SPACE SYSTEMS SYMPOSIUM (D1)
Lessons Learned in Space Systems (5)

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FOLLOW UP ON THE STANDARDIZATION OF THE TECHNICAL READINESS LEVELS (TRL)

Abstract

This paper aims to present the progress of the effort at the International Organization for Standardization (ISO) to issue an international standard on TRL (Technology Readiness Level). This paper will focus on the discussions that led to the draft version submitted to voting in the beginning of 2012. The effort started in the end of October 2010. Paper IAC-11-D1.3.12 presented the agreed broad definition of TRL levels. That paper covered the progress until the generation of an initial version that circulated among the participating countries to gather suggestions and comments. This paper will detail the discussions that took place from the analysis of those suggestions and comments up to producing a draft version that is circulating for voting in the first quarter of 2012. International space programs have been increasingly 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 integration of the technology into units, sub systems and systems. They allow communication between managers and specialists or among specialists of various disciplines and various industrial areas. However, as this language has not been harmonized and detailed in a consistent way, it could sometimes lead to misunderstanding. For this reason the 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 a framework of international cooperation. TRL standardization is becoming a need for gaining efficiency in the business agreements between agencies and industries and in the whole customer-supplier chain.