

Orbital Debris Mitigation

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Policies on limiting orbital debris are found throughout the US Government, many foreign space agencies, and as adopted guidelines in the United Nations. The underlying purpose of these policies is to ensure the environment remains safe for the operation of robotic and human spacecraft in near-Earth orbit. For this reason, it is important to consider orbital debris mitigation during the design of all space vehicles.

Documenting compliance with the debris mitigation guidelines occurs after the vehicle has already been designed and fabricated for many CubeSats, whereas larger satellites are evaluated throughout the design process. This paper will provide a brief explanation of the US Government Orbital Debris Mitigation Standard Practices, a discussion of international guidelines, as well as NASA's process for compliance evaluation. In addition, it will discuss the educational value of considering orbital debris mitigation requirements as a part of student built satellite design.