

MARK BURKET

ASSOCIATE, DAYTON AEROSPACE, INC.

PROFILE

Accomplished aerial refueling (AR) engineer with 40 years of experience in the design, development, installation, certification, and testing of military AR systems. AR receptacle systems experience on new airframe, as well as post-production installations and related sustainment/operational issues. Participated in conceptual/feasibility studies installing receptacle in unmanned combat aerial vehicles (UCAVs). Supported integration of AR systems and the interfaces and impacts to the fuel systems, flight sciences, airframe structure, hydraulics, electrical power, communication systems, crew systems, exterior lighting, and electromagnetic environment compatibility. Knowledgeable of the AR clearance process and requirements used by the United States Air Force (USAF), Department of Defense (DoD) services and several allied coalition ministries of defense (MODs). Planned and participated in ground and flight tests of receptacle systems in support of certifications and operational AR clearances with legacy USAF tankers—testing involved the F-22, EC-18, E-3D, KC-30M tanker and NATO E-3A aircraft. Authored the original AR system sections to the Joint Service Specification Guides (JSSGs) and crafted the initial AR section in MIL-HDBK-516, Airworthiness Certification Criteria. NH-04, Department of the Air Force (DAF) (retired).

PRINCIPAL AREAS OF EXPERTISE

Aerial Refueling **Critical Thinking**
Airworthiness Certification **Executive Problem Solving**
Engineering Policy & Processes **Sustainment & Logistics Engineering**

WORK HISTORY

Associate | Dayton Aerospace, Inc.
2023-present, Dayton, OH

Provide senior-level technical expertise to government and industry clients in all phases of the acquisition life cycle. Specialties include military airworthiness certification, aerial refueling, and fuel and fire protection systems.

Aerial Refueling Systems Engineer | Air Force Life Cycle Management Center, Air Vehicle Subsystems Branch (AFLCMC/EZFA)
2018-2023, Wright-Patterson Air Force Base (WPAFB), OH

Performed technical compatibility assessments between tanker and receiver assets involving a USAF asset. Created draft airworthiness bulletins addressing AR operations with commercially owned-commercially operated (COCO) aircraft contracted by the USAF, addressing issues involved with Federal Aviation Administration (FAA) certification of an AR system. Initiated efforts to develop a data item description (DID) document that identifies what data should be obtained from a contractor when an AR system is installed or modified on a USAF asset. Participated in Aerial Refueling System Advisory Group (ARSAG) and Joint Standardization Board (JSB) meetings which included providing support in the development/update of ARSAG guidance documents, specifically addressing boom receptacle systems and AR incident investigation.

Aerospace Engineer | AFLCMC/EZFA
2015-2018, WPAFB, OH

Senior engineer within the aerial refueling systems group. Assisted the AR technical specialist in duties associated with the acquisition of AR systems and conducted tanker/receiver compatibility assessments for AR flight tests and operations. Performed airworthiness reviews and developed specifications, standards, and other documentation to support the AR clearance and certification process.



DAYTON AEROSPACE

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EDUCATION

MBA, International Business
Wright State University

MS, Materials Engineering
University of Dayton

BS, Chemistry
Pennsylvania State University

CERTIFICATIONS

Acquisition Professional Development Program (APDP)

Systems Planning, Research, Development & Engineering (SPRDE) – Level III

Airworthiness Certification
Aerial Refueling – Level III
Fuel Systems – Level III
Fire Protection – Level III

Test & Evaluation (T&E) – Level II
Program Management – Level I

Technical Specialist | Aeronautical Systems Center, Engineering Directorate, Air Vehicle Subsystems Branch (ASC/ENFA)**2008-2015, WPAFB, OH**

Lead engineer for AR systems group. Responsible for the design, development, procurement, installation, and testing of AR, tanker/drogue and receiver/receptacle/probe systems. Performed AR clearance certifications for US tanker/receiver aircraft with allied receiver/tanker aircraft. Performed airworthiness certification reviews for US and foreign military sales (FMS) tanker/receiver aircraft. Trained newly hired engineers in the AR discipline.

Supervisory Aerospace Engineer | F-16 System Program Office (SPO) (ASC/312 AESG)**2007-2008, WPAFB, OH**

Lead engineer for the flight systems engineering division. Responsible for directing the design, development, and testing of aircraft subsystems, crew systems, flight sciences, propulsion integration, and aircraft structure. Served as lead technical interface with Ogden Air Logistics Center (OO-ALC), Oklahoma City Air Logistics Center (OC-ALC), Air Force Research Laboratory (AFRL) and Seek Eagle organizations involving flight systems issues. Led tiger team defining integration/airworthiness certification of the auto-ground/collision avoidance systems on the F-16. Effort required interfacing with the National Air and Space Administration (NASA). Chaired Joint Configuration Control Board (JCCB) meetings and directed contractor employees. Developed National Security Personnel System (NSPS) appraisal objectives for civilian employees.

Prior to 2007

- Lead Sustainment Engineer, F-22 SPO, ASC/YFS, WPAFB, OH
- Lead Subsystems Engineer, F-22 SPO, ASC/YFSA, WPAFB, OH
- Lead Engineer, Aerial Refueling Group, ASC/ENFA, WPAFB, OH
- Lead Subsystems Engineer, Global Hawk SPO, ASC/RAV, WPAFB, OH
- Aerospace Engineer, C-17 SPO, ASC/YCEF, WPAFB, OH
- Aerospace Engineer, ASC/ENFA, WPAFB, OH
- Chemical/Aerospace Engineer, B-2 SPO, ASD/YSEF, WPAFB, OH
- Chemical Engineer, Airlift & Tanker SPO, ASD/AFEF, WPAFB, OH
- Chemical Engineer, Fuel & Hazards Branch, ASD/ENFEF, WPAFB, OH

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