PRELIMINARY INTEGRATION RESULTS FROM THE IAA STUDY GROUP ON SOLAR ENERGY FROM SPACE

Abstract

The International Academy of Astronautics (IAA) is conducting the first International Assessment of Solar Energy from Space during 2008-2010. This effort involves a variety of new studies and assessments of specific topics within the general field of space solar power (SSP)—ranging from low cost launch, to affordable in-space transportation, to high efficiency solar power generation, and others. The effort also involves the review and synthesis of prior studies of key topics in SSP. During 2008-2009, considerable progress was made on the study, including the development of a methodology for the systems analysis integration of the results of the study group's efforts.

This paper will present an preliminary results of the integration of the results of the IAA assessment of solar energy from space, including results that range from overall engineering figures-of-merit (e.g., end-to-end efficiencies) to economic / cost analysis figures-of-merit (such as costs per kilowatt-hour). The paper will identify how the systems integration that will be completed and will provide an opportunity for participants in the study and others to provide comments and inputs on the approach.