

Jacobs' Team Experience – Qualis Corporation

Engineering and Technical Services at Eglin AFB and NASA Marshall Space Flight Center

Qualis Corporation is a woman-owned small disadvantaged business offering technical expertise in the areas of engineering, testing, and support services.

Qualis' core competencies and experience include design, development, fabrication, and assembly; structural, thermal, materials systems analysis, research, and development in engineering disciplines; materials research and test; maintenance and operations of engineering test facilities; EMC/EMI, field sampling, and environmental gas testing; sustaining engineering; and program support services (e.g., programmatics, lifecycle cost estimating, risk analysis). Qualis provides a range of skills that support related Navy programs to include engineering and technical services, task order contracting, cost analysis, environmental issues, modeling and simulation, missile and weapon systems, systems testing, database engineering, and data collection.

Qualis offers direct and documented experience in engineering, science, and technical services at Marshall Space Flight Center (MSFC) and Eglin Air Force Base (AFB). Qualis Corporation provides engineering, scientific, and technical services to NASA's Marshall Space Flight Center with engineering expertise in response to specific project requirements, some of which require oversight functions, tests and analyses to back up the activity of MSFC lab personnel and other contractors. This involves knowledge of hard engineering disciplines relating to space flight systems and hardware. Examples are thermal analysis, thermal design techniques, materials, propulsion systems, aerodynamics, test facilities, and fluid systems to name a few. Qualis personnel are involved in micro-gravity experiments to be conducted on the International Space Station. They are performing thermal and fluid flow analyses for crystal growth furnaces, experiment cooling systems, and critical crystal growth experiment components. They are also designing and testing experiment hardware and assuring compliance with rigid specifications.

Qualis supports the Air Force under the Technical and Engineering Acquisition Support (TEAS) Prime Contract with Jacobs to supplement government organic engineering resources at the Air Armament Center (AAC), headquartered at Eglin AFB. AAC has the collective Air Force Material Command mission responsibility for research, development, test, and acquisition of a vast array of Air Force weapon systems. Qualis provides a range of skills to include engineering and technical services, task order contracting, cost analysis, environmental issues, modeling and simulation, weapon systems, systems testing, database engineering, and data collection. Disciplines include C4-I, radar, GSE, ASE.

Qualis performs testing in support of NASA's human space flight program, spacecraft (or component) environmental tests, and other space effects testing. They perform materials testing at the MSFC Materials Combustion Research Facility (MCRF); support the Environmental Test Facility (ETF), Structural Test Facility (STF), and Space Environmental Effects (SEE) laboratories; perform testing at several other MSFC laboratories; and provide support engineering, scientific, design drafting, and database management tasks. Qualis tests all MSFC clean rooms, propellant lines and components, and propellant storage vessels and components, determine contamination levels, and report any test data

out of the tolerance levels established by MSFC. Specific tasks include collecting industrial gases and clean room air, analyzing these gases for contamination, moisture, particulate matter, and verifying levels of purity meet appropriate standards. This work is very relevant to the environmental requirements of Navy programs.