

Nothing in this job description restricts management's right to assign or reassign duties and responsibilities to this job at any time.

DUTIES Serves as Facilities Operations and Maintenance Management Analyst in the Engineering and Maintenance Department at Washington Dulles International Airport (IAD). Designs, analyzes, evaluates, implements, and manages performance metrics in the Department to improve facilities operations and maintenance programs. This includes forecasting, monitoring, and analyzing the use of departmental resources. Provides data analysis results to support management, multiple maintenance shops, and shop planners. Performs related functions.

--Leads the development and monitoring of the Department's management dashboards and scorecards to align results to strategic goals of the organization. Analyzes manpower requirements and assists in developing justifications for recommended actions to correct deficiencies and support projects or other organizational initiatives.

--Develops, selects, and applies appropriate engineering, statistical, and mathematical techniques to measure the efficiency of facilities operations and maintenance programs to help ensure maximum utilization of human, financial, and material resources (within existing or new organizational structures) and effectiveness of work processes. Uses various techniques to review and evaluate maintenance business processes and continuous improvement suggestions by Trades Supervisors, Engineers, and Engineering Technicians. Provides analytical support to Engineers, Energy Manager, Budget Analysts, and Contracting Officer Technical Representatives by performing engineering economic analysis, contract evaluation, and cost-benefit and life cycle analyses for in-house projects and initiatives. Provides proactive and value-added analytics to support management decision-making with detailed insight into strategies, internal processes, and organizational structure. May be provided with ad hoc problems or requests and be required to select the appropriate techniques and data to solve problems or meet requests. Identifies data needed to properly measure facilities' efficiency. Creates databases for analysis by extracting variables and information from multiple sources (e.g., maintenance, materials, financial) and integrating them to produce analytical results. Uses the data analysis results to identify deficiencies in operational processes and recommends actions to close gaps and improve service delivery. Creates reports, charts, graphs, and results from multiple computing and database systems.

--Tracks, measures, and develops relationships between departmental data and other metrics such as cost/enplanement, cost centers, and other airport operating costs. Applies results to determine how to generate maintenance cost per square foot of runway or passenger, shop parts rates, streamline maintenance operations, or develop system maintenance schedules. Prepares charts and graphs to explain relationships between infrastructure asset maintenance and financial concepts for managers and supervisors.

--Acts as a Departmental subject matter expert for Oracle Enterprise Resource Planning (ERP), E-Business Suite (EBS), and business intelligence applications (Oracle Business Intelligence Enterprise Edition (OBIEE)). Uses EBS and OBIEE to gather data, run applications, and generate reports. Provides EBS and OBIEE support and advice to Departmental personnel.

--Provides support to the Systems Administrator by refining requirements, functional processes, standards, and business rules for the Enterprise Asset Management System (EAM) and Computerized Maintenance Management System (CMMS). Refines and maintains the CMMS data for the Engineering and Maintenance Department at IAD. Uses Crystal Reports to extract data from different databases and generate reports.

--Presents analytic results for the Department and each division within Department to individuals from shop personnel to senior management. Creates reports, charts, graphs, and results and communicates mathematical and/or statistical applications so that they are understood by others who do not have mathematical/statistical backgrounds. Introduces, trains, and impresses upon managers and supervisors the value of statistics, data, and reports to understand organizational requirements and improve productivity and responsiveness. Instructs and advises shop personnel and management of the benefits of analytics to identify shop efficiency and deficiencies.

--Researches technology to maintain awareness of and familiarity with various analytical and record-keeping tools, such as Airports Authority's CMMS, EBS, OBIEE, and EAM software, to ensure their effective and efficient use. Examines Internet-based sources of reference and comparative information to determine their use for applications for IAD Engineering and Maintenance Department operations and practices.

--Provides assistance to the Department's annual budget submission process by collecting requirements from operating sections and divisions, performing appropriate mathematical/statistical applications, interpreting results, and submitting them for inclusion in the IAD's five-year plan.

--Assists supervisor with data analysis and reports to support individual performance measurements and goals.

--Communicates and interacts effectively with internal and external business contacts, including, but not limited, to other members of the unit/team, other Airports Authority employees (such as managers, supervisors, professionals, and support staff), vendors, suppliers, tenants and, incidentally, airport users.

--Uses a computer and modern office suite software for various office applications (email, word processing, spreadsheets, etc.) and specialized software used in the Department (such as CMMS and Oracle EBS, OBIEE, and EAM) software to perform daily work.

--Operates a sedan or similar vehicle airside and landside, on and off the airport complex, to attend meetings, visit jobs sites and perform related functions.

--*Performs other duties as assigned.*

Critical features of this job are described under the headings below. They may be subject to change through reasonable accommodation or otherwise.

MINIMUM QUALIFICATIONS (MQs)

To be rated qualified for this job, an applicant must meet all of the MQs listed below at the time of vacancy announcement closure.

1. A Bachelor's Degree in Industrial Engineering, Management Engineering, Statistics, Business Statistics or any other field providing a strong foundation for successful performance of the DUTIES in this job description, or an equivalent combination of education, experience and training totaling four years.
2. Four years of progressively responsible experience in a facilities or maintenance analysis that includes substantive work in the range of DUTIES listed in this job description. These four years of experience must include the following: (a) reviewing and evaluating business processes, (b) using Oracle EBS and OBIEE to gather data, and (c) utilizing data management and analysis to create and/or monitor dashboards and provide information to management for planning and in support of budget or work projections.

Education and training beyond what is needed to satisfy MQ 1 above may be substituted for up to one of these four years of experience (MQ 2) on a week-to-week basis provided the education and training provide evidence of the knowledge, skills and abilities required by items 2(a) through 2 (c).

PREFERRED QUALIFICATIONS

The qualifications listed below (if any) are preferred and may be considered in the selection process, but are not required to be rated qualified for this job.

None

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER FACTORS (KSAOs)

The following KSAOs are required for successful performance of this job and are a basis for rating and ranking applicants who are found to meet the MQs. *Local, Federal, airport industry or Airports Authority-specific bodies of knowledge listed below may be acquired on the job, typically; ability to rapidly acquire them is required at the time of vacancy announcement closure.*

1. Knowledge of mathematical and statistical techniques to determine the appropriate technique(s) to use for analysis of specific issues, requests, or problems; conduct analyses to produce results; interpret results; and apply the results to the management of Departmental operations and maintenance functions.
2. Knowledge of data and data management procedures to determine appropriate data, interpret data, identify acceptable and unacceptable data points, and generate and maintain data files.
3. Knowledge of industrial engineering, with emphasis on facilities operations and maintenance, to analyze, design, evaluate, and improve "whole systems" of people (i.e., money, material, and departmental maintenance and repair operations).

4. Knowledge of Airports Authority policies, procedures, and operations related to Engineering and Maintenance to help understand the data being analyzed, interpret results, identify operations in need of analysis, accurately apply results to operations, and generate recommendations appropriate for Engineering and Maintenance Department operations.
5. Skill in using a computer and modern office suite software (such as MS Office) to plan, schedule, communicate and transmit information (using email), word process to prepare correspondence and reports, and perform research (Internet use, as in searching for information or up-to-date technology to maintain awareness of and familiarity with various analytical and record-keeping tools), and specialized software (such as Oracle EBS, OBIEE, and EAM software) to gather information, manage databases, and conduct advanced mathematical or statistical analyses.
6. Skill in problem solving to select, organize, and logically process relevant information (verbal, numerical, or abstract) to solve a problem. This includes the ability to recognize subtle aspects of problems and identify relevant information. Examples include selection of the appropriate techniques and data to solve problems, analysis of staffing requirements and development of justifications for recommended actions to correct deficiencies, support projects or other organizational initiatives, and creation of reports (including design of content parameters and compilation and treatment of data) for Department/division management, shop supervisors and planner/schedulers.
7. Skill in oral communication to understand verbal information (facts, assertions, and ideas), express such information verbally so others will understand and, at times, be convinced or persuaded. This includes ability to encourage oral communication by others, such as shop supervisors, planner/schedulers and journey level trade employees. Examples include gathering information from trades personnel and management and convincing shop personnel and management of the benefits of analytics to identify shop efficiencies and deficiencies.
8. Skill in written communication to understand written information (including instructions, descriptions, and ideas) and to express such information in writing so that others will understand. Examples include creating reports, charts, graphs and other documents that communicate mathematical and/or statistical applications so that they are understood.
9. Interpersonal skills to interact effectively with business contacts in a businesslike, customer service-oriented manner. This includes skill in developing and maintaining effective working relationships with Departmental personnel and business partners (such as tenants) on operations/maintenance matters of mutual concern to ensure effective planning and execution of work and customer service satisfaction.

RESPONSIBILITY Is responsible for providing analysis of IAD Engineering and Maintenance data; generating databases; interpreting mathematical or statistical results; generating reports, graphs, and charts; presenting the results; providing Oracle systems support to the Department and performing analysis to track Departmental operations and generate metrics related to those operations (e.g., shop rate, parts rate, maintenance programs and maintenance costs). The work

assists in the decision making processes and is intended to make the Department more responsive to the Airport's needs and more effective in meeting those needs.

Reports to the Manager, Work Control Center (Supervisor). Most work comes to the incumbent through established workflow consistent with assigned functions. Incumbent performs work independently on a day-to-day basis according to established engineering and maintenance procedures, keeping the Supervisor informed of the status of projects and unusual problems. Recurring work is assigned in terms of functional responsibilities and overall priorities. Special projects are assigned in terms of background, objectives, milestones/deadlines, anticipated problems, and other factors. Work is subject to review in process (through regular and special reports), from customer/shop comments, and upon completion, in terms of quality, quantity, timeliness, customer service, teamwork, adherence to requirements, and other factors, including attainment of specified performance management goals and objectives.

Guidelines include but are not limited to, Airports Authority Engineering and Maintenance policies and procedures, the IAD and the Airports Authority budgets and 5 year plans, industry and maintenance best practices, and Oracle EBS, OBIEE, and EAM documentation and software manuals. Some guidelines may be insufficient or otherwise need improvement. The incumbent uses sound judgment to select and apply guidelines and initiative to identify missing or sub-standard procedures, propose and implement technical/administrative improvements, and perform other functions.

EFFORT The work is primarily sedentary and typically requires light physical effort as in opening/closing file drawers, lifting and carrying files/building plans, etc. Incumbent may sit for extended periods while performing desk work; moves about to obtain or distribute work materials, meet with people, etc. Regularly uses a computer to develop reports, analyze cost proposals, and perform other tasks; operates other office equipment. Frequently exchanges information by telephone. Regularly reviews contracts and regulations containing small print. In driving, operates vehicle using judgment in consideration of weather, traffic and other factors.

WORKING CONDITIONS Works primarily in an adequately lighted, ventilated, and temperature controlled office setting. May be exposed to some adverse weather conditions and dust/grease/dirt, jet aircraft and motor noise, moving vehicles, and vibrations of equipment when visiting shops and work sites. Wears hard hat and other personal protective equipment as needed at a work site.

OTHER SIGNIFICANT JOB ASPECTS Is subject to hold over or recall on a 24-hour basis for essential services and emergencies such as snow removal.