

Integration and Test of GALEX UV Space Instrument

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We report the progress in integration and testing of the GALEX UV Space Telescope. The process strategy was to integrate the back focal assembly (BFA) first. This comprises a telescope support plate, bi-pods, a grism/optical window wheel and a detector assembly first. This was followed by integration of main telescope assembly that has a 500mm aperture light-weighted fused silica primary mirror (M1) bonded to invar flexures of the M1 hub. The secondary mirror (M2) was mounted to the M2 tower assembled to the M1 hub. These two sub-assemblies were integrated to either side of the telescope support plates. The integrated instrument is supported by the telescope interface plate. Once assembled, the instrument was undergone a series of environmental tests including thermal balancing, thermal vacuum cycling and vibration testing. After successful completion of the ground calibration, the completed GALEX instrument was delivered to Orbital Science Corporation, where it was integrated to the satellite. Finally, this presentation summarizes the key technical successes that the JPL instrument team brought during the instrument integration and testing process.