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EUGENE HOCKENBERRY

Senior Technical Program Manager | Engineering Director | Electrical/Systems Engineer | EEE Parts | Data Communication | Aerospace R&D | Sustainment Engineering | Quality Management & Operations | Satellite & Payload | Air Force | NRO, NSA, NGA, CIA | Hardware/Software Development | Business Development | Proposal Management

24+ years of success in leading complex program management and systems engineering experience. Record of cultivating strong client relationships, government contracting, developing and driving team creative strategies, and delivering significant results. Earned accolades as an intuitive international relationship builder.

Successes include:

- **Leading R&D and delivery projects to ensure successful, profitable implementation.**
- **Negotiating with technology teams at state, federal and international governments levels.**
- **Managing time to goals and plans of action to facilitate client, team and personal organization.**
- **Defining and implementing quality requirements and initiatives for large and small companies.**
- **Facilitating cross team relations to improve communications, process and change management.**
- **Communicating plans, methods & solutions in written, verbal and presentation/training formats.**
- **Building secure facilities for mission critical assets**

Education:
Master of Science, Electrical Engineering, U.S. Air Force Institute of Technology, Dayton, OH

Bachelor of Science, Computer Engineering, Virginia Tech, Blacksburg, VA

Certifications; J-STD-001GS Soldering with Space Addendum; **IPC 610 Electronic Assembly Inspection; IPC 620 Cabling and Harnessing; IPC 7710/7720 Electronics Rework.**

Professional History

Chief Technology Officer/Senior Advisor

NightStar Traffic Systems
07/2021 – Pres

Managed and implemented all aspects of a unique cellular based sensor collection and communication system. Led a team of engineers for software, firmware and hardware development for intelligent traffic signs to light in a unique way, collect a variety of environmental data, and provide infrastructure for self-driving vehicles among a variety of other applications.

- **Implemented all Firmware and Hardware for flexibility and control.** Defined requirements for specific and unique applications for smart communication and data collection. Worked with all states and internationally to gather and refine unique requirements based on specific customer needs including solar, battery, and available infrastructure. Created custom battery packs and power management systems based on deployed environment.

- **Customized power and data to meet requirements.** Optimized power consumption to meet weight requirements. Tested with Li-Ion battery packs and battery management systems to ensure unassisted runtime requirements were met. Determined power needs for solar and battery backup.

- Managed all aspects of supply chain and manufacturing. Established quality management, manufacturing needs based on throughput requirements, and full supplier management for optimized assembly, packaging and shipment. Established all manufacturing instructions for consistent assembly for outsourced assemblies and components.

Manufacturing Engineer/Manager

York Space Systems
11/2020 – 07/2021

Managed a high profile military satellite and worked to stand up a high capacity satellite production facility. Managed multiple personnel in AIT and Engineering to stand up a manufacturing and test facility from scratch. Managed all supply chain, electronics production and requirements. Digital/Analog Payloads, AIT, TT&C, and Bus Power systems responsibility

- **Managed construction of high capacity satellite production facility**. Worked with Engineering to verify requirements, maintain schedule, set quality standards and guided overall facility layout and kit out. Worked as the liaison between AIT and Engineering to ensure no gaps. Established protocols for optimal facility layout; set the quality standards for all electronic assemblies and established all build instructions for the outside vendors and internal AIT.

- **Defined, tested, and verified all subsystem EICD and MICD requirements for all subsystems**. Managed and implemented in-house manufacturing of various subsystems, including Power Distribution Units, Battery and solar panel integration, full environmental testing suite, GPS and RF Bus subsystems as well as multiple customer payloads

- **Managed high profile military satellite**. Worked with the Air Force daily to give updates, ensure requirements were met; provide schedule updates monthly; managed all cybersecurity requirements; managed multiple customer interfaces within the Government and all subcontractors and part suppliers; managed the entire satellite supply chain to achieve high volume satellite production

Sr Program Manager

AST and Science
03/2020 – 09/2020

Ran a satellite development and manufacturing program for 160+ satellites. Managed all activities from development, production facility development, facility construction, quality control and processes and all other management activities. Managed all scheduling and supply chain establishment.

- **Managed development of complex satellites**. Worked with Engineering to verify requirements, maintain schedule, set quality standards and guided overall development activities. Prototype satellite development was in parallel with production versions to maintain a very tight schedule. Worked with the launch provider and launch site to ensure delivery to orbit.

- **Managed building of 30,000 sq ft manufacturing facility**. Established all requirements for the facility; identified vendors and worked with City Planning for all permit requirements. Oversaw the building of the facility and other day to day activities of the contractors. Worked as a GC to make sure all trades came as required.

Senior Program Manager/Consultant

Hi Rel Management & Engineering, LLC.
06/2017 – Present

Executed and delivered numerous projects simultaneously for equipment used in satellite ground stations and developed new sensors. Led teams of Engineers to develop and build new broad-spectrum RF recording capability. Created and implemented project management processes to be used cross-company. Directed projects to assist companies in writing contracts, proposals and responses for federal and civil satellite payload providers including; establishing EEE, ISO and AS9100 processes and conducting audits to validate compliance; systems engineering analysis; complex data analysis; and training J-STD-001GS, IPC 610G, IPC 620C, and IPC 7711/7721.

- **Created Quality Management System for a Client facility**. Audited and evaluated facility's electrostatic discharge compliance and EEE parts handling and processes. Prior ESD and other documentation of processes and procedures had not been completed. No posted signage or training had been completed due to budget constraints. Researched the product being built and level of reliability necessary. Audited procedures and reviewed the facility for ESD, static retention surfaces, parts storage areas, assembly areas, test areas, static bag usage, wrist/heels straps, floor types and complete grounding system. Set up and

conducted a training course and certified all personnel with documentation. Created a customized solution to fit within the client's parameters of budget, capability current infrastructure and final goals.

- **Recorder Board validation and verification**. The client's company-built RF data recorders that used specially manufactured PC cards. A major customer experienced five card failures, resulting in shelving of the inventory worth $500K without a EEE plan to determine weak versus functional EEE parts and units. Utilizing EEE electronics and environmental testing background, it was determined that the failure was the result of a particular component subjected to excess stress. The source of the stress was unclear. Developed a test plan to baseline the performance, run them through a vibration regime followed by high definition x-ray to reveal the source. All cards were tested and cleared for project use. The availability of the cards allowed a mission-critical application to be delivered ahead of schedule.

CYGNSS Payload Chief Engineer

Surrey Satellite, U.S.
06/2015 – 06/2017

Supplier management; program management; Digital/RF Payload Product development; test engineer; Quality control systems engineer/manager; write test procedures; perform hardware builds for NASA and JPL; soldering and electronic inspection; Foreign disclosure and ITAR; Interaction with multiple international companies and agencies. Financial and GM reporting, B&P

- **Saved the company $1.4M in costs**. Assigned to build the primary payload for the NASA CYGNSS Mission. Each of the eight science instruments involved a main board and three daughter boards. NASA QA determined that the EEE parts manufactured by a third party board house, were susceptible to absorbing moisture and needed to be verified and dried out prior to being mounted to the boards. Working with Insight Analytical Labs, high definition X-rays and acoustical microscopy were used to look at the detailed internal structure of the chips at risk. With the customer approval, the boards were put through a rigorous test plan and deemed acceptable.
- **Established Engineering capability in the US**. Started with Surrey Satellite US when it was a sales office for the parent company based in the UK. Tasked with starting up an engineering capability and transitioning a complicated RF GPS remote sensing environmental UK science design for the CYGNSS utilizing a background in Electrical Engineering. Spec'ed out required lab equipment properly build and test forty+ modules, wrote test procedures and handled foreign disclosure in respect to ITAR. Wrote build instructions, procedures, environmental test plans and TVAC. NASA and the UNIVERSITY OF Michigan were pleased the expectations and performance exceeded their expectations.

Sr Supplier Manager, Galileo Program

Surrey Satellite, U.S.
11/2013 – 06/2015

Audit US suppliers for quality and compliance to NASA and ESA requirements; Verify couplers, switches, and cables; Verify compliance to ITAR and foreign disclosure requirements; Update Technical Assistance Agreements and coordinate signatories.

- **Crane Coupler Failures processes**. Oversaw all US contractors/suppliers involved in ESA's Galileo satellite program. A supplier of high and low power couplers was experiencing multiple failures during manufacturing. In light of the couplers' gold plating thickness fails on two lots, determined that the onsite documentation when reviewed was in poor condition with no verification occurring. It was also determined that the previous lots did not fail, the testing procedure was not following the proper acceptance requirements. A full quality audit on the EEE processes and actual workmanship was conducted with certified IPC training on soldering knowledge utilized to identify setup issues. Documented a corrective action plan and assembly process providing direction for the supplier to correct problems on a number of other programs as well.

Civil Engineering Program Management Office Advisor

U.S. Air Force, Buckley AFB, CO; Military Rank O-4
07/2012 – 11/2013

Revised management and proposal processes and procedures for all civil engineering projects; executed multiple projects involving base infrastructure, radio, communications, and building; Wrote requirements for RFPs and interfaced with customers and contractors.

Mission Director

U.S. Air Force, Buckley AFB,CO; Military Rank O-4
07/2010 – 07/2012

Led an operations crew for US satellites which included doubling as the Deputy Branch Chief. Responsibilities included evaluations of crew, career counseling and assisting engineers in developing new tools.

- **Judiciously handled personnel conflict**. Two military personnel within the organization became involved in a domestic dispute while living together. When contacted by the police, the two were separated and brought in the First Sergeants. Brought in a Navy Master Chief to assist with the Navy personnel involved. Conducted interview and made recommendations for disciplinary actions while ensuring the two young people were taken care of.

Sr. Program Manager, DOME Program

U.S. Air Force, Buckley AFB, CO; Military Rank O-4
07/2008 – 07/2010

Managed a $300M/year budget for multiple national agencies; Oversaw 60+ task orders ranging in value from $100K to $10M each; Gave presentations to 1000+ people quarterly; conducted regular management reviews with contractors and senior leadership. Executed three source selections valued at $1B; Interfaced with customers regularly and other DOD agencies.

- **Corrected Fiscal Law Violations on a $1B program within 5-months**. Assigned leadership on a $1B program, third largest in the NRO. Upon documentation review, a number of fiscal law inconsistencies and violations of federal fiscal law were revealed. With approval from headquarters to implement needed changes. Created a recovery plan to bring the program in to compliance including drafting two notifications for Congress to correct issues found in the review of over 40 task orders.

Graduate School Student

U.S. Air Force, Wright Patterson AFB, OH; Military Rank O-3
07/2006 – 07/2008

Complete a MS in Electrical Engineering; Thesis entitled "Radiation Effects on Space Electronics"; Exposed SRAM based FPGAs to varying levels and durations of gamma radiation using Ohio State's research nuclear reactor and tested for degradation.

Program Manager, COSMIC Launch Program

U.S. Air Force, Kirtland AFB, NM; Military Rank O-3
07/2004 – 07/2006

Interfaced with customers; ITAR and Foreign Disclosure officer; TAAs and interface with Taiwanese nationals for payload. Launch vehicle mission manager; managed all aspects of the test and build of the launch vehicle; Interfaced with State Department during politically sensitive time; Served as point of contact for Operationally Responsive Space; Briefed at the 2-Star General level at Air Force and executed entire launch campaign at Vandenburg AFB. Successful deployment of 6-spacecraft constellation.

- **TDRSS Antenna Development**. The team was challenged with recording all telemetry during launch on a $1M budget. TDRSS is a worldwide data link satellite constellation with leased time contracts on it. NASA at Wallops Island was building an S-Band light weight, low cost TDRSS transmitter. NASA needed a ride to qualify the effort before using it on US missions. Negotiated a deal where in exchange for the Air Force integrating, verifying and flying their first unit, they were willing to provide the transmitter and time on the TDRSS constellation at no cost.
- **Youngest DoD International Affairs and State Department Coordinator**. There was a dispute within the US between the State Department (DTSA) and the DoD IA office about who had regulatory approval authority to determine what could be released to foreign nationals (Taiwan). There was a dispute at the Department level since DTSA wanted control over both contractor and Government organizations that threatened to disallow necessary information to be passed to Taiwan so the satellites could mate correctly to the launch vehicle. DTSA was a slow process in releasing information, potentially costing the program $1M. Serving as the Government technical expert on the launch vehicle, coordination with Space Command and SAF/IA was necessary to get approval to be the foreign disclosure officer for the program. Research was conducted to ensure national security. Briefed senior department leadership of both the State Department and DoD to obtain agreement. Knowledge was key in permission being granted to perform foreign disclosure approvals.

- **Averted Launch Vehicle Detonator Lot Failure**. Rockets use detonators to separate the stages during a launch. There are two detonators per bolt with three bolts per stage. All these detonators are traced to a certain manufactured lot, some of which have been held back so the lot can be re-verified after a specific period of time has passed. A lot test was being performed on an unrelated launch using the same lot of detonators, one failed bringing the entire lot under scrutiny. Mission Assurance group wanted to replace all detonators, prior to determining why the failure occurred. Utilizing mathematical analysis, a demonstration showed the replacement option would introduce a higher technical risk, delay the launch by a month and incur a $1.5M cost. The launch was a success and further testing revealed that the lot test failure was due to a setup error not a problem with the detonators.

AWACS Lead Engineer, Deputy Program Manager

U.S. Air Force, Wright Patterson AFB, OH; Military Rank O-2
07/2002 – 07/2004

Proposal evaluation and approval; requirements definition; customer interface; test verification; Documentation review and approval for critical mission system; Managed construction of SCIFs with all physical and security requirements; technical budget responsibility and deputy program manager.

Lead Engineer, C-141 ATS

U.S. Air Force, Wright Patterson AFB, OH; Military Rank O-1
06/2000 – 07/2002

Lead Engineer for digital cockpit upgrade on the C-141. Reviewed all documentation for approval and performed technical evaluation of all proposals from the contractor. Wrote technical requirements for proposal requests. Hardware engineering and hardware and software testing in the simulator to verify performance.

- **Subverted Display Unit Software Loading problems**. Simulators and aircraft utilized the same display units. The only way to load software on to the units was to remove them and send them back to the factory creating 2-weeks that the simulator was

unusable for pilots to stay certified. The contractor offered to build a loading unit for $1M, an amount not amiable to the budget. Wrote software to upload and validate the software load. Built a capable software loader for $600 and loaded all of the newly written software onsite to each training location saving over $2M cost to the aircraft and simulators. In addition, when C-141 aircraft were deployed to Iraq during Operation Iraqi Freedom, a software problem not caught caused the flight display units to fail preventing the aircraft from flying. Drove the unit to Memphis Air Reserve Base and reloaded all 40 hardware units in under four hours allowing the aircraft to leave for their deployment on time and saving thousands of dollars.