

BUSINESS INNOVATION SYMPOSIUM (E6)
Entrepreneurship and Investment for Commercial in-Space Activities (2)

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BUSINESS OF ARTIFICIAL METEORIC SHOWER EVENT

Abstract

The purpose of the present study is to gauge the possibility of artificial meteoric showers and to suggest thereby that it can be a business. The artificial meteoric shower is composed of man-made meteoroids which are lifted by a rocket. The natural meteoric shower can be observed in a limited area, and the period of the largest meteor stream, Leonids, is about 33 years. The artificial meteoric shower will give people greater chance to witness the meaningful event. Furthermore, it is likely to be a national or even international event because it can be seen over a considerably large area. The application of this event can be expanded to international holidays such as Christmas Eve and New Year's Day. Investigation of this paper is first to verify the possibility of the event, and second to discuss its economic and scientific value. It is examined that the altitude of geostationary satellites is sufficient to have meteoroids ignite during the fall. Specifications of necessary spacecrafts and the proper dropping altitude will be presented in the paper. Compared to typical satellites or manned spacecrafts, less concern for the payload of the rocket will lead to decreased launch costs. Investment to the technology will create a sustained profit. In addition, the artificial meteor business is expected to contribute to space science and technology. The profit from the business is returned to development costs, and it will promote technological progress. Additional research can be conducted in parallel with the event such as research on re-entry and small satellites along with development of reusable rockets.