

THEODORA S. SAUNDERS
296 Blake Circle, Hamden CT 06517
Phone: (203) 624-3826 email: ahsaund@flash.net

EXPERIENCE

UNITED TECHNOLOGIES/SIKORSKY AIRCRAFT - June 2001 to Present

Avionics Systems Engineering Process Group Manager – Oversees systems engineering process development and improvement. Responsible for the definition and improvements of the Systems Engineering processes for the Avionics Systems Integration and Test Organization.

Avionics Systems Senior Engineer- Responsible for leading activities for the Comanche Armament System Requirements Design consisting of the Turreted Gun System (TGS) and fire control; Weapons Carriage, Control, and Launch; Stores Jettison; and Dynamic Alignment.

LOCKHEED MARTIN - October 1988 to March 2001

Avionics Subsystems Lead - Responsible for leading activities for all subsystems in the avionics suite for the F-16 Peace Xenia program. Ensured subsystems performance and aircraft integration requirements were met and properly validated. Managed assigned engineering product leads. Coordinated, negotiated, and authorized tasks in support of overall PX program execution. Exercised the leadership and guidance necessary for on-time completion of all subsystems tasks within negotiated hours. Successfully communicated and interfaced with the PX team, other IPTs, senior management, customers, suppliers and cross-functional disciplines to facilitate subsystems integration activities and issues resolution. Guided all aspects of subsystems hardware and software design definition and engineering subcontract management, including products such as proposals, supplier statements of work, and Prime Item Development Specifications. Managed subsystems risk areas and established abatement plans and solutions. Established metrics; reported subsystems earned value performance and compliance to program requirements.

Product Lead – Managed multiple configurations of the Data Transfer Equipment (DTE) avionics subsystem (entailing hardware, embedded software, and support software) for all ongoing F-16 production programs. Negotiated numerous subcontracts and contract changes. Led all aspects of DTE hardware and software design definition and subcontract management, including products such as proposals, supplier statements of work, and Prime Item Development Specifications. Established and negotiated schedule, entry/exit criteria and payment milestones. Ensured supplier technical, schedule, and cost compliance. Managed engineering team assigned to the DTE subsystem. Established metrics, including subsystem earned value. Led program review sessions with supplier and customer for cost, schedule, and technical performance. Partnered with supplier to establish a Lockheed Martin multiplatform Advanced Data Transfer Equipment (ADTE) configuration, resulting in significant cost savings, including over \$2M in supplier development cost. Established requirements for the ADTE digital video technology capability for new F-16 programs used in various foreign military sales. Supported F-16 new business proposals.

Software Product Acquisition Manager - Assumed responsibility for all aspects of \$20M F-16 MLU Digital Terrain System Application Software (DTSAS) development and acquisition program. Directed all DTSAS activity from requirements definition to integration into the F-16 avionics suite. Managed subcontracted software development, that included the definition and achievement of: *software specification and deliverables; software licensing agreements; subcontract and LM statements of work; subcontract proposal evaluation and negotiation; program entry and exit criteria; schedules and payment milestones; multiple software life cycle reviews to manage progress; software qualification and requirements validation testing; integration and flight testing; functional/physical configuration audit.* Served as primary interface for program communications with both internal and external customers.

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Ensured DTSAS development and qualification schedule milestones and deliverables met the overall MLU program requirements. Achieved 100% on-time submittal of customer deliverables.

Navigation & Guidance Senior Engineer - Led efforts in achieving major F-16 avionics suite enhancement. Promoted Digital Terrain System (DTS) and successfully gained the customer's confidence and support for \$3M effort that included: integration of two DTS configurations into the avionics suite on F-16 demo aircraft; orchestrated flight tests; evaluated performance results. Played key role in transitioning DTS capability from demonstration phase to baseline F-16 avionics. Demonstrated DTS capabilities for F-16 to domestic and numerous foreign customers in support of new business. Established baseline requirements for the DTS capability that led to core MLU F-16 avionics capability.

Principal Investigator - for the Digital Terrain System (DTS) implementation on the F-16 aircraft. Managed the Terrain Referenced Navigation (TRN) company-funded IRAD project. Responsible for the integration of the TRN measurement into the Core Avionics Master Navigation Filter. Conducted trade-off studies for DTS integration into the F-16 Aircraft. Co-authored final report.

LTV Missiles and Electronics Group, Dallas, Texas (1987-1988)

Guidance and Control Engineer, Senior Systems Engineer - Performed simulations and analyses on various proposed missile systems. Conducted transient response analysis, sensitivity analysis and miss distance predictions utilizing covariance analysis and EASY5 simulations. Conducted performance evaluations of the Missile Integrated Design Analysis System. Documented findings and made recommendations for extending the module's capabilities utilizing Kalman filter techniques.

DeVry Institute of Technology, Dallas, Texas (1981-1985)

Professor in the Electronics Engineering Technology B.S. Degree Program - Taught bachelor level coursework, provided leadership and mentoring to students, counseled and recommended career directions and interacted with potential employers. Twice honored as the Professor-of-the-Trimester. Established curriculum content and course guidelines. Provided technical and professional leadership to accreditation committee, established procedures and evaluation criteria for theoretical courses and laboratory projects.

Texas Instruments, Lubbock, Texas (1978-1981)

Reliability Quality Assurance Engineer - Designed testing methods to estimate the reliability of integrated circuits as part of the quality assurance program for commercial electronic products. Supervised and conducted performance assessments for technicians doing functional, electrical, and environmental testing. Performed failure analysis, provided recommendations for corrective actions to the design team. Conducted trade-off studies and performance evaluations of various semiconductor technology based products.

New Mexico State University, Las Cruces, N.M. (1976-1978)

Graduate Teaching and Research Assistant – Taught in both the Electrical Engineering and Industrial Engineering undergraduate departments. Participated in work/study program for radar design improvements for White Sands Missile Range.

EDUCATION

M.S. Electrical Engineering, New Mexico State University

B.S. Electrical Engineering Technology, New York Institute of Technology

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M.S. Industrial Engineering, New Mexico State University

CONTINUING EDUCATION COURSES

Electro-Optics Technology, Electro-Optics Sensors, Digital Video Principles and Measurement, Video Compression, Infrared Technology and Application, Kalman Filter Theory and Applications, Taguchi Methodology, Advanced Project Scheduling, Basic Project Scheduling

COMPUTER SKILLS/TOOLS

Microsoft Office, Covariance Analysis, Monte Carlo Simulations, MATLAB, EASY5

PROFESSIONAL AFFILIATIONS

IEEE – Currently member of the Connecticut Executive Committee and in the process of forming a new Aerospace Engineering Society (AES) chapter in Stratford Connecticut. Past member of the IEEE Texas – Fort Worth chapter, served as the Awards chair, Treasurer, METROCON chair, 12TH DASC (national conference) Exhibits chair.

International Council On Systems Engineering (INCOSE) – Member

AHS International - Member

Society of Women Engineers (SWE) – Currently member of the Connecticut Society of Women Engineers Chapter. Past President and Vice President of the Texas - Fort Worth Chapter.