



**SINCE 1979** 



### PROFESSIONAL ENGINEERING SERVICES

GSA Schedule 871, SINs 1 through 6

www.adceng.com

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#### COMPANY AND GSA CONTRACT INFORMATION

#### **Company Information**

ADC Engineering Technology, Inc. Main Phone: (310)756-1112

**268 East Gardena Blvd.** Fax: (310)756-1129

Gardena, CA 90245 E-mail: <a href="mailto:lnfo@adceng.com">lnfo@adceng.com</a>

Veteran Owned Small Business Web Site: www.adceng.com

#### **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

## **ENGINEERING LABOR RATES**

#### APPROVED GSA PRICE LIST

Labor Category
Sr. Corporate Advisor
Program Manager

Program Manager Project Manager Sr. Engineer

Engineer\*

Jr. Engineer Contracts Administrator

	BASE YEARS							
	2006	2007	2008	2009	2010			
		154.14	158.92	163.84	168.92			
		143.49	147.94	152.52	157.25			
		135.41	139.61	143.94	148.40			
		128.64	132.63	136.74	140.98			
		97.64	100.67	103.79	107.01			
		49.65	51.19	52.78	54.41			
r		52.13	53.75	55.41	57.13			

#### Discount Rates

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

\$200,000-\$400,000: %.5 discount \$400,001-\$600,000: %1.0 discount \$600,001-\$750,000: %1.5 discount \$700,001 and over: %2.0% discount

### LABOR CATEGORY DESCRIPTIONS

**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.

## LABOR CATEGORY DESCRIPTIONS

#### Continued

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 Standard s. 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.

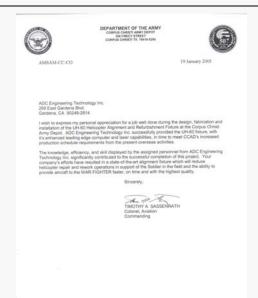
Contracts Administrative Assistant ~ Minimum/General Experience ~ Minimum Education: Professional training, plus two years of related experience.

**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.

## **AWARDS AND RECOGNITIONS**









### RESOURSES 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



### TEST AND EVALUATION

Testing services offered by ADC cover a wide range of categories. Each test activity is preceded by the development of a detail 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

STRUCTUAL LOADING
DEFLECTION AND RUPTURE TESTING
TOOL PROOFING
TESTING OF ENVIROMENTAL EFFECTS
VARIFICATION OF ANALYTICAL PREDICTIONS

#### Life Cycle Testing

REPETITIVE CYCLING ENDURANCE TESTING OPERATIONAL IMPACTS VIBRATION AND FLUTTER TESTING

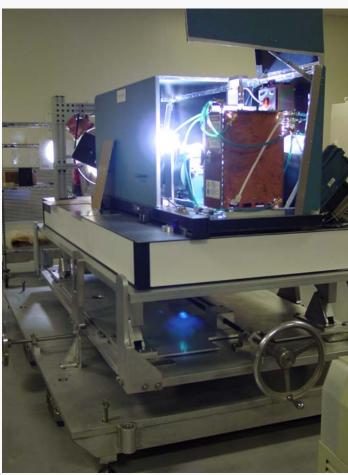
#### **Functional Test**

PERFORMANCE RANGE TESTING ACCURACY TESTING EFFICENCY TESTING FIRST ARTICLE TESTING



## SCIENTIFIC TEST EQUIPMENT





## **Engineering and Manufacturing Services**

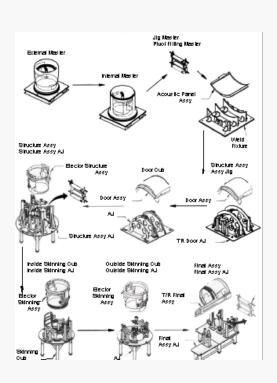
- Engineering Services
  - Manufacturing Approaches and Planning
  - Concepts and CAD Modeling
  - Detail Designs From CAD Models
  - Structural Analysis
  - Documentation and Tool Usage Training
  - Tooling Software Development
- Tooling and Prototype Manufacturing Services
  - Tool Fabrication
  - Tool Load Testing
  - Laser Tracker, CMM and Valisys Inspection
  - Tool Installations





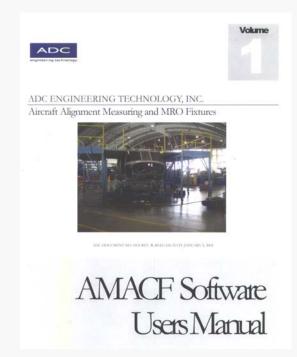
## **OTHER SUPPORT SERVICES**

### **Staged Assembly Planning**



### Automated Control Laser Tracker/ Development

**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









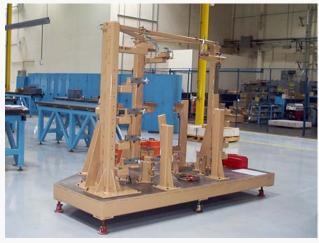
#### **TOOLING CATAGORIES**

- 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

## **BOND AND FORMING TOOLS**



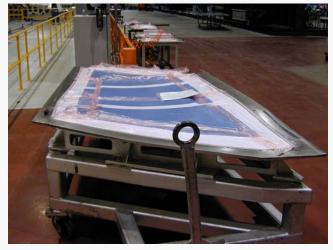
**ELEVATOR BOND TOOL** 



HORZ SKIN DETAIL BOND TOOL



HORIZONTAL STABILIZER BOND TOOL



VERT ASSY SKIN BOND TOOL

## HANDLING EQUIPMENT AND CONTAINERS



TRANSPORT SYSTEM



LIFTING SLING



HYDRAULIC ROTATION FIXTURE



SHIPPING CONTAINER (Open) Page 21

## 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

## MASTER TOOLS



ORION STAGE INTERFACE MASTER

## 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