

Ronald D. Hackett

Major, <u>United States Air Force</u>
Retired

122 Ashton Circle Fayetteville, TN 37334 Phone: (931) 438-3298

EXPERIENCE

Antennas and Propagation Ultra-Wideband Pulsers High Power Microwaves Data Acquisition and Analysis Computers and Networks Telecommunications Systems Engineering
Engineering Field Testing
Program Managment

SERVICE HISTORY

• 1999-2002 Electrical Engineer, <u>Defense Intelligence Agency/Missile and Space Intelligence Center</u>, Redstone Arsenal, Huntsville, AL

Coordinated application of center approved procedures governing the execution of JMASS modeling activities. Assisted in the development of foreign weapons system models and simulation. Utilized computer models, statistical analysis, military and scientific intel assets to analyze the capabilities and effectiveness of foreign weapon systems including both radio frequency (RF) and infrared (IR) guided SAMS, SRBMS, and ATGMS. Assessed the performance, limitations and vulnerabilities of such threats to current and future U.S. weapon systems. Interfaced with MSIC's DoD and service customers. Assisted in the gathering and analysis of all-source intelligence information.

 1997-1999 Information Warfare Program Manager, Directed Energy Directorate, <u>Air Force Research</u> <u>Lab</u>, <u>Kirtland AFB</u>, <u>New Mexico</u>

Lead JCS #1 advanced technology transition program-focused 70-man, interdisiplanary team and \$6.5 million budget. Orchestrated contractors, the sponsoring CINC, US Army, JCS/J39, SAF/AQ and OSD interactions. Directed world's most powerful, leading edge high power microwave (HPM) source

development research. Also functioned as deputy of a 50-man Branch at 4 locations around the base. Oversaw the Laboratory's high profile Command and Control Warfare/Information Warfare program. Maintained close communications with customers developing requirements and transitioning technology.

 1995-1997 Chief, Information Warfare Applications Branch, <u>Electromagnetics Applications Division</u>, <u>Phillips Lab</u>, Kirtland AFB, <u>Albuquerque</u>, NM

Managed multi-million dollar <u>transient electomagnetic (TEM)</u> technology development programs. Oversaw a remote 70,000 square foot facility with 25 Government and contractor technical experts. Directed the laboratories high visibility, very high priority Command and Control Warfare program. Researched, developed, and transitioned technical applications to support Information Warfare objectives, and sought solutions to problems encountered by warfighters on the modern digital battlefield. Supported national programs, directed by the Chief of Staff of the Air Force, with technical applications and solutions.

• 1993-1995 Chief, Concept Exploration Branch, <u>Air Force Information Warfare Center (AFIWC)</u>, <u>Kelly Air Force Base (AFB)</u>, <u>San Antonio</u>, <u>TX</u>

Lead exploration of advanced technical concepts and application of Information Warfare (IW) technologies to Command and Control Warfare (C2W) problems and operations; provided technical baselines for the program, and shaped its development; developed concepts, requirements and solutions for the IW mission; supported and advised commanders about system vulnerabilities; developed and implemented strategies, manpower, and funding plans for the Division; deconflicted and leveraged other technology programs withing the US Government; and coordinated with national level planners, DoD agencis, other service components, National Laboratories and contractors.

• 1992-1993 System Developer, Space and Advanced Programs Directorate, <u>Aerospace Ingelligence Agency</u>, <u>Kelly Air Force Base (AFB)</u>, <u>San Antonio</u>, <u>TX</u>

Managed advanced technical development projects providing radio frequency and communications solutions to emerging warfighter requirements. Identified potential technologies and developed proposals and financial plans. Coordinated technical programs with other services, agensics and government labs.

 1989-1992 Advanced Signals and Systems Analyst and Technical Team Leader, Foreign Aerospace Science and Technology Center, Wright-Patterson AFB, Dayton, OH

Researched state-of-the-art antenna designs, propagation models, and modulation systems, and developed estimates of their capabilities, limitations, reliabilities and vulnerabilities. Developed new techniques and

computer models to aid in engineering analysis. Wrote analysis reports, briefings and intelligence assessments. Monitored technical contracts and managed the Antenna Technical Team. Taught an in-house training program on antennas, propagation and Radio Frequency (RF) design for other engineers.

 1986-1989 Special Collection Systems Senior Engineer, RF and Digital Engineering Branches, Engineering Division, NSA/CSS Representative Japan (NCRJ), Yokota Air Base, <u>Japan</u>

Provided RF field engineering support, advice and training for all SIGINT producers throughout the Pacific Theater. Designed, developed, and directed antenna fabrication at the Engineering Support Facility, Camp Zama, Japan. Provided surveying and installation assistance, and training for new systems, worked to improve existing systems, corrected design discrepancies, and designed and installed special Quick Reaction Collection (QRC) systems. Performed recertification and emergency repair of computer systems in the Far East, including the DEC PDP-11 series, Honeywell systems, SEL systems, and IBM mini systems. Also served as the Assi stant Branch Chief for the Digital Engineering Branch.

 1983-1986 MAJCOM Electronics Engineer (TEMPEST), Plant Engineering and Technical Security Division, DCS Logistics, <u>HQ Electronic Security Command (ESC)</u>, <u>Kelly Air Force Base (AFB)</u>, <u>San Antonio</u>, <u>TX</u>

Helped direct the ESC TEMPEST and Technical Security programs. Provided technical security assistance to the Department of State at an overseas facility.

1982-1983 Intermediate Command Electromagnetic Intelligence Systems (EIS) Project Engineer,
 Engineering/Reliability Branch, San Antonio Air Logistics Center (SA-ALC), Kelly Air Force Base (AFB),
 San Antonio, TX

Worked to improve the reliability of the C-5A computer controlled Malfunction Analysis, Detection and Recording System (MADARS). Provided Logistics support to Electronic Security Command.

EDUCATION

- PME:
 - o Squadron Officer School Correspondence, 1987 and residence, 1988.
 - o Air Command and Staff Correspondence, 1996
- Civilian:
 - BS in Engineering, 1981, University of Central Florida, Orlando, Florida
 - Webster University, St Louis, Missouri, 12 hours completed toward an MBA.
 - Air Force Institute of Technology, Wright-Patterson AFB, Dayton, Ohio, Advance electromagnetics

- classes applied toward MS degree.
- MS in Electrical Engineering (Electromagnetics and Antenna Theory, (1992), <u>University of Dayton</u>, <u>Dayton</u>, <u>Ohio</u>

Training:

- Windows Programming with Microsoft Visual C++ and Microsoft Foundation Classes, University of Alabama at Huntsville, 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 Belvoir, VA, 1997
- o Intermediate Systems Management Course (ACQ-201), DSMC, 1996
- o ELINT and Fusion Analysis (IS-070), National Cryptologic School (NCS), Ft Meade, MD., 1989
- o Conflict Management (MC-124), NCS, 1989
- o Leadership Seminar (MC-128), NCS, 1989
- o National Communications Security Course (CY-300), NCS, 1985
- o Digital Signal Processing Course (ENE 457), AFIT, 1985
- Management Training Seminar (MC-205), NCS, 1986
- Fundamentals of TEMPEST Testing and Analysis (L30ZR2825-22), 1983
- TEMPEST Coordination Officer (L30ZR3016-6), 1983
- Cryptography and Data Security, Hellman Associates, Inc., 1983

CERTIFICATIONS

- Acquisition Professional Development Program:
 - Program Management
 - Communications-Computer Systems
 - Systems Planning, Research, Development and Engineering (SPRD&E)
- Professional Engineer (PE), States of Ohio and Alabama (pending)
- Cryptologic Engineer, National Security Agency

SIGNIFICANT CAREER ACCOMPLISHMENTS/AWARDS





- 1999 General James A. Ferguson Award, Air Force Material Command
- 1999 Meritoruous Service Medal, Second Oak Leaf Cluster, Air Force Research Laboratory
- 1995 Meritoruous Service Medal, First Oak Leaf Cluster, Air Force Information Warfare Center
- 1994 Air Force Achievement Medal, First Oak Leaf Cluster, Air Force Information Warfare Center
- 1992 Meritorious Service Medal, Foreign Aerospace Science and Technology Center
- 1991 Air Force Achievement Medal, Foreign Technology Center
- 1989 Defense Meritorious Service Medal, National Security Agency
- 1989 Joint Service Achievement Medal, National Security Agency
- 1989 Certified Cryptologic Engineer, National Security Agency
- 1986 Air Force Commendation Medal, Electronic Security Command
- 1984 Certificate, "Tribute of Appreciation," U. S. Department of State

PROFESSIONAL AFFILIATIONS

- Institute of Electrical and Electronics Engineers (IEEE), Senior Member
- Joint Engineers Council of Alabama (JECA)
- American Radio Relay League (ARRL)
- Former member of Military Affiliate Radio Stations (MARS) and Civil Air Patrol (CAP)

PERSONAL INTERESTS

- Flying (Private Pilot, single engine land rating)
- Amateur Radio (Technician Class with code)
- Tinkering (electronics, mechanics, computers, etc.)
- Woodworking

• Tennis

Last Updated: 26 September 2002

All rights reserved

Hackett Information Systems Engineering