

Government Integrator Case Study - ORBITAL SCIENCES

Project/contract related information:

Customer name

ORBITAL SCIENCES/Dulles, Virginia

Period of performance

9 months

Value of Contract/project

\$380,000

Description of project and Tools used for project

In support of the satellite operations of Orbital Sciences, we are providing various categories of satellite operations support personnel. IIC supports multiple projects including Direct TV/ Indonesia and Panama at other client launches. Labor categories of support include:

- **Space Vehicle Link Operators** – These support personnel are responsible for
 - Real-time execution of Spacecraft commanding pass plans
 - Performing Real-time Spacecraft state of health evaluation
 - Supporting in-orbit testing execution and test evaluation
 - Performing spacecraft software uploads and switchovers to updated software, and
 - Verifying the integrity of all products loaded to the spacecraft

- **Senior Orbital Analysts** - These support personnel are responsible for
 - Performing orbit management tasks to maintain accurate tracking station pointing data
 - Maintaining accurate on board satellite ephemeris and
 - Maintain the satellite within its orbit tolerances

- **Telemetry, Tracking and Control (TTAC) Link Operators** – These support personnel are responsible for
 - Monitoring TTAC operations
 - Initiating corrective action to correct TTAC Faults
 - Monitoring Plan deployments
 - Monitoring the FTSP transfers to the Gateways and TTACs
 - Monitoring Quality of Service tools and escalating problems as required
 - Monitoring the Space Vehicle Acquisition and Space Vehicle Element Set tables, and
 - Monitoring the Messaging ISRP Router and switches between the Primary and Backup Network Connection

- **Mission Planners** - These support personnel are responsible for
 - Developing and maintaining ground software for the satellite-based telephone and paging systems

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- Daily tasks including application development, development of productivity enhancement tools, coordination of interface and architecture issues
- Developing tools to facilitate configuration, fault, and performance management
- Developing software processes to obtain ISO certification
- Working within a diverse engineering and development team to develop and maintain ground software for the satellite-based telephone and paging system
- Daily tasks include:
 - Application development of Satellite Control (SC), Mission Planning System (MPS), and Orbit Services (OS) features/enhancements and defect fixes
 - Development of productivity enhancement tools, and coordination of interface and architecture issues
 - Development of tools to facilitate configuration, fault, and performance management
 - Development of software processes to obtain ISO certification
 - Support anomaly meetings to identify corrective action and/or workarounds
- **Real Time Operations Engineers** - These support personnel are responsible for
 - Development, testing and console support
 - Space Vehicle (SV) Maneuvers
 - Training/simulator development
 - CFSO operations, maintenance, and troubleshooting and general RTO support (process improvement, procedure and checklist development and maintenance)
 - Serving as rovers available to backfill real-time operations positions, which requires execution and telemetry verification performed in support of controlling the Satellite constellation