David Winner

Engineer/Scientist - Boeing

Philadelphia, PA - Email me on Indeed: indeed.com/r/David-Winner/03e35424885f6f3e

Over sixteen years of experience as a Systems Engineer dedicated to delivering systems safety engineering for various aerospace and defense programs. Wide knowledge of safety requirements and procedures for hazard and failure modes analyses. Independently driven with a confirmed commitment to work effectively in a team environment using excellent analytical, organizational, and technical skills.

WORK EXPERIENCE

Engineer/Scientist

Boeing - Ridley Park, PA - March 2010 to Present

• Identify and interpret essential safety design criteria for all hardware and software systems and subsystem requirements applicable to the Chinook Helicopter programs, both foreign and US Army. Delivered all safety products on time, on schedule and under budget.

• Products developed include, Preliminary System Safety Assessments (PSSAs) Functional Hazard Analysis (FHA), Subsystem Hazard Analysis (SHA), Safety Assessment Reports (SAR), System Safety Risk Assessments (SSRAs), System Safety Program Plans (SSPP), and Operational and Support Hazard Analysis (O&SHA). Challenges included delivery to multiple US and foreign customers, problem solved by upgrading safety process with safety and R&M team to produce deliverables meeting all customer requirements.

• To meet customer needs presently identify and evaluate electrical, mechanical, and software hazards, using MIL-STD 882E, DO-178B, SAE ARP 4761 and 4754A which also develop Systems Safety Engineering (SSE) requirements, for hardware and software to favored customer configuration.

• Participate in Integrated Product Teams (IPTs) meetings, design reviews, change board meetings as required to coordinate the proper hazard classification to be maintained in the hazard tracking database.

• Contribute in Technical Interchange Meetings (TIM), Program Management Meetings (PMM), and Production Readiness Reviews (PRR) to evaluate the safety impact of alternatives, provide safety requirements and data.

• Develop reliability and maintainability product such as Failure Modes Effects and Criticality Analysis (FMEA), to determine the risks for system/subsystems and identify necessary hardware and software design controls.

• Provide safety requirements for inclusion in subcontractors/supplier’s Statement of Work (SOW) source control documents, supplier data sheets, and specifications. Develop safety documentation for test, preflight, flight and maintenance activities, including the review and approval of test/demonstration plans, procedures, drawings, and specifications for compliance with identified safety requirements.

• Support test/demonstration operations and participate in readiness reviews. Monitor flight test and support the flight test program. Participate in accident investigation and risk assessments. Review logistic support analysis, operating and maintenance manuals documentation for appropriate severity classification and/or inclusion of appropriate warnings, cautions, and/or notes.

Engineer/Scientist

Boeing - Huntsville, AL - June 2009 to March 2010

Huntsville AL, June 2009 - March 2010
Prepared hazard reports, documented verification and validation strategies of hardware and software for the Upper Stage of the ARES rocket for the Constellation space exploration program in compliance with NASA and MIL-STD requirements.
Performed safety analysis as required by supporting engineering Integrated Design Teams (IDTs) and suppliers to maximize reliability, maintainability, human systems integration, and product assurance.

Engineer/Scientist
Boeing - Huntsville, AL - May 2008 to June 2009

Prepared and maintained hazard reports in accordance with MIL-STD 882, including preliminary hazard analysis, subsystem hazard analysis.
Coordinated document updates and GMD program changes for safety impacts and made recommended changes with Integrated Product Teams (IPTs) and customers.
Prepared ground operational safety and facility safety data packages for the GMD program for Range safety.

Engineer/Scientist
Boeing - Houston, TX - March 2004 to May 2008

Assessed risk during actual flight operations of all vehicle system, subsystem anomalies and evaluated changes to operations or conditions for potential increased risk in support of Shuttle Mission Operations Directorate (MOD).
Researched, understood, evaluated and interpreted flight rules, operational procedures, flight plans and system drawings in support of anomaly resolution. Used crew resource management, situational awareness and best practices in console support to Shuttle operations team.
Tracked anomalies to closure, initiated studies and analysis to support testing of operational procedures and solutions. Presented anomaly resolutions to vehicle engineering management.
Provided systems safety-engineering support to multiple Integrated Product Teams (IPTs) for the NASA Orbiter program. Responsibilities included hardware and software hazard analysis such as risk assessments, Failure Modes and Effects Analysis (FMEA), and fault tree development.
Prepared Orbiter hazard reports and FMEA/Critical Item Lists (CILs) as part of Columbia back to flight efforts.
Evaluated Orbiter Program Office program changes including change requests to Flight Rules, Flight Data Files and Operational Maintenance Procedures and Launch Commit Criteria requirements for safety impact.
Prepared and presented findings and informational briefs to NASA/Boeing panels and boards

Systems Safety and Mission Assurance Engineer
International Space Station Program, United Space Alliance - Houston, TX - November 2001 to January 2004

Safety Operations and Integration lead for NASA launch packages for the International Space Station (ISS) Safety and Mission Assurance/Program Risk Office.
Executed safety and quality assurance requirement flow downs and procedures to International Space Station personnel.
Activities included risk identification, safety management and quality assurance on a daily basis for presentation to Launch Package Teams.
Supported various Space Station groups through technical advice, data interpretation, and process improvement for safety, quality and reliability functions.
Managed the NASA Quality Acceptance Data Package requirements document for the Defense and Contract Management Agency (DCMA) report.

Safety Engineer

International Space Station Program, United Space Alliance - Houston, TX - April 1998 to September 2000

Vehicle and Mission Integration/Operations Offices Safety Review Panel (SRP) representative.
Performed system safety reviews of International Space Station (ISS) Safety Data Packages (SDPs) to verify that all ISS and vehicle system interface hazards are identified and properly controlled and verified.
Coordinated closure of identified issues with technical community, the customer and provided engineering support and consultation.

Safety Engineer

NASA/MIR Program, Lockheed Martin - Houston, TX - July 1996 to April 1998

Biomedical Hardware safety engineer, developed safety compliance documents for experiments in vacuum and thermal chamber test readiness reviews.
NASA/MIR Lead Payload Safety Integration Engineer conducted flight acceptance tests, hardware audits and technological assessments of the safety and reliability of payload hardware from system concept to all launch phases.
Supported all test readiness and design reviews, inspected and audited flight hardware

EDUCATION

Master of Science in Aviation and Aeronautical Science

Embry-Riddle Aeronautical University, Worldwide Campus - Daytona Beach, FL
June 2009

Associate in Applied Science in Industrial Safety

San Jacinto College - Pasadena, TX
May 1998

Master of Science in Environmental Management

University of Houston-Clear Lake - Houston, TX
December 1996

B.A.

East Texas A&M. Commerce - Commerce, TX
1985

ADDITIONAL INFORMATION

US Army […]

Active Secret Security Clearance […]