

IAF SYMPOSIUM ON SPACE SECURITY (E9)
Policy, Legal, Institutional and Economic Aspects of Space Debris Detection, Mitigation and Removal
(1-A6.8)

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THE CORRELATION OF IMPLEMENTING SPACE DEBRIS MITIGATION GUIDELINES AND
PRACTICES, RISK PROBABILITY AND THIRD PARTY LIABILITY INSURANCE

Abstract

With the increasing issue of space debris and the associated risks that has been recognized internationally, voluntary principles has been practiced by memberstates for the aim of minimizing risks associated with space debris. Moreover, memberstates transfer liabilities to operators of space activities through the authorization framework which impose an obligation on operators to either provide a financial guarantee or a 3rd party liability insurance. Both are calculated using a model based on a pre-defined risk catalog which includes in-orbit risks related to space debris. The UAE has taken efforts in developing an approach towards creating incentives for complying with the UN space debris mitigation principles, within its regulatory framework which will be demonstrated in this case study.

The UAE Regulatory framework emphasize on the importance of developing voluntarily guidelines and practices in mitigating space debris and 3rd party liability issues. It sets a recommendation on space activity operators to take necessary measures and plans to mitigate and reduce the impact of Space Debris, and it sets an obligation to obtain a 3rd party liability insurance. Both regulatory instruments are interconnected and has an influence on each other. The 3rd party liability insurance calculation model was developed based on a number of economic assumptions that are based on risks in which some are associated with space debris. Complying to the Space Debris Mitigation Guidelines issued by the UAE Space Agency will lead to minimizing those risks. Therefore those risks will not be considered in the calculation model of a 3rd party liability and incentivize operators to comply to the space debris mitigation guidelines.

This paper is a case study analysis on how UAE space regulations are aligned with the concept of an agile, flexible and innovative governance system. Where it has developed regulatory incentives and best practices approach to incentivize the compliance of space debris mitigation by space activities operators and in particular the operators of the private sector. It showcase the correlation between implementing space debris mitigation guidelines and practices, its effect in reducing risk probability, and how it can impact the third party liability insurance market.