

# Walter “Mills” Bishop

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## Skill Set

I am a Mechanical Engineer with gas turbine engine, ground testing experience in the Aeropropulsion System Test Facility at Arnold Engineering Development Complex. As the Lead Test Conductor, I am required to multitask in a fast-paced environment by directing facility operations and test article movement to meet test objectives and ensure quality data acquisition. Additional responsibilities include project planning and coordination between the Air Force, test customer, and other departments in a team environment to perform installation and removal activities of the test article. I also improve, maintain, and perform risk assessments of the facility support systems which requires a close working relationship between other engineers and a union workforce. I currently hold a Department of Defense security clearance at the Secret level.

## Education

University of Tennessee: Knoxville, TN

May 2013

Bachelor of Science: Mechanical Engineering

Minor: Maintenance and Reliability

GPA: 3.74

Auburn University: Auburn, Alabama

Unfinished

University of Tennessee Space Institute: Tullahoma, TN

Masters of Science: Mechanical Engineering

## Engineering Experience

**Lead Test Operations Engineer, National Aerospace Solutions, LLC**

July 2017- Present

Arnold Engineering Development Complex, Arnold AFB, Tennessee

### ***Duties and Responsibilities:***

- Lead Test Operations and Systems Engineer in C1 test cell
- Responsible for safety of personnel and national assets during test operations
- Responsible for the successful planning, design, fabrication, installation, and operation of military propulsion systems in C1 test cell
- Ensure all test cell and test article support systems are delivered on schedule and within costs, meet design performance and operability requirements, and maintain operational systems effectiveness
- Analyze existing test facility capabilities to ensure test requirements can be met
- Plan, design, and support fabrication and installation of new systems to expand test facility capabilities when existing capabilities fall short of test requirements
- Produce project estimates and schedules
- Work with test team to develop test plan to optimize available test time while still achieving prioritized test objectives
- Assist in analysis of test article, test facility and test support subsystem data to evaluate results
- Provide early concept refinement, technology development, systems development and demonstration, production, deployment, and operational support for test support subsystems
- Analyze and repair faulty systems causing test operation downtime at \$50K/hour
- Evaluate and procure new technologies to enhance test facility capabilities and reliability
- Create work instructions and work orders to provide technical direction to facility craftsmen
- Provide technical direction for maintenance, facility asset coordination, configuration management, and systems engineering
- Develop system safety hazard analyses to mitigate risk against personnel, equipment and environment
- Support test cell investment projects as technical expert
- Responsible for ensuring projects are executed on schedule and within budget constraints

- Serve as a review board member for various project design reviews on other assets at AEDC
- Lead and mentor junior test operations engineers and other senior engineers in all test cell activities
- Plan, coordinate, and supervise test article installation activities across all divisions of labor
- Support test operations in other turbine test cells at AEDC
- Supported domestic test programs: F119, F135, F101, GE Passport 20, PW1500NG
- Supported international test programs: Trent 1000 (UK), BR700NG (Germany), and RB 3043 (Germany)
- Supported icing certification tests for Trent 1000 and BR700NG

**Test Operations Engineer, National Aerospace Solutions, LLC** **July 2016 - July 2017**  
 Arnold Engineering Development Complex, Arnold AFB, Tennessee

**Duties and Responsibilities:**

- Test operations and systems engineer in the gas turbine engine test cells
- Responsible for design, fabrication, installation, test execution, and removal of test articles for gas turbine engine ground test and evaluation
- Primary Test Conductor for afterburning turbofan and non-afterburning turbofan gas turbine engines
- Execute facility maintenance activities across all divisions of labor
- Perform system safety analysis for hazardous test operation and maintenance activities

**Turbine Test Operations Engineer, Aerospace Testing Alliance** **June 2013 - July 2016**  
 Arnold Engineering Development Complex, Arnold AFB, Tennessee

**Duties and Responsibilities: \***

\* See above for job description. Government contract change.

**Internships:**

**Plant Maintenance Engineer, Aerospace Testing Alliance** **May 2012 – August 2012**  
 Arnold Engineering Development Complex, Arnold AFB, Tennessee

- Evaluated and revised Work Instructions to perform tasks on new equipment in gas turbine engine test cells
- Research justification for installation of water purification system
- Analyzed the effects of various gaseous mixtures on compressor performance

**Fixed Equipment Engineer, ExxonMobil Chemical Co.** **May 2011 – August 2011**  
 Beaumont Chemical Plant, Beaumont, TX

- Mitigated seven process safety concerns
- Designed and coordinated experiments to help improve the reliability of materials currently used in service
- Determined business justification for metallurgy upgrades to heat exchangers currently in service

**Fixed Equipment Engineer, ExxonMobil Chemical Co.** **August 2010 – October 2010**  
 Beaumont Refinery, Beaumont, TX

- Mitigated two safety concerns
- Designed, specified materials, and collaborated on the implementation of two piping projects
- Oversaw and implemented an inspection and equipment strategy for critical components located on the loading docks at the Wharf

**Certifications**

**Engineer-In-Training (EIT)** **October 2012**  
 Tennessee Board of Architectural and Engineer Examiners  
 License: 30634