

Gregory Dechaine

Test, Site, Equipment Engineer, Project Management/Coordination

Bordentown, NJ - Email me on Indeed: [indeed.com/r/Gregory-Dechaine/2d072cf194dca8fa](https://www.indeed.com/r/Gregory-Dechaine/2d072cf194dca8fa)

Energetic Mechanical Engineer with extensive experience in electrical, instrumentation, and automatic control engineering practices hopes to advance his career, by moving on to another exciting challenge and vary technical experience.

WORK EXPERIENCE

Test Engineer

Contract Engineering Services: Sikorsky Aircraft - Stratford, CT - January 2013 to July 2013

DUTIES & ACHIEVMENTS:

Develop and author procedures, reports, and test plans including but not limited to equipment commissioning (Preparation) procedures, installation and maintenance instructions, and detailed test procedures utilizing FAA, MIL-STD, ISO, SAE, and ASME specifications and standards.

Manage and coordinate installation of helicopter components for testing. (Helicopter Transmissions, Instrumentation/Data Acquisition Systems, Hydraulic Systems, Facility Upgrades for test, etc...).

Provide test engineering expertise in development of supplier test programs for various subcomponents used throughout aircraft.

Participate and support Preliminary Design Reviews (PDR) and Critical Design Reviews (PDR) for component development programs.

Manage qualification testing efforts on aircraft components including but not limited to development of manning schedules, oversight of engineering efforts (Electrical, Facilities, Instrumentation, Controls, etc...), daily operation of test facilities, failure oversight and resolution (FRACAS if applicable), daily reports to management and engineering, and development of test reports upon completion of testing.

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Maintain configuration management records and participate in FAA inspections used to ensure equipment configuration was in accordance with FAA requirements and guidelines for component successful qualification.

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Utilize Matrix One configuration management server for viewing bill of materials of aircraft component assemblies, track Engineering Change Requests (ECR), producing Engineering Work Requests (EWR), and viewing detailed drawings of components and component specifications.

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Utilized configuration management software for submitting Test, Acceptance, and Qualification documentation for review, approval, and release by various engineering subject matter experts.

Test, Site, Equipment Engineer; Advanced Arresting Gear (AAG) Program

General Atomics - Lakehurst, NJ - September 2007 to January 2011

Joint Military Base McGuire, Dix, Lakehurst, NJ 9/2007 to 1/2011

Title: Test, Site, Equipment Engineer; Advanced Arresting Gear (AAG) Program

DUTIES & ACHIEVMENTS:

- Develop and author procedures, reports, drawings, and test plans including but not limited to equipment commissioning (Preparation) procedures, installation and maintenance instructions/drawings, and detailed test procedures.
- Design, repair, checkout, and install fiber optic control cabling prior to connection to equipment. Included performing dB loss tests and rebuilding and manufacture of damaged fiber cabling.
- Coordinate design, installation, and setup effort to ready test facility for testing
- Duties included but were not limited to:
 - Test facility design, construction, and installation oversight.
 - High voltage, Control, and Instrumentation cable installations in accordance with Mil-Std specifications (routing, spacing, bend radius, EMI requirements, etc).
 - Fiber optic installations including cable routing, network design, setup of fiber to copper equipment interfaces, and implement installations, modifications, and or repairs in accordance with NAVAIR/NAVSEA specification MIL-STD-2042-B. (Certified in MIL-2042B installation, manufacture, and repair processes for fiber optic cabling. (Trained by Fiber Systems International).
 - Installation and setup of arresting gear and test equipment, including but not limited to design and setup of Data Acquisition Systems and Control Consoles (Interconnect design, setup and configuration of test software, and development and design of automatic control consoles for remote operation and health monitoring of equipment, etc)
- Utilize Pro Engineer and AutoCAD 2-D/3-D software for reviewing and updating key drawings for test facility and equipment setups including positioning of equipment to meet Military Standards, OSHA Safety Standards, and Commercial Installation Standards.
- Ensure and verify design compatibility of Mil-Std built arresting gear components with commercial equipment built to ISO/ASME/SAE and other commercial specification standards.
- Review Finite Element Analysis findings of equipment support structures to ensure had a proper level of safety factor designed into the equipment for operations.
- Participate in day to day operation of test events and coordinate test plans to be executed including collection of data for review and analysis from Data Acquisition Systems, operation of automated test consoles which operated components, and perform and develop maintenance procedures and processes.
- Participated in failure analysis reviews (FRACAS) and coordinated plans to repair and re-commission equipment for operation.
- Analyze test data and presented findings to component engineers.
- Developed test specific analysis tools to review data following completion of test events using MATLAB.
- Developed instrumentation specifications and data processing requirements for collection of test specific instrumentation not incorporated in the shipboard arresting gear equipment Data Acquisition System.

Test Lead/Director

General Atomics - San Diego, CA - April 2009 to November 2009

Advanced Arresting Gear (AAG) Extended Reliability Test (ERT) Program

DUTIES & ACHIEVMENTS:

- Managed day to day operations of AAG Reliability Testing.
- Develop, design, and install various copper and fiber optic control cables/wires to ensure sustained/continuous automated operation of equipment could continue without being disrupted by EMI and other electrical/mechanical interference.
- Develop and author procedures, reports, instructions and test plans, including but not limited to equipment commissioning (preparation) procedures/plans, installation and maintenance instructions, assembly/disassembly procedures, and repair plans.
- Develop automatic control test profiles for operation of arresting gear electric motor thru the power electronics system.

- > Managed, coordinated, and planned troubleshooting efforts for repair of equipment during failure events including coordination with component engineers, participating in failure analysis meetings, development and implementation of repair procedures and re-certification procedures of equipment (FRACAS).
- > Participated in design of mechanical test fixtures, instrumentation, and control systems for conducting automatic and repeatable test events for Reliability Testing (10,000 cycle goal).
- > Performed, planned, and coordinated Reliability and Performance Testing, as well as verification of key system requirements derived from System Specification Documents (MIL-STD's).
- > Developed procedures for verification of system specifications (vibration, stress limits, gear train operation, etc).
- > Analyze Reliability and Performance test data to ensure real time test data corresponded with model predictions.
- > Design specialty tools, parts, and mechanical systems required for installation and operation of the AAG equipment.

General Atomics - Lakehurst, NJ - November 2008 to April 2009

Lakehurst, NJ 11/2008 thru 4/2009

Title: Highly Accelerated Life Testing (HALT) Lead Site Engineer; Electromagnetic Aircraft Launch System (EMALS) Program

DUTIES & ACHIEVEMENTS:

- > Participated in the detailed design, planning and installation efforts for environmental testing of the Electro Magnetic Launch System (EMALS).
- > Visited manufacturers of environmental chambers and refrigeration systems to coordinate design / installation plans for HALT Test Site systems.
- > Review and provide recommended updates to test site and equipment installation plans
- > Coordinated day to day operations at test site with up to 60 different contractors and test personnel working at any given time.
- > Provide detailed design requirements, preliminary drawings, and equipment designs for development and installation of environmental and catapult equipment.

Research Intern

National Center for Weights and Measurements - June 2006 to August 2006

DUTIES:

- > Perform research and design on state of the art Friction Stir Welding techniques to be used by the company for future projects.
- > Designed several FSW bits to be used for both testing the performance of the bit and material properties post welding.
- > Developed test procedures, plans, and data acquisition process for collecting temperature data during the welding procedure.
- > Performed multiple test welds on aluminum material using the Welding Tips that were designed during the R&D phase of the project.
- > Analyzed test data and developed Final Report based on findings to present to the company.

Research Assistant

WVU Center for Alternative Fuels and Emissions Research - Morgantown, WV - June 2005 to August 2005

DUTIES

- > Research center consisted of two Dynameters used for the testing of various diesel, and prototype engine configurations.

- Research was performed to study the effects that various alternative fuels would have on the environment as well as engine performance.
- Perform all test setup activities including installation of Cummins Diesel Engines into Dynameters as well as any additional test apparatuses required for testing.
- Assisted with deconstruction of various diesel engines to install data collection instrumentation.

Manufacturing/ Test Technician

Manley Corp - Lakewood, NJ - June 2003 to August 2003

DUTIES

- Manufacture and machine connecting rods used in Ford Cobra Mustang, and Ford GT-40 automobiles.
- Performed machining processes such as PM Bore and Honing of both Connecting Rod styles bushings for the Mustang and GT-40.
- Perform Quality Assurance of products including but not limited to Rockwell Hardness Testing, dimensional verification of rod design, MagnaFlux Testing for cracks, fractures, and other flaws, and final inspection using optical testing method to ensure customer quality specifications were achieved.
- Participated in all aspects of manufacture and QA of product.

Veterinary Scale /Lift Table Production Technician

Technidyne Corp - Toms River, NJ - February 2001 to July 2002

DUTIES:

- Performed all aspects of production on digital veterinary scales including but not limited to sales, fabrication, calibration testing, packaging, and shipping.
- Troubleshoot and repair damaged scales.
- Fabricate and assemble Hydraulic Lift Exam Tables (standard and wall-mount) including calibration testing of scale sensors, shipping, delivery, and installation for customer.
- Perform R&D of Gas Shock Lift Surgical Transport Gurney.
- Develop manufacturing techniques and QA Inspections for Surgical Lift Transport Gurneys.

Additional Training/Skills:

- Skilled in Microsoft Products, MAT-Lab, ANSYS, Pro Engineer, AutoCAD, and 40 Hours Labview training
- Participated in various project management, project development, and teambuilding courses designed to enhance management capabilities of engineering projects.
- Trained/Certified in CPR/First Aid, Crane Hoisting, Lockout/Tagout, Low and High Voltage and Safety Procedures
- Certified in Fiber-optic assembly, installation, and repair of Mil-Std cable assemblies in accordance with Mil-Std-2042B.
- Experience in multiple MIL-STDS and Commercial Standards (MIL-810, MIL-462, ISO 2001, ASME Standards, etc)

EDUCATION

Bachelor of Science in Mechanical Engineering

West Virginia University - Morgantown, WV

May 2007

SKILLS

MS Products, Project Management/Coordination, Certified MIL-2042-B Fiber Optic Install/Repair/Assembly, MatLab, AutoCAD, ProE, SAP, Labview, Automatic Controls