

66th International Astronautical Congress 2015

SPACE DEBRIS SYMPOSIUM (A6)

(joint session with Space Security Committee): Policy, Legal, Institutional and Economic Aspects of Space Debris Detection, Mitigation and Removal (8)

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DEBRIS MITIGATION AS AN INSURANCE IMPERATIVE

Abstract

The hazards presented by space debris are well known, and debris mitigation has been one of the key topics in space sustainability. There is currently not political will, however, to create a binding regime for debris mitigation standards at the international level. While the IADC debris mitigation guidelines are an important step toward sustainable use of space, soft law guidelines will be insufficient to protect the international community's Outer Space Treaty-given right to use and explore outer space freely.

One possible avenue for the implementation of more stringent debris mitigation requirements is through insurance providers. Insurance is the third highest cost in launching a space object (with the first two being research and development of the satellite itself and launch). It is in the best interests of both the insurers and insureds to mitigate the risk of collision with space debris. The more debris, the more likely for a collision to occur, the more likely an insurance claim will be paid, and the higher insurance premiums will rise. This presentation and paper ask and answer the question "what can insurance providers do to raise the bar in debris mitigation standards?"

The historical example provided by the Hartford Steam Boiler Inspection and Insurance Company is used as a case study in an insurance provider leading the way in terms of safe operating practices. Prior to the implementation of HSB's safe operating requirements, which were both more stringent than government regulations and enforced by inspection, the operation of steam boilers was a much more dangerous activity. Through innovative standard setting, HSB was able to simultaneously reduce the number and severity of claims paid, reduce insurance premiums, and ensure safer operation of steam boilers. They have also used this model in providing insurance for nuclear power plants.

In a space context, insurers can set debris mitigation standards that are internationally uniform and encourage sustainable use of space, either by requiring implementation of these standards to acquire insurance, or by offering a discounted premium based on the level of compliance. Sample language for such requirements will be provided in this presentation/paper.