

Lt. Col. Terry E. Smith, USAF

Lecturer, Electronic/Information Warfare (EW/IW) Program Officer
NPS Graduate School of Operations & Information Sciences (GSOIS)
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EDUCATION:

MSEE – Air Force Institute of Technology, Electronic Warfare
BSEE – California Polytechnic State Univ (Electronic Engineering)
USAF Electronics Technical Training and Communications/Information
Officer Career Development

SECURITY CLEARANCE: Top Secret, Special Compartmental Information
(TS-SCI/TK)

INTERESTS:

Electromagnetic Coupling Effects on Military Systems
Radar Technology Applications
Military Command and Control

EXPERIENCE HIGHLIGHTS:

Air Force Operational Test & Evaluation Center (AFOTEC): Assistant Director of Operations - Command-staff position supporting 18 operational test programs at Edwards AFB (Bombers, Fighters, Mobility, Unmanned Vehicles, and Rotary). Mission: "AFOTEC stands as the last step of acquisition process – inherent responsibility to evaluate mission effectiveness/suitability of production representative systems in realistic operational environments".

National Air & Space Center (NAISC): Senior Measurement and Signals Intelligence Data Exploitation Manager - AF Reservist responsible for conducting experiments, analysis, and reporting of non-imaging infrared (IR) and Radio Frequency (RF) collections from national and Air Force technical sensors.

ITT Systems & Sciences: Deputy Program Manager for High-Power Microwave Sources - Principal Scientist for conducting laboratory source/effects experiments on numerous aircraft & C4I systems.

Field Command Defense Nuclear Agency: Chief Scientist, Electromagnetics Branch, Test Operations - Responsible for implementing/characterizing Van de Graaff fast-rise pulse upgrade and test facility operations of the Advanced Radiation EMP Simulator (ARES) on Kirtland AFB, in Albuquerque, NM

Mission Research Corporation Program Manager - Transitioned laboratory developed high-altitude electromagnetic pulse (HEMP) hardness surveillance test technologies and tools from the laboratory to maintenance community at Tinker AFB.

Air Force Research Laboratory: Section Chief, Aircraft/Missiles Division. Responsible for electromagnetic pulse (EMP) hardness surveillance technology developments and demonstrations.

Hughes Aircraft Company: Co-op student at the Radar Systems Manufacturing Div in El Segundo, CA. Design/implementation of a microwave network analysis system capable of measuring the error-corrected scattering parameters for 17 microwave stripline devices used in the F/A-18 radar

US Air Force, Radio Relay Equipment Repairman

MASTERS THESIS:

Ziv-Zakai Bound Applied to an Amplitude Comparison Monopulse Radar - Masters thesis designed a 2-dimensional monopulse radar around a novel target estimation algorithm (vice Cramer-Rao bound). Improved tracking performance in noise (multipath, clutter, etc.) by as much as 20 dB observed over conventional methods.

PUBLICATIONS: Lt. Col. Smith has authored well over 50 technical reports on the subject of RF susceptibility evaluation (plans, test concepts, test conduct reports, and data evaluation and analysis reports). Contributing author, Sensor and Simulation Note 480, October 17th, 2003, "*JOLT: A Highly Directive, Very Intensive, Impulse Radiator*", paper won best 2003 high-power electromagnetics paper - Summa Foundation

