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PROVISION OF ONSITE SUPPORT TO THE ISS PROGRAM - THE EXPERIENCE AND LESSONS  
LEARNED OF THE ITALIAN SPACE AGENCY LIAISON OFFICES AT NASA KENNEDY SPACE  
CENTER

**Abstract**

Sustaining Organizations usually operate from locations where the distance and the time difference from the operational sites may be detrimental; the displacement on the operations field of trained liaison personnel not only virtually extends the presence of the Sustaining Organization to the Operational sites, but even allows NASA immediate on-site frontend support during day by day, extended or round the clock operations when quick resolution to troubleshooting and anomalies is critical to success of the mission. Also, a small outpost of field resident engineers provides onsite support to specific processing activities, optimizing the involvement of the Sustaining Organization when operating at its remote site. The Italian Space Agency (ASI) has established Liaison Offices at the Kennedy Space Center (KSC) and Johnson Space Center (JSC) NASA sites since the delivery to NASA of the first Multi Purpose Logistics Module (MPLM) flight unit, Leonardo, back in 1998. The ASI Liaison Offices are operated by personnel belonging to the ALTEC Company in the framework of the MPLM Sustaining Engineering services provided by ALTEC to ASI. Since the early days of the MPLM processing and missions integration, the extensive day by day interaction with NASA and Contractors allowed the Resident Team to improve familiarization with the complex NASA processes and consequently to facilitate the exchange of information with the Sustaining organization; the latter proved to be quite an important asset especially when the ISS mission manifest required more than one MPLM flight unit to be processed at the same time. The overall ISS planning and increment integration process also benefits from the presence of onsite personnel who supports day by day activities and provides liaison to their Organizations. A significant contribution was also provided by the resident personnel to the ASI Payloads integration process and to the support of the Italian astronauts during the preparation and execution of the missions they were part of the crew. Twelve MPLM missions to the ISS were successfully supported before the retirement of the Space Shuttle fleet. Currently the ASI Liaison Office at NASA JSC is providing support to the Permanent Multipurpose Module (PMM) Operations. PMM was obtained by upgrading the MPLM Leonardo flight unit to a permanent ISS element.