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Letter to the Editor

CubeSat Risk Management Tools

Note from the Editor-in-Chief: Reference herein to any specific commercial product, process, or service, by trade name, trademark, manufacturer, or otherwise is for the information and convenience of the public, and does not constitute endorsement, recommendation, or favoring by the Journal of Small Satellites (JoSS).

Dear Editor,

This letter is partially in response to an article and a Letter to the Editor that both appeared in the July 2013 edition of JoSS: "Mission Risk Survey – A Call for Response from the Small Satellite Community" and "Application of Risk Management to University CubeSat Missions." The letter also addresses the need of the small satellite community to employ risk management processes to ensure mission success, as first identified by the above JoSS article. The previously mentioned Letter to the Editor requested the participation of the small satellite community to provide valuable information regarding events their mission experienced during the development, integration, testing, and operations phases.

The CubeSat Risk Analysis and CubeSat Decision Advisor software tools are the result of this survey and research, and are now available to the small satellite community. Both tools are free to access and were built in Microsoft Excel, so as not to require any additional software other than the ability to run macros. The CubeSat Risk Analysis tool uses regression analysis to analyze the data obtained from the aforementioned JoSS paper and Letter to the Editor. The result is a set of equations relating a CubeSat's form factor, launch status, and months in life cycle phases to risk likelihood and consequence values. The CubeSat Risk Analysis tool allows users to determine these values, as well as plot them via industry standard methods. The CubeSat Decision Advisor then offers users the ability to determine, based on their unique set of resources and preferences, which mitigation techniques would be best suited for their mission to reduce the risk likelihood and consequence values. Both the CubeSat Risk Analysis and CubeSat Decision Advisor tools have been thoroughly tested and are now freely available.

Interested parties can go to *https://sites.google.com/site/brumbaughresearch/research* to learn more and request a copy of the tool(s). If you have any questions or comments regarding this research, please contact me directly at: katharine.m.brumbaugh@utexas.edu.

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