

29th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)  
Enterprise Risk Management (6)

Author: Mrs. Hyojung Ahn

Korea Aerospace Research Institute (KARI), Korea, Republic of, hjahn@kari.re.kr

Dr. Kim Hong-Bae

Korea Aerospace Research Institute (KARI), Korea, Republic of, hbkim@kari.re.kr

A FEASIBILITY STUDY ON THE RECOVERY OF REUSABLE ROCKET USING RIDM

**Abstract**

Recently, the development of technologies for recovering reusable rockets is an issue. This has the advantages in the launch cost saving and environment protection. Typically there are two development strategies of the ongoing. One is to recover the whole first stage of the rocket through boost back burn and another is to recover engine except the fuel tank of the first stage of the rocket using parafoil recovery with mid-air capture. In this paper, we performed the risk analysis for each recovery method and considered which way is proper to our domestic situation (related to the geography, state of runway, cost and etc.) by using risk-informed decision making process. This result may in the future be utilized as a useful material to take a direction for the development of related technologies.