

**GENERAL SERVICES ADMINISTRATION
Federal Supply 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!™, a menu-driven database system. The INTERNET address for GSA Advantage!™ is:

www.gsaadvantage.gov

MISSION ORIENTED BUSINESS INTEGRATED SERVICES (MOBIS)



FSC GROUP 874

FSC Class/Product Code: R499

Contract Number: GS-02F-0096N

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

Period of Performance: 04/24/08 - 04/23/13

Pricelist is current through modification #PO-0002, dated 04/24/08



6220 Culebra Road

San Antonio, Texas 78238

Technical Contact: 210-522-5141

Contracts Phone Number: 210-522-2231

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<http://www.swri.org/>

Business Size: Large

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CUSTOMER ORDERING INFORMATION

1. Special Item Numbers awarded under this Schedule:

874-4 Instructor-Led Training; Web Based Training & Education Courses; Course Development; Test Administration

2. Maximum Order:

\$1,000,000.00

3. Minimum Order:

The minimum order designated for delivery orders/task orders awarded under this schedule contract is \$100.00.

4. Geographic Coverage (Delivery Area):

The geographic scope of this contract is the 48 contiguous states, the District of Columbia, Alaska, Hawaii (including Johnson Island) and the Commonwealth of Puerto Rico. Work can also be performed at all U.S. Government installations and/or agencies abroad, and any country in which trade is not prohibited by the U.S. Government, subject to negotiation on an individual task order basis.

5. Point(s) of Production (city, county and State or foreign country):

United States of America

6. Discounts from List Price or Statement of net price:

Prices shown in this schedule are net, all discounts are included.

7. Quantity Discounts:

None

8. Prompt Payment Terms:

Net 30

9. a) Government Purchase Cards:

Government purchase cards will be accepted for payment up to the micro-purchase threshold.

b) Government purchase cards

Will not be acceptable for payments above the micro-purchase threshold.

10. Foreign Items:

None

11. a) Time of Delivery:

Determined by the Delivery/Task Order

b) Expedited Delivery:

Determined by the Delivery/Task Order

c) Overnight and 2-day delivery:

Determined by the Delivery/Task Order

d) Urgent Requirements:

Determined by the Delivery/Task Order

12. F.O.B. Points

When deliveries are made to destinations outside the contiguous 48 States and the District of Columbia, delivery will be F.O.B inland carrier, point of exportation (FAR 52.247-38), with the transportation charges to be paid by the Government from point of exportation to destination in Alaska, Hawaii, or the Commonwealth of Puerto Rico, as designated by the ordering office. The Contractor shall add the actual cost of transportation to destination from the point of exportation in the 48 contiguous States nearest to the designated destination. Such costs will, in all cases, be based upon the lowest regularly established rates on file with the Interstate Commerce Commission, the U.S. Maritime Commission (if shipped by water), or any State regulatory body, or those published by the U.S. Postal Service; and must be supported by paid freight or express receipt or by a statement of parcel post charges including weight of shipment.

The right is reserved to ordering agencies to furnish Government bills of lading.

Ordering offices will be required to pay differential between freight charges and express charges where the Government desires express deliveries.

13. Contractor's Ordering Address:

Southwest Research Institute
P.O. Drawer 28510
San Antonio, Texas 78228-0510

For assistance, please contact:

Alex Garza
Phone: 210-522-2397
Fax: 210-522-3559
Email: alex.garza@swri.org

14. Contractor's Payment Address:

Southwest Research Institute
P.O. Box 841671
Dallas, Texas 75284-1671

15. Warranty Provision

None

- 16. Export packing charges, if applicable.**
Not Applicable
- 17. Terms and conditions of Government purchase and acceptance (and thresholds above the micro-purchase level)**
- 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)**
Not Applicable
- 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
- 24. Environmental attributes, e.g., recycled content, energy efficiency, and/or reduced pollutants**
Not Applicable
- 25. Universal Number System (DUNS) number**
00-793-6842
- 26. Notification regarding registration in Central Contractor Registration (CCR) database**
SwRI is registered in the CCR database - Cage Code 26401

**COMMITMENT TO PROMOTE
SMALL BUSINESS PARTICIPATION
PROCUREMENT PROGRAMS**

PREAMBLE

Southwest Research Institute provides commercial products and services to the Federal Government. We are committed to promoting participation of small, small disadvantaged and women-owned small businesses in our contracts. We pledge to provide opportunities to the small business community through reselling opportunities, mentor-protégé programs, joint ventures, teaming arrangements, and subcontracting.

COMMITMENT

To actively seek and partner with small businesses.

To identify, qualify, mentor and develop small, small disadvantaged and women-owned small businesses by purchasing from these businesses whenever practical.

To develop and promote company policy initiatives that demonstrate our support for awarding contracts and subcontracts to small business concerns.

To undertake significant efforts to determine the potential of small, small disadvantaged and women-owned small business to supply products and services to our company.

To insure procurement opportunities are designed to permit the maximum possible participation of small, small disadvantaged, and women-owned small businesses.

To attend business opportunity workshops, minority business enterprise seminars, trade fairs, procurement conferences, etc., to identify and increase small businesses with whom to partner.

To publicize in our marketing publications our interest in meeting small businesses that may be interested in subcontracting opportunities.

We signify our commitment to work in partnership with small, small disadvantaged and women-owned small businesses to promote and increase their participation in Federal Government contracts. To accelerate potential opportunities please contact **Southwest Research Institute, Paul Easley, (210) 522-3077; fax (210) 522-2262; peasley@swri.org**

BPA NUMBER _____

**(CUSTOMER NAME)
BLANKET PURCHASE AGREEMENT**

Pursuant to GSA Federal Supply Schedule Contract Number(s) _____, Blanket Purchase Agreements, the Contractor agrees to the following terms of a Blanket Purchase Agreement (BPA) EXCLUSIVELY WITH (Ordering Agency):

(1) The following contract items can be ordered under this BPA. All orders placed against this BPA are subject to the terms and conditions of the contract, except as noted below:

MODEL NUMBER/PART NUMBER	*SPECIAL BPA DISCOUNT/PRICE
_____	_____
_____	_____
_____	_____

(2) Delivery:

DESTINATION	DELIVERY SCHEDULES / DATES
_____	_____
_____	_____
_____	_____

(3) The Government estimates, but does not guarantee, that the volume of purchases through this agreement will be _____.

(4) This BPA does not obligate any funds.

(5) This BPA expires on _____ or at the end of the contract period, whichever is earlier.

(6) The following office(s) is hereby authorized to place orders under this BPA:

OFFICE	POINT OF CONTACT
_____	_____
_____	_____
_____	_____

(7) Orders will be placed against this BPA via Electronic Data Interchange (EDI), FAX, or paper.

(8) Unless otherwise agreed to, all deliveries under this BPA must be accompanied by delivery tickets or sales slips that must contain the following information as a minimum:

- (a) Name of Contractor;
- (b) Contract Number;
- (c) BPA Number;
- (d) Model Number or National Stock Number (NSN);
- (e) Purchase Order Number;
- (f) Date of Purchase;

Pricelist for Contract Number GS-02F-0096N

- (g) Quantity, Unit Price, and Extension of Each Item (unit prices and extensions need not be shown when incompatible with the use of automated systems; provided, that the invoice is itemized to show the information); and
 - (h) Date of Shipment.
- (9) The requirements of a proper invoice are specified in the Federal Supply Schedule contract. Invoices will be submitted to the address specified within the purchase order transmission issued against this BPA.
- (10) The terms and conditions included in this BPA apply to all purchases made pursuant to it. In the event of an inconsistency between the provisions of this BPA and the Contractor s invoice, the provisions of this BPA will take precedence.

**BASIC GUIDELINES FOR USING
CONTRACTOR TEAM ARRANGEMENTS**

Federal Supply Schedule Contractors may use Contractor Team Arrangements (see FAR 9.6) to provide solutions when responding to a customer agency requirements.

These Team Arrangements can be included under a Blanket Purchase Agreement (BPA). BPAs are permitted under all Federal Supply Schedule contracts.

Orders under a Team Arrangement are subject to terms and conditions of the Federal Supply Schedule Contract.

Participation in a Team Arrangement is limited to Federal Supply Schedule Contractors.

Customers should refer to FAR 9.6 for specific details on Team Arrangements.

Here is a general outline on how it works:

- The customer identifies their requirements.
- Federal Supply Schedule Contractors may individually meet the customer's needs, or -
- Federal Supply Schedule Contractors may individually submit a Schedules Team Solution to meet the customer's requirement.
- Customers make a best value selection.

A Brief History of SwRI

A BRIEF HISTORY OF SwRI

Southwest Research Institute (SwRI), headquartered in San Antonio, Texas, is one of the oldest and largest independent, nonprofit, applied research and development (R&D) organizations in the United States. Founded in 1947, SwRI provides contract research and development services to industrial and government clients. The Institute is governed by a board of directors, which is advised by approximately 100 trustees.

SwRI initiates contracts with clients based on consultations and prepares a formal proposal outlining the scope of work. Subject to client wishes, programs are kept confidential. As part of a long-held tradition, patent rights arising from sponsored research are often assigned to the client. SwRI generally retains the rights to Institute-funded advancements.

SwRI consists of 11 technical divisions that offer multidisciplinary, problem-solving services in a variety of areas in engineering and the physical sciences. Historically, nearly 2,000 projects are open at the Institute at any one time. These projects are funded almost equally between the government and commercial sectors. SwRI's total revenue for fiscal year 2007 was \$501 million. During 2007, SwRI provided \$6 million to fund innovative research through its internally sponsored R&D program.

SwRI's headquarters occupy almost two million square feet of office and laboratory space on more than 1,200 acres in San Antonio. The Institute has technical offices and laboratories in Ann Arbor, Michigan; Boulder, Colorado; Fort Hood, Texas; Ogden, Utah; Huntsville, Alabama; Oklahoma City, Oklahoma; Panama City, Florida; Rockville, Maryland; Warner-Robins, Georgia; Beijing, China; and other locations. SwRI provides environmental monitoring expertise at munitions demilitarization sites at the Umatilla Army Depot at Hermiston, Oregon, and the Pine Bluff Chemical Depot at Pine Bluff, Arkansas.

At the close of fiscal year 2007, the staff numbered 3,134. Of this number, 251 hold degrees at the doctorate level, 486 at the master's level, and 778 hold bachelor's degrees. In 2007, staff members published 473 papers in the technical literature; made 451 presentations at technical conferences, seminars, and symposia around the world; submitted 70 invention disclosures; filed 56 patent applications; and received 51 patent awards. The Institute supports professional development of its staff through onsite technical and training courses and tuition reimbursement.

The Institute holds more than [870 patents](#) awarded to its staff members, has earned [32 R&D 100 awards](#), and has been inducted in the U.S. Space Foundation's Space Technology Hall of Fame. The Institute has received two Department of Defense James S. Cogswell Outstanding Industrial Security Achievement Awards. Dr. Thomas W. Ryan III was elected the 2008 president of the Society of Automotive Engineering International, the leading standards research and

development organization for mobility engineering. C. Nils Smith was named the Engineering Manager of the Year by the Engineering Management Society of the Institute of Electrical and Electronics Engineers. Steven G. Fritz was elected a Fellow of the American Society of Mechanical Engineers, and Steven R. Westbrook received the American Society for Testing Materials International 2007 Award of Merit, which recognizes him as an ASTM Fellow. Several SwRI divisions have achieved ISO 9001 or ISO 14001 certification and ISO/IEC Guide 24 accreditation. The Ford Motor Company has designated the Institute a Tier 1 product development engineering services supplier and has awarded the Institute its Q1-2000 award.

A partial listing of research areas includes antennas and propagation; automation, robotics, and intelligent systems; avionics and support systems; bioengineering; chemistry and chemical engineering; communications systems; corrosion and electrochemistry; Earth and planetary sciences; emissions research; engineering mechanics; fire technology; fluid systems and machinery dynamics; and fuels and lubricants. Additional areas include geochemistry and mining engineering; hydrology and geohydrology; space science and engineering; materials sciences and fracture mechanics; modeling and simulation; nondestructive evaluation; oil and gas exploration; pipeline technology; surface modification and coatings; training systems and simulators; and vehicle, engine, and powertrain design, research, and development.

TRAINING SYSTEMS & SIMULATORS

SwRI is renowned for the development of innovative and effective solutions to training problems. The Institute develops simulators, simulation systems, interactive courseware programs and performance-enhancing systems using state-of-the-art technologies to provide a wide range of integrated training solutions.

Training Support

The Courseware Development office, located in Ogden, Utah, develops and supports a wide range of training products for the Air Force Materiel Command in support of its blue-collar and white-collar workforce in all areas of aircraft and missile systems and subsystems, along with a host of logistical systems used to plan, schedule, inventory and move materiel in and out of AFMC Air Logistics Centers. Using Air Force Instructional System Development (ISD) processes, the section designs and produces myriad educational products such as structured-on-the-job training guides, interactive computer based-courseware, linear video presentations, formal classroom instruction materials, training manuals and reference guides. A complete list is offered on subsequent pages.

Simulation and Systems Engineering

The Simulation and Systems Engineering Department develops technologies and applies systems engineering processes to produce solutions to simulation, training, and high-technology system problems. We conduct research, perform feasibility studies and concept formulations, and develop simulators, simulation models, databases, virtual environments, and distributed systems for training, test and evaluation, and operational assessment.

Instructional Systems Development

SwRI provides complete Instructional Systems Development services including task analysis, training systems requirements analysis, the identification of learning objectives and instructional strategies, media selection and training effectiveness evaluations. The ability to characterize the instructional parameters of the learning situation allows SwRI to design effective solutions to the training problem. The Instructional Systems Section develops interactive courseware products, web-based training applications, electronic performance support systems (EPSS), printed materials using information mapping techniques, and job aids delivered through the Internet.

COURSEWARE DEVELOPMENT & TEST ADMINISTRATION, SIN 27-500

Formal Classroom Courses:

Classroom instruction is delivered by an instructor to a group of students. In many cases supportive media is used to enhance learning such as; slide/tapes, Power Point presentations, videotapes, films and/or mock-ups. Students learn by listening to a lecture, observing a demonstration and/or group discussion and asking questions to clarify instructional points.

During implementation, qualified instructors deliver classroom instruction using lesson plans. Lesson plans should encourage direct trainee participation in the learning process and employ instructional techniques (e.g., briefings, lecture, discussion, case studies, seminars, etc.) that are appropriate to the lesson content and learning objectives. Regular evaluation of the trainee's mastery of the learning objectives is expected during classroom training.

Benefits: The benefits of this type of instruction are; the student and instructor interaction is high, it requires relatively short development time, and the instructor can tailor the presentation based on the student's knowledge and experience.

Generally, formal classroom training occurs when a large group must be taught the same thing at the same time or the task difficulty requires formal training.

Web-Based Courses

Web-Based Training (WBT) courses are instruction that is enhanced by the use of interactive multimedia authoring, personal computers, and learning management systems (LMS). Web-based courses deliver instruction via the web and/or intranets. Student data and curriculum are managed through integrated Learning management systems.

When using a system of web-based courses, a virtual campus can be created in which students take courses and the training managers manage curriculum, collaborate with instructors, and access reports on student progress.

The benefits of web-based training are extensive and impact students, courseware development, and training management.

Student Benefits: increased pass rates, increased student engagement and satisfaction, increased student retention, improved success rates in subsequent courses, easy access to training courses.

Course Development Benefits: Existing training materials can be adapted for web-based delivery. Content can be updated or modified without the expense of creating and distributing new physical media. Training can be designed with user interaction and feedback. Training can be designed to provide more personalized instruction based on interactive assessments.

Training Management Benefits: Management of instruction can be automated via a learning management system. Training is cross platform compatible (Windows, Mac, Unix) using any common browser. Local access to training courses can be provided to a widely dispersed student population anytime, anywhere. Content can be delivered when needed.

Other Benefits: Reduces the need for instructor/trainers and classrooms. Training platforms can be placed in or near the work environment. Training is not tied to instructor availability and student can logon when time allows. Courses are custom designed to meet specific training needs. Learning management systems can provide information on available courses, and which employees have received training and to what degree.

Computer-Based Courses

With Computer-Based Training (CBT) courses, instruction is delivered to the student by allowing them to interact with lessons programmed into a computer. The instruction provides immediate and individualized feedback and record keeping of student performance. The student may control the sequence and pace of the instruction.

Like Web-Based courseware, Computer-Based courseware can be highly interactive. It delivers standardized training and is very cost effective with large target populations. It offers the student unlimited opportunities to practice until mastery. CBT also reduces the need for qualified instructors, freeing them for courses requiring instructor presence.

Structured On-the-Job Training Courses

Structured On-the-Job Training (SOJT) courses provide the OJT trainer with a lesson plan for conducting training in the actual work environment. The old traditional OJT environment often provides the best learning and training environment because it **IS** the work environment. The SOJT course contains information from all the technical manuals and regulatory guidance applicable to the particular task, organized into "bite-sized" lessons. All lessons are based on learning objectives made up of behaviors, conditions, standards, and performance measurements, allowing new workers to be trained to pre-defined, measurable standards. In developing SOJT courseware, the task is observed, technical literature is researched, regulatory guidance is researched, subject matter experts and process supervisors are interviewed. SOJT courses run the gamut from simple to complex, with the complex requiring much more development time.

Simple SOJT course. The simple SOJT course typically covers a task that is very specific, can be accomplished in the workplace within an hour up to approximately half a work shift. Examples of this level are Jet Engine Intake Inspection, Aircraft Tow Supervisor, and Aircraft Weapons Pylon Disarming.

Moderate SOJT Course. The moderate SOJT course covers a specific task but also includes some lesser support activities in preparation for the main task. This level of SOJT requires additional labor hours (research and analysis) of the technical literature, observation of the task, and interviews with subject matter experts and supervisors. The task that requires a moderate SOJT course can usually be completed somewhere between a half shift to a full shift. Examples of this level are Cruise Missile Fuel System Maintenance, Jet Engine Borescoping, and Fueling, Defueling and Purging Aircraft.

Complex SOJT Course. The complex SOJT course covers a specific task, but also includes many, often complex support activities. This level of SOJT also requires additional labor hours (research and analysis) of the technical literature, observation of the task, and interviews with subject matter experts and supervisors, but in the complex SOJT course, many of the supporting activities require extensive research and analysis as well. Complex SOJT courses typically cover tasks that require one or more workdays to complete. Examples of this level are Jet Engine Run, Aircraft Fuel System Pressurization Checks, and Aircraft Flight Controls Rigging.

Training Manuals:

Training Manuals cover training in many areas of technical and support operations. They are very similar to Structured OJT Guides, and are designed to be used in situations where highly experienced trainers are not always available, and the trainee has a basic knowledge of the task. Like Structured OJT Guides, Training Manuals are based on learning objectives made up of behaviors, standards, conditions, and performance measurements, but are geared more for qualification training, and as such are oriented toward the operator/trainee. Where the Structured OJT Guide uses "Notes to the Instructor" as reminders to an experienced technician of what to expound upon, the Training Manual expounds upon each of these points and goes deeper into a given procedure, and will often include samples of checklists.

This type of training is Self-Study in which the individual undertakes the responsibility of learning and instruction. The instruction is delivered in print format and the content is usually highly structured.

The benefits of this type of instruction are; students progress at their own pace, training can take place at the work site, training is relatively easy to update and revise, training schedule is flexible, and training development costs are usually low.

Training Video

Video is an established and cost effective means of delivering training to large target populations. Video can be adapted to several learning requirements including skills training, intellectual skills training, affective learning, and problem solving. When constraints limit the use of web-based training or computer based training, video can deliver a consistent message to large widely dispersed target populations at a lower cost.

Video allows for a unique mix of audio, motion, graphics, animation, still images, and moving images that support a variety of learning styles and optimize retention and transfer of content. Video can be adapted to most training delivery requirements. It can be used as a stand-alone course, or designed as supplemental material.

Special Skills Qualification (SSQ) Guides and Proficiency Checklists

Special Skills Qualification (SSQ) Guides and Proficiency Checklists identify the standards or specific procedures that must be accomplished to ensure integrity, verification, and consistency in the SSQ process. SSQ documentation requirements are mandatory for Air Force Material Command and locally developed SSQs. SSQ skills are so specialized they require extensive technical knowledge and proficiency. Most of these skills are governed by military specifications, higher level regulatory guidance, are safety related, or have a significant impact on cost. The SSQ Guide identifies the specific skill, documents the qualification official criteria, the applicable directives governing the performance of the skill, the formal or SOJT training required to be completed before qualification, the qualification instruction for the task (written examination, proficiency demonstration tasks, etc.). The SSQ guide is used by the SSQ Official to identify all SSQ requirements. In developing SSQ Guides and Proficiency Checklists, the task is observed, technical literature is researched, regulatory guidance is researched, and subject matter experts and process supervisors are interviewed. SSQ Guides and Proficiency Checklists run the gamut from simple to complex, with complex requiring much more development time.

Simple SSQ Guide and Proficiency Checklist. The simple SSQ Guide and Proficiency Checklist covers a task that is very specific and can be accomplished in the workplace within a short period of time, normally less than one hour. Examples of this level are Aircraft Tow Supervisor, Aircraft Weapons Pylon Arming or Disarming, and Aircraft Refueling or Defueling Operations.

Moderate SSQ Guide and Proficiency Checklist. The moderate SSQ Guide and Proficiency Checklist covers a specific task but the task is more complicated. This level of SSQ requires additional labor hours (research and analysis) of technical literature, observation of the task, and interviews with subject matter experts and supervisor. The task that requires a moderate SSQ Guide and Proficiency Checklist can usually be completed somewhere between a half-shift and a full-shift. Examples of this level are Aircraft Jacking, Jet Engine Run, LGM-30 Stage III Exudate Cleanup, and LGM-30 PSRE Ordnance Removal and Installation.

Complex SSQ Guide and Proficiency Checklist. The complex SSQ Guide and Proficiency Checklist covers a specific task, but involves many, often complex components. This level of SSQ also requires additional labor hours (research and analysis) of technical literature, observation of the task, and interviews with subject matter experts and supervisors, but in the complex SSQ Guide and Proficiency Checklist, many of the supporting tasks require extensive research and analysis as well. Complex SSQ Guides and Proficiency Checklists cover tasks that require one or more days to complete. Examples of this level are Jet Engine Run, Engine Test Cell Operator, Aircraft Fuel System Pressurization Checks, and Aircraft Egress/Escape Systems.

Special Skills Qualification (SSQ) Guide Certification Tests

Special Skills Qualification (SSQ) Guide Certification Tests are developed for those SSQ skills requiring the successful completion of a written examination as part of the qualification/certification process. The SSQ Certification test covers information from safety and technical manuals relating to the performance of the SSQ task. In developing SSQ Certification Tests technical literature is researched, regulatory guidance is researched; subject matter experts and process supervisors are interviewed. Written tests come in a variety of formats including multiple choice, completion, fill-in-the-blank, matching, true/false, and labeling. SSQ Certification Tests run the gamut from simple to complex, with the complex requiring much more development time.

Simple SSQ Guide Certification Test. The simple SSQ Guide Certification Test typically covers a task that is very specific and has minimal regulatory and technical guidance. This test is normally a 20-question multiple-choice or true/false test. Examples of this level are Aircraft Tow Supervisor, Aircraft Weapons Pylon Arming/Disarming, and Aircraft Refuel/Defuel Operations.

Moderate SSQ Guide Certification Test. The moderate SSQ Guide Certification test covers a specific task but also includes lesser support activities in preparation for the main task. This level of SSQ Guide Certification Test development requires additional labor hours (research and analysis) of the technical literature, observation of the task, and interviews with subject matter experts and supervisors. The moderate SSQ Guide Certification test is of at least 25 questions of multiple-choice, true/false, matching, and labeling. Examples of this level are Aircraft Egress/Escape Systems, Aircraft Cabin/Cockpit/Fuselage Pressurization, and Soldering.

Complex SSQ Guide Certification Test. The complex SSQ Guide Certification test covers a specific task, but also includes many, often complex support activities. The Complex SSQ Guide Certification Test is normally a two-part test, one covering general knowledge questions and one covering specific or

emergency action task questions. This level of SSQ Guide Certification Test development also requires additional labor hours (research and analysis) of the technical literature, observation of the task, and interviews with subject matter experts and supervisors. Examples of this level are Aircraft Engine Run-up, Engine Test Cell Operator, and Non-Destructive Inspection.

COURSE AND TASK/JOB SUPPORT

Technical Validation of SOJT Courseware (periodic/recurring)

Technical Validation of SOJT Courseware (periodic/recurring) provides the supervisor and trainer with up-to-date courseware for conducting training in the actual work environment. The SOJT course contains information from all the technical manuals and regulatory guidance applicable to the particular task, organized into bite-sized lessons. All lessons are based on learning objectives made up of behaviors, conditions, standards, and performance measurements, allowing new workers to be trained to predefined, measurable standards. In validating SOJT courseware, technical literature is researched, regulatory guidance is researched, and subject matter experts and process supervisors are interviewed. SOJT courseware technical validation (periodic/recurring) runs the gamut from simple to complex, with the complex requiring much more validation time.

Simple SOJT Course Technical Validation. The simple SOJT course technical validation typically covers a task that is very specific; can be accomplished in the workplace within an hour up to approximately half a work shift. Examples of this level are Aircraft Towing, Aircraft Weapons Pylon Arm/Disarm, and Oxygen and Nitrogen System Repair.

Moderate SOJT Course Technical Validation. The moderate SOJT course technical validation covers a specific task but also includes some lesser support activities in preparation for the main task. This level of SOJT course technical validation requires additional labor hours (research and analysis) of the technical literature and interviews with subject matter experts and supervisors. The task that requires a moderate SOJT course technical validation can usually be completed somewhere between a half-shift and a full-shift. Examples of this level are Fuel Cell Repair, Aircraft Egress/Escape Systems, and LGM-30 Interstage Ordnance Removal and Installation.

Complex SOJT Course Technical Validation. The complex SOJT Course Technical Validation covers a specific task, but also includes many, often complex support activities. This level of SOJT Course Technical Validation also requires additional labor hours (research and analysis) of technical literature and interviews with subject matter experts and supervisors, but in the complex SOJT Course Technical Validation, many of the supporting activities require extensive research and analysis as well. Complex SOJT courses typically cover tasks that require one or more workdays to complete. Examples of this level are Aircraft Flight Controls Rigging, Aircraft Fuels Pressurization Checks, and Air Launched Cruise Missile Analytical Condition Inspection and Overhaul.

Training Needs Assessment

Training Needs Assessment (TNA) is an umbrella for analysis activities used by instructional developers to examine and understand performance problems. TNA is called by many names. It is often referred to as front-end analysis, needs analysis, problem analysis, and deficiency analysis. It is an effective and cost-efficient method to identify and solve problems. When looking at a TNA, it is a tool to determine training and non-training needs of organizations and individuals. Conducting needs assessment studies enable instructional developers to obtain the data needed to make informed decisions and recommendations.

Each assessment has an overall purpose, a set of data that responds to the purpose, and a method of obtaining and analyzing that data.

Conducting a TNA study results in information that is needed to determine the following:

1. Optimal performance of knowledge required
2. Actual performance or knowledge at the present time
3. Attitudes of managers, instructional developers, and individuals
4. Causes of the deficiencies or problems
5. Solutions to the deficiencies or problems

Several different analysis techniques are available for use by the instructional development team. The best technique to use is determined by the purpose of the analysis. The basic TNA process consists of five steps:

1. Determine purpose
2. Identify data requirements
3. Determine data collection methods
4. Collect and analyze data
5. Report findings

Training Aids/Classroom Visual Aids

Training aids and classroom visual aids cover myriad areas. Typically, the training/visual aid supplements a formal course. In the maintenance arena an aid may be a wall chart depicting a piece of equipment broken up into its component parts (the inside of a jet engine for example). Other training aids may be simulated or modified pieces of actual equipment used in a lab or classroom setting for show and tell or for hands-on manipulation.

Desktop Reference Guides (DRGs)

Desktop Reference Guides (DRGs) literally sit on top of a person's desk and are bound for ease of use in the office setting. Information on a subject is usually presented on two facing pages. For example, as a guide for computer applications, a DRG may present a graphical representation of the applicable computer screen on one page, with guidance concerning usage, information needed, and the result on the facing page.

DRGs are especially useful if there is no on-line help, or if the on-line help is cumbersome and not useful. When operators encounter a seldom used screen, the DRG can be used to refresh their knowledge. For personnel filling out forms, a DRG will be arranged with the form displayed on one page, with applicable instructions displayed on the facing page.

Process Orders

A Process order is a type of Air Force-Approved Technical Data, IAW AFMCI 21-110. All Air Force systems, subsystems, items of equipment, and support equipment are operated, maintained and documented according to information contained in Technical Data. The use of informal technical information such as drawings, notes, and manuals, to include uncontrolled copies of approved Technical Data, is strictly prohibited in the Air Force.

A Process Order is developed and used to describe specific applications, procedures, techniques, and methods and shop practices to compliment or expand upon approved Technical Data. Figures and diagrams are included to amplify the information presented. The Process Order is uniquely numbered and approved along a chain of authority from the task performer thru the engineer to task management. Each Process Order is reviewed at least biennially to ensure continued technical currency with other applicable technical data and the changes in the task environment.

Job Aids

Job aids are designed to assist the employee with the task. They are typically found in notebooks or tacked to the wall. For example, a component that contains several rings of various diameters may have a job aid with photos or drawings of the rings in actual size allowing the technician to match the ring to the drawing which, in turn describes its location, stock number, technical reference.

COURSE DEVELOPMENT

- Formal Classroom Courses
- Web-Based Courses
- Computer-Based Courses
- Structured On-The-Job Training (SOJT) Courses
- Training Manuals
- Training Videos
- Special Skills Qualification (SSQ) Guides and Checklists
- Special Skills Qualification (SSQ) Certification Tests

COURSE AND TASK SUPPORT

- Technical Validation of Courseware (Periodic, Recurring)
- Training Needs Assessment
- Training Aids/Classroom Visual Aids
- Desktop Reference Guides
- Process Orders
- Job Aids

Administrative Assistant

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Administrative Assistant has demonstrated knowledge and mastery of Institute business operations policies, processes and procedures. Individuals at this level have a thorough knowledge of correspondence protocol, modern office management practices and principles, computer software, Institute and division policies and procedures, and the ability to interpret them to individuals who inquire. He/she is able to work independently in the absence of specific instructions on a number of tasks with a high degree of speed in the organizational skills. The individual is able to maintain effective relations with clients and staff, exercise confidentiality and discretion, and manage subordinate staff. A high school education or equivalent with 10 or more years of combined continuing education and related experience in the training, modeling and simulation, and performance improvement domain areas is required.

RESPONSIBILITIES: Administrative Assistants have widely varying tasks depending on the organization of the department or division. The tasks typically include providing advanced secretarial support to senior management, supervising junior clerical staff, and administering various division or department support activities. Responsibilities may also include direct support for a group of engineers, analysts or specialists. Representative functions include:

- Use judgment in determining supervisor level of involvement in matters related to the work group.
- Refer matters requiring action to others when issues can be settled independently.
- Meet and deal with clients, staff, etc., and in the supervisor's absence, may, within delegated limits, give information or initiate action on behalf of the supervisor.
- Conserve the supervisor's time by accomplishing appropriate actions without the supervisor's direct involvement.
- Direct the activities and administrative protocols followed by clerical and secretarial staff within the work group.
- Serve as an advisor to administrative support staff within subordinate departments and provide career guidance to junior administrative support staff.
- Anticipate and obtain needed background information when the supervisor's involvement is necessary.
- Anticipate supervisor's need for information and collect, analyze, and organize the information as necessary.

Administrative Coordinator

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Administrative Coordinator has a thorough knowledge of the internal processes of the Institute and correspondence protocols as well as being completely skilled in providing secretarial software support to researchers working in training, simulation and performance improvement application areas. Individuals at this level are able to administer and supervise subordinate staff, organize meetings, make travel arrangements, deal effectively with clients and prepare original correspondence for approval. Individuals at this level require good communication and interpersonal skills. A high school education or equivalent with seven or more years of combined continuing education and related experience in the training, modeling and simulation, and performance improvement domain areas is required.

RESPONSIBILITIES: Administrative Coordinators prepare management accounting data for project operations. This work includes the tracking of project deliverables and ensuring correct application of project time and material charges. Representative functions include:

- Exercise independent judgment concerning administrative matters on behalf of supervisor or, when required, within delegated authority.
- Analyze data and arrive at a recommended course of action or act on conclusions, if within delegated authority.
- Instruct subordinates in acquisition of skills, knowledge, or abilities relating to activity of the training section.
- Supervise clerical staff in completion of assigned duties; complete performance evaluation and make recommendations for personnel actions concerning subordinate clerical staff.
- Compile operating data as directed by supervisor.
- Interact directly with upper levels of management and external clients.

Analyst

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Analyst exercises judgment, diligence, and attention to detail and demonstrates an aptitude for carrying out responsible technical assignments. A Bachelor's degree in Computer Science, Computer Information Systems, or a related discipline is required.

RESPONSIBILITIES: Analysts function as entry-level software developers in the training, modeling and simulation, and performance improvement domain areas. Responsibilities include designing, coding, testing and documenting software applications and configuring computer systems under the direction of more senior technical staff members on project teams.

Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Apply standard software engineering practices to the development of systems in support of training, simulation and modeling, and performance improvement applications.
- Contribute ideas for improving project work processes.
- Provide suggestions for promoting new projects and solicit opportunities to contribute to proposals and interact with clients.
- Prepare written reports of work for presentation to clients.
- Provide work instruction to technical support staff.
- Demonstrate proficiency in writing and verbal presentation skills and in the mastery of computer software and hardware common to the technical field or specialization.

Assistant Director

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Assistant Director has the ability to successfully lead a major business activity and attain technical and business objectives. Through prior management experience, individuals at this level have shown the ability to successfully build a program area and lead research personnel at all levels. A Bachelor's degree in engineering, science, education, or related discipline with 12 or more years of technical and management experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in a technical and/or management field or formal management training is encouraged.

RESPONSIBILITIES: Assistant Directors provide management support to departments in the Institute's technical or administrative divisions. While assisting the department Director, they are responsible for the overall quality of the technical and/or administrative work of the department, promotional activity, financial well-being of the department, and the employment and development of a competent staff. Assistant Directors also lead the successful promotion and execution of technical or administrative areas and programs consistent with the mission of the division and the Institute. Representative functions include:

- Lead the promotion of new business directions for the department in coordination with the division vice president, department director, section managers, and senior technical staff.
- Interact directly with key department clients and potential clients.
- Plan for future program development and resource needs (people, facilities, equipment and new or enhanced capabilities) in coordination with division vice president and section managers.
- Establish methodologies to improve department work practices leading to improved efficiencies in the promotion and conduct of department business.
- Recommend staff hiring consistent with current and future staffing needs.
- Provide overall administrative supervision to the department's staff including maintenance of satisfactory utilization, staffing, project assignments, assignment of program tasks, evaluation of performance, discipline, salary administration, staff career development, implementation of Institute policy, and integration of staff with other activities.
- Review and approve reports and proposals issued by the department.
- Provide resources to meet project technical, cost, and schedule objectives.

Assistant Manager

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Assistant Manager has excellent verbal, written, and interpersonal communication skills as well as proven success in building technical training programs. In prior management positions, individuals at this level have demonstrated the ability to lead others and administer to their employees' technical and professional needs. A Bachelor's degree in engineering, science, education, or related discipline with 10 or more years of technical or management experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in a technical and/or management field or formal management training is encouraged.

RESPONSIBILITIES: Assistant Managers' primary responsibilities are to plan, organize, lead, and coordinate a critical number of exempt and nonexempt personnel, and other Institute resources, in completing programs within the section's area(s) of technical expertise. Emphasis in this position is on assisting the section Manager, leading the successful promotion and execution of technical services and, and hiring and developing the staff necessary to meet established objectives.

Representative functions include:

- Lead the promotion of new training business or services in a number of related technical or training specialty areas.
- Lead authorship of successful technical and internal research proposals.
- Coordinate activities of project managers and principal investigators in the section.
- Oversee project managers within the group to ensure project technical, cost, and schedule objectives are met.
- Serve as a project manager on large or complex projects.
- Review and approve project deliverables for submission to clients.
- Serve as a liaison to project clients and potential clients.
- Stay current in technical field of specialization.
- Plan for future program development and associated resource needs (people, facilities, equipment, and capabilities).
- Provide overall administrative supervision to the section's staff including annual performance evaluations, professional development plans, salary administration, staffing, counseling, discipline, and policy implementation.

Assistant Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Assistant Specialist is able to exercise discretion and independent judgment, diligence, and attention to detail, and demonstrates an aptitude for carrying out responsible assignments without immediate supervision. Individuals at this level have hands-on experience with standard software applications to accomplish their objectives, such as word processing tools, graphics programs, computer-based training tools, and logistics and planning tools. A high school education or equivalent with one or more years of combined continuing education and related experience in the training, modeling and simulation, and performance improvement domain areas is required.

RESPONSIBILITIES: Assistant Specialists work with clients, software engineers, project and task managers, and the user community to devise the optimum solutions for initial and sustained support, in the training, modeling and simulation, and performance improvement domain areas. They work in project teams, completing tasks in their discipline and presenting information to clients. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Work in a project team requiring an application of established techniques, procedures and system concepts in carrying out a sequence of related tasks.
- Select and use computer-based tools to accomplish project goals.
- Contribute ideas for new projects and/or activities to provide full support for users of information technology solutions.
- Demonstrate proficiency in writing and verbal presentation skills, and mastery of computer software and hardware common to their technical field of specialization.
- Become an effective, productive, professional team member knowledgeable of the project team approach, and perform tasks according to contracts.

Assistant Technical Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Assistant Technical Specialist is able to exercise discretion and independent judgment, diligence, and attention to detail, and demonstrates an aptitude for carrying out responsible assignments without immediate supervision. Individuals at this level have hands-on experience with standard software applications to accomplish their objectives, such as word processing tools, graphics programs, computer-based training tools, and logistics and planning tools. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline is required. Relevant professional experience can be considered commensurate with a formal degree.

RESPONSIBILITIES: Assistant Technical Specialists work with clients, software engineers, project and task managers, and the user community to devise the optimum solutions for initial and sustained support, in the training, modeling and simulation, and performance improvement domain areas. They work in project teams, completing tasks in their discipline and presenting information to clients. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Work in a project team requiring an application of established techniques, procedures and system concepts in carrying out a sequence of related tasks.
- Select and use computer-based tools to accomplish project goals.
- Contribute ideas for new projects and/or activities to provide full support for users of information technology solutions.
- Provide instruction and supervision to technical support and administrative support staff.
- Demonstrate proficiency in writing and verbal presentation skills, and mastery of computer software and hardware common to their technical field of specialization.
- Become an effective, productive, professional team member knowledgeable of the project team approach, and performs tasks according to contracts.

Clerk Special

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Clerk Special has the ability to supervise and coordinate the activities of subordinate clerical staff and be fully effective as the clerical person within their section or group. Individuals at this level have specialized and well developed clerical and administrative skills. Good communications and interpersonal skills are required. A high school education or equivalent with five or more years of combined continuing education and related experience in the training, modeling and simulation, and performance improvement domain areas is required.

RESPONSIBILITIES: A Clerk Special is responsible for training subordinate staff, advising management on various requirements of the section, and ensuring their administrative support skills keep up with current technology. They handle routine tasks using personal judgment and discretion with minimal day-to-day supervision, as well as occasional special project assignments. Representative functions include:

- Use word processing, spreadsheet, or graphics software, or other equipment of specialization, to produce documents, reports, data tables, etc., in support of training services.
- Coordinate meetings, appointments, schedules, and facilities as requested by supervisor.
- Maintain hard copy and electronic filing and record keeping systems to facilitate retrieval and historical record maintenance as required by the client or other pertinent entities.
- Compile administrative, operating, or program data and place it in desired format as requested or directed by supervisor.
- Coordinate the completion and compilation of complex documents, reports, proposals, or other materials as assigned.
- Coordinate efforts of subordinate staff in completion of assigned duties.

Director

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Director has the ability to successfully lead a major business activity and attain technical and business objectives. Through prior management experience, individuals at this level have shown the ability to successfully build a program area and lead research personnel at all levels. A Bachelor's degree in engineering, science, education, or related discipline with 15 or more years of technical and management experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in a technical and/or management field or formal management training is encouraged.

RESPONSIBILITIES: Directors manage and lead departments in the Institute's technical or administrative divisions. They are responsible for the overall quality of the technical and/or administrative work of the department, promotional activity, financial well-being of the department, and the employment and development of a competent staff. Directors lead the successful promotion and execution of technical or administrative areas and programs consistent with the mission of the division and the Institute. Representative functions include:

- Lead the promotion of new business directions for the department in coordination with the division vice president, section managers, and senior technical staff.
- Interact directly with key department clients and potential clients.
- Plan for future program development and resource needs (people, facilities, equipment and new or enhanced capabilities) in coordination with division vice president and section managers.
- Establish methodologies to improve department work practices leading to improved efficiencies in the promotion and conduct of department business.
- Recommend staff hiring consistent with current and future staffing needs.
- Provide overall administrative supervision to the department's staff including maintenance of satisfactory utilization, staffing, project assignments, assignment of program tasks, evaluation of performance, discipline, salary administration, staff career development, implementation of Institute policy, and integration of staff with other activities.
- Review and approve reports and proposals issued by the department.
- Provide resources to meet project technical, cost, and schedule objectives.

Executive Assistant

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Executive Assistant has a thorough knowledge of the internal processes relative to the officer's responsibility, proper correspondence protocol in relation to the officer's status, corporate policies and procedures, and the functions of groups within the division. Individuals at this level are able to work independently with minimal direction on complex assignments, interact effectively with clients, exercise strict confidentiality and discretion, and assist the officer in management of his or her time. Individuals should have a Bachelor's degree in Business Administration, Communications or a related discipline with 12 or more years of experience in the training, modeling and simulation, and performance improvement domain areas. Relevant professional experience can be considered commensurate with a formal degree.

RESPONSIBILITIES: Executive Assistants provide direct close administrative support to officers of the Institute. Individuals at this level have widely varying tasks depending on the organization of the division. Tasks typically include providing advanced secretarial support to senior management, supervising junior clerical staff, and administering various division support activities. Representative functions include:

- Use judgment and knowledge of corporate officer in determining necessity of involvement in particular matters, settles issues independently within level of vested authority, or refers matters requiring action to others.
- Interact with clients, staff, etc., and in the officer's absence, may, within delegated limits, give information or initiate action on behalf of the officer or within area of specialization.
- Compose and oversee preparation of correspondence, reports, etc., with limited direction from management for corporate officer signature and action.
- Direct activities of subordinate staff and provide guidance and advice on professional protocol relative to activities or area of specialization.
- Review incoming correspondence for appropriate personal action, referral to other staff, or preparation for action of corporate officer.
- Obtain needed background information in administrative/specialized field and acts on or advises management of required change or prepares materials for review.
- Assist in human resource administration, salary administration, employee career progression, contingency workforce administration, or other specialized administrative areas.

Group Leader

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Group Leader has excellent interpersonal skills including verbal and written communication abilities. Individuals at this level are experienced in building research programs or in the successful supervision of sizeable laboratory duties, testing activities, or projects. Individuals should also have the capability and aptitude for leading others and administering to their needs. A Bachelor's degree in engineering or science and seven or more years of technical or management experience in the training, modeling and simulation, and performance improvement domain areas is required. Formal management training is encouraged.

RESPONSIBILITIES: Group Leaders provide administrative oversight for the staff in the group, provide management and technical oversight of the projects within the group, support business development efforts within the department, and contribute to administrative, technical and business development process improvement activities within the department. Representative functions include:

- Lead the promotion of new training business or services in a number of related technical or training specialty areas.
- Lead authorship of successful technical and internal research proposals.
- Coordinate activities of project managers and principal investigators in the section.
- Oversee project managers within the group to ensure project technical, cost, and schedule objectives are met.
- Serve as a project manager on large or complex projects.
- Review and approve project deliverables for submission to clients.
- Serve as a liaison to project clients and potential clients.
- Stay current in technical field of specialization.
- Plan for future program development and associated resource needs (people, facilities, equipment, and capabilities).
- Provide overall administrative supervision to the section's staff including annual performance evaluations, professional development plans, salary administration, staffing, counseling, discipline, and policy implementation.

Instructional Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Instructional Specialist has experience designing instructional courseware using the Instructional System Development (ISD) process. Individuals at this level have good oral and written communication skills; an ability to work on ISD development teams; and familiarity with industry standard computer software office applications, desktop publishing applications, authoring languages, and graphics application software programs. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline with two or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional experience can be considered commensurate with a formal degree.

RESPONSIBILITIES: Instructional Specialists analyze, design, develop, revise and validate training products using the ISD process. They serve as members of ISD focus groups during the design process. They are familiar with various ISD models and they are cognizant of emerging instructional theories and technologies. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Analyze, design, develop, revise and validate training courseware using the ISD process, under the supervision of senior staff members.
- Assist with training requirements analyses, task analyses, training need assessments, and target audience analyses.
- Develop learning objectives to include actions, conditions, and standards.
- Assist with the selection of media for various types of job tasks to be trained.
- Develop instructional media design documents.
- Develop storyboards and treatment plans.
- Develop instructional support documents such as lesson plans, student guides, instructor guides, and user's manuals.
- Develop test items.
- Evaluate and validate instructional materials.

Interactive Training Developer

Training, Simulation and Performance Improvement

QUALIFICATIONS: An Interactive Training Developer has experience developing curricula and instructional materials using the Instructional System Development (ISD) process. Individuals at this level have good oral and written communication skills; an ability to work on ISD development teams; and familiarity with industry standard computer software office applications, desktop publishing applications, authoring languages, and graphics application software programs. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline with two or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional experience can be considered commensurate with a formal degree.

RESPONSIBILITIES: Interactive Training Developers develop, revise and assist with the validation of training products using the ISD process. They develop instructional products from instructional designs prepared by other ISD team members. They work on teams to develop a full range of instructional products from paper-based to computer-based. They interpret storyboards for basic (level one and level two) computer-based training products. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Develop, revise and validate instructional products using the ISD process, under the supervision of senior staff members.
- Analyze storyboards and other instructional design documents and develops basic instructional products based on the design specifications.
- Use previously developed templates to produce computer-based lessons.
- Develop 2D animations.
- Prepare shot lists for video production and voice-over narration.
- Organize media elements (i.e., photographs, animations, video, audio and graphics) into databases for inclusion into computer-based training modules.
- Assist with formative and summative evaluation and formal validation of instructional products.

Manager R&D

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Manager has excellent verbal, written, and interpersonal communication skills as well as proven success in building technical training programs. In prior management positions, individuals at this level have demonstrated the ability to lead others and administer to their employees' technical and professional needs. A Bachelor's degree in engineering, science, education, or related discipline with 12 or more years of technical or management experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in a technical and/or management field or formal management training is encouraged.

RESPONSIBILITIES: Managers' primary responsibilities are to plan, organize, lead, and coordinate a critical number of exempt and nonexempt personnel, and other Institute resources, in completing programs within the section's area(s) of technical expertise. Emphasis in this position is on establishing goals for the section, leading the successful promotion and execution of technical services and, and hiring and developing the staff necessary to meet established objectives.

Representative functions include:

- Lead the promotion of new training business or services in a number of related technical or training specialty areas.
- Lead authorship of successful technical and internal research proposals.
- Coordinate activities of project managers and principal investigators in the section.
- Oversee project managers within the group to ensure project technical, cost, and schedule objectives are met.
- Serve as a project manager on large or complex projects.
- Review and approve project deliverables for submission to clients.
- Serve as a liaison to project clients and potential clients.
- Stay current in technical field of specialization.
- Plan for future program development and associated resource needs (people, facilities, equipment, and capabilities).
- Provide overall administrative supervision to the section's staff including annual performance evaluations, professional development plans, salary administration, staffing, counseling, discipline, and policy implementation.

Principal Analyst

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Principal Analyst is experienced in developing and leading complex technical projects while maintaining working relationships with clients, management, project team members and administrative support staff. Individuals at this level have experience developing advanced training concepts for internal research, leading proposal efforts, and managing projects. A Bachelor's degree in Computer Science, Software Engineering, Information Systems or a related discipline with 12 or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in such a field is encouraged.

RESPONSIBILITIES: Principal Analysts participate in program development efforts, research and development presentations to clients and the professional community, and advanced research leading to publication and peer review in periodicals. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Accomplish advanced training, modeling and simulation, or performance improvement work within technical specialty discipline.
- Contribute significantly to internal research and program development activities.
- Consult with technical management in areas leading to the successful promotion and completion of training research and development projects.
- Supervise, advise, and mentor less experienced technical staff.
- Lead in planning, promoting, and managing projects of significant size and complexity, often with staff of varying technical backgrounds and for more than one client, assuming full responsibility for the successful completion within the financial, technical, and time objectives.
- Represent the Institute with clients or potential clients.
- Perform technical assessments on a broad perspective of related technologies.

Principal Engineer

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Principal Engineer is experienced in developing and leading complex technical projects while maintaining working relationships with clients, management, project team members and administrative support staff. Individuals at this level have experience developing advanced training concepts for internal research, leading proposal efforts, and managing projects. A Bachelor's degree in Aerospace Engineering, Computer Engineering, Electrical Engineering, Mechanical Engineering or other engineering discipline with 12 or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in such a field is encouraged.

RESPONSIBILITIES: Principal Engineers participate in program development efforts, research and development presentations to clients and the professional community, and advanced research leading to publication and peer review in periodicals. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Accomplish advanced training, modeling and simulation, or performance improvement work within technical specialty discipline.
- Contribute significantly to internal research and program development activities.
- Consult with technical management in areas leading to the successful promotion and completion of training research and development projects.
- Supervise, advise, and mentor less experienced technical staff.
- Lead in planning, promoting, and managing projects of significant size and complexity, often with staff of varying technical backgrounds and for more than one client, assuming full responsibility for the successful completion within the financial, technical, and time objectives.
- Represent the Institute with clients or potential clients.
- Perform technical assessments on a broad perspective of related technologies.

Principle Instructional Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Principle Instructional Specialist has extensive experience designing instructional courseware using the Instructional System Development (ISD) process. Individuals at this level have excellent oral and written communication skills; an ability to lead and work on ISD development teams; and knowledge of industry standard computer software office applications, desktop publishing applications, authoring languages, and graphics application software programs. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline with ten or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in such a field is encouraged.

RESPONSIBILITIES: Principles Instructional Specialists analyze, design, develop, revise and validate training products using the ISD process. They often manage team members in the ISD process and direct ISD focus groups during the design process. They are fully competent in various ISD models and they have knowledge of emerging instructional theories and technologies. Representative functions include:

- Conduct concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Analyze, design, develop, revise and validate training courseware using the ISD process.
- Conduct training requirements analyses, task analyses, training need assessments, and target audience analyses.
- Conduct research and observation of job tasks to determine performance conditions, task sequencing and accepted quality standards.
- Develop learning objectives to include actions, conditions, and standards.
- Select media for various types of job tasks to be trained.
- Develop instructional media design documents.
- Develop storyboards and treatment plans.
- Develop instructional support documents such as lesson plans, student guides, instructor guides, and user's manuals.
- Oversee the development of criterion-referenced tests in accordance with instructional and customer guidelines.
- Develop plans for evaluation and validation instructional materials.
- Perform as third party validation for various development projects.

Principle Interactive Training Developer

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Principle Interactive Training Developer has extensive experience developing curricula and instructional materials using the Instructional System Development (ISD) process. Individuals at this level excellent good oral and written communication skills; an ability to work on ISD development teams; and knowledge of industry standard computer software office applications, desktop publishing applications, authoring languages, and graphics application software programs. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline with ten or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in such a field is encouraged.

RESPONSIBILITIES: Principle Interactive Training Developers develop, revise and validate training products using the ISD process. They develop instructional products from instructional designs prepared by other ISD team members. They work on teams to develop a full range of instructional products from paper-based to computer-based. They interpret storyboards for simulation-based (level three) training products including 3D graphics and animations. Representative functions include:

- Conduct concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Develop, revise and validate instructional products using the ISD process.
- Analyze storyboards and other instructional design documents and develop instructional products based on the design specifications.
- Develop templates for computer-based training products in order to streamline the production of the lessons and modules.
- Develop 2D and 3D graphics, animations and graphical user interfaces.
- Oversee video production and audio narration.
- Organize media elements (i.e., photographs, animations, video, audio and graphics) into databases for inclusion into computer-based training modules.
- Oversee formative and summative evaluation and formal validation of instructional products.
- Interact with instructional technologists to develop innovative training programs.

Principal Technical Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Principal Technical Specialist is experienced in developing and leading complex technical projects while maintaining working relationships with clients, management, project team members and administrative support staff. Individuals at this level have experience developing advanced concepts for internal research, leading proposal efforts, and managing projects. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline with 12 or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in such a field is encouraged.

RESPONSIBILITIES: Principal Technical Specialists participate in program development efforts, research and development presentations to clients and the professional community, and advanced research leading to publication and peer review in periodicals. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Accomplish advanced training, modeling and simulation, or performance improvement work within technical specialty discipline.
- Contribute significantly to internal research and program development activities.
- Consult with technical management in areas leading to the successful promotion and completion of training research and development projects.
- Supervise, advise, and mentor less experienced technical staff.
- Lead in planning, promoting, and managing projects of significant size and complexity, often with staff of varying technical backgrounds and for more than one client, assuming full responsibility for the successful completion within the financial, technical, and time objectives.
- Represent the Institute with clients or potential clients.
- Perform technical assessments on a broad perspective of related technologies.

Program Manager

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Program Manager has experience promoting and leading projects of significant scope and complexity involving multiple divisions, clients and multi-disciplinary teams. Outstanding organizational, management, communications, technical, and interpersonal skills are essential. A Bachelor's degree in engineering, science, education, or related discipline with 12 or more years of technical or management experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in a technical and/or management field is encouraged.

RESPONSIBILITIES: The Program Manager's primary responsibilities are in the division-wide or Institute-wide development and growth of a specific area(s) of technology. They coordinate large programs and develop project activities for clients when more than one section, department, or division is involved. Representative functions include:

- Provide ideas for project promotion in area of specialty based on interaction with clients or potential clients and
- Lead the promotion of projects in coordination with Institute and division management and senior technical staff.
- Manage large multi-disciplinary and multi-divisional projects.
- Promote development of multi-client training, modeling and simulation, or performance improvement programs.
- Assemble successful proposal and project teams using concepts of matrix management.
- Mentor junior project managers to help their growth and development.
- Develop thorough knowledge of the Institute and industrial and U.S. government contracting procedures, rules, and regulations.
- Develop successful proposals for large projects.
- Establish successful client relations.

Research Analyst

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Research Analyst has experience in research and development activities, including technical contributions to projects, analyses of research and development objectives for proposals and projects, and management of a project phase. A Bachelor's degree in Computer Science, Computer Information Systems, or a related discipline with two or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required.

RESPONSIBILITIES: Research Analysts typically function as junior-level software developers on projects. They are responsible for defining, designing, coding, testing and documenting software applications and configuring computer systems under the direction of more senior technical staff members on project teams. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Apply standard software engineering practices to the development of systems in support of training, simulation and modeling, and performance improvement applications.
- Design, develop, enhance, reengineer, or integrate software applications.
- Identify ideas for new projects, participates in their promotion, and contributes to improving project and promotional work processes.
- Establish working relationships with clients consistent with project requirements.
- Supervise or coordinate the work of technical and support staff assigned to specific projects.
- Serve as phase manager on major projects and as project manager on projects of limited scope and complexity, meets project/phase technical costs and schedule objectives, and organizes project teams.
- Develop proficiency in writing and verbal presentation skills and mastery of computer software common to technical field or specialization.

Research Assistant

Training, Simulation and Performance Improvement

QUALIFICATIONS: Individuals should have in-depth knowledge of scientific, technical, educational, and other principles, practices and procedures which are common to their field of specialty. They should remain aware of changes in technology and the application thereof; be able to assist in the development of new or advanced training systems; have the ability to supervise and train subordinate staff, communicate effectively verbally and writing with clients, peers, and management and supervisors. A high school education or equivalent with 10 or more years of combined continuing education and related experience in the training, modeling and simulation, and performance improvement domain areas is required.

RESPONSIBILITIES: Research Assistants create new techniques, procedures, and designs for particular applications or systems within their area of specialization. They work on limited segments, components, or parts of development projects and interact with senior staff and clients in discussion of current and future activities. Research Assistants also provide input to technical reports, proposals, and procedures. They control the fabrication and design work of subordinate staff within their field of specialization. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Assist senior technical staff in development of projects within field of specialization.
- Supervise and assist subordinate staff.
- Conduct technical sessions with clients and other Institute staff.
- Use computer software applications to perform technical tasks, generate reports, and transmit data via electronic media.
- Develop and prepare written instructions and instructional manuals for distribution via printed and electronic media.
- Provide information within specialty for reports and procedures.
- Prepare and develop computer-based training and performance support applications and products.

Research Engineer/Engineer

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Research Engineer/Engineer exercises judgment, diligence, and attention to detail and demonstrate an aptitude for carrying out responsible technical assignments.

Experience in research and development activities, including technical contributions to projects, analyses of research and development objectives for proposals and projects, and management of a project phase is required for the Research Engineer position and desirable for the Engineer. A Bachelor's degree in Aerospace Engineering, Electrical Engineering, Mechanical Engineering, Computer Engineering, or other engineering discipline with two or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional engineering registration is considered equivalent.

RESPONSIBILITIES: Research Engineers/Engineers typically function as junior-level hardware and software developers on projects. They are responsible for defining, designing, building/coding, testing and documenting hardware components and software applications and configuring computer systems under the direction of more senior technical staff members on project teams. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Apply standard engineering practices to the development of systems in support of training, simulation and modeling, and performance improvement applications.
- Design, develop, enhance, reengineer, or integrate hardware systems and software applications.
- Identify ideas for new projects, participates in their promotion, and contributes to improving project and promotional work processes.
- Establish working relationships with clients consistent with project requirements.
- Supervise or coordinate the work of technical and support staff assigned to specific projects.
- Serve as phase manager on major projects and as project manager on projects of limited scope and complexity, meets project/phase technical costs and schedule objectives, and organizes project teams.
- Develop proficiency in writing and verbal presentation skills and mastery of computer software common to technical field or specialization.
- Prepare written reports of work for presentation to clients.

Research Technologist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Research Technologist has knowledge of advanced systems, applications of new technology in the field of their specialization, project management, performance and reports, and application of computer systems for use in program work. Individuals at this level are able to supervise subordinate staff, conduct technical sessions, effectively communicate with clients concerning project activity, write and present materials effectively, act independently to solve problems, and promote projects to clients. An Associate's or Bachelor's degree in Electronics, Industrial Arts or other non-scientific/non-engineering discipline with five or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional experience can be considered commensurate with a formal degree.

RESPONSIBILITIES: Research Technologists contribute to proposals, manage projects or project phases, and supervise other staff members on project teams. They often assist senior technical staff in developing new processes and systems tailored to clients' needs and requirements. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Assist senior technical staff in development of projects within field of specialization.
- Supervise and assist subordinate staff.
- Conduct technical sessions with clients and other Institute staff.
- Use computer software applications to perform technical tasks, generate reports, and transmit data via electronic media.
- Develop and prepare written instructions and instructional manuals for distribution via printed and electronic media.
- Provide information within specialty for reports and procedures.
- Prepare and develop computer-based training and performance support applications and products.

Senior Engineering Technologist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Senior Engineering Technologist has knowledge of current technology in the field of their specialization and experience managing programs. Individuals at this level are able to supervise subordinate staff, conduct technical sessions, effectively communicate with clients concerning project activity, write and present materials effectively, act independently to solve problems, and promote projects to clients. An Associate's or Bachelor's degree in Electronics, Industrial Arts or other non-scientific/non-engineering discipline with 10 or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional experience can be considered commensurate with a formal degree.

RESPONSIBILITIES: Senior Engineering Technologists contribute to proposals, manage projects or project phases, and supervise other staff members on project teams. They often assist senior technical staff in developing new processes and systems tailored to clients' needs and requirements. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Assist senior technical staff in development of projects within field of specialization.
- Supervise and assist subordinate staff.
- Conduct technical sessions with clients and other Institute staff.
- Use computer software applications to perform technical tasks, generate reports, and transmit data via electronic media.
- Develop and prepare written instructions and instructional manuals for distribution via printed and electronic media.
- Provide information within specialty for reports and procedures.
- Prepare and develop computer-based training and performance support applications and products.

Senior Instructional Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Senior Instructional Specialist has experience designing instructional courseware using the Instructional System Development (ISD) process. Individuals at this level have good oral and written communication skills; an ability to work on ISD development teams; and familiarity with industry standard computer software office applications, desktop publishing applications, authoring languages, and graphics application software programs. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline with seven or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in such a field is encouraged.

RESPONSIBILITIES: Senior Instructional Specialists analyze, design, develop, revise and validate training products using the ISD process. They often manage team members in the ISD process and direct ISD focus groups during the design process. They are familiar with various ISD models and they are cognizant of emerging instructional theories and technologies. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Analyze, design, develop, revise and validate training courseware using the ISD process.
- Conduct training requirements analyses, task analyses, training need assessments, and target audience analyses.
- Conduct research and observation of job tasks to determine performance conditions, task sequencing and accepted quality standards.
- Develop learning objectives to include actions, conditions, and standards.
- Select media for various types of job tasks to be trained.
- Develop instructional media design documents.
- Develop storyboards and treatment plans.
- Develop instructional support documents such as lesson plans, student guides, instructor guides, and user's manuals.
- Oversee the development of criterion-referenced tests in accordance with instructional and customer guidelines.
- Develop plans for evaluation and validation instructional materials.
- Perform as third party validation for various development projects.

Senior Research Analyst

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Senior Research Analyst has experience managing projects, preparing proposals, and supporting business development activities. A Bachelor's degree in Computer Science, Computer Information Systems, or a related discipline with seven or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in one of these technical fields is encouraged.

RESPONSIBILITIES: Senior Research Analysts develop and lead projects, maintain working relationships with clients, assume responsibility for the technical effort and growth of others, and develop creative, innovative solutions to problems through the application of advanced theory, concepts and practices. They are often responsible for providing technical leadership in software development efforts on projects as well as defining, designing, coding, testing and documenting specific software applications. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Apply standard software engineering practices to the development of systems in support of training, simulation and modeling, and performance improvement applications.
- Plan, design, coordinate, and control the progress of project work to meet client objectives; prepare and present research reports to clients; supervise others as project manager, assuming full responsibility for technical, financial, and project completion goals.
- Assume responsibility for highly specialized technical objectives or problems where the relationships between cause and effect are difficult to establish and little or no precedence exists, and the use of creative imaginative thinking is required.
- Participate in technical evaluation of assigned personnel and, if appropriate, in the evaluation and identification of junior staff members' developmental needs; display working knowledge of related technical disciplines; and serve as mentor to junior technical staff.
- Lead proposal efforts and new promotional work.
- Maintain familiarity with progress and problems in technical areas in which working.
- Provide recommendations on ways to improve planning, program development, project, and promotional efforts, and ways to contribute to those activities.
- Follow up on research proposals and negotiate with clients in extending current project work or in developing new work arising out of the current project.

Senior Research Engineer

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Senior Research Engineer has experience managing projects, preparing proposals, and supporting business development activities. A Bachelor's degree in Aerospace Engineering, Electrical Engineering, Mechanical Engineering, Computer Engineering, or a related discipline with seven or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in one of these technical fields is encouraged

RESPONSIBILITIES: Senior Research Engineers develop and lead projects, maintain working relationships with clients, assume responsibility for the technical effort and growth of others, and develop creative, innovative solutions to problems through the application of advanced theory, concepts and practices. They are often responsible for providing technical leadership in hardware or software development efforts on projects as well as defining, designing, building/coding, testing and documenting specific hardware components or software applications. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Apply standard engineering practices to the development of systems in support of training, simulation and modeling, and performance improvement applications.
- Plan, design, coordinate, and control the progress of project work to meet client objectives; prepare and present research reports to clients; supervise others as project manager, assuming full responsibility for technical, financial, and project completion goals.
- Assume responsibility for highly specialized technical objectives or problems where the relationships between cause and effect are difficult to establish and little or no precedence exists, and the use of creative imaginative thinking is required.
- Participate in technical evaluation of assigned personnel and, if appropriate, in the evaluation and identification of junior staff members' developmental needs; display working knowledge of related technical disciplines; and serve as mentor to junior technical staff.
- Lead proposal efforts and new promotional work.
- Maintain familiarity with progress and problems in technical areas in which working.
- Provide recommendations on ways to improve planning, program development, project, and promotional efforts, and ways to contribute to those activities.
- Follow up on research proposals and negotiate with clients in extending current project work or in developing new work arising out of the current project.

Senior Research Technologist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Senior Research Technologist has knowledge of current technology in the field of their specialization and experience managing programs. Individuals at this level are able to supervise subordinate staff, conduct technical sessions, effectively communicate with clients concerning project activity, write and present materials effectively, act independently to solve problems, and promote projects to clients. An Associate's or Bachelor's degree in Electronics, Industrial Arts or other non-scientific/non-engineering discipline with 10 or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional experience can be considered commensurate with a formal degree.

RESPONSIBILITIES: Senior Research Technologists contribute to proposals, manage projects or project phases, and supervise other staff members on project teams. They often assist senior technical staff in developing new processes and systems tailored to clients' needs and requirements. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Assist senior technical staff in development of projects within field of specialization.
- Supervise and assist subordinate staff.
- Conduct technical sessions with clients and other Institute staff.
- Use computer software applications to perform technical tasks, generate reports, and transmit data via electronic media.
- Develop and prepare written instructions and instructional manuals for distribution via printed and electronic media.
- Provide information within specialty for reports and procedures.
- Prepare and develop computer-based training and performance support applications and products.

Senior Secretary

Training, Simulation and Performance Improvement

QUALIFICATIONS: Individuals at this level are senior clerical staff who have fully developed skills in their areas of specialization. They must be able to provide administrative software support in an effective manner. Very good communication and interpersonal skills are necessary. A high school education is required at a minimum; and an additional seven to nine years of combined continuing education and related experience are desirable.

RESPONSIBILITIES: Individuals are senior level clerical staff who have fully developed skills in their areas of specialization. They handle routine tasks with minimum supervision as well as independent special assignments. They have great awareness of training activities and make recommendations for personnel actions concerning subordinate clerical staff. Representative functions include:

- Exercises independent judgment concerning administrative matters on behalf of supervisor or, when required, within delegated authority.
- Analyzes data and arrives at a recommended course of action or acts on conclusions, if within delegated authority.
- Instructs subordinates in acquisition of skills, knowledge, or abilities relating to activity of the training section.
- Administratively supervises clerical staff in completion of assigned duties, completes performance level clerical staff who have fully developed skills in their areas of specialization. Compiles operating data as directed by supervisor.
- Interacts directly with upper levels of management and external clients.

Senior Technical Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Senior Technical Specialist has experience developing and leading complex technical projects while maintaining working relationships with clients, management, project team members and administrative support staff. Individuals at this level have experience developing advanced concepts for internal research, leading proposal efforts, and managing projects. A Bachelor's degree in Instructional Systems Technology, Education, Communications, Human Factors, Industrial Arts or other non-scientific/non-engineering discipline with seven or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree in such a field is encouraged.

RESPONSIBILITIES: Senior Technical Specialists develop and lead projects, maintain working relationships with clients, assume responsibility for project efforts and the technical growth of junior staff members, and develop creative and innovative solutions to problems. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Plan, design, coordinate, and control the progress of work to meet client objectives.
- Prepare and present research reports to clients as project manager, assuming full responsibility for technical, financial, and project completion goals.
- Participate in the evaluation of assigned personnel and, if appropriate, evaluation and identification of junior staff development requirements.
- Serve as a mentor to junior staff.
- Lead proposal efforts and new promotional work.
- Maintain familiarity with the progress and problems unique to field of specialization.
- Provide recommendations on ways to improve planning, program development, project and promotional efforts, and ways to contribute to these activities.
- Follow up on proposals and, when authorized, negotiate with clients in extending current project work and developing new work arising out of the current project.

Student Assistant/Student Engineer

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Student Engineer exercises judgment, diligence, and attention to detail, and demonstrates an aptitude for carrying out responsible technical assignments. Individuals at this level are in the process of completing a college degree in an engineering discipline.

RESPONSIBILITIES: Student Engineers are typically assigned system network administrator support tasks and/or other tasks related to the design and development of hardware components or software applications on projects. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Contribute ideas for improving project work processes, particularly in the software domain.
- Perform literature searches, and collect, analyze, interpret, and report results.
- Assist network administrators with system administrative tasks.
- Demonstrate proficiency in writing and verbal presentation skills and in the mastery of standard computer systems and software applications.

Technical Advisor

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Technical Advisor has established a reputation for technical excellence in the Institute at large and to some extent in the external community. Individuals at this level work independently and require little or no supervision. A Bachelor's degree in engineering, science, education, or related discipline with 12 or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. An advanced degree is encouraged.

RESPONSIBILITIES: Technical Advisors provide guidance to middle and top management in their areas of expertise and on research trends. They serve as mentors to junior staff and are often the senior individuals representing the Institute in a certain technical field. Their work is often consultative in nature and self initiated. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Provide guidance to management in areas of expertise and research trends.
- Provide technical assistance and guidance on complex engineering projects or issues.
- Mentor junior staff in respective technical areas of expertise.
- Lead technical teams in providing technical solutions to complex technical problems.
- Serve as project manager.

Technical Specialist

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Technical Specialist has knowledge of advanced systems and technologies in their field of specialization, experience working with or leading project teams, and is able to use standard computer systems and software applications in support of their project work. Individuals at this level are able to supervise subordinate staff, conduct technical sessions, effectively communicate with clients concerning project activity, write and present materials effectively, act independently to solve problems, and promote projects to clients. A Bachelor's degree in Instructional Systems Technology, Education, Human Factors, or other nontechnical discipline with two or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional experience can be commensurate with a formal degree.

RESPONSIBILITIES: Technical Specialists develop and lead projects, maintain working relationships with clients, assume responsibility for project efforts and the technical growth of junior staff members, and develop creative and innovative solutions to problems. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Conduct conventional investigations in field of specialization.
- Plan, design, coordinate, and control the progress of work to meet client objectives.
- Prepare and present research reports to clients.
- Serve as a mentor to junior staff.
- Maintain familiarity with the progress and problems unique to field of specialization.
- Provide recommendations on ways to improve planning, program development, project and promotional efforts, and ways to contribute to these activities.
- Develop and promote proposal efforts for new or follow-on projects.

Web Designer/Programmer

Training, Simulation and Performance Improvement

QUALIFICATIONS: A Web Designer/Programmer has experience designing, developing, and managing training, information technology, and performance support web-based applications. Individuals at this level have proficiency in verbal and written communication, logical process and programming fundamentals, and relevant technology for web sites, database, content publishing, and related internet technologies and protocols. They are experienced with the development of text and graphics content, client-side scripting, server-side program content and browser-based tools. They should also have experience with Learning Management Systems (LMS), the integration of web-based training applications into an LMS, the Sharable Courseware Object Reference Model (SCORM) and with Section 508 of the Federal Agency Disabilities Act. A Bachelor's degree in Computer Science, Computer Information Systems or related discipline with two or more years of experience in the training, modeling and simulation, and performance improvement domain areas is required. Relevant professional experience can be commensurate with a formal degree.

RESPONSIBILITIES: Web Designer/Programmers design and develop web pages including the integration of all foreground and background components. Their responsibilities include designing web pages that incorporate usability and cultural factors. Individuals at this level will be able to perform these responsibilities with limited assistance, and will remain cognizant of common standards as well as emerging trends and technologies. Representative functions include:

- Support concept development and requirements analysis; system design, engineering, and integration; and test and evaluation project activities.
- Develop HTML, JavaScript, Java, Java Servlets, Java Server Pages and troubleshoot programming.
- Integrate scripting codes.
- Lay out components of web page and design the interaction flow.
- Conduct beta testing for the site.
- Manage FTP sites.
- Load web site on server(s).
- Use graphics packages to develop 2D and 3D imagery.
- Use graphics packages for photo enhancement.
- Optimize graphics for the Web.
- Convert between image file formats.
- Create a consistent and appealing “look and feel” for the site.

Pricelist for Contract Number GS-02F-0096N

Hourly Labor Rates for Fixed Price or Time & Materials Orders

LABOR CATEGORY	FY 2008/9	FY 2010	FY 2011	FY 2012	FY 2013
Administrative Assistant	83.99	87.14	89.65	92.31	94.85
Administrative Coordinator	48.82	50.66	52.12	53.70	55.14
Analyst	107.35	111.46	114.82	118.12	121.54
Assistant Director-R&D	225.68	234.29	241.44	248.43	255.59
Assistant Manager-R&D	120.01	124.61	128.42	132.13	135.94
Assistant Specialist	64.17	66.63	68.66	70.64	72.70
Assistant Technical Specialist	78.18	81.16	83.63	86.06	88.52
Clerk Special	52.27	54.22	55.79	57.46	59.04
Director-R&D	256.07	265.85	273.92	281.90	289.96
Executive Assistant	79.29	82.32	84.84	87.29	89.80
Group Leader-R&D	139.83	145.21	149.61	153.97	158.39
Instructional Specialist	92.04	95.60	98.49	101.34	104.24
Interactive Training Developer	98.18	101.95	105.00	108.08	111.19
Manager-R&D	177.52	184.31	189.91	195.40	201.05
Principal Analyst	195.39	202.87	209.04	215.09	221.25
Principal Engineer	209.06	217.07	223.70	230.14	236.77
Principal Instructional Spec	99.52	103.33	106.48	109.56	112.69
Principal Interactive Trng Dvl	114.67	119.09	122.69	126.26	129.88
Principal Technical Specialist	171.53	178.09	183.51	188.85	194.27
Program Manager-R&D	203.12	210.89	217.32	223.62	230.04
Research Analyst	109.33	113.50	116.95	120.34	123.77
Research Assistant	68.30	70.93	73.08	75.22	77.38
Research Engineer	117.55	122.02	125.77	129.40	133.14
Research Technologist	81.23	84.34	86.91	89.43	92.00
Senior Engr. Technologist	125.73	130.54	134.52	138.41	142.37
Senior Instructional Spec	104.00	108.02	111.31	114.51	117.81
Senior Research Analyst	142.92	148.38	152.92	157.35	161.83
Senior Research Engineer	156.95	162.97	167.92	172.76	177.72
Senior Research Technologist	121.77	126.44	130.29	134.06	137.93
Senior Secretary	67.44	69.88	72.02	74.09	76.21
Senior Technical Specialist	102.86	106.83	110.08	113.23	116.49
Student Assistant/Engineer	69.88	72.57	74.78	76.93	79.15
Technical Advisor	68.66	71.26	73.43	75.54	77.72
Technical Specialist	91.80	95.34	98.26	101.09	103.97
Web Designer/Programmer	96.72	100.43	103.47	106.48	109.56