36th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3) Cost and Procurement impacts on Space Programmes linked to high inflation and world-wide scarcity of components and materials (6)

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ECONOMIC AND PROGRAMMATIC RISK MANAGEMENT IN LARGE SPACE PROJECTS CONTRACTS

Abstract

The European Space Agency has a long practice of risk management for large and complex Satellite and Space infrastructure projects. For the last decades the main challenges have been to cover technological risks, underestimation of the technical and programmatic challenges, supply chain risk leading to significant cost overruns and delays. For sure ESA is not alone in this respect and similar challenges have been experienced by the main Space Agencies and industries as regularly reported in the literature. Similarly, many large civil engineering infrastructure programmes, especially subject of public procurement have been facing similar budgetary overruns and delays, resulting often of a "conspiracy of optimism" which public authorities have difficulties to accept. Next to these rather classical problems for Large projects, the economic evolution of the recent years with relatively high level of inflation have raised very important concerns with the plea of the Space industry for public support to cater for materialised hardship situation, resulting from inflation impact on all cost categories being labour costs, energy drastic price increase, costs of material and electronic components prices, lead time and availability. The purpose of this presentation will be to provide a detailed description of the ESA practice to address contractual risks specific to the large space Projects, with a particular focus on the economical risk (such as price types and procurement of long lead items in a context of high inflation and scarcity of components). The presentation will also extend on the various programmatic and contractual tools and provisions to mitigate such risks as well as those to regulate the sharing of risk between ESA as a customer and its contractors, being the Prime contractors or the supply chain of these large projects. Tis will include a description of the Agency's profit and pricing policy as risk sharing contractual provisions.