



GENERAL SERVICES ADMINISTRATION
Federal Acquisition Service
Authorized Federal Supply Schedule Price List

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA *Advantage!*TM, a menu-driven database system. The INTERNET address GSA *Advantage!*TM is: <http://www.GSAAdvantage.gov>.

Professional Engineering Services

SIN	Description	FSC/Service Codes
871-1, 871-1RC	Strategic Planning for Technology Programs/ Activities	R425
871-2, 871-2RC	Concept Development and Requirements Analysis	R425
871-3, 871-3RC	System, Design, Engineering and Integration	R425

Primary Engineering Discipline: Mechanical

For more information on ordering from Federal Supply Schedules click on the FSS Schedules button at <http://www.fss.gsa.gov>.

Contract Number: **GS-23F-0197N**

Contract Period: **April 4, 2003 to April 3, 2018**

Contract current through Modification #6 dated February 7, 2013

Ohio Aerospace Institute, Inc
22800 Cedar Point Road
Cleveland, OH 44142
440-962-3000
440-962-3120 (Fax)
<http://www.oai.org/>

Business size: Not-for-Profit

1a. Table of awarded special item number(s) with appropriate cross-reference to page number(s).

SIN	Description	Page
871-1	Strategic Planning For Technology Programs/Activities	9
871-2	Concept Development And Requirements Analysis	9
871-3	System Design, Engineering And Integration	9

1b. Table of Lowest Price Item

SIN	Lowest Price Item	Lowest Unit Price
871-1	Program Coordinator II	\$39.72
871-2	Program Coordinator II	\$39.72
871-3	Program Coordinator II	\$39.72

1c. SINs 871-1, 871-2 & 871-3: Engineering Services Labor Descriptions

Position Title: Senior Program Manager I

Major Responsibilities

- Tracks industry and government technology needs and relevant policy trends.
- Manages a strategic plan for the organization in alignment with business objectives and goals.
- Defines business strategies and collaborative teaming goals.
- Develops and maintains ongoing business relationships with senior managers in government, industrial, and academic organizations. Participates in executive level review boards.
- Defines strategies for developing new engineering approaches and projects.
- Defines funding strategy for proposed projects. Sets policy for managing ongoing collaborative team projects.
- Manages and directs internal team members on both a project and a career-development basis.
- Participates in other functions, including development of improved internal processes and business practices. Represents OAI to external world.

Specific Work Skills

- Strong executive level management and negotiation skills.
- Broad expertise in related target areas; business management and organization building experience. Excellent interpersonal skills for business management.
- Proficiency in strategic forecasting, financial analysis, and management.
- Presentation and facilitation skills.

Position Qualifications

- M.S. or M.A. degree required in engineering or science area (with Human Resource approval, a well documented record of appropriate professional experience can be substituted for M.S./M.A. degree requirement).
- Eight years' demonstrated experience in an executive management position.
- Eight years' experience in managing government funded projects.
- Prior working knowledge of Federal, State and Local government agencies and funding mechanisms.

Position Title: Senior Program Manager II**Major Responsibilities**

- Tracks emerging technology trends in industry, government, and academia.
- Develops business strategies and collaborative teaming opportunities focused on organization's strategic plan.
- Develops and maintains ongoing business relationships with senior program managers in government, industry and academia.
- Participates in independent review committees. Develop white papers used to market potential projects. Markets potential projects to third-party funding sources. Negotiates funding and program elements.
- Oversees and directs ongoing collaborative team projects. Interfaces with funding agencies/organizations.
- Manages and directs program managers and coordinators, both on a project and a career-development basis. Participates in other functions, including development of improved internal processes and business practices. Represents OAI to external world.

Specific Work Skills

- Strong management and negotiation skills.
- Technical expertise in related technical target areas; project-management and team-building experience. Presentation and facilitation skills, including development of presentation materials.
- Excellent interpersonal skills for marketing and program management.
- Proficiency in financial analysis and management.

Position Qualifications

- B.S. or B.A. degree minimum; M.S. or M.A. degree preferred in engineering or science area (with Human Resource approval, a well documented record of appropriate professional experience can be substituted for B.S./B.A. degree requirement)
- Six years' demonstrated experience in program management including government funded projects.
- Prior working knowledge of Federal, State and Local government agencies and funding mechanisms.

Position Title: Senior Systems Engineer/Analyst**Major Responsibilities**

- Performs analyses of complex engineering problems from a systems or process perspective.
- Analyses organizational approaches to implementing broad, interdisciplinary work methods and protocols. Analyzes technical or organizational issues to ascertain key, systemic problems.

- Develops approaches and solutions to solving systemic engineering or procedural problems. Develops and maintains relationships with technical managers and leaders. Participates in independent review committees,
- Develop white papers used to define system issues and concerns. Oversees and directs systems team projects.
- Manages and directs program managers and coordinators, both on a project and a career-development basis.
- Participates in other functions, including development of improved internal processes and business practices. Represents OAI or customer projects to the external world.

Specific Work Skills

- Strong management and facilitation skills.
- Technical expertise in aerospace and/or engineering disciplines, project-management and team-building experience.
- Presentation and facilitation skills, including development of presentation materials. Experience with application of systems engineering approaches and practices in technical project management.
- Proficiency in project financial analysis and management.

Position Qualifications

- B.S. or B.A. degree required; M.S. or M.A. degree preferred in engineering or science area. (with Human Resource approval, a well documented record of appropriate professional experience can be substituted for B.S./B.A. degree requirement)
- 12 years work experience in application of systems engineering to technical programs. Prior working knowledge Federal, State and Local government agencies and funding mechanisms.

Position Title: Systems Engineer/Analyst

Major Responsibilities

- Performs analyses of engineering problems from a systems or process perspective. Analyses organizational approaches to implementing work methods and protocols.
- Assists in analyzing technical or organizational issues to ascertain key, systemic problems.
- Assists in Developing approaches and solutions to solving systemic engineering or procedural problems. Participates in independent review committees. Assists in developing white papers used to define system issues and concerns.
- Participates in other functions, including development of improved internal processes and business practices. Represents OAI or customer projects to the external world.

Specific Work Skills

- Strong facilitation skills, technical expertise in aerospace and/or engineering disciplines,
- Presentation and facilitation skills, including development of presentation materials.
- Experience with application of systems engineering approaches and practices in technical project management,

Position Qualifications

- B.S./B.A. degree required in engineering or science discipline. (with Human Resource approval, a well documented record of appropriate professional experience can be substituted for B.S./B.A. degree requirement)

- 8 years work experience in application of systems engineering to technical programs.
- Prior working knowledge Federal, State and Local government agencies and funding mechanisms.

Position Title: Program Manager

Major Responsibilities

- Is primary interface with funding sources for financial management, progress reporting and deliverables. Develops and organizes project plans, teams, and funding profiles.
- Fosters contacts and builds relationships with potential project team participants. Participates in contract negotiations.
- Manages proposal preparation process and ensures compliance with funding source. Ensures project milestones are met.
- Prepares and manages budget forecasts, progress updates, and other project reports as required. Identifies and tracks advanced and emerging technologies and funding opportunities.

Specific Work Skills

- Strong project management and negotiation skills.
- Technical project-management and team-building experience or training.
- General technical understanding of assigned projects.
- Ability to prioritize, organize, and complete tasks.
- Strong interpersonal and excellent oral and written communication skills.
- Ability to work with multiple levels of management in a team environment.
- Proficiency in project management tools and techniques.

Position Qualifications

- B.S. degree required; M.S. preferred. (with Human Resource approval, a well documented record of appropriate professional experience can be substituted for B.S./B.A. degree requirement)
- Four years' project-management experience in a technical environment.

Position Title: Program Coordinator I

Major Responsibilities

- Manages overall administrative support process for proposal preparation, progress reporting, meeting preparation, and conduct.
- Assist program manager in interaction with external customers and project team members. Manages overall communications and reporting processes.
- Establishes and maintains databases. Assists program manager with tracking costs and monitoring budgets. Manages workshops, meetings, travel, and event logistics as required. Acts on behalf of program manager as assigned.
- Assists program manager in placing purchase orders, collecting invoices, and making progress payments.

Specific Work Skills

- Ability to prioritize, organize and complete tasks with minimal supervision.
- Strong communication and interpersonal skills with emphasis on customer service. Ability to work with multiple levels of management in a team environment.

- Excellent proficiency in the following software applications: Windows, Microsoft Word, Excel, PowerPoint, FrameMaker, Lotus Notes, Internet Explorer, Latitude Meeting Time, Publisher.

Position Qualifications

- Associate or B.S. degree preferred. Five years' prior work experience in industry, government, or academic organization.

Position Title: Program Coordinator II

Major Responsibilities

- Provides administrative support process for proposal preparation, progress reporting, and maintenance of projects.
- Provides assistance in communications with external customers and project team members. Creates and disseminates various communications and reports. Maintains databases; documents event proceedings.
- Prepares summaries for tracking and monitoring budgets.
- Coordinates and facilitates workshops, meetings, travel, and event logistics as required.

Specific Work Skills

- Ability to organize, and complete tasks with minimal supervision.
- Communication and interpersonal skills with emphasis on customer service.
- Ability to work in a team environment. Excellent proficiency in the following software applications: Windows, Microsoft Word, Excel, PowerPoint, FrameMaker, Lotus Notes, Internet Explorer, Latitude Meeting Time, Publisher.

Position Qualifications

- High School education; associate or B.S. degree preferred.
- Three years' prior work experience in industry, government, or academic organization.

Position Title: Principal Expert / Specialist

Major Responsibilities

- Acts as a leading technology forecaster in identifying trends, evolutionary development milestones, and desired outcomes for emerging technologies.
- Leads/conducts senior-level R&D concept studies leading to strategic technology investment policies/plans applicable to both government and industry R&D.
- Develops, defines, and analyzes strategic technology investment policies and plans applicable to both government and industry R&D.
- Develops and maintains ongoing business relationships with government R&D policy and plan makers.
- Markets potential strategies, funding profiles, programs, and projects to staff at senior levels in government agencies.
- Acts as principal investigator or technical program manager for highly technical programs and projects.
- Identifies key technical expertise required for projects.
- Acts as catalyst for forming highly specialized technical team.
- Acts as a senior technical advisor on independent review committees.
- Leads teams in conceptual studies and exploratory R&D.
- Assists senior program manager in defining strategic approaches/policy.
- Provides technical guidance to program managers.

Specific Work Skills

- Strong enterprise-level management and R&D planning skills.
- Technical expertise in related target areas with executive-level business management and/or business development experience.
- Proficiency in setting government agency technology development policy and/or industry R&D investment plans.
- Presentation and team leadership skills.
- Excellent interpersonal skills.

Position Qualifications

- Ph.D. degree preferred in engineering, science, or business; M.S. or M.B.A. minimum.
- Seven years' demonstrated experience as senior executive in government, or corporate executive in industry, primarily in the area of technology development or business development.
- Prior executive-level working knowledge of government and/or industry R&D strategy planning processes.

Position Title: Production Manager

Major Responsibilities

- Coordinate and analyze performance data for financial management, progress reporting, and completion of deliverables.
- Interface with applicable internal teams to accomplish project contractual requirements and milestones.
- Coordinate and facilitate interface with employees and subcontractors for hours spent on project and invoice payment.
- Create and execute project financial management reports.
- Prepare budget forecasts and process updates.

Specific Work Skills

- Ability to work with multiple levels of management in a team environment.
- Manage overall support process for financial reporting.
- General understanding of accounting and financial management practices.
- Ability to prioritize, organize and complete multiple tasks.

Position Qualifications

- Four years general accounting experience.
- Strong interpersonal skills, multi-tasked, aware of multiple deadlines, adaptive to changing environment.
- Bachelor degree or equivalent work experience preferred.

2. Maximum order. **\$1,000,000.00 per SIN**
3. Minimum order. **\$100.00**
4. Geographic coverage (delivery area). **Worldwide.**
5. Point(s) of production: **22800 Cedar Point Road, Cleveland, Cuyahoga County, OH 44142**
6. Discount from list prices or statement of net price. **Prices list are net; the discount has already been applied.**
7. Quantity discounts. **None.**
8. Prompt payment terms. **None.**
- 9a. Government purchase cards are accepted up to the micro-purchase threshold.
- 9b. Government purchase cards are accepted above the micro-purchase threshold.
10. Foreign items (list items by country of origin). **None.**
- 11a. **Time of delivery.** Time of delivery is as required by the purchase order or as negotiated between OAI and the ordering agency.
- 11b. **Expedited Delivery.** Expedited Delivery is as required by the purchase order or as negotiated between OAI and the ordering agency.
- 11c. **Overnight and 2-day delivery.** OAI will make every effort to accommodate the ordering office's delivery requirements.
- 11d. **Urgent Requirements.** OAI will make every effort to accommodate the ordering office's delivery requirements.
12. F.o.b. point. **Destination.**
13. Ordering address.

**Ohio Aerospace Institute, Inc.
22800 Cedar Point Road
Cleveland, OH 44142
440-962-3000
440-962-3120 (Fax)**

14. Payment address.

**Ohio Aerospace Institute, Inc.
22800 Cedar Point Road
Cleveland, OH 44142
440-962-3000
440-962-3120 (Fax)**

15. Warranty provision. **Not Applicable.**
16. Export packing charges, if applicable. **None.**
17. Terms and conditions of Government purchase card acceptance (any thresholds above the micro-purchase level). **None.**
18. Terms and conditions of rental, maintenance, and repair (if applicable). **Not Applicable.**
19. Terms and conditions of installation (if applicable). **Not Applicable.**
20. Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices (if applicable). **Not Applicable.**
- 20a. Terms and conditions for any other services (if applicable) **None.**
21. List of service and distribution points (if applicable). **Not Applicable**
22. List of participating dealers (if applicable). **Not Applicable.**
23. Preventive maintenance (if applicable). **Not Applicable.**
- 24a. Environmental attributes, e.g., recycled content, energy efficiency, and/or reduced pollutants. **Not Applicable.**
- 24b. If applicable, indicate that Section 508 compliance information is available on Electronic and Information Technology (EIF) supplies and services and show where full details can be found (eg., contractor's website or other location.) The EIF standards can be found at www.Section508.gov
25. Data Universal Number System (DUNS) number. **60-658-2542**
26. Notification regarding registration in Central Contractor Registration (CCR) database. **OAI is registered in the CCR database.**

SINs 871-1, 871-2 & 871-3: Engineering Services (Mechanical) Pricing by Labor Category

Labor Categories	4/4/2012 to 4/3/2013	4/4/2013 to 4/3/2014	4/4/2014 to 4/3/2015	4/4/2015 to 4/3/2016	4/4/2016 to 4/3/2017	4/4/2017 to 4/3/2018
Sr. Program Mgr. I	\$162.06	\$ 165.63	\$ 169.27	\$ 172.99	\$176.80	\$ 180.69
Sr. Program Mgr. II	\$130.62	\$ 133.49	\$ 136.43	\$ 139.43	\$ 142.50	\$ 145.63
Principal Expert / Specialist	\$139.31	\$ 142.37	\$ 145.51	\$ 148.71	\$ 151.98	\$ 155.32
Sr. Systems Engineer / Analyst	\$124.24	\$ 126.97	\$ 129.77	\$ 132.62	\$ 135.54	\$ 138.52
Systems Engineer / Analyst	\$106.64	\$ 108.99	\$ 111.38	\$ 113.83	\$ 116.34	\$ 118.90
Program Manager	\$ 92.66	\$ 94.70	\$ 96.78	\$ 98.91	\$ 101.09	\$ 103.31
Program Coordinator I	\$ 61.49	\$ 62.84	\$ 64.23	\$ 65.64	\$ 67.08	\$ 68.56
Program Coordinator II	\$ 39.72	\$ 40.59	\$ 41.49	\$ 42.40	\$ 43.33	\$ 44.29
Production Manager	\$ 71.00	\$ 72.56	\$ 74.16	\$ 75.79	\$ 77.46	\$ 79.16

Company Overview

OAI is a private nonprofit corporation located in Cleveland, OH, that successfully manages and performs development of advanced technologies and technical services in the engineering, manufacturing, financial and information domains. OAI's efforts are conducted under in-house, federal, state, and privately funded projects.

During OAI's 23 years of existence, it has conducted more than 200 projects that have attracted more than \$250 million in funding, primarily from federal and industry sources. OAI has provided a broad cross section of engineering support in many of these projects. Specific examples of OAI's expertise in the engineering discipline are highlighted in the project examples below:

Photovoltaic Engineering Testbed (PET). The PET project led to the completion of a conceptual design for an International Space Station payload that was intended to provide a space based in-situ testing, measurement and qualification capability for advanced photovoltaic cells. Additionally, the portion of the payload that performed the testing, measurement and qualification functions was developed to a mature point and resulted in the fabrication and testing of a prototype unit. The conceptual design process was focused on the development of an overall mechanical carrier structure that was compatible with ascent/descent accommodations in the Space Shuttle payload bay and with on-orbit payload accommodations on the Japanese Experiment Module – Exposed facility.

Fluid Droplet Modeling. OAI provided specialized 3-D droplet modeling for the aerodynamic fluid physics research facility. For this industry funded project, a fully three dimensional numeric model was developed to predict the motion of a freely suspended water droplet being forced by an external pressure wave. This model was specifically used to predict the minimum level of the forcing required to create the onset of capillary wave turbulence in a freely-suspended, 10 cm diameter water droplet.

Ceramic Composite Aircraft Brake (CCAB). This industry-funded project led to the development a list of material properties that were designed to identify minimum and maximum properties needed to provide high performance aircraft brake characteristics. In particular, boron-based ceramic matrix composites were examined for application in aircraft brake friction materials. The project led to the evaluation and creation of potential qualitative benefits to be derived from use of brake materials with the desired properties. Based upon this evaluation task, OAI developed a report documenting the suitability of these materials for scale-up to aircraft operational testing.

Composite Joint Analysis. Under this project, OAI provided engineering support for implementation of several composite joint analysis methods into the Collier Research Corporation (CRC) software package known as HyperSizer. HyperSizer is a commercial structural analysis and sizing code targeted towards the aerospace industry. OAI is updating the HyperSizer modeling code to incorporate legacy codes for bolted and bonded joints.

Intelligent Machining Workstation. This project generated numerical machining instructions from computer-assisted engineering and computer-assisted design (CAE/CAD) platforms. A software program interface was developed to interconnect several commercially available design systems with costing and machining systems to provide a design tool that helps engineers model the manufacture of precision parts.

Institute for Computational Mechanics in Propulsion (ICOMP). This NASA-sponsored project focused on providing advanced modeling and simulation solutions for a fundamental understanding of aerospace propulsion systems and technologies.

Aero Acoustics Research Consortium (AARC). This industry-funded, ongoing project focuses on the fundamentals of jet noise definition and prediction, computational aero acoustics, core noise, and fan broadband noise. Sponsored research includes both numerical and experimental approaches. These development efforts include the integration of engine component geometry features with acoustic noise-generating mechanisms and enhanced GUI displays.

Characterization of Mars Dust. OAI was recently awarded a contract by the Jet Propulsion Laboratory to develop a design concept for an instrument that will measure the properties of Martian atmospheric dust that degrade the efficacy of robotic and human exploration of Mars. The properties to be measured include size and shape of the dust particles, spectroscopic absorption, mechanical and electrical properties. The design concept development will include performing an analysis of the cost/benefits associated with the measurements in terms of the achieving the overall mission design objectives.

Personnel

OAI's staff of 100 full-time professionals includes Senior Project Managers, Project Managers, Senior Engineers, Engineers and administrative support specialists. The experience base of this staff includes systems engineering, requirements synthesis, conceptual and detailed design, numerical modeling and simulation, hardware fabrication, assembly and testing capabilities. Two primary functional areas within OAI conduct these efforts (See Appendix, Organization Chart).

First, OAI's Collaborative Research Team conducts technology development efforts for our sponsoring organizations and customers on projects funded by government agencies and the private sector. Projects to be accomplished under a subsequent GSA schedule would be managed and conducted by this part of our organization. Second, OAI's Workforce Enhancement Team provides highly specialized services for advanced numerical modeling and simulation projects. In addition, this team supports customers who require specialized knowledge and skills, typically senior engineers with extensive subject matter expertise in aerospace focused fields.