

BUSINESS INNOVATION SYMPOSIUM (E6)
Space-related Commercial Applications and Markets (2)

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WATER PRODUCTION SERVICE FOR THE ISS – THE FIRST ON-ORBIT SERVICES CONTRACT

Abstract

This presentation will cover the lessons learned during the formulation, negotiation, and award of the Water Production Services contract for ISS and the impacts to date on the performance of the contract. Highlights include tailoring of requirements, performance based payments, and balance of minimal insight and oversight and safety.

As NASA nears the end of the Space Shuttle Program and begins full science operations on the International Space Station (ISS), some of the most unique and complex hardware ever built will be put to the test onboard the ISS. What most people may not realize is that NASA is conducting more than science onboard the ISS. ISS is an engineering testbed for hardware on-orbit as well as serving as a testbed for future acquisition models.

The ISS has a need for water production capabilities after the retirement of the Space Shuttle. The NASA's Space Operations Mission Directorate saw this as an opportunity to test not only the technology but also an innovative acquisition model.

A key factor in this program was the fact that the technology was well understood due to extensive development work previously conducted and all interfaces were well defined due to the fact that all of the systems that hardware would be interfacing with were already built. The approach is based on having the complete Design, Development, Test and Evaluation of the hardware required for the service conducted and financed by the contractor. In return, NASA pays for water production service on-orbit and is not responsible for any payments to the contractor in the event that the system is inoperable due to services related hardware and/or software related issues. In effect, NASA pays for the availability of the water production service while the contractor is responsible for maintaining system operability over the life of the contract.