32nd IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3) Space Economics from Apollo to Tomorrow (3)

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THE ECONOMIC IMPACT ANALYSIS OF SATELLITE DEVELOPMENT AND ITS APPLICATION IN KOREA

Abstract

Many countries have begun satellite development since the beginning of the space era and especially after the Apollo era. Korea also started satellite development since 1992 with launching small satellite KITSAT-1 more than 20 years after the Apollo 11 lunar landing. Up to now Korea has developed 15 satellites including eight small satellites, five LEO Korean Multi-Purpose Satellites (KOMPSAT), two GEO satellites. Korea is currently developing KOMPSAT 6 and 7 with advanced optical and radar observation capability, GEO-KOMPSAT 2B, middle-sized Compact Advanced Satellites (CAS), Next generation small satellite (NEXTSat). These efforts will raise Korea's satellite technology to the next level. But to prepare strategies for efficient and effective satellite it is essential to elaborately assess the economic impacts of previous satellite development programs and its application. In this paper we examined the economic impacts of Korea's accumulative investment on the RD of national satellites and its application in the perspective of satellite value chain. The impacts cover direct impacts such as technology transfer, distribution of satellite images, establishment of infrastructures and indirect impacts derived from application in various fields such as ocean application, meteorological application, etc. Also we performed input-output analysis to investigate the influence of investment of satellite development to related industries in Korea.