JUAN LADO

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

PROFILE

Over 25 years of aerospace engineering experience on major aircraft systems development programs for the US Air Force (USAF). Recognized durability & damage tolerance (DADT) of aircraft structures technical expert. Highly experienced in all aspects of aircraft design, development, sustainment, modifications, service life extension programs, repairs, airworthiness certification, testing, and execution of MIL-STD-1530 (USAF Aircraft Structural Integrity Program). Made major contributions to numerous structural risk analyses to solve in-service related cracking problems for the T-1, T-6, B-1B, MQ-9, F-16, F-15, F-35, and C-130 and participated in several independent review teams (IRT) to include T-6 Flight Control Systems, F-22 Gear-Up Landing Aircraft Repair (A/C 4037), T-6A Aircraft Viability Assessment, F-15C/D/E Fuselage Longerons & F-15C/D Wing Structural Integrity Risk Assessment, and F-16 Taiwan Service Life Extension Program (SLEP). NH-04, DADT Technical Expert, Department of the Air Force (DAF) (retired).

PRINCIPAL AREAS OF EXPERTISE

Aircraft Structural Integrity	Risk Analysis	Airworthiness Certification
Durability & Damage Tolerance (DADT)	Force Management	Individual Aircraft Tracking
	Full Scale Testing	

WORK HISTORY

Senior Associate | Dayton Aerospace, Inc.
2022-present, *Dayton, OH*

Assists government and industry customers in a wide range of support activities including DADT of aircraft structures, airworthiness certification planning and implementation, critical technology implementation and evaluation, business strategy, proposal preparation and evaluation, and independent review teams (IRTs).

DADT Technical Expert | Air Force Life Cycle Management Center Engineering Directorate Structures Branch (AFLCMC/EZFS)
2010-2021, *Wright Patterson Air Force Base (WPAFB), OH*

Senior engineer and technical expert in the acquisition, implementation, application, execution, and results interpretation of highly advanced and DADT systems and methodologies. Provided expert technical direction, policy guidance and/or advice on engineering concepts and techniques to AFLCMC programs, the Air Force Research Laboratory (AFRL), Air Force Flight Test Centers, the Federal Aviation Administration (FAA), other Government agencies, and private industry. Focal point for all DADT methodology, analyses, and force management tool acquisitions. Planned, organized, and led technical efforts to improve, standardize, and document DADT methodology processes to ensure highly accurate results in support of Department of Defense (DoD) customers. Authored numerous structural bulletins to improve and/or provide guidance to DADT criteria as stated in Aircraft Structures Joint Service Specification Guide (JSSG-2006).

Served as the DADT and force management airworthiness authority (subject matter expert endorsed as Level III for sections 5.4 and 5.7 of MIL-HDBK-516C). Duties also included developing and instructing these sections as part of the Air Force Institute of Technology (AFIT) Systems 316, Advance Airworthiness Certification, course. Developed, coordinated, and updated airworthiness criteria, standards, and compliance methods associated with air vehicle structural durability and damage tolerance.

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EDUCATION

MS, Mechanical Engineering
University of Dayton

BS, Civil Engineering
University of Puerto Rico

CERTIFICATIONS

Acquisition Professional Development Program (APDP)

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

Program Management – Level I

Level III Subject Matter Expert

MIL-HDBK-516C, Section 5.4, DADT

MIL-HDBK-516C, Section 5.7, Force Management

WORK HISTORY (CONT'D)

DADT Technical Expert | AFLCMC/EZFS (Cont'd)
2010-2021, *WPAFB, OH*

Briefed the Technical Airworthiness Authority (TAA) and the Airworthiness Board MIL-HDBK-516C section 5 (aircraft structures) as the acting technical advisor. Reviewed program verification activities and product designs for airworthiness criteria compliance and made recommendations regarding airworthiness of new, modified, and operational aircraft. Developed a robust fracture mechanics and fatigue course to train new branch engineers on DADT topics to include all the phases of the ASIP as outlined in MIL-STD-1530C. Performed multiple sensitivity studies using AFGROW (crack growth analysis software) to assess the use of different materials, different types of spectrum loading, and the influence of stress increases in fatigue service life.

DADT Lead Engineer | Aeronautical Systems Center (ASC) F-35 Program Office (640 AES)
2002-2010, *WPAFB, OH*

Guided execution of the DADT portion of the F-35 program, totaling over $150M of effort during the System Development & Demonstration (SDD) phase and provided oversight to the ~$100M Building Block Development Test Program. Primary member of the F-35 Fracture Control Board (FCB), representing US Air Force (USAF), US Navy (USN), US Marine Corps (USMC), Royal Navy, Royal Air Force, and seven other participating allies. Created a consistent, joint (USAF, USN, USMC, and United Kingdom MOD) position towards the contractor for airframe design requirements. Responsible for airframe structures certification and flight clearance of all SDD and Low-Rate Initial Production (LRIP) aircraft. Coordinated and supported several weekly technical meetings to ensure DADT requirements are followed by all disciplines to maintain safety of flight and reduce life cycle costs. Meetings included Full Scale Test, Structures Prognostics & Health Management (SPHM), Building Block Test, and Integrity Working Groups. Lead engineer in the assessment and analysis of all contractor work related to truncation/verification tests for the three F-35 aircraft variants. Test results were coordinated with USAF, USN and joint program office (JPO) personnel and provided the necessary data to allow all full-scale durability tests to be completed on schedule. Responsible for the execution of the ASIP for the F-35 aircraft. Provided leadership and technical expertise to ensure DADT issues were properly considered during design activities to ensure the F-35 meets the 8,000 hours service life requirement.

Aerospace Engineer | ASC Engineering Directorate Structures Branch (ASC/ENFS)
2002, *WPAFB, OH*

Hired thru the Palace Acquire Program. Participated in the ASC accelerated training program in the areas of strength, fracture mechanics, fatigue, and internal and external loads.

Prior to 2002

- Vice President & General Manager, Centro Servicio, Nissan, Inc., *San Juan, PR*
- Aerospace Engineer, B-1B Program, *WPAFB, OH*
- Aerospace Engineer, ASC/ENFSF, *WPAFB, OH*