POSITION DESCRIPTION *(Please Read Instructions on the Back)*

1. Agency Position No.: NL 11506

2. Reason for Submission: [ ] Redescription [X] New [ ] Reestablishment [ ] Other
...ation *(Show any positions replaced)*

3. Service: [ ] Hdqtrs. [X] Field

4. Employing Office Location: Orlando, FL

5. Duty Station: Orlando, FL

6. OPM Certification No.:

7. Fair Labor Standards Act: [X] Exempt [ ] Nonexempt

8. Financial Statements Required: [ ] Executive Personnel Financial Disclosure [X] Employment and Financial Interests

9. Subject to IA Action: [X] Yes [ ] No

10. Position Status: [X] Competitive [ ] Excepted *(Specify in Remarks)* [ ] SES (Gen.) [ ] SES (CR)

11. Position is: [ ] Supervisory [ ] Managerial [X] Neither

12. Sensitivity: [ ] 1 - Non-Sensitive [ ] 3 - Critical Sensitive [X] 2 - Noncritical Sensitive [ ] 4 - Special Sensitive

13. Competitive Level Code: 13ZD

14. Agency Use:

15. Classified/Graded by	Official Title of Position	Pay Plan	Occupational Code	Grade	Initials	Date
a. U.S. Office of Personnel Management						
b. Department, Agency or Establishment	Interdisciplinary					
c. Second Level Review	Computer Engineer, Electronics Engr.		0854,0855		JA	10/04/99
d. First Level Review	Operations Research Anal, Computer Sci.	GS	1515, 1550	13		
e. Recommended by Supervisor or Initiating Office						

16. Organizational Title of Position *(if different from official title)*:

17. Name of Employee *(if vacant, specify)*:

18. Department, Agency, or Establishment: DEPARTMENT OF THE ARMY

a. First Subdivision: US ARMY MATERIEL COMMAND (AMC)

b. Second Subdivision: STRICOM

c. Third Subdivision: DIRECTORATE FOR RESEARCH AND ENGINEERING (E)

d. Fourth Subdivision: LIVE SIMULATION DIVISION (ENGINEERING) (EL)

e. Fifth Subdivision:

19. Employee review - This is an accurate description of the major duties and ...sponsibilities of my position.

Signature of Employee *(optional)*:

...upervisory Certification. *I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships, and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that this information is to be used for statutory purposes relating to appointment and payment of public funds, and that false or misleading statements may constitute violations of such statutes or their implementing regulations.*

a. Typed Name and Title of Immediate Supervisor: TRIER, EDWIN, CHIEF, DIRECTORATE FOR RESEARCH AND ENGINEERING

Signature: [signature] Date: 9/25/99

b. Typed Name and Title of Higher-Level Supervisor or Manager *(optional)*:

Signature: Date:

21. **Classification/Job Grading Certification.** *I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.*

Typed Name and Title of Official Taking Action: JAMES B. GODWIN, JR., COL, CHIEF OF STAFF

Signature: [signature] Date:

22. Position Classification Standards Used in Classifying/Grading Position:

Information for Employees. The standards, and information on their application, are available in the personnel office. The classification of the position may be reviewed and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.

23. Position Review	Initials	Date	Initials	Date	Initials	Date	Initials	Date	Initials	Date
a. Employee *(optional)*										
b. Supervisor										
c. Classifier										

24. Remarks
POSITION IS AT FULL PERFORMANCE LEVEL
BUS: 7777

25. Description of Major Duties and Responsibilities *(See Attached)*

Position is located in one of the divisions within the Directorate for Research and Engineering Management (E) of Simulation, Training and Instrumentation Command (STRICOM), a major subordinate command of the U.S. Army Materiel Command (AMC). The mission of STRICOM is to provide centralized management and direction for all research, development, acquisition and fielding of Army training devices, simulations and simulators; instrumentation, targets and threat simulation; and Distributed Interactive Simulation (DIS). The commander centrally directs, coordinates, and supports the materiel development, acquisition and sustainment activities through the matrix organization and four Project Managers. These divisions perform technology-based management, concept formulation, acquisition management and technical contract management of simulations, simulators, training systems and instrumentation projects assigned to STRICOM. The duties performed by incumbent will include system engineering, software engineering, computer analysis and operations research analysis required to support the acquisition and life cycle management of STRICOM systems which involves the design, integration, test and management of complex systems composed of hardware, computers, software, interfaces, simulation and instrumentation hardware.

MAJOR DUTIES

1. Provides technical evaluation of contractor's performance and is technical lead for the Government's acquisition team. Serves as lead technical representative at progress reviews, design reviews acceptance testing and technical interchange meetings with contractors. Serves as the contracting officer's representative (COR), provides technical guidance and clarification to contractor on work statement (WS), specification and contract data requirements list(CDRL) and takes corrective action when required. Consults with subject matter experts (SMEs) to obtain technical guidance relating to on-going projects. Addresses contractor's needs, questions and change proposals regarding technical, cost and schedule risks. Ensures projects are within established resource limits and remain on target with milestone schedules. Keeps management, product manager, project director, users and other team members informed of project status. Provides technical requirements, continuity from concept through design, test and fielding. 30%

2. As a member of a project team, prepares technical sections of acquisition packages (Request for Proposal - RFP) for assigned projects which includes technical performance and verification specifications, WS, CDRL, contract schedule and proposal evaluation plan. Supports the defense or justification of acquisition packages to the acquisition authority. Evaluates contractors' proposals for technical content, applicability to

RFP, best value and schedule impact. As a member of the evaluation team, prepares proposal evaluation reports; defends and justifies for acquisition authority. Clarifies and evaluates contractor final proposals and makes recommendation to acquisition authority for award of contract. Serves as technical lead on concept formulation effort by performing or managing the required engineering functions to explore and formulate materiel concepts for STRICOM's systems in accordance with the using organization's operations requirements document. Reviews, analyzes, and clarifies requirements and documentation through formal and informal meetings and discussions with SMEs. Conducts market surveys and analyzes make/buy decisions. Prepares trade off determinations (TOD), trade-off analysis (TOA), best technical approach (BTA), coordinated test plan (CTP), decision documents and associated resource and budget estimates. Coordinates through meetings and discussions with various user representatives the STRICOM position with rationale to attain a mutually agreeable best technical approach. Supports fielding and sustainment of STRICOM systems through Engineering change Proposals (ECPs), modification reviews and analysis by providing recommendations on these actions. Serves as technical lead on the acquisition of existing systems under the foreign military sales program. 45%

3. Serves as SME providing advice, consultation and technical documentation (synopses and point papers) to engineers, project directors and management on designated specialty areas as required. Specialty areas include: requirements engineering, artificial intelligence (expert systems, computer generated forces, intelligent tutoring systems and natural language applications), embedded training, command and control, distributed processing, communications (analog, digital and networks), lasers, electro-optics, visual simulation (displays, data base modeling and image renderings), security, targets, computer systems and languages/techniques (Ada, object oriented design), testing of components, subsystems and systems. Evaluates and executes Small Business Innovation Research (SBIR), Advance Concepts and Technology Phase 2 (ACT II), and Broad Agency Announcements (BAA) proposals related to virtual, constructive and live simulation, simulators, training systems, instrumentation and DIS requirements. Analyzes technical, cost and schedule risks. Supports the BAA, ACT II SBIR development as the subject matter expert. Supports the development of the long range technology program plan for STRICOM. Evaluates and executes technology base proposals related to virtual, constructive and live simulation, simulators, training systems, instrumentation and DIS requirements. Analyzes technical, cost and schedule risks. Monitors resources and develops efforts of awarded proposals. Reviews industry's Independent Research and Development (R&D) and makes recommendations on applicability to the STRICOM mission. 25%

Performs other duties as assigned.

FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION
- Knowledge of systems engineering, operations research analysis, computer software and hardware principles to support the acquisition and life cycle management of electronic, computer based military systems or simulation, simulators, training systems and instrumentation projects.

- Knowledge of software management techniques to include: software requirements analysis and design methodologies, software metrics, software reuse, software documentation, ADA, independent verification and validation (IV&V) criteria, and post deployment software support (PDSS) criteria to ensure adequate performance of assigned systems in accordance with user requirements.

- Knowledge of test engineering and management techniques including Test and Evaluation Master Plan (TEMP) development and coordination through the Test Integration Working Group (TIWG) process.

- Knowledge of Department of Defense (DOD) materiel acquisition process, specifically the application of DOD 5000 series of regulations and AMC materiel acquisition practices including materiel release to support the acquisition of electronic, computer based military equipment or simulations, simulators, training systems and instrumentation projects.

- Ability to analyze statistical and performance data to perform market surveys, risk analysis, trade-off studies, baseline cost estimates and reliability, availability, maintainability (RAM) analysis needed to support the materiel acquisition decision making process.

- Knowledge of the application of current engineering technology, as identified for SMEs, to advise on the conceptual design of electronic, computer based military equipment of simulation, simulators, training systems and instrumentation project.

FACTOR 2 - SUPVERISORY CONTROLS
Incumbent works under general supervision of assigned Division Chief who provides policy guidance and assignments in terms of broad, general objectives. Incumbent exercises responsibility for technical decisions, planning and administering assigned responsibilities and managing resources. Supervisor accepts authoritative determinations not in conflict with established policies and basic procedures. Work is reviewed in terms of overall

effectiveness, adherence to policy, consistency with related programs and attainment of objectives.

FACTOR 3 - GUIDELINES
Guidelines include DOD, Department of the Army (DA), AMC, and local regulations and policies. Guidelines also include technical manuals, bulletins, journals, manufacturers' catalogs, industry standards and textbooks. Guidelines are frequently inadequate, inapplicable, and/or controversial; therefore, judgement, initiative, originality, and skill must be utilized by the incumbent to apply changing and emerging technology and flexible acquisition procedures to various project assignments.

FACTOR 4 - COMPLEXITY
The projects assigned to the incumbent involve real-time interactive simulation and simulator systems and must bring together a number of unrelated state-of-the-art technologies and systems into a cohesive, affordable and practical solution. Incumbent provides input to projects containing a variety of features being performed by engineers and scientists, logisticians, analysts, contract specialists, private industry, contractors and user representatives. Incumbent must develop new approaches to solve a variety of technical problems.

FACTOR 5 - SCOPE AND EFFECT
The purpose of the work is to develop an effective simulated environment for training, instrumentation and analysis of combat readiness and the effect of new combat weapons systems. The work affects DOD's ability to train, deploy and fully utilize military personnel during combat operations.

FACTOR 6 - PERSONAL CONTACTS
Contacts are with high level management, private industry contractors and other professionals within and outside of the agency. Contacts also include representatives of domestic and foreign government.

FACTOR 7 - PURPOSE OF CONTACTS
The purpose of contacts is to coordinate work efforts, resolve questions and problems related to projects, to stay current on evolving technologies and to occasionally persuade others to adopt new technical approaches.

FACTOR 8 - PHYSICAL DEMANDS
The work is primarily sedentary. Frequent travel is required (approximately 50% of the time).

FACTOR 9 - WORK ENVIRONMENT
The work is primarily performed in an office setting.

NL11506

Position Description Addendum

Lead Simulation/Instrumentation Networking and Telecommunication Engineer

For

Simulation, Training and Instrumentation Command (STRICOM)

Duties/Responsibilities of this Position

The incumbent of this position will serve as a- lead engineer responsible for providing complete project technical oversight and direction for the Networking and Telecommunications components of virtual, constructive and live modeling and simulation systems. The responsibilities will span the complete simulation system life-cycle, including front-end-analysis; concept formulation and demonstration; system design, test, integration and fielding. Occasionally, the incumbent may be temporarily designated to serve the additional duty of STRICOM project director during periods of personnel vacancy in that project director role.

IPT Responsibilities/Mentoring

The incumbent will typically work within and often in charge of, an Integrated Product Team (IPT) and is responsible for providing leadership and direction to government and contractor engineering team members. As a lead engineer, the incumbent may:

- oversee and direct the day-to-day technical activities of one of more lower or same grade engineers
- oversee and direct other subject matter experts, support service team members, and customer representatives working on DoD weapons systems simulation/instrumentation
- also work independently to provide complex acquisition and technical problem solutions.

The incumbent will be the technical focal point for all issues relating to live instrumentation and simulation systems. The incumbent may be required to interact extensively with high level officials of the Army (both military and civilian), as well as with other senior technical officials within other government agencies and contractors. Additionally, the incumbent will be expected to mentor and guide the development of lower or same grade engineers who seek lead positions as a simulation/instrumentation networking and communications systems engineer.

Technical Expertise of this Position

The incumbent must possess expert knowledge of, and recent experience in, technology areas pertaining to simulation/instrumentation systems such as:

command and control tactical systems;
landline, wireless and satellite networks for communications (voice, imagery and data);
normal and degraded operational effects of voice/data transmitted within live environments;
military intelligence signal source and integration platforms (air, space and land) and their respective source data;
signal sensor design issues, algorithms and techniques.
simulation and stimulation interfaces

The incumbent must maintain proficiency in state-of-the-art simulation/instrumentation networking and communications techniques; monitor commercial product developments; industrial and in-house research and development projects; and research programs of other government agencies and their results as they pertain to simulation/ instrumentation systems.

Acquisition Expertise

The incumbent must additionally possess knowledge and experience in DoD acquisition processes and their implementations within STRICOM. The incumbent is responsible for keeping abreast of changes in these processes due to acquisition streamlining activities or the availability of indefinite quantity contract vehicles.

NON-CRITICAL ACQUISITION POSITION AMENDMENT TO PD# NL11506001

"The employee must meet DoD 5000.52-M requirements applicable to the duties of the position."