

IAF SPACE SYSTEMS SYMPOSIUM (D1)

Lessons Learned in Space Systems: Achievements, Challenges, Best Practices, Standards. (5)

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EARTH OBSERVATION SATELLITE - CBERS4A – PRELIMINARY LESSONS AFTER AIT
CAMPAIGN AND ITS SUCCESSFUL LAUNCHING

Abstract

This paper presents and analyses the AIT process of China-Brazil Earth Resource Satellite – CBERS 4A, using the AIT discrepancies as a guide for lessons learned that could inspire and contribute to improve system design, the verification process and AIT process. The CBERS-4A is the 6th satellite jointly developed by the two countries. The CBERS-4A satellite has been launched successfully in December 2019, after huge AIT campaign. The satellite AIT campaign started in June, 2017 at Integration and Test Laboratory - LIT of Brazil's National Institute of Space Research - INPE and ended later October 2019 at Chinese Academy of Space Research – CAST in Beijing, after totalizing 1860 hours of functional tests. Considering that total satellite lifespan is expected to be 5 to 6 years in orbit, it is very imperative that the whole project life cycle and therefore AIT campaign must be efficient to fulfill the user's need and expectation.