# Tyonek logo-stackedTyonek SERVICES Group, Inc

### Job Description Form

| Division/Department | **Engineering** |
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| Location | **MAD** |
| Job Title | **Electrical Engineer III, Aircraft Integration** |
| Reports to |  | Title | **Engineering Manager or Director of Engineering** |
| Level/Grade(if applicable) | **N/A** | Type of position:[x]  Full-time**[ ]**   Part-time**[ ]**   Contractor**[ ]**  Intern / Temporary | Hours       / week**[x]** Salary**[x]**  Exempt**[ ]**  Hourly**[ ]**  Nonexempt |
| General Description |
| * Operate as a member of a diverse team of engineers on multiple concurrent projects to develop electrical designs for the integration of aircraft avionics and mission systems into rotary and fixed wing aircraft for US DoD, foreign military and commercial customers. This position is accountable for internal and external engineering requirements as stated herein. This position may be the technical lead for projects during the design and test phases.
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| Duties |
| * A wide degree of creativity and latitude is expected.
* Develop system requirements, architecture and interfaces between new avionic or mission systems and legacy aircraft systems.
* Develop aircraft systems and subsystem electrical designs to include creation of aircraft wiring diagrams, electrical installation drawings and harness fabrication drawings using Computer Aided Design (CAD) programs.
* Design control panels, circuit breaker panels, relay panels and interface panels.
* Perform and write engineering analysis and reports as required to obtain airworthiness certification to include Electrical Loads Analysis (ELA)
* Develop and present formal and informal design reviews.
* Develop installation instructions.
* Provide engineering support during the manufacturing phase.
* Provide engineering support during prototype, validation and verification of aircraft modifications.
* Review completed installations to ensure conformance to design.
* Develop avionics and electrical system and subsystem testing, write test plans, test procedures, and test reports.
* Perform aircraft avionics and electrical system and subsystem testing and write test reports.
* Provide avionics systems, aircraft electrical systems and electronic test equipment subject matter expertise and troubleshooting support to solve functional and system performance problems during post modification testing.
* Support component level qualification testing.
* Performs other duties as assigned.
* May report to an executive or a manager.
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| education/Experience requirements |
| * Bachelor's Degree in Electrical Engineering (or closely related field) with at least 8 years related experience is required. Experience may be substituted for education.
* Familiarity with modern avionics architectures, modern and legacy avionics systems, modern avionics data interface protocols, legacy avionics analog interfaces and system engineering processes.
* Knowledgeable of DoD aircraft electrical and avionics systems.
* Knowledgeable of DoD aircraft technical manuals.
* Knowledgeable of DoD and commercial aircraft electrical design requirements and design specifications to include SAE AS50881 Aerospace Vehicle Wiring Requirements.
* Knowledgeable in aircraft systems level electromagnetic compatibility (EMC) mitigation and testing techniques
* Knowledgeable of DoD and/or FAA airworthiness certification requirements.
* Previous military aircraft electrical and avionics systems experience is desired.
* Ability to operate in a fast-paced multi-tasking customer service-oriented environment with a high degree of efficient and effective performance.
* Must be able to obtain and maintain a Government Security Clearance.
* We maintain a drug-free workplace and perform post offer, pre-employment substance abuse testing.
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| Physical requirements |
| To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skills, and/or abilities required. Reasonable accommodations may be made to enable individuals with disabilities to perform essential job functions.* **Must be able to walk and stand on level and/or inclined surfaces for certain periods throughout the day**
* **Must be able to climb stairs, ramps, ladders, and work stands, working at heights with fall protection devices.**
* **Must be able to crouch, crawl, grasp or handle objects, use finger dexterity, bend elbow/knee and reach above/below shoulders.**
* **May be required to lift up to 25 pounds and carry for short distances.**
* **Must be able to distinguish color and judge three-dimensional depth.**
* **Normally works in an office setting with controlled temperature.**
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| EQUAL OPPORTUNITY EMPLOYER / VEVRAA /ADA |
| * TNC and its subsidiaries fall under ANCSA and are entitled under Federal Law to extend hiring preferences to its shareholders. ANCSA provides TNC the authority to give shareholder preference in hiring. TNC reaffirms its belief in equal employment opportunity for all employees and applicants for employment. Tyonek is an Equal Opportunity Employer and a VEVRAA Federal Contractor who affords equal employment opportunity to protected veterans and people with disabilities: Tyonek Native Corporation provides all employees and job applicants’ equal employment opportunities in hiring and promotion without discrimination because of age, sex, sexual orientation, genetic information, gender identity, marital status, race, religion, color, veteran status, physical or mental disability, national origin, or any other reason prohibited by law.
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| Reviewed by |  | Title |  |
| Approved by |  | Title |  |