PROFESSIONAL ENGINEERING SERVICES
GSA Schedule 871, SINs 1 through 6
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GSA Contract Information
Contract Type: 871 Professional Engineering Services
Contract No.: GS-23F-0201S
Approved Mechanical Engineering for all Special Item Numbers (SIN)
   SIN 871-1 Strategic Planning For Technology Programs/Activities
   SIN 871-2 Concept Development and Requirements Analysis
   SIN 871-3 System Design, Engineering and Integration
   SIN 871-4 Test and Evaluation
   SIN 871-5 Integrated Logistics Support
   SIN 871-6 Acquisition and Life Cycle Management

GSA Contact Point at ADC … Bruce Denning, (310)756-1115, bdenning@adceng.com
**Discount Rates**

Per our GSA Contract we offer the following discounts based on the volume of work contracted:

- $200,000-$400,000: 0.5% discount
- $400,001-$500,000: 1.0% discount
- $500,001-$750,000: 1.5% discount
- $700,001 and over: 2.0% discount
**Senior Corporate Advisor** ~ **Minimum/General Experience:** Minimum of ten years experience in related field and ten years corporate management experience. ~ **Minimum Education:** BS Degree or equivalent  
**Functional Responsibility:** Develops, directs, coordinates, and controls technical and administrative activities for multiple programs. Supervises multiple Program Managers in the execution of their programs. Reviews and maintains quality of technical work for multiple programs. Reviews and maintains responsibility of program financial data for multiple programs. Makes technical judgments and provides advice on the resolution of technical, schedule, performance, or budgetary problems for all programs.

**Program Manager** ~ **Minimum/General Experience:** Minimum of ten years technical experience in related field and five years management experience, Minimum Education: BS Degree or additional 5 years relevant experience  
**Functional Responsibility:** Develops program budgets and feeds the effort of the technical and support staff manning requirements; monitors technical progress and cost status; develops program plans. Provides Technical leadership to a group of scientists, engineers, technicians, etc., engaged on a major program (normally funded at an annual level of $500,000 or more) in a specialized area of technology. Reviews and approves program deliverables prior to submittal to customer. Prepares responses to delivery orders received from the customers; coordinates technical and cost data internally and with customer. Prepares and delivers briefings for formal interchanges with customer management. Develops staffing plans and manages the utilization of resources to meet customer schedules and requirements.

**Project Manager** ~ **Minimum/General Experience:** Minimum of ten years experience in related field, including supervisory or management experience. Minimum Education: BS Degree or additional five years relevant experience.  
**Functional Responsibility:** Plans, directs, coordinates, and controls technical and administrative activities for an entire project. Planning and directing business improvements and project management implementation. Plans and manages production sequences, develops and maintains in-process controls and schedules, conducting an evaluating risk analysis. Manages a diverse group of functional activities and subordinate groups of technical and administrative personnel. Oversees the technology development and/or application, marketing and resource allocation within assigned projects. Reviews and maintains the quality of technical work performed on the project. Makes technical judgments and provides advice on resolving problems. Ensures goals and objectives of project accomplished within contract terms and conditions. Maintains the development and execution of business opportunities based on broad, general guidance. Interfaces with client management personnel and is adept in verbal and written communications.
**Senior Engineer** ~ **Minimum/General Experience**: Minimum of ten years experience  
**Minimum Education**: BS Engineering Degree (appropriate discipline) or additional five years relevant experience.  
**Functional Responsibility**: Plan and direct multi-disciplined engineering projects. Directs and conducts the system concept studies and development, requirements analysis and/or engineering design and support activities. Plans and develops analysis techniques, test and evaluation procedures and test support requirements. Interface with customer planners and systems users to define and analyze requirements. Establishes system safety requirements and ultimately responsible to maintain high Quality Standards. Review task proposal requirements, gather information, analyses, evaluates alternative technical approaches and costs and prepares project synopses.

**Engineer** ~ **Minimum/General Experience**: Minimum of six years experience  
**Minimum Education**: BS Engineering Degree or additional five years relevant experience.  
**Functional Responsibility**: Assists senior engineering staff and executes engineering tasks, including test and evaluation procedures and test support requirements. Conducts system concept development, requirements analysis and/or engineering design and support activities. Interfaces with customer planners and systems users to define and analyze requirements. Provides engineering and programmatic guidance, plans and coordinates tasks, ensures technical adequacy of product, ensures compliance with technical standards, delivers presentations, coordinates resources and budgets. Engineer oversees physical testing of product or system.

**Junior Engineer** ~ **Minimum/General Experience**: Entry Level Engineering  
**Minimum Education**: Two years of technical college or professional training, plus two years of related experience.  
**Functional Responsibility**: Assists engineering staff in locating parts appropriate for procurement, prototype assembly and testing, project presentations, computer aided design and detailing of model development, document control functions, Physical testing of product and system safety.

**Contracts Administrative Assistant** ~ **Minimum/General Experience** ~ **Minimum Education**: Professional training, plus two years of related experience.  
**Functional Responsibility**: The Contract Administrative Assistant provides general support to the FAA contract Team and to the contractor support team in the following areas; preparation of purchase requests and entry of financial data, maintains contract documentation, assists in data collection and reporting for market surveys, research and editing of materials for newsletters, WEB sites, and other publications and documentation, analysis of invoices and maintenance of spreadsheets relating to budget and resource use and allocation.
RESOURCES AND EXPERIENCE

- Engineering Services Since 1979.
- Approved Design and Fabrication Supplier to Most Major Aerospace Prime Contractors.
- Serviced over 500 Customers.
- Major Aerospace Program Support.
- Significant CAD Resources and Experience.
- Focused on Integrated Tooling Support Concept.
- 500,000 sq. ft. Tool Design and Fabrication Facility
- Veteran Owned Small Business
- GSA 871 Professional Engineering Contract (GS-23F-0201S)
MECHANICAL ENGINEERING DISCIPLINES

Tooling Design/Build (See Tooling Categories)

Machine Design
- PRODUCT MODELING
- DETAIL DESIGN
- DRAFTING
- SCHEMatics
- TOLERANCE ANALYSIS

Structural Analysis
- FINITE ELEMENT ANALYSIS
- KINAMATICS
- VIBRATION AND FLUTTER
- DEFLECTION STUDIES
- TEMPERATURE AND HEAT TRANSFER

Manufacturing Methods
- PROTOTYPE
- PRODUCTION

Material Selection and Testing

Component Selection and Testing
- PNEUMATIC
- ELECTRICAL
- HYDRAULIC

Component Selections

Modeling and Simulations

Optimization Studies
Testing services offered by ADC cover a wide range of categories. Each test activity is preceded by the development of a detailed Test Plan covering testing procedures, testing equipment requirements and specification requirements. Measured results are compared against requirement specifications and a Compliance/Deviation report generated. ADC has conducted test and evaluations for the following types of projects.

Proof of Concept Testing
- Prototype and Scaled Configurations
- Theoretical Models
- Simulation of Operational Conditions

Load and Strength Testing
- Structural Loading
- Deflection and Rupture Testing
- Tool Proofing
- Testing of Environmental Effects
- Verification of Analytical Predictions

Life Cycle Testing
- Repetitive Cycling
- Endurance Testing
- Operational Impacts
- Vibration and Flutter Testing

Functional Test
- Performance Range Testing
- Accuracy Testing
- Efficiency Testing
- First Article Testing
Engineering and Manufacturing Services

- Engineering Services
  - Manufacturing Approaches and Planning
  - Concepts and CAD Modeling
  - Detail Designs From CAD Models
  - Structural Analysis
  - Documentation and Tool Usage Training
  - Tooling Software Development

- Tooling and Prototype Manufacturing Services
  - Tool Fabrication
  - Tool Load Testing
  - Laser Tracker, CMM and Valisys Inspection
  - Tool Installations
OTHER SUPPORT SERVICES

Staged Assembly Planning

Automated Control Development

Laser Tracker/Tooling Fixture Integration
DESIGN RESOURCES

- Senior Level Engineering Staff
- CATIA IV and V supported
- Also Pro-Engineer, Unigraphics, AutoCAD Systems
- Modelers, Designers and Checkers
- Manufacturing Engineers
- NC Programmers
- Licensed Stress Analysts
- High Bandwidth Communications for File Transfers
- Project Management Software / Systems
FABRICATION RESOURCES

- Experienced Tool Builders
- 5 – Axis CNC Gantry Mills
- 4 – Axis CNC Horizontal Mills
- Conventional Machines
- Fabrication / Welding Department
- Soft Tooling Department
- Laser Tracker and CMM
- Vericut / Valisys Software
MAJOR PROGRAMS SUPPORTED BY ADC

- Boeing 717, 777, 747-400, 767, 767 Cargo, MD-11, C-17, F-18 E/F
- Space Titan IV, Delta Clipper, Delta II, III, IV, Space Station, Orion Orbiter
- Boeing Rocketdyne X-33, RS-68, Space Shuttle
- Boeing Satellite Programs
- Sikorsky Blackhawk 60L and 60M
- Northrop-Grumman F/A-18 E/F and F-35
- Lockheed F-22, X-33, JSF, Atlas V
- Raytheon Premier I, Texan II, Horizon, Starship I
- L3 Sofia, Oceans Systems Projects
- Bombardier CRJ-700
- MD-Helicopter APACHE Long Bow, NOTAR
- AliantTechSystems ~ Thiokol Rockets
- Eclipse 500
- Gulfstream V, Really Quite Hush Kit
- Bell V-22
- Airbus, Piper Meridian and many others
- US Army, Nat. Guard and Coast Guard Maintenance Tools
TOOLING CATEGORIES

- Assembly Jigs
- Bond Jigs and Forming Tools
- Handling Tools and Slings
- Transport Dollies and Containers
- Build Pallets and Weld Fixtures
- Workstands and Lifts
- Alignment Tools and Check Fixtures
- Mill Fixtures
- Mass Simulators
- Special Tooling
- Tool Refurbishments
ASSEMBLY JIGS

LOWER FUSELAGE AJ

ENGINE COWLING AJ

VERTICAL STABILIZER FINAL AJ

HORIZONTAL STABILIZER FINAL AJ
ASSEMBLY AND TRANSPORT FIXTURE

F-35 CENTER FUSELAGE

TOOLING DESIGNED BY ADC
BOND AND FORMING TOOLS

ELEVATOR BOND TOOL

HORIZONTAL STABILIZER BOND TOOL

HORZ SKIN DETAIL BOND TOOL

VERT ASSY SKIN BOND TOOL
HANDLING EQUIPMENT AND CONTAINERS

TRANSPORT SYSTEM

HYDRAULIC ROTATION FIXTURE

LIFTING SLING

SHIPPING CONTAINER (Open)
AIRCRAFT LASER ALIGNMENT FIXTURES

Blackhawk Hard Locator Laser Alignment Fixture
Apache Hard Locator Laser Alignment Fixture
Blackhawk Soft Locator Laser Alignment Fixture
TRANSPORT DOLLIES AND BUILD PALLETS

EXHAUST DUCT AJ
GAS GENERATOR DOLLY
NOZZLE TRANSPORT
MCC TRANSPORT
BUILD PALLET
TURBO PUMP AJ
SCISSOR LIFTS AND WORK STANDS
CRADLES AND CHECK FIXTURES

DELTA IV TEMPLATE SETUP CHECK FIXTURE
MASS SIMULATORS

RS-68 ROCKET ENGINE MASS SIMULATOR
MILL FIXTURES AND HOLDING TOOLS

VACUUM MILL FIXTURE

VALVE ALIGNMENT TOOL

TOMBSTONE HOLDING TOOL
SPECIAL TOOLS

SPECIAL PLATING RACKS

TEST FIXTURE

VALVE TEST FIXTURE

MILL FIXTURE

HOLDING FIXTURE
SUMMARY OF ENGINEERING SERVICES

• Engineering Customer Interfaces
• Senior CAD Oriented Designers
• Certified CAD System Compliances and High Speed Communications
  CATIA, Pro-Engineer, Unigraphics, AutoCAD, Mechanical Desktop
• Design Only, Design/Fab, Build-To-Print, Tool Re-Fab
• Full Range of Manufacturing Support Services
  Production Planning, Concepts, Design, Testing and Usage Documentation
  Fabrication and Inspection
  Installation and Training
• GSA 871 Professional Engineering Contract