

## **INTRODUCTION**

This position is located in the Science and Technology (S&T) Directorate. The mission of the S&T Directorate is to develop and deliver effective and sustainable technologies and systems to anticipate, prevent, defeat and mitigate catastrophic terrorist attacks and to enhance conventional mission capabilities of other DHS operational areas. This mission is accomplished through research, development, testing and evaluation (RDT & E) programs and timely deployments of new technologies and systems.

## **MAJOR DUTIES**

The purpose of this position is to provide a program manager and senior operations analyst for chemical, biological, radiological and nuclear terrorism risk assessment projects. The incumbent provides technical guidance to the CBRN terrorism risk assessment program manager team to ensure consistency and continuity in the individual CBRN risk assessment programs. In addition, the incumbent works with partners from across DHS and the federal interagency to identify the decision-making processes surrounding strategic- and operational-level homeland security CBRN defense policy, planning, and resource allocation questions. Provides leadership and subject matter expertise to establish, execute, and refine risk and decision analysis, capability assessments and communicates all of the above to support homeland security decision-making. (40%)

Works within an Integrated Project Team (IPT) process to engage DHS Customers and users to understand their operational needs and define requirements for new technology solutions. Works with other CBD and S&T staff and other Federal agencies in coordinating research projects and areas, where appropriate, to ensure consistent understanding and definition of customer needs, facilitate integration of S&T deliverables in multiple customer processes, and avoid duplication or repetition of effort. Maintains regular interactions with customers and other S&T staff during technology development and implementation phases. (15%)

Prepares and maintains project execution plans and documentation, including technology development and implementation plans, Gantt charts, and budget expenditure plans, for each assigned project. Ensures plans are technically defensible, clearly define the desired operational improvements, and are consistent with operational needs, end user implementation strategies, and policy guidance. Seeks annual authorization via established processes of the Division and HSARPA for funds sufficient to execute the plan. (15%)

Prepares Broad Agency Announcements (BAAs), Requests for Proposals (RFPs), and other appropriate acquisition vehicles, that provide full and open competition for R&D efforts from a wide community of performers to address DHS customer capability gaps and other requirements. Serves as Chair of the Source Evaluation Board (SEB) for acquisition vehicles prepared by the Incumbent, and serves as a member for other SEBs in the Division when requested. Prepares a report of SEB findings for the Source Selection Authority and seeks approval for designating proposals selectable for funding. (10%)

Reviews activities of contractors for compliance with quality, testing and schedule requirements as defined by the contract vehicle. Reviews and accepts contractor work and deliverables on behalf of DHS S&T and ensures the efficient use of Government funds in all research efforts.

Recommends changes in funding for projects based on technical achievements and end user needs. Defines technical risks and prepares mitigation strategies for development and deployment activities. Incorporates sufficient test and evaluation events and resources into the project execution plan for final acceptance by the end user. Ensures a defined technology transition path for projects, including acquisition and sustainment strategy of the end user. Facilitates technology transitions to deployment in compliance with laws, policies, and regulations, and needs of customers. (10%)

Provides the Branch Chief with timely updates on the status of assigned projects, and provides status of project execution, including fiscal and milestone information, when requested. Prepares a yearly spending execution plan demonstrating the ability to commit and obligate project R&D funds in manner to meet DHS S&T fiscal execution targets. Requests yearly allocation of travel funds from Branch Chief and develops plans for the efficient use of these resources to ensure effective execution of assigned R&D projects. Prepares a list of personal professional objectives and seeks training to ensure the proper maintenance of subject matter expertise. (10%)

Perform other duties as assigned.

### **Factor 1-Knowledge Required by the Position, FL1-8, 1550 Points**

Mastery knowledge of principles, theories and advanced techniques of Operations Research to manage projects for design and development of models and simulations of effects of CBRN incidents of national significance, and of technologies and systems intended to warn, detect, or counter effects of such events, and to provide advice and preferred options to senior officials regarding deployments of Homeland Security technologies and systems.

Expert knowledge and skill in applying areas of operations research, economics, computer science, mathematics, or statistics; or specialized areas within the respective disciplines sufficient to: (1) complete assignments that involve initiating, applying, and planning major development studies; (2) execute and control projects that represent an important segment of the agency's operating programs and/or projects; (3) serve as a consultant and technical advisor to senior subject matter specialists and/or agency officials responsible for broad program operations; (4) receive recognition as an authority in a particular specialty; (5) provide significant and innovative recommendations for advancing programs and/or methods; (6) use findings of specialized studies, new analytical developments, and modified processes to resolve novel or obscure problems that affect broad program operations; (7) evaluate the data resulting from applying mathematical or statistical tools, models, methods, and techniques; and (8) act as the authoritative source of technical input to publication or other documents that are the basis for formulating public policy.

Expert skills in using mathematical/statistical tools, models and techniques to evaluate Homeland Security technologies and systems. Expert project management skills to plan coordinate and manage projects for development of complex models for application to complex and varied scenarios.

Expert knowledge of program management principles and processes to perform leading, planning, supervising, monitoring, and other program management activities. Certified Level I Federal Program Manager (at a minimum) and Contracting Officer Technical Representative (COTR) with basic knowledge of Federal Government budget planning cycles, Federal Acquisition Regulations, and Earned Value Management, in order to plan and manage R&D projects for cost, schedule, and performance. Knowledge of Federal Government budget planning and resource utilization requirements to develop funding requirements for complex evaluations and studies.

Ability to establish and maintain effective working relationships with officials of customer organizations and with other officials within and outside the Department to coordinate program planning and project management activities, and to acquire current knowledge of new and emerging terrorist threats that must be considered in evaluations.

Communications and presentation skills to present, explain, justify, and defend analytical findings and recommendations for Homeland Security technologies and systems. Ability to express ideas, plans, policies, and technical discussions orally and in writing, in a concise, convincing manner, using principles of Plain Language when appropriate, for both technical and non-technical audiences.

Expert knowledge of wide range of complex analytical, principles, and practices to lead and perform a broad range of specialized activities for planning, coordinating, and conduct project activities of marked difficulty and responsibility. Expert skill in analyzing data both quantitatively and qualitatively to lead and perform program planning and evaluation activities.

**Factor 2-Supervisory Controls, FL2-5, 650 Points**

The employee serves under the supervision of the Branch Chief. The employee exercises independent judgment in deciding courses of action and keeping the supervisor informed of significant events. The employee is responsible for (1) significant agency or equivalent level program or functions; (2) defining objectives; (3) interpretation of policies promulgated by senior authorities and determines their effect on program needs; (4) exercising independent professional discretion and judgment; and (5) independently plans, designs, and carries out the work to be accomplished. The supervisor reviews work for potential impact on broad agency policy objectives and program goals; accepts work as being technically authoritative; and without significant change.

**Factor 3-Guidelines, FL3-5, 650 Points**

The incumbent uses guidelines and precedents that are very broad agency policy statements, basic legislation, recent scientific findings, or reports that are often ambiguous and require extensive interpretation. The employee uses considerable judgment and ingenuity and exercises broad latitude to: (1) determine the intent of new or revised guidelines; (2) develop policy and guidelines for specific areas of work; and (3) interpret policy statements, regulations, and methods development plans.

**Factor 4-Complexity, FL4-5, 325 Points**

The work consists of various duties of marked complexity, significance, and importance performed in areas where precedents are inadequate, inappropriate, or nonexistent. The incumbent decides the most effective approach or methodology by: (1) identifying, developing, and integrating pertinent information through various data collection/analysis procedures and technologies; (2) anticipating major problems; and (3) recognizing future needs. The incumbent must (1) develop innovative approaches to complex situations or problems that are unique and amorphous; (2) develop mathematical or statistical relationships that are new or significant departures from the relationships established in previous problems, studies, or investigations, causing outcomes that are usually original in nature; (3) apply and adapt sophisticated analytical, economic, mathematical, or statistical techniques and occasionally principles of related disciplines such as engineering, or finance to resolve problems; (4) apply computer science techniques to utilize highly technical software programs and develop analytic models; (5) generate ideas for new programs, policies, or approaches; (6) visualize the impact of alternative strategies and methods; (7) assess the feasibility, effectiveness, and necessity of unusual approaches; and (8) identify the effects associated with implementing proposed standards, regulations, and policies.

**Factor 5-Scope and Effect, FL5-5, 325 Points**

Work involves (1) formulating and exploring new theories and phenomena; (2) providing expertise and advice and program planning and policy making functions covering a broad range of mathematical, statistical, or scientific programs; and/or (3) developing, testing, and advising

on theoretical concepts and new or improved technologies and methods. Work results affect the (1) work of other mathematical, statistical, economic, or science experts; (2) strategic planning of organizational resources; (3) development of agency policy; and (4) program mission, performance, and necessity.

**Factor 6 & Personal and Purpose of Contacts, FL3D, 280 Points**

Individuals or groups inside and outside the employing agency representing high levels of organizations internal and external to the Federal Government. Typical contacts are (1) management officials or senior technical staff of corporations; (2) medical and legal professionals; (3) contractors; (4) State and local officials; (5) Government, academia, and professional organizations; and (6) representatives of Congressional committees.

To justify, defend, negotiate, or settle matters involving significant or controversial topics. Work usually involves active participation in conferences, meetings, hearings, or presentations. Problems or issues are of such considerable consequence or importance that they are not susceptible to resolution at lower levels of Government. Persons contacted typically have diverse scientific approaches, viewpoints, goals or objectives. The employee must achieve a common understanding of the problem and a satisfactory solution by persuasion, compromise, or developing suitable alternatives.

**Factor 8-Physical Demands, FL8-1, 5 Points**

The work is primarily sedentary. Some work may require periods of walking, standing, bending, or driving a motor vehicle. Employees frequently carry research records and other similar materials. The work does not require any special physical effort.

**Factor 9-Work Environment, FL9-1, 5 Points**

The work is in an adequately lighted, heated, and ventilated environment. The work area involves everyday risks or discomforts that require normal safety precautions typical of such places as offices, laboratories, meeting and training rooms, libraries or commercial vehicles.

Total Points: 3790

Points Range: 3605 – 4050 = GS-15