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Safety and quality: "SUCCESS" is the goal (1)

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CRITICAL ANALYSIS OF QUALITY AND SAFETY REQUIREMENTS APPLIED DURING THE
SAC-D/AQUARIUS SATELLITE ENVIRONMENTAL CAMPAIGN TESTS AT INPE/LIT (BRAZIL)**Abstract**

This paper aims to present a critical analysis of quality requirements applied for SAC-D/Aquarius environmental test campaign in order to verify whether those requirements, described in a large amount of project documents, are in conformance with the concepts, rationale, methods and techniques described in ESA and NASA standards related to Quality, Safety and Product Assurance.

Over the past two decades Brazil has an agreement with Argentina in the space area. This collaboration began with the development of satellite SAC-B, launched in November 1996, followed by the SAC-C satellite, launched in November 2000. As a result of this collaboration the SAC-D/Aquarius Satellite performed an intense test campaign at LIT - Integration and Testing Laboratory.

During this analysis, it became clear that the man-hours involved in activities related to quality, safety and product assurance for activities involving high level of complexity is higher when compared with activities normally under development in other projects in Brazil.

The conclusion is that in a multidisciplinary and complex project it must have a responsible team to maintain a live database feeding and seeking for information such as lessons learned, to avoid failures during the environmental test activities.