

# DENNIS BASELEY

ASSOCIATE, DAYTON AEROSPACE, INC.

## PROFILE

Over 40 years of systems engineering and technical experience within the US Air Force (USAF). Recognized subject matter expert (SME) for electromagnetic environmental effects (EMI/EMC, electromagnetic interference, electromagnetic compatibility, and lightning protection) and electrical power. Extensive systems engineering expertise as technical lead for cooperative, multi-national, C-130J block upgrade programs. Developed airworthiness certification criteria and obtained airworthiness certification in accordance with MIL-HDBK-516 for a major USAF program. Former chief engineer for reconnaissance systems development for foreign military sale (FMS) programs and special sensor developments. GS-14, Department of the Air Force (DAF) (Retired).

## PRINCIPAL AREAS OF EXPERTISE

### Technical Program Management

As technical lead for cooperative, multi-nation, C-130J block upgrade programs, developed and coordinated technical requirements with six other nations and ensured that all nations' technical requirements were considered and implemented. Conducted design reviews and technical meetings to successfully execute the program.

### Military Airworthiness Certification

Developed the basic C-130J aircraft Tailored Airworthiness Certification Criteria (TACC) in accordance with MIL-HDBK-516 and coordinated and obtained approval from the USAF airworthiness authorities. Led the follow-on block upgrade programs through the same airworthiness certification process and obtained individual military flight releases (MFRs) for the flight test aircraft. Jointly developed and implemented a common core set of block upgrade requirements with six cooperating nations—each providing funding and development requirements to the USAF.

### Electromagnetic Interference/Compatibility (EMI/EMC)

As a recognized aircraft EMI/EMC and lightning protection SME, supported multiple USAF aircraft development programs (B-1, B-2, F-117, AC-130, and others) and was responsible for ensuring the developmental programs achieved compatibility with no adverse effects. USAF representative to tri-service and industry committees for the development of both military and commercial EMI/EMC and lightning protection standards. Member of several executive independent review teams (EIRTs) required to release new aircraft for first flight to include a special effort with the Republic of Korea Air Force (ROKAF) for an in-country developed trainer aircraft.



## DAYTON AEROSPACE

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## EDUCATION

**BSEE, Electrical Engineering**  
South Dakota State University

## KEY POSITIONS

### Principal Engineer

Innovative Technologies Corp.

### Chief Engineer, International Programs Division

Aeronautical Systems Center  
Reconnaissance SPO (ASC/RA)

### Special Projects Branch

ASC/RA

### Electromagnetic Environmental Effects Technical Specialist

ASC, Avionics Engineering  
Division

### Branch Chief, Environmental Electromagnetic Effects

ASC Engineering Directorate  
(ASC/EN)

### Technical Specialist/Branch Chief Electrical Power

ASC/EN

### Lead Avionics Engineer

ASC Low Observables Directorate

### Project Engineer, EMI/EMC

ASC/EN

## CERTIFICATIONS

### APDP Level III

Systems Planning, Research,  
Development & Engineering  
Systems Program Management

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## WORK HISTORY

### **Associate | Dayton Aerospace, Inc.**

**2017-present, Dayton, OH**

Provide technical support to government and industry clients with specialized expertise in systems engineering, military airworthiness certification, and EMI/EMC.

### **Principal Engineer | Innovative Technologies Corp.**

**2001-2012, Dayton, OH**

Provided systems engineering support to the various C-130J development and block upgrade programs. Lead engineer for the Block 6.0 and Block 7.0 upgrade programs which included CNS/ATM and flight management systems replacement and upgrades—cooperative development efforts with six other nations providing requirements and development funding to the USAF. Responsible for entire engineering effort from requirements development to airworthiness certification in accordance with MIL-HDBK-516 criteria. Developed system level performance requirements, evaluated proposals, participated on the contract negotiation team, provided oversight for technical design and development, and conducted airworthiness certification. Developed the airworthiness certification criteria for the upgrade programs, coordinated with participating nations, obtained USAF Airworthiness Authorities approval, and developed and obtained flight releases for the flight test aircraft. Developed and obtained approval of the initial Tailored Airworthiness Certification Criteria (TACC) for the basic C-130J. Supported the A-10C development program during the initial development and testing phase. Provided systems integration engineering technical expertise to the C-130 Avionics Modernization Program (AMP).

### **Chief Engineer | Aeronautical Systems Center Reconnaissance SPO (ASC/RA)**

**1999-2000, WPAFB, OH**

Directed a staff of 10 engineers developing IMINT and SIGINT platforms for the reconnaissance program office foreign military sales (FMS) division. Programs had a combined value in excess of \$500M. Effort included developing the airborne reconnaissance sensors and ground processing facilities and integration of the sensors onto commercial business jet aircraft. Implemented aircraft modifications in accordance with Federal Aviation Administration (FAA) requirements and fully STC certified prior to customer delivery. Developed subsystem and system level acceptance test procedures—system acceptance testing demonstrated full specification compliance to all requirements. Regularly participated in technical and management reviews and interfaced with both contractor and foreign customer. Developed technical requirements for a proposed new reconnaissance pod for another foreign customer.

### **Special Projects Branch | ASC/RA**

**1997-1999, WPAFB, OH**

Directed a staff of eight engineers developing specialized reconnaissance sensors and reconnaissance exploitation systems. Personally developed specification and statement of work (SOW) requirements and contracted for development and testing of a new technology classified sensor, serving as both the project engineer and program manager. Delivered program to the customer on schedule and cost. Name-requested to provide technical assistance to a B-2 mishap investigation team. Participated in an independent schedule and cost review team on a classified program that resulted in briefings of the results to the company vice president and government program director.

### **Electromagnetic Environmental Effects and Electrical Power Technical Specialist | ASC Avionics Engineering Division**

**1994-1997, WPAFB, OH**

Served as the ASC Technical Specialist for Electromagnetic Effects including EMI, EMC, and lightning protection of aircraft. Provided specialized technical support to various program offices including the ALE-50, B-2 and B-1. Supported the Department of Justice (DOJ), Federal Bureau of Investigation (FBI) and Defense Criminal Investigative Service (DCIS) in technical evaluation and legal support to a company whistleblower complaint. Resulted in the team receiving the Engineering Team of Year Award in 1995. USAF representative to industry/government committees developing aircraft EMI/EMC and lightning protection standards for both military and commercial use. Responsible for the direction of the aircraft electrical power discipline.

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**Branch Chief, Electromagnetic Environmental Effects and Electrical Power | ASC Engineering Directorate (ASC/EN)****1986-1984, WPAFB, OH**

Supervised an office of 26 civilian and military engineers. Performed all management functions including conducting annual performance appraisals, hiring and training new employees, and ensuring engineering requirements requested by all Aeronautical Systems Directorate (ASD) programs were met. Supported various tri-service committees developing specifications and standards. Provided EMI/EMC technical support to the B-2 program on a regular basis. Received the ASD Engineering Manager of the year award in 1990.

**Technical Specialist, Electromagnetic Environmental Effects (E3) | ASC/EN****1984-1986, WPAFB, OH**

Served as the first branch level technical specialist in the Electromagnetic Environmental Effects area including all areas related to EMI, EMC, and aircraft lightning protection. Responsible for technical aspects of aircraft electrical power systems. Developed MIL PRIME type system level E3 standards for USAF use which eventually evolved into tri-service standards. Participated in source selections and Executive Independent Review Teams (EIRTs). Managed an in-house EMI testing facility and provided EME technical support to various ASD program offices including the B-2 and F-117.

**Lead Avionics Engineer | ASC Low Observables Directorate****1980-1984, WPAFB, OH**

Name requested by the Director of Engineering to join the "Black" low observables program office. Responsible for EME and electrical power areas as well as special sensors for the F-117, Tacit Blue, and other classified programs.

**Project Engineer, EMI/EMC | ASC/EN****1984-1986, WPAFB, OH**

Supported many programs as a junior/senior engineer including the RC-135C, AC-130 Gunship, B-1, Airborne Command Post, F-4, and other special access programs.

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