SPACE SYSTEMS SYMPOSIUM (D1)
System Engineering Tools, Processes and Training (2) (6)

Author: Mr. Paulo Vinicius Jeronimo
Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, ojeronimo@lit.inpe.br

Mr. Luiz Alexandre da Silva
Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, luizaxlex@lit.inpe.br
Prof. Geilson Loureiro
Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, geilson@lit.inpe.br

SYSTEMS CONCURRENT ENGINEERING OF SPACE PAYLOAD AQUARIUS INSTRUMENT

Abstract

This paper presents a System Concurrent Engineering approach applied to the development of the space payload Aquarius instrument with upfront life cycle process considerations. This approach anticipates the life cycle process issues, identifying and solving problems in advance. The approach was developed by Prof. Geilson Loureiro and has been used, since 1999, in more than 200 academic and industrial examples. The paper starts by presenting the approach, the Aquarius instrument overview as part of the Argentine SAC-D satellite and the application of the approach to this space payload example. Keywords. System Concurrent Engineering, Aquarius Instrument, SAC-D, Satellite.