Ronald D. Hackett

Engineer, Software & Web Developer, Consultant

122 Ashton Circle
Fayetteville, TN 37334
ron@rhackett.net
(931) 438-3298

Education, Certifications and Affiliations

- BS in Engineering, University of Central Florida, Orlando, Florida

- MSEE, Electromagnetics and Antennas major, University of Dayton, Dayton, Ohio

- Certified Cryptologic Engineer, National Security Agency

- Certified Acquisition Professional (SPRD&E, Test & Eval, and Program Management), U. S. Air Force

- Program Management Certificate, University of Alabama Huntsville (UAH), Huntsville, Alabama

- Former Senior member, Institute of Electrical and Electronics Engineers (IEEE)

- Retired Professional Engineer (PE), State of Ohio

Qualifications Summary

- 30+ years experience in planning, initiating, organizing, scheduling and executing complex technical programs in 9 USAF assignments, which included an overseas tour in Japan, and as a defense contractor.

- Primary strength is problem solving and the rapid development of prototypes and one-of-a-kind capabilities that get innovative technologies fielded quickly to meet near term requirements.

- Extensive experience and expertise in the following areas: Project/Program Management, Antennas and Propagation, Telecommunications Systems, System Engineering and Design, Engineering Field Testing, Computer Network Operations, Computer Programming and Scripting, Intelligence and Information Warfare, Computer and Network Security, Information Assurance, EMI/EMC/Tempest & Tech Security

- Top Secret Security Clearance (SSBI), determined Eligibility of SCI - DCID 6/4 on 2007 05 08 DIA

Significant Professional Experience and Accomplishments

- Currently maintaining 14 personal, professional, and institutional websites that I developed. Providing technical support and software development for ManTech's Document Detective security software.

- Developed and deployed a Secure Sockets Layer (SSL) encrypted, interactive website filled with customized management tools and applications that are designed to work well on mobile devices, for people who are deployed to the field. This website was cited as a Missile Defense Agency success story by Lieutenant General Patrick O'Reilly at the 2011 Space and Missile Defense Conference in Huntsville, AL.

  -- Specialized task tracking system that tracks individual tasks that converge to a single event on a specific day, such as the launch of a missile, and replaces cumbersome Excel spreadsheets.

  -- "Lessons Learned" Database interface that allows users to submit new lessons learned and to search previous lessons learned to help prevent past problems from reoccurring in future flight tests.

  -- Supplemental document repository for historical documents that may be needed for future missions. This became a requirement when the MDA Share Point database began to reach its capacity.

  -- "Quad Chart" editor that provides consistently formatted and timely charts and can be updated anytime from anywhere and makes current information available to managers in near real time.

  -- User friendly interface for a complicated and tedious data input file for the MDA Risk Chart Maker program. An improved Risk Chart Maker program is in development.

- Crafted a website to collect, score, and manage Seed Grant proposals for the Huntsville Association of Technical Societies (HATS) Science and Technology Education and Training (STEDTRAIN) program, and

earned recognition as the HATS STEDTRAIN Professional of the Year (POY) 2009 & 2010 award for this work. Over 150 proposals were submitted, and over $100k in grants were awarded to 117 area K-12 teachers since 2010 for innovative projects that will "seed" student's enthusiasm for science and technology.

- Identified serious security flaws in Microsoft's OLE/COM architecture that represent a significant risk to sensitive and classified information, and recommended countermeasures. Ron is a nationally recognized expert and speaker on this subject at Government IT and IA conferences and events.

- Invented Document Detective software and a Government approved process to redact, sanitize, and review electronic documents for transfer across security domains. It is one of three software programs recognized by the Government for declassification and downgrading Microsoft Office documents. SRS Technologies recognized this accomplishment with the Joseph Cody Outstanding Engineer Award for 2005.

  -- Constructed an online store to sell Document Detective products through the Internet, and automated the collection and processing of accounting information from the website.

  -- Wrote the computer based training package for Document Detective, including screen videos that is deployed with the software for initial, self-paced training.

  -- Initiated and maintained a searchable and interactive 24/7 technical support website to support Document Detective and a Customer Portal for distributing documentation and software updates.

- Created an Operations Security (OPSEC) training PowerPoint presentation with embedded tracking and an email reporting capabilities to ensure the training was completed prior to deploying for a mission.

- Awarded patent 6,963,315 B2, on 8 Nov 2005, for an Inflatable Antenna that allows large aperture dish antennas to fit into a light-weight backpack for deployment to remote locations for high-bandwidth satellite communications. One prototype provided emergency communications after hurricane Katrina.

- Monitored state legislative activity and its impact on the practice of professional engineering for nearly 10 years as the Joint Engineers Council of Alabama (JECA) Director representing the IEEE Huntsville Section, and received an Outstanding Service award from IEEE Huntsville in 2005 for this work.

- Planned and executed a specialized field test of a High Power Microwave (HPM) device--8 months in planning, the test was flawlessly executed in 3 days; collecting over 2400 data sets in 21 test shots.

- Lead the US Air Force's Advanced Concept Technology Demonstration (ACTD) program to develop and test a High Power Microwave weapon for computer network attack.

- Earned Air Force Systems Command's 1998 General James A. Ferguson Award for engineering excellence and innovation by assembling and directing the 70-man, multidiscipline team that designed, built and demonstrated the 1st deployable high power microwave weapon system in 13 months for $6.5 million.

- Recovered mission critical outages in Korea and the Philippines through unique abilities to analyze and troubleshoot problems in complex computer systems and networks.

- Managed a 50-man branch at four geographically separate facilities, including a high security, 70,000 square foot laboratory buried inside a mountain.

- Recognized by US Department of State for enhancing technical security of a diplomatic facility overseas.

- Built 5 Real Time Surface to Air Missile threat system models for the F-22 Advanced Combat Simulator, a $2.7 million, 3-year contractual effort.

- Published a paper in IEEE *Transactions on Antennas and Propagation* about a Space-Time Antenna Array for impulsive sources development at the Air Force Research Lab.

- Coauthored a technical article on the ACTD device titled, “JOLT: A Highly Directive, Very Intensive, Impulse-Like Radiator," Air Force Research Lab, "Sensor and Simulation Notes," Note 480, 10 Nov 2003.

- “Using An Electron Beam Launched Orthogonal To The Geomagnetic Field As A Low Frequency Loop Antenna Aboard A Spacecraft In Low Earth Orbit,” University of Dayton (Master’s Thesis), 1992.

Detailed Job History

2011-Present, *Hackett Science and Technology Applications Company (H-STAC)*, Fayetteville, TN as an engineer, software developer, consultant, owner and sole proprietor of this Service Disabled Veteran Owned Small Business. H-STAC provides flexible quick reaction capabilities, website designs and interactive applications, rapid software development and prototyping, systems engineering, and technical consulting services for Information Technology, Information Assurance, and Radio Frequency systems.

2002-2011, *ManTech International Corporation, Inc*., Huntsville, AL, aka *NeXolve Corp, Inc.*, a wholly owned subsidiary, formerly *SRS Technologies, Inc.*, acquired in 2008, as a Program Manager responsible for systems engineering; custom software development, sales and marketing; and antenna design.

1999-2002, *Missile and Space Intelligence Center*, Redstone Arsenal, AL, as an Electrical Engineer and Program Manager for Real Time Surface to Air Missile (RTSAM) threat system models, Digital Infrared Surface to Air Missile System (DISAMS) models, custom software, and electronic document security.

1997-1999, *Air Force Research Laboratory*, Kirtland Air Force Base, NM as the High Power Microwave (HPM) Information Warfare (IW) Advanced Concept Technology Demonstration (ACTD) Program Manager that developed IW applications and put the first HPM weapon into the hands of the warfighter.

1997-1999, *Independent Computer Solutions*, Albuquerque, NM, Consultant and Owner (Part-time, Off-duty) that designed, installed, and administered Novel and Windows 95/98/NT networks, configured email and Internet connections, maintained and upgraded workstations, and managed system backups.

1995-1997, *Phillips Laboratory*, Kirtland AFB, NM, Information Warfare Applications Branch Chief that developed creative and innovative solutions to problems encountered by warfighters on the modern digital battlefield and transitioned technology to support Information Operations.

1994-1995 , *Air Force Information Warfare Center*, Kelly Air Force Base, TX, Hardware Exploration Branch Chief that lead exploration of advanced technical concepts and application of Information Assurance technologies to Command and Control Warfare (C2W) problems and operations.

1992-1994, *Air Force Intelligence Command*, Kelly AFB, San Antonio, TX, System Developer that managed advanced technical development projects providing radio frequency and communications solutions to emerging warfighter requirements, and identified potential technologies for development.

1988-1992, *Foreign Technology Division*, Wright-Patterson Air Force Base, OH, Technical Team Leader for state-of-the-art antenna research, propagation models, and modulation system and provided intelligence estimates and assessments to warfighters. Supported operation DESERT STORM.

1986-1989, *Department of Defense Special Representative Japan (DSRJ)*, Yokota Air Base, Japan, Special Collection Systems Senior Engineer responsible for RF and computer systems field engineering support, designed and installed special Quick Reaction Capability (QRC) collection systems throughout the Pacific.

1983-1986, *Electronic Security Command*, Kelly Air Force Base, TX, Major Command Electronics Engineer that directed the Major Command TEMPEST and Technical Security programs, and provided technical security assistance to the Department of State at an overseas facility.

1982-1983, *San Antonio Air Logistics Center*, Kelly Air Force Base, TX, Intermediate Command Project Engineer that improved the reliability of the C-5A computer controlled Malfunction Analysis, Detection and Recording System (MADARS), and provided Logistics support to Electronic Security Command.

Additional Education and Training

- Program Management Certificate, University of Alabama at Huntsville, 2005
- Windows Programming with Microsoft Visual C++ and Microsoft Foundation Classes, University of Alabama, Huntsville, AL, (UAH), 2000
- Fundamentals of C, UAH, 2000
- Intermediate Systems Planning, Research, Development, and Engineering Course (SYS 201), Defense Systems Management College (DSMC), Fort Belvior, VA, 1997
- Air Command and Staff, Air University - Correspondence (AU), Maxwell AFB, Montgomery, AL, 1996
- Intermediate Systems Acquisition Course (ACQ 201), DSMC, 1996
- ELINT and Fusion Analysis (IS-070), National Cryptologic School (NCS), Ft Meade, MD, 1989
- Conflict Management (MC-124), and Leadership Seminar (MC-128), NCS, 1989
- Squadron Officer School, (AU) - Correspondence, 1987 and residence, 1988.
- National Communications Security Course (CY-300), NCS, 1985
- Digital Signal Processing Course (ENE 457), AFIT, 1985
- Management Training Seminar (MC-205), NCS, 1986
- Fundamentals of TEMPEST Testing and Analysis (L30ZR2825-22), 1983
- Cryptography and Data Security, Hellman Associates, Inc., 1983
- Modern Radar Technology and Applications (ENGR 867), University of California, Los Angeles, 1983

Publications, Presentations and Papers

- "Computer Product Security: The Desktop Publishing Threat to Sensitive and Classified Information," Redstone Arsenal/NASA Information Technology Expo, June 2001.
- Two papers accepted for publication in IEEE Transactions on Antennas and Propagation based on Space-Time Antenna Array for impulsive sources development at the Air Force Research Lab. These papers were also presented at the 1999 IEEE AP-S Symposium in Orlando, FL.
- Coauthored, "JOLT: A Highly Directive, Very Intensive, Impulse-Like Radiator," *Sensor and Simulation Note 480*, November 2003.
- Copresented a paper on the HPM IW ACTD at the Eighth National Conference on High Power Microwave Technology in Albuquerque, NM with Drs Baker and Dogliani.
- Invited guest speaker at the Naval Postgraduate School in Monterrey, CA on the development and application of HPM devices for use in Information Warfare.
- "Using An Electron Beam Launched Orthogonal To The Geomagnetic Field As A Low Frequency Loop Antenna Aboard A Spacecraft In Low Earth Orbit," University of Dayton (Master's Thesis), 1992.

Miscellaneous Information

- Amateur Radio and former Military Affiliate Radio Station (MARS) operator
- Private Pilot (Single Engine Land rating) and former member of the Civil Air Patrol
- Achieved the rank of Eagle Scout in Boy Scouts of America