

Robert Harrison

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PROFESSIONAL SUMMARY

Senior Air Traffic Safety Technician with over 12 years of experience maintaining CNS/ATM systems in high-traffic international airports. Expertise in Raytheon surveillance radars and Thales navigation aids, with a proven history of maintaining 99.98 percent system uptime. Committed to ICAO Annex 10 standards and experienced in leading rapid-response technical teams during critical system failures.

WORK EXPERIENCE

Lead Air Traffic Safety Electronics Specialist | American Airlines / DFW Facilities | Fort Worth, TX

May 2018 - Present

- Spearheaded the maintenance of 24/7 surveillance radar systems, achieving a 99.99% operational availability rate over a 3-year period.
- Managed a technical team of 12 during the installation of a \$4.5 million NextGen ADS-B ground station network.
- Standardized preventative maintenance schedules that reduced unexpected hardware failures by 22% annually.
- Directed all technical documentation and compliance reporting for four consecutive FAA Part 139 inspections with zero discrepancies.
- Optimized signal processing for the airport's Secondary Surveillance Radar (SSR), reducing false target detection by 18%.

Systems Maintenance Technician | Lockheed Martin / Aviation Systems | Denver, CO

Aug 2013 - Apr 2018

- Performed complex troubleshooting on Runway Visual Range (RVR) systems and Automated Weather Observing Systems (AWOS).
- Cut system downtime by 30% by developing a proprietary diagnostic script for automated data link monitoring.
- Supervised the successful calibration of Cat III Instrument Landing Systems (ILS) during high-pressure winter operations.
- Collaborated with software engineers to patch vulnerabilities in the Voice Communication Control System (VCCS), enhancing network security.
- Trained 15 junior technicians on RF safety protocols and fiber optic maintenance procedures.

Radar Field Service Engineer | Raytheon Technologies | Tucson, AZ

Jun 2009 - Jul 2013

- Conducted on-site installation and testing of ASR-11 Digital Airport Surveillance Radars at three international airports.
- Resolved critical hardware faults in remote radar sites within an average of 4 hours, exceeding the 6-hour SLA.
- Authored a 50-page technical manual for the maintenance of legacy microwave link equipment still in use at regional sites.
- Provided 24/7 technical support for radar signal processors, maintaining a client satisfaction rating of 98%.

EDUCATION

Purdue University | Master of Science | Aviation Technology and Systems

Sep 2007 - May 2009

Georgia Institute of Technology | Bachelor of Science | Electrical Engineering

Aug 2003 - May 2007

SKILLS

Primary & Secondary Radar (PSR/SSR), Instrument Landing Systems (ILS), VHF Omnidirectional Range (VOR), Global Navigation Satellite Systems (GNSS), Distance Measuring Equipment (DME), Spectrum Analyzers, Oscilloscopes, Fiber Optic Splicing, Network Protocol Analysis, RF Calibration, ICAO Annex 10 Standards, FAA Regulation Compliance, ATSEP Certification, Safety Management Systems (SMS), Risk Assessment

CERTIFICATIONS

General Radiotelephone Operator License (GROL) | Federal Communications Commission (Nov 2010)
ATSEP Certification | FAA Training Academy (Mar 2014)

LANGUAGES

English (Native)
Spanish (Professional Working Proficiency)

ACTIVITIES

Member of ATCA (Air Traffic Control Association)

Attending annual conferences to stay current on NextGen modernization trends.

Volunteer STEM Mentor

Teaching basic electronics and RF principles to local high school students interested in aviation careers.