

SPACE SYSTEMS SYMPOSIUM (D1)
System Engineering Tools, Processes & Training (I) (3)

Author: Mr. Franck Durand-Carrier
Centre National d'Etudes Spatiales (CNES), France, franck.durand-carrier@cnes.fr

Prof. Geilson Loureiro
Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, geilson@lit.inpe.br

STANDARDIZATION OF THE TECHNICAL READINESS LEVELS (TRL)

Abstract

Space international programs appear more and more technically challenging and financially constrained. In this context, international cooperation as well as efficient technology management methods are required or at least welcome to overcome these difficulties. TRLs are the different levels of a metric (or indicator) which aims to assess technology maturity.

They have now been adopted by many companies and governmental agencies around the world and are “de facto” becoming an international language. They offer a systematic assessment of a given technology in the context of its intended application. They are relevant not only to the development of the technology itself, but also to the development and the integration into units, sub systems and systems. They allow communication between managers and specialists or between specialists of various disciplines and various industrial areas.

However, as this language has not been harmonized and detailed, it could sometimes lead to some misunderstanding. For this reason International Organization for Standardization (ISO) has started a project to develop a standard called “Definition of the Technology Readiness Levels (TRL) and their criteria of assessment”.

This standardization is necessary to ensure that the same scale is used by every one thus avoiding any ambiguity, and to guarantee maximum accuracy in the framework of international cooperation. TRL standardization is also becoming a need to be efficient in the business agreements between agencies and industries and in the whole customer-supplier chain.

The aim of this paper is to present the status of this standardization initiative.