L&T Technology Services

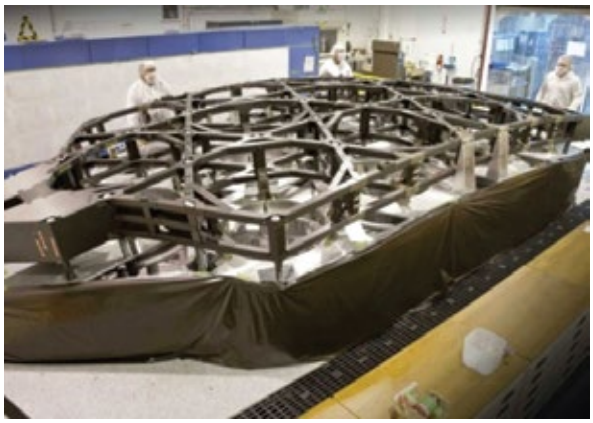
STRUCTURAL ANALYSIS FOR FLIGHT AND TEST LOAD SCENARIOS

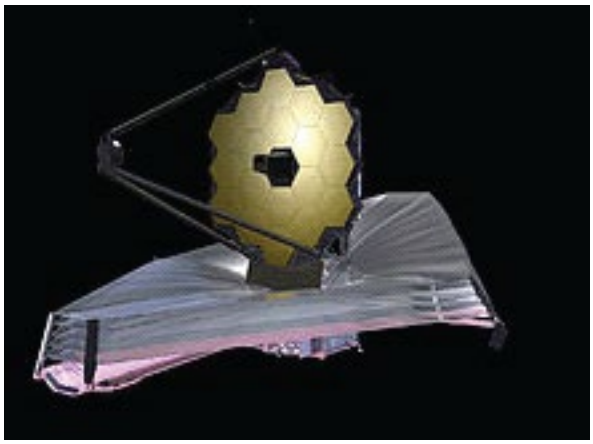
THE CHALLENGE

L&T Technology Services was asked to support the structural analysis needs for flight and test load scenarios. Due to the timeline for delivery, the workflow exceeded the Tier I supplier's in-house capability. LTTS leveraged remote delivery to engage 10 analysts to support the customer's schedule. LTTS produced the FEA models, NX Nastran solving, and detailed analysis reports while managing schedule and budget. Innovations by LTTS allowed for a successful completion Q1 2014.

OUR SOLUTION

- LTTS invested in initial training time for the analysis team to come up to speed on specific requirements pertaining to meshing, load scenarios, post-processing, and structural arrangement at various stages of deployment
- LTTS developed internal training videos and presentations to improve the quality and consistency of the work product
- LTTS developed, proposed, and implemented internal process controls to meet requirements imposed on the customer by the prime contractor
- LTTS managed the work package distribution, execution, and tracked budget and schedule in weekly customer meetings
- LTTS developed numerous engineering tools using VBA, VB.net and Python programming to improve accuracy and efficiency and reduce the total time required and cost to the customer





BENEFITS DELIVERED

Successful work completion Q1 2014

Validation of the LTTS team's work through successful test program Spring 2014

- 18,000+ hours: project grew from 2 engineers to a 10-person multi-year support for static strength assessment using finite element analysis (Nastran)
- 40+ work packages: detailed mesh models of structural joints, solving, post-processing, and final report documentation
- Remote Delivery: the project required the team to be located at LTTS Delivery Offsite Center (DOC) facilities, utilizing DIS computers, software, and Nastran licenses as the customer had no capacity or intent to house engineers onsite

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ENGINEERING **THE CHANGE**