MARC SMITH

SENIOR ASSOCIATE, DAYTON AEROSPACE, INC.

PROFILE

Over 35 years of acquisition experience supporting government and industry. Former US Air Force (USAF) delegated technical airworthiness authority (DTA) and technical director for airworthiness. Developed and managed the USAF airworthiness process, led airworthiness boards, and acted on behalf of the USAF technical airworthiness authority (TAA) on official matters. Served as avionics technical director leading all avionics technical activities and participating as a member of the USAF airworthiness board. Also, served as branch chief for both defensive systems and electronic sensors; offensive systems technical advisor; communications/navigation/surveillance (CNS) technical expert; and engineer in the areas of avionics integration, command and control (C2), systems security; and communications and data links. Chaired and served on numerous executive independent review teams (EIRTs) supporting government and industry programs. GS-15, Department of the Air Force (DAF) (Retired).

PRINCIPAL AREAS OF EXPERTISE

Airworthiness Certification

Provide government and industry customers with solutions for complicated airworthiness certification efforts with effective airworthiness planning, certification basis, compliance reports, and risk assessments, achieving timely flight authorizations and certifications. Developed and led the USAF airworthiness program as the USAF technical director for airworthiness. Authored many of the current USAF airworthiness certification processes and requirements, with additional experience in Army and Navy airworthiness processes, as well as Federal Aviation Administration (FAA) procedures. Expert in USAF airworthiness strategy and planning, certification basis development, compliance documentation, and approval processes. Engineered and implemented numerous process improvements, resulting in efficient standardized processes supporting timely and safe capabilities to the warfighter. Extensive MIL-HDBK-516 certification criteria experience. Led the Tri-Service update and applied all of the above experiences to the vast majority of USAF platforms and numerous foreign military sales (FMS) aircraft.

Avionics System Development and Integration

Extensive experience in weapon system avionics requirements development, integration, and testing. As the avionics technical director, led the center-level avionics integration requirements and policy development, and guided and consulted on operational safety, suitability and effectiveness (OSS&E) programs. As avionics team lead, led the development and testing of highly advanced integrated capabilities and led product improvements to warfighter capabilities. Led avionics system security and command and control systems' development. Oversaw and consulted on the development of the USAF Platform Information Assurance Process. Extensive experience in avionics system integration and assessment for manned and unmanned systems.

Avionics Sensors

Recognized expert on interoperability, command and control, data links, and identification systems. Led the application of communications, navigation, surveillance/air traffic management (CNS/ATM) policy, requirements, and assessments on the majority of the center's weapon systems. Led the defensive and electronic sensors branch, Air Force Life Cycle Management Center (AFLCMC/EN-EZ). Managed and trained junior and senior engineers responsible for the development, integration, and testing of highly complex sensor systems.



DAYTON AEROSPACE

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EDUCATION

BS, Electrical Engineering
MS, Science Administration
Air War College
Defense Systems Management
College (DSMC)

KEY POSITIONS

Technical Director for Airworthiness AFLCMC/EZ

Technical Director for Avionics Engineering AFLCMC/EZA

Defense Systems and Electronic Sensors Branch Chief ASC/ENAD

Offensive Avionics Systems Technical Advisor ASC/ENAD

Technical Expert for Communications, Data Links, Identification, Engineering Directorate, Avionics ASC/ENAD

CERTIFICATIONS

Acquisition Professional Development Program (ADPP)

System Planning, Research,
Development, and Engineering,
Systems Engineering – Level III
Program Management - Level III
Communications-Computer
Systems – Level II
Test & Evaluation (T&E) – Level I

WORK HISTORY

Senior Associate | Dayton Aerospace, Inc. 2014-present, *Dayton*, *OH*

Provide airworthiness strategy, planning, certification development, compliance documentation, and approval process support, as well as support integrating airworthiness in systems engineering processes. Develop and deliver airworthiness training. Provide systems engineering and avionics integration support across all program phases—development, production, and sustainment—to both industry and government clients. Provide subject matter expert support to airworthiness activities related to airworthiness determination forms/reportability determinations, certification basis, compliance reports, risk assessments, and flight authorizations for approval. Support industry customers' proposal developments providing guidance and technical/process solutions to manage airworthiness to achieve first flight on time.

Technical Director, Engineering Directorate | AFLCMC/EZ 2012-2014, WPAFB, OH

Served as Technical Director and airworthiness authority over a wide range of aircraft, (i.e., joint services, fighter, bomber, commercial derivative aircraft (CDA), and remotely piloted aircraft (RPA)). Also, served as the engineering integrator assuring OSS&E. Advised and led programs through the airworthiness process to include airworthiness strategy and planning, certification basis and compliance report development and approval, and flight authorization documentation and approval. Served as Technical Engineering Advisor in systems development and sustainment with special emphasis on airworthiness assessment, risk, aircraft integration, and weapon delivery. Performed engineering work associated for numerous large, highly complex, and critical weapon systems, subsystems, and equipment to include: reviewing, interpreting and/or developing solutions to the most complex, controversial, and significant issues. Represented the Technical Airworthiness Authority (TAA) to a variety of organizations throughout the DoD and other agencies including Office of the Secretary of Defense (OSD), Army, Navy, Coast Guard, NASA, and FAA, as well as international authorities. Directed the development and execution of USAF airworthiness processes. Served as a Delegated Technical Airworthiness Authority (DTA).

Technical Director, Avionics Engineering | AFLCMC/EZA 2010-2012, WPAFB, OH

Directed all USAF avionics airworthiness assessments. Critical driver in the new independent airworthiness process development. Served as Technical Director for the Avionics Engineering Division and as such, provided avionics systems engineering technical direction and guidance for engineering activities associated with the development of a wide variety of USAF aeronautical weapon systems, subsystems, and equipment. These engineering activities included the following major technical disciplines: avionics integration, computer and software systems, defensive systems, offensive sensors, E3, information assurance (IA), and design integrity. Responsible for the technical engineering relationships with other divisions within the engineering directorate, Air Force Materiel Command (AFMC) Divisions, Air Force laboratories, and other government agencies.

Defensive Systems and Electronic Sensors Branch Chief | ASC/ENAD 2008-2010, WPAFB, OH

Provided technical leadership and Branch supervision. Managed technical support activities, manpower assignments, and workforce development. Instituted a division process to rotate engineers based on leadership potential rather than just discipline. Led Branch in airworthiness activities. Avionics lead for multiple airworthiness activities, and personally executed technical assessments for all avionics disciplines. Led multiple Technical Readiness Assessments. Led the integration of CNS/ATM into the airworthiness process. Defensive Management System Modernization Program Integration Risk Team Chairman.

Offensive Avionics Systems Technical Advisor | ASC/ENAD 2005-2008, WPAFB, OH

Provided technical leadership to offensive avionics systems development and operational capabilities. Division Advisor for offensive avionics capability analysis for integrated fire control, airborne networking, communications, navigation, combat identification, and airworthiness. Led multiple First Flight Executive Independent Review Teams (EIRTs) for airworthiness. Assessed tailored and modified airworthiness certification criteria (TACCs/MACCs) across Center programs.

Prior to 2005

- Technical Expert, Communications, Data Links, Identification, ASC/EN, WPAFB, OH
- Avionics Integration Engineer, and Communications/Navigation/Identification Lead Engineer, ASC/FBY, WPAFB, OH
- Plans & Programs/Tech Operations Engineer/Manager, ASC/ENX, WPAFB, OH
- Avionics Integration Engineer/Team Lead, ASC/YSDA, WPAFB, OH
- Command, Control & Communications Lead Engineer, ASC/YSDA, WPAFB, OH
- Communications, Navigation & Identification Engineer, ASC/ENACT, WPAFB, OH
- Air Data Systems & Instrumentation Engineer, ASD/ENAID, WPAFB, OH

KEY PROJECTS

- Developed and implemented local tailored airworthiness process to meet special mission requirements resulted in consistent airworthiness implementation across multiple projects and programs within the organization.
- Trained management and engineers both within the organization as well as contractors resulted in common understanding of airworthiness and the process and debunked assumed myths.
- Acted as primary liaison between the organization and the USAF TAA and AFLCMC subject matter experts resulted in consistent interaction and data flow between the organizations.
- Facilitated multiple airworthiness technical reviews between the organization, contractors, and AFLCMC resulted in improved communication and timely assessments.
- Performed technical evaluations on multiple projects in multiple disciplines resulted in improved consistent data review depth and analysis.
- Provided pink, red, and gold team support to industry proposal team, ensuring airworthiness processes and products met the request for proposal (RFP) requirements.
- Providing communications expertise support for specification verification and airworthiness certification for the KC-46 program office. Developed system requirement document (SRD) and statement of work (SOW) for communications enhancements.
- Authoring official airworthiness bulletin (AWB) updates for the USAF Airworthiness Office.
- Leading evaluation of the USAF's system engineering process and policy update for the Cyber Resiliency Office for Weapon Systems (CROWS).