CLAY APPLETON

SENIOR ASSOCIATE, **DAYTON AEROSPACE, INC.**

PROFILE

Over 40 years of acquisition experience, including roles as the former Fighter Attack Systems Wing Director of Engineering; F-16 Technical Director; Systems Engineering Technical Director, ASC Engineering Directorate; and Joint Strike Fighter (JSF) Site Director and Director of Engineering. Technical factor lead for JSF source selection and the avionics systems engineering advisor for F-22. Also chaired numerous executive independent review teams. Provide subject matter expertise in systems engineering, integrated avionics architecture, radar systems engineering, military airworthiness certification, and weapons integration to both government and industry customers. GS-15, Department of the Air Force (DAF) (retired).

PRINCIPAL AREAS OF EXPERTISE

Technical Engineering Management

Led all systems engineering process implementation and operational safety suitability and effectiveness (OSS&E) for the F-15, F-16, and A-10. Senior systems engineering advisor for the F-35. Director for the F-16 weapon system with technical authority for all engineering decisions. Led numerous executive independent review teams, most notably for the C-5 Avionics Modernization Program (AMP), F-16 Architecture, F-15 Software/Systems Engineering Environment, Airborne Laser, and E-4B. Led the technical team of 78 multi-service and international representatives through F-35 System Development and Demonstration (SDD) source selection.

Program Management

Directed the first cross-functional integrated product team (IPT) for US Air Force (USAF) and European Air Force avionics modernization for the F-16. Directed all functional activities for the F-35 field site at Wright Patterson AFB, Ohio.

Integrated Avionics Sensors and Architecture

Led F-16 radar engineering development and was the avionics lead for USAF Special Programs. Responsible for avionics architecture development and modernization for the F-16 Block 30, 40, and 50 aircraft. Radio Frequency (RF) integration experience on multiple airborne platforms to include RF Electromagnetic Interference and Compatibility (EMIC) at the subsystem and aircraft system level. Led Air Combat Command (ACC)-directed study to reduce cost of F-16 software upgrades which led to a 30% reduction in the Future Years Defense Plan (FYDP) budget.

Military Airworthiness Certification

Considerable experience in execution and instruction of MIL-HDBK-516, which outlines the USAF military airworthiness certification process. Led certification basis development for the USAF and Block 60 F-16. Extensive experience working with industry and government organizations as subject matter expert in establishing airworthiness certification planning and execution. Co-led the development of a comprehensive MIL-HDBK-516 airworthiness training curriculum.

DAYTON AEROSPACE

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EDUCATION

MS, Systems Engineering
Wright State University

BS, Systems Engineering
Wright State University

Professional Military Education (PME)
CDLAMP, Ft. McNair

KEY POSITIONS

Director of Engineering
Fighter Attack Systems Wing, Aeronautical Systems Center (ASC)

Technical Director
F-16 System Program Office, ASC

Director
F-35 Support Office, ASC

Systems Engineering Technical Director
ASC Engineering Directorate (ASC/EN)

ORGANIZATIONAL MEMBERSHIPS

Institute of Electrical and Electronics Engineers (IEEE)

WORK HISTORY

Senior Associate | Dayton Aerospace, Inc.
2007-present, *Dayton, OH*

Consultant to government and aerospace industries for proposal development, risk assessments, critical technology implementation and evaluation, airworthiness certification planning and implementation, and program execution. Co-led the development of a comprehensive MIL-HDBK-516-based airworthiness certification training program. Provided systems engineering support to the F-35 Joint Program Office (JPO) in the areas of follow-on development, program execution, risk mitigation, requirements and design review process implementation, and sustainment planning, and supported numerous trade studies. Technical consultant for several major aerospace industry proposal developments. Consultant to the F-22A program in support of weapon system modernization planning. Led independent review team for major aerospace industry client which assessed technology maturity risk. Systems engineering and airworthiness certification support to several industry competitive programs. Systems Engineering support to the USAF B-52H Radar Modernization Program.

Director of Engineering, Fighter Attack Systems Wing | Aeronautical Systems Center (ASC)
2004-2007, *Wright-Patterson AFB, OH*

Led all systems engineering processes, resources, and technical results for the Fighter Attack Systems Wing (FASW) comprised of the F-15 Systems Group, F-16 Systems Group, Combat Systems Squadron, A-10 Development Systems Squadron, and Joint Strike Fighter Support Office. Systems engineering process guidance included establishing operational safety, suitability, and effectiveness (OSS&E) baselines for all FASW programs. Championed Fighter Crosstalk Forum for F-16, F-22A, and F-35 with industry and F-15 and F-18 (USAF and Navy). Championed Cyber Weapon System Review (CYBERWSR) to work cross platform interoperability issues.

Director, F-35 Support Office | ASC/YJ
2005-2006, *Wright-Patterson AFB, OH*

Led all ASC resource support to the F-35 Joint Program Office. Led process initiatives to improve the effectiveness of the Field Site at WPAFB at the direction of the ASC Commander and the Program Executive Officer (PEO) for Joint Strike Fighter. Led joint service technical sub-panel for F-35 source selection.

Technical Director, F-16 Systems Program Office | ASC/YP
2003-2004, *Wright-Patterson AFB, OH*

Led all aspects of OSS&E efforts for all USAF F-16 configurations. Technical decision authority for development, production, and sustainment of F-16 USAF, European participating countries, and foreign military sales (FMS) programs. Led the implementation of a tailored airworthiness assessment for the F-16 Block 60 for the United Arab Emirates (UAE).

Technical Director, Systems Engineering | ASC/ENS
2002-2003, *Wright-Patterson AFB, OH*

Led core systems engineering process developments and deployments. Chaired the Joint Aeronautical Commander's Group (JACG) development of the Joint Service Specification Guides (JSSG) for the USAF, Navy, and Army. Provided engineering support to several programs. Led systems engineering process discussions to develop tailored Capability Maturity Model Integration (CMMI) implementations for ASC/EN. Led several independent review teams to include Airborne Laser and C-5 Avionics Modernization Program (AMP).

Prior to 2002

- Director of Engineering/Site Director, Joint Strike Fighter, ASC/YJ, *WPAFB, OH*
- Avionics Technical Advisor, F-22 Program Office, ASC/YF, *WPAFB, OH*
- Integrated Avionics Branch Chief, ASC/ENAS, *WPAFB, OH*
- Avionics Lead/Core Avionics Chief, F-16 Program Office, ASC/YPVC, *WPAFB, OH*
- Radar Engineer, Engineering Division, ASC/ENAMR, *WPAFB, OH*
- Lead Radar Engineer, F-16 Program Office, ASD/YPEA, *WPAFB, OH*
- Lead Radar Engineer, F-5 Program Office, ASD/SD30, *WPAFB, OH*
- Equipment Test Engineer, Photo Equipment Branch, ASD/ENAMC, *WPAFB, OH*

KEY PROJECTS

- Supported major aerospace industries and USAF program office in weapon system airworthiness certification.
- Subject matter expert instructor for airworthiness certification training to government and industry organizations in the US and abroad.
- Provided systems engineering support to an aerospace prime contractor in the execution of a major modernization program for an international customer.
- Supported major aerospace company in development of the technical volume for a major avionics system upgrade to a fielded fighter aircraft.