James Atkinson

3rd

Student, Soldier, Spy Hunter, Scientist, Electronics Engineer, Computer Programmer, Cyberoperations, Computer and Digital Devices Forensics

Greater Boston Area | Defense & Space

Current	Granite Island Group
Previous	United States Air Force, James M. Atkinson, Electronics Engineer, Louisiana Tech University
Education	Louisiana Tech University

Send James InMail

500+ connections

https://www.linkedin.com/in/jamesmatkinson

Background

Summary

Industry leader in Bug Sweeps, Wiretap Detection, Detection of Covert Video Cameras, Detection of Covert Microphones, and related inspections, TSCM, TEMPEST, NONSTOP, Emissions Security (EMSEC), Signals Intelligence and related fields.

Over forty years of hands-on experience on a wide range on computer systems, involving multiple generations of technology including huge, highly secure, and highly classified mainframe systems, to modern desktop, laptop, and handheld computers.

Well experienced in the design and development, prototyping, and production of specialized electronic devices and instrumentation.

Expert technical, analytical and research for the detection, nullification, and isolation of eavesdropping devices, technical surveillance penetrations, technical surveillance hazards, and physical security weaknesses.

Research and development of technical systems, devices, and tradecraft utilized by the U.S. counter-intelligence community.

Development of device drivers and related software to operate and integrate high-performance test equipment used for signals analysis, SIGINT, TEMPEST, NONSTOP, HIJACK, and TSCM.

Research, design, and development of instruments and medications for the non-invasive high density imaging of human neurological systems, to include mapping of the signal pathways of the heart, non-contact electronic isolation of individual pathways, and the monitoring and control of a single signal on a single pathway or fiber.

Intelligence Analysis and activities to determine the existence and capability of surveillance equipment being used against the governments, corporations, establishments, or persons.

Forensic skills to include computer forensics, network forensics, hard drive forensics, WiFi forensics, WAN forensics, cell phone forensics.

Hard-core, long-term Apple Macintosh Developer in hardware and software. Skilled in the leading edge of Mac networking and communications.

Considered to be the Leonardo da Vinci of Bug Sweeps.

Specialties:Technical Counterintelligence Operations

Intelligence Analysis

High Quality and Detailed Bug Sweeps

TEMPEST Inspections and Design

Product Design and Prototyping

Skilled Hardware Engineer and Designer

Programmer of Device Drivers

Instrument Control Software

Virtual Instruments

FFT Algorithms

Signals Intelligence and Electronic Warfare

Biomedical Engineering

Emergency Field, Wilderness, and Battlefield Medicine

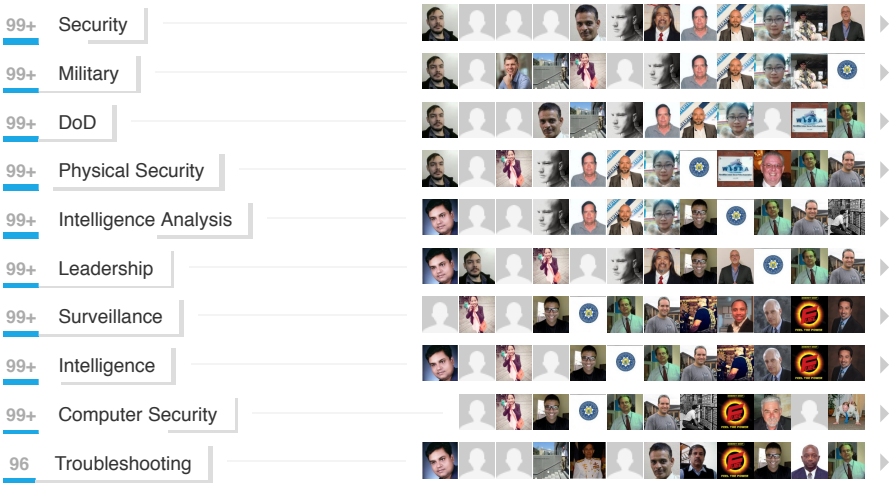
Emergency Operations Management

Fine Arts Photography

CounterEspionage

Skills

Top Skills



James also knows about...

94 Integration | 90 Training | 85 Emergency Management | 85 Defense
83 Program Management | 72 Networking | 70 Network Security
67 Counterterrorism | 66 Strategic Planning | 56 Software Engineering
45 System Administration | 45 Software Documentation | 43 Government
40 Security Clearance | 35 TSCM | See 25+

Experience

President and Senior Engineer
Granite Island Group
August 1987 – Present (28 years 8 months) | United States

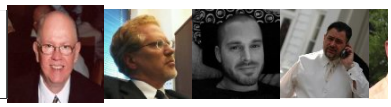
Specializing in electronics engineering as it applies to using technical measures to protect classified, sensitive, or private information against eavesdroppers or spies.

Specialty in performing bug sweeps, wiretap detection, and penetration testing of highly classified or sensitive communications systems, networks, and facilities.

80 more connections can introduce you to someone who knows James
Get introduced

James Atkinson

People Similar to James



Stephen Johnson
President, CEO at Aramis Engineering
Connect

Provided technical expertise in the specialized analysis of information for the intelligence community, and the legal or investigative community by sifting through large volumes of raw materials or reports in a very short period of time to identify patterns in the data or details.

Widely published, countless interviews, quotes, articles, and mentions in major national and global media. Court certified expert witness in multiple areas of expertise.

Development, prototyping, and building of specialized electronic devices, instruments, and software to enhance and automate TSCM, SIGINT, TEMPEST inspections and U.S. Special Collection Service (SCS) intelligence community activities.

Developer and designer of hardware based cryptographic and signals intelligence siege engines, used by the Intelligence Community, including the development of TSCM, SIGINT, and Cryptographic systems and related siege engines.

Designing, Screening, Certifying, Constructing, Building, and Customizing government classified SCIF facilities and shielded rooms, vehicles, or compartments.

The designer of specialized military weapon systems and specialized munitions.

Taught on contract at the Army Intelligence Schools and Ft. Devens, and other related facilities.

Skilled in teaching active duty military and veterans working for private contractors tactical and technical topics to include protective vehicle operations, chemical weapons, firearms, explosives, emergency medicine, and related topics.

- 67 projects, including:
- 6 organizations
- 8 test scores
- 12 courses, including:
- 13 recommendations, including:

Stephen Spring
Association of Former Intelligence Office…

Jim is the consummate professional in every respect. His integrity and dedication to his clients in maintaining the... View

Paul Curtis
Retired

I would commend to you the services and expertise of James Atkinson. He is highly competent in his field, and generously... View

11 more recommendations

Chemical Weapons Text Book

Atrial Fibrillation

Metastatic Case Studies

Electrocardiography

Venous Thrombosis

SEE MORE

Cryptologic/Space Communications Technician (CT) - 917 FG, 442 FW, 10th AF, AFRC - AFSC/MOS 30670/30

United States Air Force

June 1986 – August 1987 (1 year 3 months) | Barksdale AFB, LA

Component level service and repair of field deployable Top Secret electronic cryptographic systems to scramble and encrypt data, phone, voice, and signals from "advanced sensors" and defensive missile systems. KG-13, KY-3, KG-84

Also attended a course on TSC-88 Space Communications Systems as our cryptographic gear had to go between highly classified computers/terminals and satellite uplink/downlinks. AN/TSC-88, AN/URC-101, AN/ GSC-39, AN/UGC-129 Airborne Teletype, and various man-portable, combat communications systems.

Member of a Contingency Group, for deployment in a post nuclear holocaust, to restore military communications.

Electronics Engineer

James M. Atkinson, Electronics Engineer

March 1982 – May 1987 (5 years 3 months) | Ark-La-Tex Area, Washington, DC, San Jose, Boston, MA

While in the military on active duty, I performed part-time "moonlight engineering" (after hours) where a company would engage me for a short term project to develop computer or signal processing hardware.

The normal engagement was to provide (in under a month) a fully functional prototype design on a wire-wrapped board and to provide all of the initial software drivers that made the prototype work so that my customer could use it as the basis of their own product design and to accelerate product development. My policy was that I would not undertake a project, or an assignment unless I could provide a deliverable product in under one month, so it kept the turn around time very short.

The designs were equipment to detect any form of signal whatsoever on the RF spectrum, then to rapidly and automatically catalog them, to control hand-off receivers, and to derive intelligence from the activity of the signal itself by the use of computers without focusing on the actual content until a later stage.

Very elegant, very small, and compact designs, using mostly Motorola 68000 and Zilog Z-80 complex processors, the TI TMS32010, and Motorola DSP56000.

These designs eventually lead to a massive scale signal processing assignments where I was contracted by Texas Instrument to design a single, self-contained modular signals analysis engine based on their digital signals processors. The modules could then be cascaded to inventory anything that showed up on the spectrum, of any sort, no matter how brief. A few years later I did a similar project for Analog Devices.

This "midnight engineering" work would evolve into "Granite Island Group" in August 1987 when I left the military at the end of my contracted active duty service period and re-entered civilian life.

▸ 8 projects

Computer Room Manager, Lab Supervisor, Adjunct Instructor and Tutor (Part-TIme)

Louisiana Tech University

1983 – 1987 (4 years) | Barksdale AFB, LA

While in the military, attended college full time at night and weekends, and was employed on a part-time basis by the university to manage and supervise the on base computer rooms, labs, keypunch center, terminals, modems, Personal Computers, Digital Equipment Corporation (DEC) minicomputers, Boroughs, IBM 360 and IBM 370 systems that were used by the school to teach computer courses at Barksdale AFB (off-campus site).

Responsible for 1:1 tutoring of graduate and post-graduate students in Cobol, RPG, PL/1, JCL, FORTRAN, Assembler, BASIC, Calculus, Business Statistics, and in Quantitative Analysis.

As an adjunct instructor, taught computer programming in Cobol, RPG, Fortran, Assembler, and Basic to undergraduate students, and the business use of desktop computers to MBA students to include quantitative analysis.

Supervision of 4 subordinate tutors and computer lab monitors.

Computer Maintenance Technician - HQ 8th AF, 8th AF, AFGSC (30574/36272)

United States Air Force

July 1982 – June 1986 (4 years) | Barksdale AFB, LA

After technical school, in order to become certified as the "5 level" I was rotated through every possible variation of component level computer maintenance in each of the work centers of the 465L system until certification for component level repairs to the "5 level" on the TCC, RCC, DDC, Sub-A, system operations, and other sections of the Barksdale AFB, March AFB, Offutt AFB, and numerous missile silo launch facilities utilizing the 465L computer networks, computers, and peripherals.

Once I performed certifications and internship rotations in each of the work centers I was assigned as a "7-level" shift supervisor over my own shift of computer maintenance technicians and system operations technicians and we performed maintenance, service, and emergency repairs to the 465L mainframe computer systems at Barksdale AFB and periodically at other SAC bases or missile launch facilities.

Maintained digital voice and data switching systems, cryptographic data system, and voice encryption systems at the Top Secret level.

Became formally certified as a sort of "Nerd's Nerd" in that I had maintained, serviced, and repaired, and had unrestricted access to the systems used to launch and control thermo-nuclear weapons, satellite surveillance systems, and a wide cross-section of highly classified intelligence-gathering systems.

Direct day-to-day supervision of 33 subordinate computers, switching systems, cryptographic and space communications technicians.

AFSC 30574 and AFSC 36272

▸ 4 test scores

Computer and Switching Systems Technician - AFSC/MOS 30574/36272

United States Air Force

August 1981 – June 1986 (4 years 11 months) | National and International

Cold War Military Veteran

Specialized in the deployment and maintenance of the USAF "Big L" communications systems:

465L - SACCS (Strategic Air Command Control System)/SACDIN
407L - TACS (Tactical Air Control System)/GTACS (Ground Theater Air Control System)
490L- AUTOVON DCS (Automatic Voice Network of the Defense Communications System)
493L - AUTOSEVOCOM (Automatic Secure Voice Communications)
E-4 NEACP (National Emergency Airborne Command Post, Nightwatch)

Trained, qualified, and certified as a master mainframe computer and switching systems technician.

Worked on some of the most highly classified, dangerous, and sophisticated computer equipment used by the United States military and intelligence agencies.

Member of SAC Nuclear Detonation (NUDET) Detection team, and Contingency Group Deployment team for post-nuclear or biological holocaust communications recovery.

Cross trained into cryptographic systems, satellite communications and specialized automated signals intelligence and related disciplines.

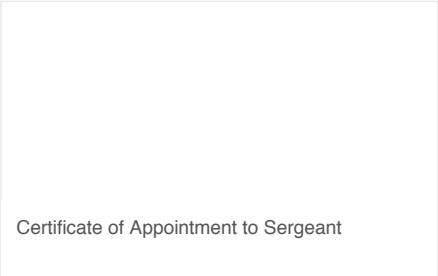
Studied the sophisticated methods that countries use to spy on each other, and helped develop TSCM, TEMPEST, and related emissions security standards, protocols, and procedures that are vital to not only our own national defense but the defense of our allies as well.

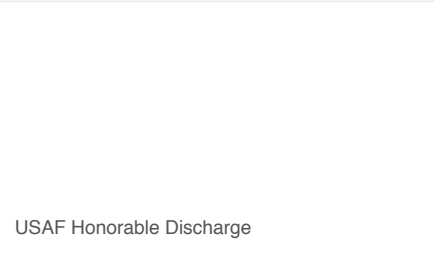
Non-Commissioned Officer in Charge (NCOIC) involving the leadership and supervision of 33 subordinate computer and switching systems technicians, fiscal responsibility of over 18 million dollars in laboratory grade test equipment, classified computer and communication equipment on a 7/24/365 high-security operation.

Primary AFSC's 30574 and 36272 (Computer and Switching Systems)
Secondary AFSC's 30670 and 30476 (Cryptographic and Space Communication Systems/SATCOM)
Lateral AFSC 39190 (Maintenance Analysis Superintendent)

Honorably Discharged, 10-Point Veterans Preference Eligibility, under 5 USC 2108

- 11 projects, including:
- 6 organizations
- 13 honors and awards, including:
- 1 test score


Certificate of Appointment to Sergeant


USAF Honorable Discharge

Cold War Recognition Certi…

Cold War Recognition Certi…

Certificate of Training - MM…

SEE MORE

Technical School Student - CNATTU Keesler, CNATT, Learning Centers, NETC

United States Air Force

October 1981 – June 1982 (9 months) | Keesler AFB, MS

Student in a USAF training program as a computer and switching systems technician for highly classified large-scale mainframe computer systems.

Initially trained on the 407L computer systems, and then on the 465L system.

High precisions avionics soldering, Soviet awareness, test equipment use, basic electronics, computer circuits, peripherals, printers, magnetic tape units, computer programming, missile silos and everything related to Strategic Air Command and Tactical Air Command pushing bits and bytes between bases and remote field locations, and interfacing with classified systems of the National Security Agency - NSA, Central Intelligence Agency - CIA, and National Reconnaissance Office - NRO.

AFSC 30534K (HM-4118/407L) and 30534F (SACCS/465L EDTCC)

Completed over 1000 hours of classroom training.

Basic Trainee - NTTC Lackland, NTTC, Service Support, Learning Centers

United States Air Force

August 1981 – October 1981 (3 months) | Joint Base San Antonio (Lackland AFB, TX)

Military customs and courtesies, drill, ceremony, military history, initial weapons training, military discipline, teamwork development. Inspections, drill, drill, more drill. Physical fitness, initial combat training, obstacle courses, rappelling, live fire drills. Boot Camp, Push ups, and sit ups, and then more push ups, combined with lots of running, marching, more push-ups, then some more running. Learned how to salute at some point in all this, but it was more about the push-ups the running laps before sunrise.

Basic Recruit - Delayed Entry Program

United States Air Force

October 1980 – August 1981 (11 months)

Enlisted under a delayed active duty program to await a training slow on one of two specific highly specialized mainframe computer systems upon which I wished to work and be trained and to also be trained in telephone switching systems. Once I enlisted, there was roughly a 9 month wait for the training slot to rotate around so I could leave for boot camp, and then after boot camp to a technical school. While awaiting my entry to active duty service I continued to work for AT&T Bell Labs as a computer programmer, and when I went on active duty I look a leave of absence, which left my position open for as long as I remained in the military, so that I could walk right back into in with seniority after my military career (which was really a sweet deal at the time).

Computer Programmer

AT&T Bell Laboratories

May 1977 – August 1981 (4 years 4 months)

Developed a sophisticated Z-80 based assembly language compiler to port existing instrument control programs to newly emerging desktop computers.

Became extremely proficient with the development of software in raw assembler language for the HP2100 and single chip 6502, 8080, and Z-80 CPUs.

Spent a significant amount of time translating HP2100 Assembler code, and legacy programs previously written in BASIC, FORTRAN, or another language into raw Z-80, 6502, and 8080 Assembler.

Development of software and hardware drivers to control laboratory grade test equipment for analysis of the RF spectrum, TSCM, TEMPEST, and related signals intelligence activities.

Early work with complex software defined virtual instruments, computer controlled test equipment, and connecting diverse arrays and racks of complex test equipment across a range of suppliers to create a single test instrument under seamless computer control for fully automated measurements.

Extensive full-time work in FORTRAN, ALGOL, BASIC and ASSEMBLER. Also worked with PL/I "Programming Language One" in several dialects, plus work in COBOL, and RPG.

Gained invaluable experience with automated measurements, and exposure to a wide range of both laboratory grade test equipment, and state-of-the-art computer interfacing, equipment developed with only one purpose in mind... to scrub the airwaves for leaking secrets.

Started as a part-time apprentice computer programmer as part of a high school work-study program, and worked my way up from there through increasing levels of responsibility, with larger and more complex projects.

During my junior summer of high school, this turned into full-time employment, and then remained full-time employment through my final year of high school as a work-study program, and continued until my USAF enlistment.

Computer Programmer/Apprentice

AT&T Bell Laboratories

August 1975 – May 1977 (1 year 10 months)

Hand ported legacy software in multiple languages to and from IBM and DEC platforms to the HP2100, PDP-8, PDP-10, and PDP-11 mini-computers.

Spent a lot of time hand translating and compiling programs written in BASIC and FORTRAN into HP2100 Assembler code.

Development of HP2100 software and hardware to control laboratory grade test equipment for analysis of the RF spectrum, TSCM, TEMPEST, and SIGINT.

The HP2116 was the core of the HP Model 8580A ASA or Automated Microwave Spectrum Analyzer, and the "grand-dad" of all modern automated spectrum analyzers. Experience with the systems that pre-dated the 8566, 494, 2784 and other 3rd and 4th generation systems introduced in the 70's, 80's, 90's and used in TSCM, TEMPEST, COMINT, and SIGINT.

The rule at the time was "memory is expensive, interns are cheap" and it was a era when computer memory in high end computers was measures in kilobytes, not terabytes. Thus, there was a huge push to hand compile everything in Assembler when possible instead other higher level languages.

Started as a part-time apprentice programmer and intern as part of a high school work-study program, and worked my way up from there through increasing levels of responsibility, with larger and more complex projects.

Keypunch Operator/Apprentice

AT&T Bell Laboratories

September 1974 – August 1975 (1 year)

Part-time Junior High School student job keypunching Hollerith cards and paper tapes at a research facility as part of a summer work-study program.

Cards and paper tape contained programs for IBM S/360 & S/370, and Hewlett-Packard HP2100, in ALGOL, FORTRAN, and BASIC for controlling instruments that performed TSCM measurements and signals Intelligence related assignments with large racks of automated test equipment.

Machines used included the now antique IBM 026 Printing Card Punch (which used vacuum tubes), the venerable IBM 029 (no vacuum tubes), and the IBM 129 ("modern machine"). Also worked with the Teletype Corporation's ASR33 to generate paper tapes of programs for the HP2116 systems and HP Model 8580A ASA. Eight years later, I would go to school via the military at IBM and Teletype to learn how to service and repair these units on which I had launched my career.

This position resulted in my becoming an apprentice computer programmer/intern the following year and gave me a start in TSCM on the software development side.

Languages

English
Native or bilingual proficiency

FORTRAN
Full professional proficiency

ASSEMBLER
Full professional proficiency

BASIC
Full professional proficiency

COBOL
Full professional proficiency

RPG
Full professional proficiency

PL/1
Full professional proficiency

PASCAL
Full professional proficiency

C
Full professional proficiency

C++
Full professional proficiency

AFOLDS
Professional working proficiency

ADA
Professional working proficiency

ALGOL
Professional working proficiency

C#
Professional working proficiency

Objective-C
Full professional proficiency

SWIFT
Full professional proficiency

JOVIAL
Professional working proficiency

Ruby
Professional working proficiency

Perl
Full professional proficiency

Java
Professional working proficiency

Javascript
Professional working proficiency

R
Limited working proficiency

Volunteer Experience & Causes

Volunteer Instructor - Emergency Medicine
American Red Cross
Disaster and Humanitarian Relief

Teaching CPR, First Aid, Oxygen Administration, Emergency Rescue Inhalers, Diabetic Emergencies, First Responder, Epi-Pens, Automated External Defibrillators, and other topics whereby the general public, and public safety employees and health professionals were able to obtain certifications, including professional level certifications and credentials for medical personnel, Doctors, Nurses, EMT's,... **more**

Volunteer Instructor - Emergency Medicine
American Heart Association
Disaster and Humanitarian Relief

While in the military I became certified an American Heart Association instructor to teach CPR at the professional level (to people who have to have annually issued professional level credentials and certifications).

Firearms Instructor and Shooting Coach - Civilian Marksmanship Program
US Army
October 1982 | Civil Rights and Social Action

I took part in my first U.S. Army Civilian Marksmanship Program (CMP) training at the age of 12 (whereby I was receiving formal militia training, from the U.S. Army).

I continued my firearm competitions both locally and at Camp Perry until I enlisted in the USAF for active duty military service.

During my military service (USAF), this evolved into my coaching and teaching of teams and... **more**

Tradecraft and Technical Services Assistance
Amnesty International
August 1987 | Human Rights

Coaching and tutoring of activists and human rights workers who would be traveling to foreign countries on behalf of Amnesty International in matters of intelligence, counter-surveillance, operations in hostile environments, covert communications, surveillance detection, and related topics. Strictly restricted all such tutoring to U.S. Citizens only.

Missionary Tradecraft Instructor
Various Christian Seminaries
Human Rights

Coaching, lectures, and tutoring of Christian missionaries and clergy who would be traveling to and living in foreign countries that were expressly hostile to their faith (China, Iran, North Korea, Cuba, Iran, Russia, Saudi Arabia, Kuwait, Iraq, etc).

Many of the missionaries were risking the death penalty in the respective countries they were being sent to if they were caught (and hence these... **more**

Military Drill Team - Team Leader
United States Air Force
November 1981 – June 1982 (8 months)

Lead member of a precision military drill team and color guard at Keesler Air Force Base while assigned at this base as a student.

Skilled and well practiced in the U.S. military "Manual of Arms" and able not merely to perform the movements and formations myself, but also skilled at teaching and leading others in the precision and attention to detail needed to perform these movements with snap... **more**

Military Honor Guard
United States Air Force
October 1982 – August 1986 (3 years 11 months)

Volunteer member of the Strategic Air Command - Eighth Air Force and Second Bomb Wing honor guard team (ceremonial guard) while I was assigned to Barksdale AFB.

Provided funeral support services, parade service, chapel, weddings and honor guard services and presentation for visiting dignitaries and other events.

Provided honor guard for military funerals, mortuary escorts, and graveside... **more**

Opportunities James is looking for:

- Joining a nonprofit board
- Skills-based volunteering (pro bono consulting)

Causes James cares about:

- Arts and Culture
- Civil Rights and Social Action
- Health
- Human Rights
- Disaster and Humanitarian Relief
- Science and Technology

Organizations James supports:

- National Rifle Association
- American Red Cross
- ACLU
- FEMA
- Museum of Fine Arts, Boston
- Innocence Project
- Amnesty International
- Civilian Marksmanship Program
- Constitution of the United States
- United States Air Force
- US Army
- U.S. Department of State
- US Navy
- United States Marine Corps
- Association of Old Crows
- TSCM-L

Organizations

U.S. Army
Civilian Marksmanship Program - Marksman, Distinguished Shooter, Coach, Instructor
Starting June 1974

I took part in my first U.S. Army Civilian Marksmanship Program (CMP) training at the age of 12 (whereby I was receiving formal militia training, from the U.S. Army).

By the age of 13, I was competing at the annual National Matches at Camp Perry, Ohio for high-powered service rifles, and the next year competing with military service pistols. In each case, I competed individually, and also as... **more**

National Rifle Association
Life Member
Starting 1992

Dismayed by the lack of marksmanship shown by their troops, Union veterans Col. William C. Church and Gen. George Wingate formed the National Rifle Association in 1871 in order to teach recently freed Negroes and Oriental how to bear arms. The primary goal of the association would be to "promote and encourage rifle shooting on a scientific basis," according to a magazine editorial written by... **more**

Police Marksman Association
Life Member
Starting 1993

For more than 30 years, The Police Marksman Association has built a legacy of advancing tactical excellence in law enforcement training. Our mission is to arm law enforcement with the tools and knowledge to survive and win real-world encounters. We maintain a laser focus on delivering cutting edge tactics, firearms and officer safety to law enforcement of all ranks nationwide. We achieve this... **more**

Militia of the United States
Life Member, U.S. Citizen
Starting May 1979

As required by the Constitution of the United States, the Second Amendment to the Constitution, the Militia Act of 1792, and it successor laws, as well as both State and Federal Statutes, I am a member of the Militia of the United States as defined by the Constitution of the United States.

Given that I am a veteran of the regular activity duty USAF, I am still listed as being on Inactive... **more**

National Tactical Officers Association
Member / Instructor

The mission of the National Tactical Officers Association is to enhance the performance and professional status of law enforcement personnel by providing a credible and proven training resource as well as a forum for the development of tactics and information exchange.

The Association's ultimate goal is to improve public safety and domestic security through training, education and tactical... **more**

Law Enforcement Alliance of America
Life Member
Starting 1994

Powerful words that carry a conviction all too absent in the world of politics and the liberal media. We believe in old ideals like right and wrong, like honor and integrity. We believe in the right of every law-abiding American to go about their lives as they see fit, enjoying the privacy, dignity and right to self-defense due to all such citizens. We believe that criminals, especially violent... **more**

Association of Former Intelligence Officers
Starting 1994

Our mission is to build a public constituency for a sound, healthy and capable U.S. intelligence system. Our focus on education fosters an understanding of the important role of intelligence in National Security and nurtures interest by students in careers in the many fields used by U.S. Intelligence Agencies. This includes the role of supporting intelligence activities in U.S. policy, diplomacy,... **more**

National Military Intelligence Association
Member

The National Military Intelligence Association (NMIA) is a national association of intelligence professionals. NMIA was founded in 1973 at Fort Huachuca, Arizona. Members include military and civil service professionals actively engaged in military intelligence careers as well as reserve, former and retired intelligence personnel and U.S. citizens who have an interest in intelligence and support... **more**

Association of Old Crows - AOC

Professional organization to advance strategy, policy and programs for electronic warfare, and electromagnetic spectrum operations.

Promotes electromagnetic spectrum operations and related military. civilian and commercial applications.

Leader in electronic warfare and electromagnetic spectrum operations.

Armed Forces Communications and Electronics Association (AFCEA)
Starting 1982

The Armed Forces Communications and Electronics Association (AFCEA) established in 1946, is a non-profit membership association serving the military, government, industry, and academia as an ethical forum for advancing professional knowledge and relationships in the fields of communications, information technology, intelligence, and global security. AFCEA supports local chapters, sponsors events,... **more**

TSCM-L
Founder and Systems Administrator
Starting August 1991

In the Fall of 1981, I placed several academic white papers I had written into my online student directory and into a sub-directory a called TSCM-L, and gave this subdirectory unrestricted privileges so that not only could other students see the contents of this directory, but so could anybody tied into the schools Internet connects from other schools.

From 1981 to 1987 I added additional white... **more**

Office of the Surgeon General
Medical Reserve Corps - EMT, Incident Command, National Incident Command, Continuity of Government Operations, Pandemic/Epidemic Operations
Starting May 2009

Mission
The mission of the MRC is to engage volunteers to strengthen public health, emergency response and community resiliency.

Overview
MRC units are community-based and function as a way to locally organize and utilize volunteers who want to donate their time and expertise to prepare for and respond to emergencies and promote healthy living throughout the year. MRC volunteers supplement... **more**

National Association of Emergency Medical Technicians - NAEMT
Member

Formed in 1975 and nearly 30,000 members strong, the National Association of Emergency Medical

Technicians (NAEMT) is the nation's only organization solely dedicated to representing the professional interests of all EMS practitioners, including paramedics, emergency medical technicians, emergency medical responders and other professionals working in prehospital emergency medicine. NAEMT members... **more**

Air Force Association
Member

The Air Force Association mission is to promote a dominant United States Air Force and a strong national defense, and to honor Airmen and our Air Force Heritage.

To accomplish this, we:

EDUCATE the public on the critical need for unmatched aerospace power and a technically superior workforce to ensure U.S. national security.

ADVOCATE for aerospace power and STEM education.

SUPPORT the... **more**

Safe and Vault Technicians Association
Member

SAVTA is the Safe & Vault Technicians Association - The worlds leading trade association devoted entirely to serving professional safe and vault technicians worldwide.

Since 1986, SAVTA's goal has always been to further technical knowledge, while helping you promote professionalism in today's marketplace.

SAVTA provides a host of benefits, all necessary for staying informed, solving day... **more**

Associated Locksmiths of America
Member

The Associated Locksmiths of America Inc. (ALOA) is an international professional organization of highly qualified security professionals engaged in consulting, sales, installation and maintenance of locks, keys, safes, premises security, access controls, alarms, and other security related endeavors.

National Safeman's Organization
Member

With over 1600 members globally, the National Safeman's Organization (NSO) is the largest group of its kind in the world.

NSO provided a wealth of information and instructions on how to change combinations, perform safe service, safe penetrations, and to respond to lockouts.

Building Industry Consulting Service International
Registered Communications Distribution Designer (RCDD)

Since the official break-up of AT&T in 1984 in the United States, BICSI (pr. "BIK SEE") (the "Building Industry Consulting Service International") has assumed the role that AT&T's free service, BICS, fulfilled in helping with the development and design for information technology systems (ITS) such as the ANSI/EIA/TIA 568B structured cabling system standard.

Headquartered in Tampa,... **more**

American Society for Industrial Security (ASIS) / ASIS International
Member

About ASIS
ASIS International is the preeminent organization for security professionals, with more than 38,000 members worldwide.

Founded in 1955, ASIS is dedicated to increasing the effectiveness and productivity of security professionals by developing educational programs and materials that address broad security interests, such as the ASIS Annual Seminar and Exhibits, as well as specific... **more**

Veterans of Foreign Wars - VFW
Member

The VFW traces its roots back to 1899 when veterans of the Spanish-American War (1898) and the Philippine Insurrection (1899-1902) founded local organizations to secure rights and benefits for their service: Many arrived home wounded or sick. There was no medical care or veterans' pension for them,and they were left to care for themselves.

In their misery, some of these veterans banded... **more**

The American Legion

Member

The American Legion was chartered and incorporated by Congress in 1919 as a patriotic veterans organization devoted to mutual helpfulness. It is the nation's largest wartime veterans service organization, committed to mentoring youth and sponsorship of wholesome programs in our communities, advocating patriotism and honor, promoting strong national security, and continued devotion to our fellow... **more**

Oathkeepers
Member

Oath Keepers is a non-partisan association of current and formerly serving military, police, and first responders who pledge to fulfill the oath all military and police take to "defend the Constitution against all enemies, foreign and domestic." That oath, mandated by Article VI of the Constitution itself, is to the Constitution, not to the politicians, and Oath Keepers declare that they will not... **more**

Air Force Sergeants Association - AFSA
Member

The Air Force Sergeants Association (AFSA) is a federally chartered non-profit organization representing the professional and personal interests of active duty, retired and veteran Total Air Force and their families.

The AFSA membership consists of total Air Force Active Duty (AFAD), Air National Guard (ANG), Air Force Reserve Command (AFRC), veterans, retirees, and families of the... **more**

International Association for Identification - IAI
Member

The International Association for Identification is a professional membership organization comprised of individuals worldwide who work in the field of forensic identification.

With over 6,500 members from 77 countries, the IAI remains the oldest and largest forensic science/identification association in the world.

(note: The FBI Forensic Science Research and Training Center (FSRTC) at the... **more**

Boy Scouts of America
1974 – 1981

In middle school, I joined a BSA Explorer Post that specialized in electronics engineering, computers, avionics, radios, physics, chemistry, and mathematics.

I gained a passion for the design and development of electronics hardware, and a passion for anything to do with computers. This professional passion led me to being offered a part-time paid job during the summer and on weekends working... **more**

ACLU
Volunteer
Starting June 1991

Additional Organizations

... and several others.

Projects

Operation ELF-One
April 1982 – April 1983

Enhanced Air Defenses of Saudi Arabia, Kuwait, and the Persian Gulf during the Iran/Iraq War and Soviet-Afghan War; Intelligence Support Activities to the Government of Iraq by way of surveillance aircraft and "other aircraft" out of Saudi Arabia and Egypt.

Logistical and intelligence support to the Mujahideen in Afghanistan to assist in weakening Soviet forces drawn (by the U.S.) into invading... **more**

4 team members

James Atkinson
Student, Soldier, Spy Hunter, Scientist, E…

thomas syster

Bob Spoonemore

Chris Johnson

Operation Urgent Fury

October 1983 – December 1983

Planning, logistics, intelligence analysis and communications support for the emergency invasion of Grenada 10/7/1983 (prior to the coup), during the actual coup, then planning for the invasion and the invasion itself, the end of the combat phase, and then the exfiltration by U.S. troops until 12/15/1983 in order to destroy Cuba-Soviet forward operating military bases, a Soviet long-range nuclear... **more**

Operation Able Archer 83 (Reforger 83, Autumn Forge 83)

November 1983 – November 1983

Capstone to a U.S. led psychological operation to provoke the Soviet Union into a panic and think that the U.S. and NATO forces had just launched a full scale nuclear assault against the USSR in advance of a NATO led infantry invasion.

The "misunderstanding" resulted in the Soviet forces, not just going on full alert, but also preparing the launch missile and violating U.S. and NATO airspace... **more**

Operation El Dorado Canyon

October 1985 – April 1986

Designed and implemented a covert and secure communications system to facilitate the U.S. Air Force making a series of air strikes against Libya in retaliation for the "La Belle" nightclub bombing in West Berlin, worked closely with the 4450th Tactical Group.

Involved extensive use of AFSATCOM on a major military strike, that was surgical in nature.

The operation became a template for future... **more**

AGM-86A/B GPS Integration

March 1986 – August 1986

Fast track development of GPS Navigation software for the AGM-86 Air Launched Cruise Missile.

What should have take a team of computer programmers several years to complete, took me less then 90 days to program on my own (the actual coding took 30 days, the testing another 60).

"Map-Pack" Aircrew Recovery System

May 1988 – June 1989

Designed the world first hand held, GPS receiver that integrated a live map display and permitted basic land navigation functions in a hand held system.

Designed as an escape and evasion tool for use by downed pilots, and evolved into a hand-carried special operations tool.

Design include the ability to automatically download detailed maps by way of a covert bi-directional satellite uplink... **more**

AMDG Anatomy Book

Starting May 2005

Created the most comprehensive medical and artistic anatomical reference of the human body that has ever been published.

The 32 volume set of books contains large-scale(18x24 inch) fine art photographic plates created from large format photography, with highly finished drawings and overlays on vellum.

This set of books to be utilized by every artist or medical student in the country, as... **more**

Boston University School of Management Network and Data Infrastructure

July 1993 – November 1996

System Architect - Designed and supervised the building the data networking, cabling, servers, routers, and everything that enabled connectively at the Rafik B. Hariri Building, located at 595 Commonwealth Avenue. This project ensured that when the building opened in the Fall of 1996 that it was the most networked, and most connectivity friendly educational facility in the Boston area, and... **more**

Fiber Optic Backbone Replacement - MIT

May 1992 – June 1993

Replacement of over 50 miles of Thick Ethernet backbone cables with huge bundles of fiber optic cables on the main campus to allow the school to connecting to to fiber based rings that were developing in the areas for campus to campus connectivity. Connected fiber into every wiring closet, server room, and lab space. Tested and certified all fiber if maintained dark, otherwise installed routers... **more**

Camp David - Fiber Connection Project

October 2001 – January 2002

Physical plant architect for the fast track redesign of Camp David fiber optic communication network with both single-mode and multi-mode fiber connections.

Extensive certification and acceptance work with high precision optical time domain reflectometers to ensure a perfect installation or every strand, cable, connection, junction, and fusion splice.

Cardiac Lathe

Starting August 2007

Research, design, and development of highly sensitive hand held instruments for the non-invasive high density imaging of human neurological systems, to include mapping of the signal pathways of the heart, electronic isolation of individual pathways, and the monitoring and control of a single signal on a single pathway or fiber.

Presentation of a live human heart as a moving three dimensional... **more**

Congressional USCG Deepwater Investigation

March 2007 – July 2007

Brought in by the House Committee on Transportation and Infrastructure (by the Committee Chairman) as THE bonafide subject matter expert and honest broker in regards to TEMPEST, and the DHS IG bungling of an investigation into rampant fraud, graft, and corruption in the U.S. Coast Guard Deepwater Program.

Because of my expert understanding of TEMPEST, TSCM, and related matters I was able to... **more**

▸ 5 team members, including:

James Atkinson
Student, Soldier, Spy Hunter, Scientist, E…

Michael DeKort
Program/Engineering Management

Clay Foushee

James Louis "Jim" Oberstar

Arab Spring 2011 - Kuwaiti Monarchy Preservation Analysis

February 2011 – July 2011

Emergency engagement by the Prime Minister of Kuwait acting on behalf of the Amir in early Feb 2011 as the Monarchy of Kuwait began to rapidly crumble, and to render rapid analysis of a high volatile and dangerous situation.

The goal was to identify the political and military opponents of Nasser Al-Mohammed Al-Ahmed Al-Sabah (the then Prime Minister) within the General Assembly who were... **more**

4 team members

James Atkinson
Student, Soldier, Spy Hunter, Scientist, E…

Stephen Spring
Association of Former Intelligence Office…

Nasser Al-Mohammed Al-Ahmed Al-Sabah

Nawaf Al-Ahmad Al-Jaber Al-Sabah

Invasion of Kuwait - Exile of Emir - Restoration of Government

July 1990 – April 1991

Engaged by the U.S. State Department to provide TSCM services to the Emir of Kuwait, the Prime Minister, the Crown Prince, and other close members of the Kuwaiti government while the government was in exile, or in the lead up to the invasion of Kuwait in 1990.

Also, assisted in the technical set up of an intelligence command center used as a liaison between the exiled Emir and the U.S. State... **more**

3 team members

James Atkinson
Student, Soldier, Spy Hunter, Scientist, E…

Jaber Al-Ahmad Al-Jaber Al-Sabah

Saad Al-Abdullah Al-Salim Al-Sabah

Rebuilding of Kuwait

April 1991 – April 1992

Brought in by the U.S. State Department as a technical security consultant and liaison to evaluate various buildings to be used as the seat of government by the returning Emir to ensure that they were free of eavesdropping devices (which they were not).

Assisted in the redesign of the communications systems of several government buildings or palaces to make it more difficult to eavesdrop upon... **more**

Operation Enduring Freedom

October 2001 – March 2009

Providing of short duration technical security analysis and survey's of various buildings, locations, facilities to quickly detect eavesdropping devices, and to set up secure communication resources on behalf of the U.S. State Department or Central Intelligence Agency once an overseas location in a hostile zone was moderately stable.

Most of my projects were only 3 days long, some just under 7... **more**

Signals Lathe

Starting September 1983

One of the earliest uses of digital signals processing on a massive scale for the purposes of signals intelligence.

Initially started as a project commissioned by Texas Instruments in 1983 to permit their DSP chip set to be operated in parallel to mathematically extract signals out of the RF spectrum, mostly finding short burst RTTY transmissions and extracting the text communications.

Due... **more**

RAPHAEL

Starting April 1983

This project originally started in 1983 as a way to control my HP 8566 and HP 8568 Spectrum Analyzers in order to ferret out RF transmitters under full computer control.

This was done my creating a modest database that technically or mathematically described (or modeled) RF based eavesdropping device signatures and then secretly and silently hunted for those signatures on the spectrum, very... **more**

KG-13 Encryption Sabotage Detection

October 1982 – January 1983

Complete memorization of all current and historical schematics and timing and logic charts of KG-13 and KY-3 encryption system.

Examining the schematics of the ciphers, key cards, as a mental memorization exercise, and then identified suspected flaws with the mathematic engines inside the equipment actually deployed.

Actually determined that most of the modules or "Koken stages" in the KG-13... **more**

Computerized Polygraph

1990 – 1993

Development of a computer based polygraph instrument for use by the U.S. counterintelligence community.

Attended two major polygraph operators schools in order to gain an understanding of polygraph exams from differing perspectives, and then used this operators training to design a fully computer based polygraph system from the ground up.

Final product rolled out for the federal government... **more**

Defection of Senior Red Banner Institute Instructor

1989 – 1991

Capstone of two year effort, as a Contractor to the U.S. Government.

Personally assisted in the recruitment, defection, and exfiltration of a Senior KGB officer and electronics engineer in 1991 as the Soviet Union fell, and assisted in the initial technical debrief of same.

My post-defection involvement was the topics associated with TSCM and signals exploitation.

The officer was a gold... **more**

National Commission on Terrorist Attacks Upon the United States

April 2003 – May 2003

Classified testimony, based on my own personal experiences (as a contractor), in regards to the CIA and FBI having endless pre-9/11 "turf wars" and refusals to share vital intelligence between the two agencies.

Testimony (as a contractor and subject matter expert) in regards to U.S. Government communications intelligence activities against terrorists or hostile paramilitary forces, to include... **more**

The Senate Select Committee on Intelligence - Ciphering Testimony

April 1984 – April 1984

Called to provide classified testimony before this committee, while still in the military, in regards to a fatal mathematic flaw which I had detected in the most-secret of our top secret ciphering equipment at the time.

The flaw was not only in the hardware itself, but in the cryptographic algorithm that was implemented on other ciphering platforms, which created two major design weaknesses.
... **more**

"Special Research" Aerial Reconnaissance Flight Crew - Camera Support

July 1982 – June 1985

Cross trained/dual trained flight crew and aerial reconnaissance specialist, for deep penetration, high speed (well in excess of Mach 3), high altitude (above 100,000 feet) special reconnaissance aircraft.

Loaded film into the specialized 36 inch wide shutterless cameras in 15,000+ foot long roll format (a single film based photograph was 36-inches wide, and up to several miles long and half... **more**

1st TSCM Thermal Camera

September 1987 – February 1988

Contract design project for the U.S. Army. Research, Design, Development and Prototyping of the worlds first hand held thermal imaging system specifically designed for TSCM or electronic countermeasures use.

It was the size of a shoe box and used no cryogenics of any sort and included a built in processor that combined the images from 12 different CCD sensors into a single image stream.

... **more**

2nd TSCM Thermal Camera "Shoe Box #2"

March 1989 – May 1989

Contact design project for the U.S. Army

Refinements to original "shoe box #1" thermal imaging system used for TSCM.

Still the size of a shoe box, with no cryogenics of any sort and included a built in processor that combined the images now from 24 much higher resolution EG&G Reticon CCD sensors into a single image stream.

System included an internal prism and beam splitter assembly... **more**

Shoe Box Version 1.5 "Optical Fluorescence Viewer"

February 1988 – February 1989

Independent project by which a 24 window prism and beam splitter was used, behind each window was place a special optical filter, and a CCD element sensitive to a "color" of interest.

Essentially creating a 24 color IR/UV video camera, using parts left over from the original "Shoe Box #1" Thermal camera project.

Not actually designed for thermal imaging, but rather to view non-visible IR... **more**

"BANG-STICK" Acoustic Transducer Detector System

November 1992 – July 1994

Development of a compact proprietary system that generated non-alerting audio sounds, and then listened for these same sounds in a magnetic format as a extremely faint magnetic signal being conducted on wires or hidden signal paths.

System was electronically and visually non alerting and it could be used right under the nose of a spy, and they would be oblivious to it being used.

Fully self... **more**

"WALDEN POND" Swept Tuned Smart Antenna System

2002 – 2003

Custom antenna solution which brought the antenna system to the exact point of resonance as a spectrum analyzer or receiver system tracked over a range of frequencies.

Instead of a complex systems of filters, tuners, and switching systems and wrestling the antenna to near resonance based on a given band (as was "state of the art" at the time) I developed a means of using the X axis sweep... **more**

"BRUNHILDA 1.0" - Swept Tuned NLJD

August 1988 – 1990

Contract assignment to design, prototype, and refine a compact NLJD, and instead of functioning on a

fixed frequency, sweeping over larger areas of the spectrum.

This was not merely a tunable NLJD, but was a modified spectrum analyzer that exploited a sweep generator to produce a signal anywhere on the spectrum, and then used discontinuous dispersions to display the response signals. It... **more**

"BRUNHILDA 2.0" - Automated Scanning System

1990 – 1991

Contract assignment to design, prototype, and refine a compact system by which the cavity back antenna of the earlier BRUNHILDA system could be automatically scanned over a flat surface such as a wall, ceiling, or floor.

Prototype used a X-Y carriage assembly that rode on a 2 inch aluminum tubes that was threaded together to cover the surface areas of interest.

The surface would be covered... **more**

PLA v4.0 - "Swiss Watch" Power Line Adapter

1999 – 1999

Fast track development of a small, very high performance adapter box that permitted the highly sensitive and easily damaged front end of a spectrum analyzer, search receiver, oscilloscope, or other test equipment to be plugged directly into the power lines of up 600 volts of more.

The very first stage of isolation was 13,500 volts at 60 Hz and 11,000 volts at 50 Hz which meant it could be used... **more**

"SMOKE SHOP" Counter-Intelligence Monitor Software

1992 – 1998

Project as a U.S. Government contractor to write a stand-alone mole-hunting program that would collect inquiries against counter-intelligence agents who were making database inquiries on their own behalf which would reveal themselves as a tainted spy.

As each of the intelligence agencies made a vast array of databases available to each other, the internal spies would use these internal... **more**

▸ 6 team members, including:

James Atkinson
Student, Soldier, Spy Hunter, Scientist, E…

Jeanne Vertefeuille

Sandy Grimes

Paul Redmond

Noise Floor Analysis Courseware Module

August 1987 – April 1988

Researched and authored a courseware module for the Army Intelligence School (NSA/CIA Special Collection Service) dealing with the topic of isolating the noise floor on various field instruments and then using these instruments to document any elevation of the noise floor in a hunt for signals of interest, and then to exploit those signals of interest.

Then developed protocols and methods by... **more**

Course Author - "Red Banner 1"

1991 – 1993

After a high level Soviet Engineer who was one of their top spies and instructors defected to the United States with my involvement, Granite Island Group was tasked with extracting as much information as possible from his debriefing and converting it into a 1100+ hour technical espionage tradecraft course which could be taught to U.S. Intelligence agencies.

The focus was to take the defectors... **more**

F.R.O.G. - GPS Tracker Detector System

November 1999 – April 2003

Development of a methodology and equipment used to detect and to located covert GPS tracking deices and GPS receivers. Development of signatures of common and esoteric GPS devices in order to determine model numbers based solely on electro-magnetic emanations. Special emphasis on GPS trackers attached to vehicles, and in detections ranges at least 6 feet from suspect vehicles, and most certainly... **more**

The People of the State of California vs. Kaushal Niroula

April 2011 – September 2012

Brought in as a court ordered and court certified technical intelligence expert, and to COVERTLY perform

a court ordered bug sweep and TSCM inspection inside county jail facilities to determine if illegal eavesdropping of privileged attorney-client communications was taking place (and to do it with nobody inside the jail realizing I was actually covertly executing a court ordered search warrant on... **more**

3 team members

James Atkinson
Student, Soldier, Spy Hunter, Scientist, E…

Stephen Spring
Association of Former Intelligence Office…

Enrique Tira
Independent Security and Investigations …

Modulation Recognizer v1.0

1991

Hardware based modulation recognition card to be integrated into a suitcase sized TSCM systems used by the U.S. government.

Sampled signal of interest at the wide IF, and then he card figured out the type of modulation being used, and produced a statistical probability of a large number of modulations modes and variations.

In this way the system woudl also find similar or identical signals... **more**

Universal Demodulator

1988

External universal demodulator for use with the Tektronix 494 A/P Spectrum Analyzer.

Roughly the same size and weight of the 494, and permitted the demodulation and analysis of audio, data, video, telemetry, and radar signals, both under manual control and also under full computer control.

Eventually this included two 494 A/P spectrum analyzers that could be controlled independent of each... **more**

SCARAB Remotely Operated Vehicle Design Work

1992 – 1996

Classified design work on the Semi-Autonomous underwater Remotely Operated Undersea Vehicles called SCARABs or AUV, or "Submersible Crafts Assisting Repair and Burial" used to locate undersea fiber optic cables, and then to splice into these cables in an essentially undetectable manner by way of fusion slices to intercept the multi-gig-bit traffic on the cables. Taking the 70's and 80's era... **more**

Press Field Photography System

1987

Design of a compact briefcase sized system to process 35mm Polaroid film in the field, then to digitally scan the developed film, perform initial crops, edits, and captioning, then to uplink by way of an encrypted telephone or satellite uplink to a server.

Fully self contained when used with a telephone line.

Satellite uplink involved a secondary external connection.

Initially designed... **more**

Covert Reactive Armor

Design and development of a "reactive armor" system to be installing between the outer surface and inner armor of diplomatic vehicles to drastically enhance the effectiveness of the installed passive armor. Effective against land mines, rocket propelled grenades, IED's - Improvised Explosive Devices, and various rockets, mortar shells, and placed explosives. May be used as an anti-personnel... **more**

Explosively Formed Penetrator - Project "Tooth Pick"

2000

Design of an aerodynamically stable Explosively Formed Penetrator or EFP for as a contractor to the U.S. Army.

Capable of being fired out of a hand held 40 mm grenade launcher. The resulting EFP allowed for a hand fired M79 launcher to punch a hole through 8+ inches of hardened armor plating on most tanks, and to paralyze and de-track the tank with a single round fired into the tracks. Also... **more**

Cash Register System - Liquor Store

1982

Designed, develop, prototyping and manufacturing of an IBM PC (5150) based cash register system for a chain of liquor stores in Louisiana, Mississippi, Alabama, and Texas.

Utilized leased hardwired modem lines to interconnect every store with every other store, and every cash

register to every other cash register in the entire chain.

Server in each store allowed for back up systems to the... **more**

Cash Register System - Video Rental Store

1982

Designed, develop, prototyping and manufacturing of an IBM PC (5150) based cash register system for a chain of videotape rental stores in the Shreveport, Louisiana, and surrounding area eventually involving 28 stores, incoprorating 184 cash registers over all.

Utilized point-to-point 10 GHz microwave radio systems and encrypted modem lines to interconnect every store with every other store, and... **more**

POS Cash Register System - National Clothing Store Chain

1989 – 1996

Long term development, design, prototyping and implementation of a Point-of-Sale Cash Register System, based on a cash register that utilized an imbedded PS/2 personal computer.

Client was a publicly traded, major national chain of designer clothing stores, and this system reduced inventory costs, dramatically reduced shrink, and permitted the shelves and stock rooms to be refreshed on a daily... **more**

B.A.S.S. Bulk Avalanche Semiconductor Switch Array

1991

Design, Prototyping, and Development of a Photonic Energized, multi-mega-watt Bulk Avalanche Semiconductor Switching weapons system in a phase steered array capable of both anti-personnel (almost instantaneous death, due to massive vascular rupture, devastating instant tissue damage, destruction of the lungs, and several centimeters into the cranial vault), destruction of aircraft skin materials (... **more**

TEACUP

Design and programming of a secure voice, data, and video software package for Apple iPhones, iPads, and MacBooks that provides for both a user entered encryption algorithm, as well as a user changeable key that can be entered in the field.

Fully exportable as both the algorithm and keys are not part of the software itself, and rather must be entered in the form of three short boolean... **more**

TEAPOT

TEAPOT is a iPad, iPhone, Mac Pro, and MacBook computer program that is used to author and create unique encryption algorithms and to output them into a form that frustrates interception attempts by eavesdroppers.

The TEAPOT user defines the number of expressions that they wish to be output as ciphering expressions, and then the software creates and then reduces the algorithm to a series of... **more**

TEABAG

TEABAG is an iPhone, iPad, iPod, Mac Pro, iWatch, and Macintosh computer program that contains a sophisticated cryto-analysis engine, which detects weaknesses in ciphering algorithms, and which estimates the computing resources needed to break a given algorithm by both brute force, and by more subtle means. It will not actually perform a decrypt, but rather will calculate the strength of a given... **more**

TEASTRAINER

Software package for the Apple iPhone, iPad, MacBook, iMac, iWatch and related hardware platforms which provides the splitting or "fragmenting" of a document into smaller pieces, encrypting those pieces, and then randomly sending them though a variety of physical layers to thwart eavesdropping.

Sends message fragments over a variety of links, so that some of the data is sent over WiFi, and... **more**

TEAGRADE

Software designed to provide an encryption key or algorithm that is location dependent, based on the GPS satellite system.

The software actually needs the GPS signals to provide the final stage of the key or the algorithm, and unless the signal is picked up at a specific pre-determined location the decryption can not take place.

The incoming data stream from the satellites is used to... **more**

YARDLEY

Software to collect identifying data in regards to, and then clone wireless devices that are within range, and to act as a vampire device for data and voice transmissions as a method of maintaining long-term covert communications.

Contains a lockout function so that the software will not activate if the user is inside a specific geographic area, defined path/road, or near a base station that... **more**

Brilliant Lizards/Blazing Lizards Projects

2002

Design and prototyping on an emergency basis of a man-pack or vehicle mounted system capable of remotely electronically (and with tremendous precision) detecting and automatically detonating improvised explosive devices in advance of foot based troops or military vehicle convoys in Afghanistan.

Included sufficient stand off distances so that the Taliban IEDs (improvised explosive devices) were... **more**

Lizard Lips Project

1996

Design, prototyping, and testing of a robotically controlled, roof mounted firing ring or turret for the HMMMV, M-35 and M-800 series of U.S. military vehicles in order to very precisely coordinate long ranging firing of .50 BMG at long distances from moving trucks, and of MK19 40 mm grenades at shorter distances.

Capable of controlling either a single roof mounted turret (on a HMMMV or... **more**

NRO Hexagon Program

June 1982 – June 1986

Courier and escort duties for undeveloped Top Secret capsules to and from the Kodak Hawkeye and Bridgehead facilities, the NRO facilities in Suitland, MD, NRO/USAF facilities in Westover AFB, MA, Barksdale AFB, LA, Offutt AFB, Bolling AFB, and March AFB, CA. Courier duties to still classified auxiliary locations, secondary to these overt locations.

Post processing escort of classified film,... **more**

COMSEC Courier

Starting June 1986

Collection of digital tape records on call traffic on a call-by-call detail basis on a shift-by-shift basis at the AT&T Tandem/Switching center in Shreveport, LA (Red River) of all telephone traffic passing through the tandem in the prior 4-8 hour shift, and transporting these source tapes to Barkdale AFB, for transmission to NSA analysis facilities over our high speed data lines. Duplication... **more**

Nikon F3 Bulk Film Magazine

1985

Bulk film magazine design to contain 2500 feet of 35mm film (17,000+ frames) for a covert document copying system based on a Nikon F3 body. Designed specially for the copying of classified documents, books, manuals, blueprints, schematics, or for related espionage activities by the U.S. Government.

Nikon F4 Bulk Film Magazine

1989

Bulk film magazine design to contain 2500 feet of 35mm film (17,000+ frames) for a covert document copying system based on a Nikon F4 body. Designed specially for the copying of classified documents, books, manuals, blueprints, schematics, or for related espionage activities by the U.S. Government.

Mamiya RB67 Bulk Film Magazine

Bulk film magazine design to contain 25,000 feet of 70 mm film (109,000+ frames) for a covert document copying system based on a Mamiya RB67 and RZ67 film body. Designed specially for the copying of classified documents, books, manuals, blueprints, schematics, or for related espionage activities by the U.S. Government or both its enemies and it adversaries.

Nikon F4 Digital Back

Prototype of a digital SLR based on the Nikon F4 film camera body, with an 1.4 mega-pixel EG&G CCD Array build into the camera back.

Nikon F5 Digital Back

Prototype of a digital SLR based on the Nikon F5 film camera body, with an 5.6 mega-pixel EG&G CCD Array build into the camera back.

Deardorf 11x14 Digital Back

Integration of a extremely high density 8 inch diameter CCD element (full sized wafer) to create a 305 megapixel, 14 bit wide-band panchromatic (black and white) large format camera back for a Deardorf 11x14 camera at 44 frames per second for a entity of the United States Government.

Document Duplication Briefcase

Design and prototyping of a full document copying system, based on a Nikon F3 film body and high capacity roll film canisters. System folded up into a fully self contained package that could then be placed into a standard sized 13x17x3 inch business briefcase. System included four 100 watt-second battery powered swing out strobes heads for even illumination of the documents being covertly copied.... **more**

Portable Automated DF System

Design and prototyping of an automated system to determine the location of an RF Emitter, within the context of a TSCM or related technical counterintelligence study. System sought out all RF energy above the thermal noise floor, cataloged the signal, performed modulation recognition to a bank of hand-off devices, and at the same time determined the angle of arrival, and then networked with a... **more**

"Dragon Lance" TSCM Probe

Design and prototyping of a broadband detection system on a telescoping boom, which automatically tuned a spectrum analyzer to the detected emission, and then displayed the emission to the operator on a head mounted LCD display. The system could also be operated with a small hand held probe to hone in on the emitter in greater detail. Particular attention as paid to devices which contained digital... **more**

"Pipe Organ" Microwave Horn Cluster

Design and prototyping of a broadband microwave antenna system consisting of 24 precision microwave horns, matching preselected mixers, and preamplifiers for use by government TSCM teams. System covered from 800 MHz to "over 1.2 THz." and specific to TSCM, TEMPEST, NONSTOP, and HIJACK scientific studies in regards to technical counterintelligence. Initially, designed for use with an HP7000 MMS... **more**

Multi-Dimensional Nuclear Magnetic Resonance (NMR) Spectroscopy System

Design, programming, and hardware development of a self contained high performance, high stability FFT engine for a massive cryogenically cooled NMR research system used by a research facility. Fourier transform spectroscopy based on extremely high sampling rate in the amplitude, time, and phase domains by way of cascades of Analog Devices chips on a VME/VXI card, and then an initial transform... **more**

Canon AE-1 Bulk Film Magazine System

1982

Bulk film magazine design to contain 2500 feet of 35mm film for various types of document, and fine arts photography. Initially developed for my own personal use as purchases a huge volumes of 2500 foot rolls of 35 mm and 70 mm film (Kodak Tech Pan, purchased at a military surplus auction), which included a servo controlled winding system. The U.S. Government became keenly interested in my... **more**

Operation Looking Glass

1981 – 1986

Nuclear contingency crew for E-4 "Looking Glass" for deployment in the event that a nuclear option moved (or was expected to move) from a ground based command and control facility to an airborne platform. Trained on pre and post-nuclear war operations, and operating, maintaining, and repairing the electronics used to engage in such war, while the aircraft was still airborne and under active attack... **more**

TraumaGlobin

Synthetic protein which mimics human hemoglobin, but encloses 64 times more oxygen than regular hemoglobin, and will only release the oxygen molecules in the presence of lactic acid (present in a wounded areas). Also releases flood of ATP, and other molecules in the presence of lactic acid.

TraumaGlobin is essentially a complex protein, which is the carrier of a complex payload into injury or... **more**

Sweet Mitochondria

Genetically engineered, human mitochondria from plant chloroplasts capable of stabilizing the blood glucose of any human patient, by use of a much larger crista area, and a higher number of ATP synthase, spinning at a faster rate, allowing better sustainment of life in battlefield conditions.

Self adjusting as needed to maintain blood glucose levels, as a replacement for supplemental insulin... **more**

TraumaChondria

Genetically engineered, human mitochondria from plant chloroplasts capable of stabilizing and rapidly reversing the lactic acid of a trauma patients, by use of a much larger crista area and reactive area, for faster reversal of lactic acid building through active countermeasures.

Simulation of the CORI cycle within the engineered Trauma Mitochondria instead of the liver, thus preserving life of... **more**

In-Q-Tel - TSCM Services and Electronics Engineering

Performed TSCM services of classified and unclassified facilities, often in covert or quasi covert locations.

Pre-construction assistance, construction stage inspections, wiring certification, RF surveys, preparatory TSCM inspection, acceptance, pre-move in, and post-move in inspections.

Follow-up TSCM inspections to ensure technical security posture.

SCIF and shielded room design,... **more**

Contract Instructor - Foreign Signals Exploitation (U.S. Army)

Taught on contract for the U.S. Army Intelligence School - Fort Devens, MA (1987 to 1995) and Fort Huachuca (1991 to 2005), AZ; plus the National Cryptographic School at Lackland AFB, TX (1994 to 2003.

Designed courseware, course textbook, and course visual aids from scratch. Then, under contract taught U.S. intelligence personnel how to extract classified technical intelligence from a variety... **more**

Contract Subject Matter Expert - U.S. Immigration and Customs Enforcement (ICE)

Contract Subject Matter Expert (via Granite Island Group).

Specialized in the analysis and identification of eavesdropping devices, military electronics, cryptographic equipment, TSCM, SIGINT, polygraph instruments and electronic portions of military navigation, guidance, or weapons systems, based on photographs of seized goods or scientific examination of evidence under controlled conditions.... **more**

Contract Software Engineer - AT&T Transmission and Switching Systems Exploitation

Contract Subject Matter Expert (via Granite Island Group)

Eavesdropping methods and software for AT&T/WECO switching and transmission system equipment (pre-CALEA).

Designed and authored a powerful C software/firmware Trojan horse to be used against/installed on the AT&T (now Lucent) DDM and DACS fiber optic multiplexers and carriers to permit covert access of the fiber optic traffic... **more**

Contract TSCM Specialist (Federal Bureau of Investigation)

Performed TSCM inspections, in cases when a regular FBI TSCM inspection team could not be coordinated or where not available, or then it required a more specialized and higher performance equipment than what they normally had access to.

Perform sweeps on individual agents homes, safe houses, homes of bureau assets, hotel rooms being used for meetings or conferences, and of performing low... **more**

CIA Contract Technical Counter Intelligence Analyst - Electronics Engineer

Central Intelligence Agency Contractor (though Granite Island Group)

Responsible for writing threat analysis of the technical surveillance capabilities of foreign countries to include parameters of the eavesdropping devices they used, study of their tradecraft, interviewing of defected foreign nationals from foreign intelligence services (within my areas of expertise), inspection and analysis... **more**

US Army Contract Instructor - Fiber Optics Penetration and Interception

U.S. Army
Contract Subject Matter Expert (via Granite Island Group)

Designed, authored, developed, and taught a contract course in the methods, procedures, and equipment used to covertly penetrate live and operation "lit" undersea (both blue water as well as near-shore) and underground fiber optic cables and to install fusion splices in such a way so as to render such splice virtually... **more**

Private Contractor - U.S. Department of State

U.S. Department of State
Contract Subject Matter Expert (via Granite Island Group).

Responsible for training diplomatic personnel in protective technical measures to ensure both personal security and technical security.

Responsible for preforming technical inspections of diplomatic facilities, vehicles, classified communications systems and circuits, and COMSEC devices to determine the... **more**

Guest Lecturer - Harvard University

Periodic lecture to students on the analysis of the physical layer of the telephone and networking wiring to detect bugs, and wiretaps. Also, in depth lectures on the analysis of switching and routing equipment to detect modification, middleman attacks, or packet diversion.

Guest Lecturer - Northeastern University

Presented lecture on bug sweeps, wiretap detection, spy hunting and related protective activities to computer science majors and to forensics students.

Guest Lecturer - Harvard Business School

Delivered dynamic lectures at least once per semester on the topics of governmental and corporate counter-intelligence, and the management of leaks, hostile penetrations, internal spies, external spies, technical penetrations, and media leaks.

Guest Lecturer - Harvard Law School

Delivered dynamic lectures at least once per semester on the topics of governmental and corporate counter-intelligence, and the management of leaks, hostile penetrations, internal spies, external spies, technical penetrations, and media leaks. Special focus of the legal aspect of such incidents, and the teaching of methods to maintain maximum client confidentiality at all times, even in the face... **more**

Guest Lecturer - Massachusetts Institute of Technology

Expert level lectures on the topic of bug sweeps, TSCM, effective shielding of classified equipment or facilities, detection of extraordinarily low power transmitters or transmitters of a covert nature. Lectures of the detection of covert vehicle tracking devices, defenses against cellular intercept and eavesdropping. Also, lectures and presentations in regards to national security matters... **more**

Course Instructor - Georgetown University

Taught graduate courses of instruction on noise floor analysis, and extracting cryptographic signals and digital out thermal noise, and reconstructing the original key or cipher or data from the collected noise.

Contract Computer Programmer - Compuserve

Started working on a part time moonlight project outside of my normal day job at Bell Labs (and later while in the USAF).

Developed a series of programs offered to the general public on a "minutes-of-use basis" that permitted businesses or hobbyist computers system users to be tied into a mammoth scale, time shared system, and network.

The programs ranges from simple programs to balance... **more**

TEMPEST and Technical Contract Counter Intelligence Expert (for Oversight and Investigations) - U.S. House of Representatives

U.S. House of Representatives
Contract Expert

Brought in by the House Committee on Transportation and Infrastructure (by the Committee Chairman) as a bonafide subject matter expert and honest broker in regards to TEMPEST, and the DHS IG bungling of an investigation into rampant fraud, graft, and corruption in the U.S. Coast Guard Deepwater Program.

Essentially government technical people... **more**

Penta Pixel Digital Camera

An enhancement of the prior Deardorf 8 inch CCD wafer project completed a few years prior into a custom 18-inch CCD wafer, with 14 color filters (not Bayer type). Based on an extended range panchromatic wafer with a series of custom masks/pico-lenses. The resultant wafer included the UV range, visible range, NIR, FIR, and also ranges very specific to hemoglobin and human tissue perfusion.

Pixel... **more**

Gel Electrophoresis Scanner

1991

Modifications of a large number 11x17 desk top color scanners at the hardware level to allow the mounting of gel electrophoresis plates to the scanner bed, and then added a gantry base, wide spectrum transmissive lighting, and custom wrote a set of scanner drivers for Apple Macintosh and Silicon Graphics to control the modified scanners. Application involved a cutting edge scanning solution for... **more**

Electronics Engineer/Computer Programmer

June 1986 – August 1987

During USAF mIlitary duty, assigned as troubleshooter to multiple fast track projects in regards to the design and implementation of secure and covert communications systems for combat air crews including communications systems used by B-52 and B-1 Nuclear Bomber crews on alert, ICBM Missile launch crews, A-10 Warthog pilots, and support crews.

Assisted in the development (and debugging) of a... **more**

Prince Hamlet Project

1999

Design, development, hardware protoyping, and refinement of a system to scan sections of ground to map the position and orientation of post-mortem remains and peri-mortem scenes. Designed to scan both frozen and thawed ground, to a depth of 15 feet of New England soil types. System used to map grave sites of numerous colonial era figures, and pre-colonial gravesites in New England for historical... **more**

Certifications

Presidential Advisor and Subject Matter Expert - Technical Surveillance (National Security)

Central Intelligence Agency

Starting 2003

Court Certified Subject Matter Expert - TSCM - Technical Surveillance Counter Measures (Homicide Case)

State of California - Superior Court, Indio, CA

Starting June 2012

Court Certified Subject Matter Expert - Technical Surveillance Counter Measures

United States District Court, Northern District of Georgia

Starting 1989

Congressionally Certified Subject Matter Expert - TSCM (National Security)

U.S. House of Representatives

Starting 2007

Congressionally Certified Subject Matter Expert - TEMPEST (National Security)

U.S. House of Representatives

Starting 2007

Court Certified Subject Matter Expert - Technical Surveillance

United States District Court for the Northern District of California

Starting 1997

Court Certified Subject Matter Expert - Cordless Phone Eavesdropping (Criminal Case)

District Court, Northampton, MA

Military Court Certified Subject Matter Expert - Cryptographic Keying Material and Device Destruction (National Security - Counter-Intelligence Case)

Judge Advocate General, Barksdale AFB, LA

Starting 1984

Congressionally Certified Subject Matter Expert - Communications Intelligence Analysis (National Security - Counter-Terrorism)

National Commission on Terrorist Attacks Upon the United States, Washington, DC

Starting 2003

Congressionally Certified Subject Matter Expert - Soviet Penetration of U.S. Cryptographic Systems (National Security, Counter-Espionage)
The Senate Select Committee on Intelligence, Washington, DC
Starting 1984

Court Certified Subject Matter Expert - Faking of Forensic Evidence by Police and Crime Scene Investigators (Homicide Case)
New Haven Superior Court, New Haven, CT
Starting 1993

Military Court Certified Subject Matter Expert - Covert Modification of Hematology Testing Software (Homicide Case)
Judge Advocate General, Barksdale AFB, LA
Starting 1983

Court Certified Subject Matter Expert - Chemical Weapons (Civil Case)
United States District Court, Northern District of Georgia

Court Certified Subject Matter Expert - Authentication of Digital Files
United States District Court - Middle District of Louisiana
Starting August 2013

Court Certified Subject Matter Expert - Photographic Manipulation (Criminal Case)
New York City Civil Court, New York, NY

Court Certified Subject Matter Expert - Photography Forensics (Civil Case)
New York City Civil Court, New York, NY

Court Certified Subject Matter Expert - Computer Networking (Civil Case)
New York City Civil Court, New York, NY
Starting 1991

Court Certified Subject Matter Expert - Firearms Investigations (Criminal Case)
Circuit Court for Harford County
Starting 2005

Court Certified Subject Matter Expert - Photoshop (Criminal Case - Forgery)
New York City Civil Court, New York, NY

Professional Responder CPR with Oxygen
American Red Cross

Lay Responder CPR
American Red Cross

Professional Responder - Epi-Pen
American Red Cross

Professional Responder - Rescue Inhalers
American Red Cross

Emergency First Responder
American Red Cross

Instructor - Lay Responder CPR and First Aid
American Red Cross

Instructor - Professional Responder CPR with AED and Oxygen
American Red Cross

Instructor - Oxygen Administration
American Red Cross

Instructor - Rescue Inhailers
American Red Cross

Pet First Aid and CPR
American Red Cross

Basic Life Support
American Heart Association | American Stroke Association

ACLS - Advanced Cardiac Life Support
American Heart Association | American Stroke Association

PALS - Pediatric Advance Life Support
American Heart Association | American Stroke Association

NRP - Neonatal Resuscitation Program
American Heart Association | American Stroke Association

PHTLS - Pre-Hospital Trauma Life Support (Civilian)
National Association of Emergency Medical Technicians

PHTLS - Pre-Hospital Trauma Life Support (Military)
National Association of Emergency Medical Technicians

EPC - Emergency Pediatric Care
National Association of Emergency Medical Technicians

AMLS - Advanced Medical Life Support
National Association of Emergency Medical Technicians

CLS - Combat Lifesaver Course
US Army

ATLS - Advanced Trauma Life Support
American College of Surgeons

Emergency Medical Technician
Commonwealth of Massachusetts, License inactive

WEMT - Wilderness Emergency Medical Technician Certification

Wilderness First Responder

Medical Person in Charge
U.S. Coast Guard

ICS-100, Incident Command System Introduction
FEMA

ICS-200, Incident Command System for Single Resources and Initial Action Incidents
FEMA

ICS-300, Intermediate Incident Command System for Expanding Incidents
FEMA

ICS-400, Advanced Incident Command System Command and General Staff—Complex Incidents
FEMA

Emergency Operations Center Management and Operations
FEMA

Apple Developer (Hardware and Software)
Apple

Starting June 1984

ATC - Apple Technical Coordinator
Apple
Starting December 1996

Top Secret Security Clearance
United States Department of Defense

Personnel Reliability Program (PRP - Nuclear Weapons Access and Control)
United States Department of Defense

Single Integrated Operation Plan (SIOP) - ESI / Contingency Plan (CONPLAN)
United States Department of Defense
Starting August 1982

Cryptographic Technician
National Security Agency

Sensitive Compartmented Information (SCI) Clearance
Central Intelligence Agency

Hexagon Program - Media Courier, Film Development, Print Preparation, Media Scanning, Computer and Switching System
Eastman Kodak
Starting June 1982

Special Intelligence (SI) Access Program
Central Intelligence Agency

TALENT KEYHOLE (TK) Access Program

TEMPEST Engineer
US Navy

Certified TEMPEST Professional
US Navy

COMSEC Courier and Custodian (Top Secret)
National Security Agency

Advanced Life Support Paramedic
Magen David Adom in Israel, License Training by Nancy Caroline, MD

Mobile Intensive Care Unit (MICU) - Paramedic
Magen David Adom in Israel

Emergency and Disaster Management Certification
FEMA
Starting 2008

Tactical Vehicle Interception Instructor
Summit Point Raceway/BSR

Police Driving Instructor
Scotti School of Defensive Driving

Diminished Light Instructor
SIG SAUER, Inc.

PPCT Weapons Retension Instructor
SIG SAUER, Inc.

Tactical Shotgun Instructor
SIG SAUER, Inc.

Concealed Carry Instructor
SIG SAUER, Inc.

Defensive Tactics Instructor
SIG SAUER, Inc.

Pistol Instructor
SIG SAUER, Inc.

Advanced Instructor
SIG SAUER, Inc.

Armorer (U.S. Navy)
GLOCK, Inc.

Armorer (M500 and M590, 12 ga., U.S. Marines)
O. F. Mossberg & Sons, Inc.

Armorer, Pistol, 10 mm (FBI)
Smith & Wesson

Armorer, Pistol, P226 (U.S. Navy)
Sigarms

Rifle Armorer (Long Range Sniper Rifle - U.S. Marine Corps)
Remington Arms Company

Armorer
Fabbrica d'Armi Pietro Beretta

Armorer
Colt's Manufacturing Company LLC

Diversionary Device Instructor
National Tactical Officers Association

OC Aerosol Instructor
Mace Security International

Master Chemical Weapons Instructor
Mace Security International

Straight/Expandable Baton Instructor
Mace Security International

Long Gun Instructor
SIG SAUER, Inc.

Sub-Machine Gun Instructor
SIG SAUER, Inc.

Apple Technical Coordinator (ATC)
Apple
Starting 1993

Counter Sniper Instructor
SIG SAUER, Inc.

Police (Driving) Instructor
BSR

M-16 Military Armorer (.223 and 9 mm)
Colt's Manufacturing Company LLC

Surveillance/Counter-Surveillance Training

U.S. Department of State

Advance Driver Training
U.S. Department of State

Evasive Driving Training
U.S. Department of State

Vehicle Commandeering Certification
U.S. Department of State

Vehicle Escape and Evasion Certification
U.S. Department of State

Expandable Baton Instructor
ASP, INC (Armament Systems and Procedures)

Expandable Baton Instructor
CACSO

PR-24 Baton Instructor
Monadnock

Agricultural Explosives
Omni Distribution

Advanced Agricultural Explosives
Omni Distribution

Precision Marksmanship I
Heckler & Koch

Precision Markmanship II
Heckler & Koch

MK-19 Grenade Launcher Armorer
Saco Arms

Master Non-Lethal Use of Force Instructor
Mace Security International

M-82 Armorer (.50 BMG)
Barrett

Pistol Armorer (Hi-Power, 9 MM)
Browning

Revolver Armorer
Ruger

M-60 Armorer (7.62x51, .30 Caliber)
Saco Arms

M-2 HB .50 Caliber Armorer
Saco Arms

Armorer
IMI

Combat Rifle Armorer
Fabrique Nationale

SWAT Team Tactical Breaching
Omni Distribution

Bomb and Arson Investigation
U.S. Government

Tactical Explosive Entry
TEEX

Tactical Breaching
Hydrocut

SPLATMM Instructor
Precision Ordnance

SPLATMM Instructor
Accuracy Systems

Chemical Munitions Instructor
Defense Technologies, Inc

Chemical Munitions Instructor
Aerko - Defense Technologies

Chemical Munitions Instructor
CAP-STUN

Chemical Munitions Instructor
Lake Erie

Chemical Munitions Instructor
Federal Laboratories

Stun and Distraction Device Instructor
Federal Laboratories

SICDS Instructor
Mace Security International

Emergency Response Belt Instructor
Mace Security International

Counter-Terrorism Investigations - Small Arms Tracing
U.S. Government

Counter-Terrorism Investigations - Human Remains Collections and Testing
U.S. Government

Counter-Terrorism Investigations - Processing Mass Casuality
U.S. Government

Counter-Terrorism Investigations - Reconstructing Detonators and TIming Devices
U.S. Government

Counter-Terrorism Investigations - Improved Explosive Devices
U.S. Government

GSA Container Servicing
U.S. Government Contractor

Professional Locksmithing
U.S. Government Contractor

Safe Penetration (Overt)
U.S. Government Contractor

Safe Penetration (Covert)

U.S. Government Contractor

Bank Vault Penetration
U.S. Government Contractor

Safe Manipulation
U.S. Government Contractor

Safe Servicing
U.S. Government Contractor

Safety Deposit Box
U.S. Government Contractor

Access Control Systems
U.S. Government Contractor

Advanced Breaking and Entering
U.S. Government Contractor

Automotive Locksmithing
U.S. Government Contractor

Counter-Intelligence Burglary Investigations
U.S. Government Contractor

High Security Locksmithing
Medeco Security Locks

High Security Locksmithing
ASSA ABLOY

High Security Locksmithing
ASSA

X-07 Combination Lock
Mass-Hamilton

Safe and Vault
Mosler

Safe and Vault
Sargent and Greenleaf

Heckler & Koch
Active Countermeasures Tactical Instructor

Armorer MP-5/G3/P7/USP
Heckler & Koch - USA

MP-5 Instructors Course (2 wk)
Heckler & Koch - USA

MP-5 Advanced Course
Heckler & Koch - USA

Heckler & Koch
MP5, HK Rifles, Benelli Shotguns, USP Armorer

Heckler & Koch
P7 Pistol Armorer (9 mm)

Heckler & Koch
Range Analysis & Armorers Trouble Shooting

M-79 Grenade Launcher Armorer
Federal Laboratories

M-203 Armorer (37mm/40mm)
Federal Laboratories

Armorer - Jericho 941 Pistol (9 mm)
Israel Military Industries Ltd. (IMI) / TAAS

Armorer - Israel Military Industries Desert Eagle Pistol
Israel Military Industries Ltd. (IMI) / TAAS

Armorer - Uzi Submachine Gun
Israel Military Industries Ltd. (IMI) / TAAS

Armorer - IMI Galil Assault Rifle
Israel Military Industries Ltd. (IMI) / TAAS

Armorer - IMI Negev 5.56 mm Light Machine Gun
Israel Military Industries Ltd. (IMI) / TAAS

Small Arms Expert Marksmanship (Rifle, M16, Colt, .223 Rem/5.56mm)
United States Air Force

Small Arms Expert Marksmanship (Pistol, Colt 1911, .45 ACP)
United States Air Force

Small Arms Expert Marksmanship (Revolver, Smith and Wesson .38 Special)
United States Air Force

Small Arms Expert Marksmanship (Revolver, Ruger .357 Magnum)
United States Air Force

Small Arms Expert Marksmanship (Shotgun, Remington, 12 Gauge)
United States Air Force

Small Arms Expert Marksmanship (Shotgun, Mossberg, 12 Gauge)
United States Air Force

Small Arms Expert Marksmanship (Rifle, M-700, Remington, .308 Win/7.62x51)
United States Air Force

Small Arms Expert Marksmanship (Machine Gun, M-60, .308 Win//7.62x51)
United States Air Force

Small Arms Expert Marksmanship (Rifle, M-1A/M-14, .308 Win//7.62x51)
United States Air Force

Small Arms Expert Marksmanship (Machine Gun, M-2, .50 BMG)
United States Air Force

Small Arms Expert Marksmanship (Grenade Launcher, M-79, 40mm)
United States Air Force

Forensic Photography
Eastman Kodak
Starting November 1995

Basic Alarm System Bypass, Penetration and Manipulation
U.S. Government

Intermediate Alarm System Bypass, Penetration and Manipulation
U.S. Govrnment

Advanced Alarm System Bypass, Penetration and Manipulation

U.S. Government

Adobe Educator/Engineering Evangelist (Postscript Language)
Adobe
Starting 1984

Adobe Educator (Photoshop, beta versions)
Adobe
Starting 1988

Adobe Educator/Evangelist (Photoshop 2.5 - Mac, Windows, Solaris, Irix)
Adobe
Starting 1992

Adobe Photoshop 4.0
Adobe
Starting 1996

Adobe Photoshop 5.5
Adobe
Starting 1999

Honeywell Series 60 - Level 6 Minicomputer, Field Service and Repair, 16-bit GCOS (Top Secret Variant)
Honeywell

High Reliability Soldering (Avionics and Space Systems)
United States Air Force
Starting 1982

465L Sub-A Technician Certification - 30554G Level
United States Air Force
Starting 1982

465L SACCS Technician Certification - 30574 Level (Supervisory Level)
United States Air Force
Starting 1983

SACCS IBM Selectric Terminal Maintenance and Repair (Missile Silo Keyboard)
United States Air Force

SACCS FMC - Format Message Composer Maintenance and Repair (30554 level)
United States Air Force

Electronics Maintenance Supervisory and Leadership Certification - 30X74 Level
United States Air Force

MMICS Files Maintenance (File and Database Repair)
United States Air Force
Starting 1984

E-Rate Internet Safety Education Certificate
i-SAFE
Starting February 2015

AFSC 30534K - Electronic Computer and Switching Specialist (407L TACCS)
United States Air Force
Starting 1982

AFSC 30554K - Electronic Computer and Switching Specialist (407L TACCS)
United States Air Force
Starting 1983

AFSC 30534F - Electronic Computer and Switching Specialist (465L

EDTCC/SACCS)
United States Air Force
Starting 1982

AFSC 30554F - Electronic Computer and Switching Specialist (465L EDTCC/SACCS)
United States Air Force
Starting 1982

AFSC 30534G - Electronic Computer and Switching Specialist (465L RCC-LCC/SACCS)
United States Air Force
Starting 1982

AFSC 30554G - Electronic Computer and Switching Specialist (465L RCC-LCC/SACCS)
United States Air Force
Starting 1983

AFSC 30534H - Electronic Computer and Switching Specialist (465L DDC-Display Equip/SACCS)
United States Air Force
Starting 1982

AFSC 30554H - Electronic Computer and Switching Specialist (465L DDC-Display Equip/SACCS)
United States Air Force
Starting 1983

AFSC 30534P - Electronic Computer and Switching Specialist (490L Overseas Autovon)
United States Air Force
Starting 1983

AFSC 30554P - Electronic Computer and Switching Specialist (490L Overseas Autovon)
United States Air Force
Starting 1983

AFSC 36272 - Electronic Computer and Switching Technician
United States Air Force
Starting 1983

AFSC 30670 - Electronic Communications and Cryptographic Equipment Systems Technician
United States Air Force
Starting 1986

AFSC 30476 - Space Communications Systems Equipment Technician
United States Air Force
Starting 1985

AFSC 39190 - Maintenance Analysis Superintendent
United States Air Force
Starting 1985

Education

Louisiana Tech University
Bachelor of Arts, Business management with a major in executive level technology leadership, computer programming, 3.74 GPA
1985 – 1987

Graduate work towards a dual degree. This degree was to be a M.B.A. with a major in Executive Management and a minor in Quantitative Analysis [Completed all, but thesis]. Heavy focus on reducing a business operation to a mathematic model, and then writing computer programs to extract meaningful data to assist in complex business designs made by senior executives.

Activities and Societies: Deans List, Tutor, Computer Lab Manager, Completed MBA Capstone project

Louisiana Tech University
Business Administration, Management and Operations, Clinical Psychology, Quantitative Analysis, GPA 3.74
1985 – 1987

Graduate work towards a dual degree. This secondary degree was to be a M.S. in Clinical Psychology with a minor in Counseling [Completed all, but thesis]. Completed one full year supervised clinical internship rotation at VA Hospital, Shreveport Louisiana. Specialized in the counseling of veterans in a clinical environment, both on base, and in a medical facility, with a special focus of preventative and interventional modalities. Volunteer on veteran suicide prevention hotline, and interventional mental health hot line.

Activities and Societies: Deans List, Tutor, Computer Lab Manager, One Year Clinic Internship - VA Hospital Shreveport, LA.

Louisiana Tech University
Bachelor's Degree, Business Administration, 3.76 GPA
1984 – 1985

Focused on business management/administration and leadership and courses involving quantitative analysis in which computers were involved and integrated in the business process. Major in Business Administration and quantitative analysis, Minor in Quantitative Analysis and Computer Programming. Thesis and Senior Project involved design and implementation of a multi-store location computer system for a video rental store to successfully handle all store functions for an annual 8 million dollar operation.

Activities and Societies: Deans List, Honor Guard

Louisiana Tech University
Associate's Degree, Computer Programming, 3.76 GPA
1983 – 1984

Attended night and weekend classes, taking every computer programming (FORTRAN, COBOL, RPG, BASIC, ASSEMBLER), quantitative analysis, and systems analysis courses the college offered.

Activities and Societies: Deans List, Tutor, Computer Lab Manager

Community College of the Air Force
Electrical, Electronics and Communications Engineering, 4.0 GPA
1981 – 1987

Activities and Societies: Honor Guard

Salem State University
Computer Science and Software Engineering, 4.0 GPA

Concentration on: Computer systems, Embedded systems, Object-Oriented Programming Methods, Software Engineering and Hardware Design for Embedded Systems, FPGA, Computer Systems Design, Logic, Symbolic Logic, and Related subjects.

Also, studying of human anatomy and biology at the gross, systemic, micro, and molecular levels.

Minors in Human Biology, Fine Arts Photography, Philosophy, Chemisty

Montserrat College of Art
Photography, Fine Arts Photography, 4.0 GPA

Heavy concentration on traditional darkroom skills, both in 35 mm, Medium Format, and Large Format film sizes, and digital imaging.

Also, considerable training in drawing and photographing the human form and figure.

Secondary studies in oil painting of the human figure and form, letterpress operation, and fine arts book binding.

Model

Old Steam Shovel

Gear on Steam Engine

New England School of Photography
Professional Photography, Portraiture, Fashion, Fine Arts, Advertising
2013 – 2014

Immersive education in all aspect of professional photography including body digital photography, and film based photography. Studied portriature, fine arts, fashion, and wedding photography.

Typical Flower Studies

Man at the Wheel, Gloucester Harbor, Glouce…

Crystal

University of Massachusetts Boston
Computer Forensics

School of the Museum of Fine Arts
Fine Arts Drawing, Painting, Photography, 3.8 GPA
2008 – 2013

Post graduate work in fine arts drawings of the human figure and form, with a focus of anatomical accuracy. Painting of emotive portraits, using traditional methods. Photography of the human movement, figure and form, following the influences and prior studies of Maybridge and Eakins.

Christine

Massachusetts College of Art
Fine Arts Drawing, Painting, Photography, 3.9 GPA
2008 – 2011

Various undergraduate and post graduate courses in classical fine arts.

Red Lobster Pot Floats

Motif One in a Snow Storm, Rockport, MA

Fisherman Statue at Glouc…

Vassar College
Warrior-Scholar Project
2015

The Warrior-Scholar Project is a veterans education project which consists of intensive classes, workshops, discussions, and tutoring sessions.

Reading and Writing Classes replicate the experiences of participating in two kinds of classes: a humanities seminar and an academic writing course. Participants focus on engaging with texts, asking questions and communicating ideas in discussion with their peers and faculty, understanding the expectations of college-level writing, and using what they learn to shape their ideas and arguments.

Reading and Writing Workshops guide students through the reading and writing strategies college students are expected to engage in outside of the classroom. Students practice methods for reading challenging texts, developing their ideas, and writing key parts of an essay.

North Shore Community College
Human Biology, Microbiology, Molecular Biology, Biotechnology, 3.6 GPA
2003 – 2009

Activities and Societies: Heavy focus on studying the human body at various levels to include clinical level anatomy, physiology, microbiology, and related medical courses. Exploration of all bones, muscles, cells, systems, chemicals, and everything that makes the human body what it is. Studied biology, microbiology, molecular biology, biotechnology, and related subject matters.

Harvard Medical School
Emergency Medicine
2008 – 2008

Post-graduate medical training regarding emergency medicine, running the gamut from burns, orthopedic injuries, complex trauma, cardiac and respiratory, pediatrics, sedation, ECG, behavioral emergencies, labs, obstetrics, and related subjects which might be seen in an emegency room or trauma unit.

Northeastern University
Electronics Engineering, 4.0 GPA
1993 – 1995

Post graduate Course Work on telecommunications engineering, switching systems engineering, transmission systems engineering, telephone plant engineering, semiconductor fabrication, and computer programming.

Government School
Technical Surveillance Counter Measures
2009 – 2009

Two week operators course in using a series of computer program to control a bank of software defined radios in order to monitor the radio spectrum during TSCM sweeps.

The goal was to passively detect any elevation of the noise floor within a given band, quickly inventory it, and pass the signal to a hand-off receiver for closer analysis and further monitoring. Taken Back-to-Back with a National Instrument LabVIEW course seqence, at a government facility.

National Association of Emergency Medical Technicians
PHTLS, Emergency Medicine, Professional Certification
2009 – 2009

Prehospital Trauma Life Support (PHTLS) is recognized around the world as the leading continuing education program for prehospital emergency trauma care.

PHTLS is developed by the National Association of Emergency Medical Technicians in cooperation with the American College of Surgeons Committee on Trauma. PHTLS courses improve the quality of trauma care and decrease mortality.

PHTLS promotes critical thinking as the foundation for providing quality care. It is based on the belief that, given a good fund of knowledge and key principles, EMS providers are capable of making reasoned decisions regarding patient care.

PHTLS programs was developed from the Advanced Trauma Life Support (ATLS) Program, a course for physicians developed by the American College of Surgeons Committee on Trauma. They follow the principles of trauma care developed by the Committee on Trauma. The Committee provides the medical direction and content oversight for the PHTLS program.

National Instruments
Electronics Engineering
2009 – 2009

Three week review of software applications and drivers to include LabVIEW version 8.2, and then using the software to configure and control laboratory grade test equipment and other scientific equipment to perform complex automated measurements.

American Heart Association
PALS, Emergency Medicine - Pediatric Advanced Life Support, Professional Certification
2008 – 2008

Pediatric Advanced Life Support (PALS) certification course.

The goal of the American Heart Association Pediatric Advanced Life Support course is to aid the emergency pediatric healthcare provider in developing the knowledge and skills necessary to efficiently and effectively manage critically ill infants and children, resulting in improved outcomes.

Skills taught include recognition and emergency treatment of infants and children at risk for cardiopulmonary arrest; the systematic approach to pediatric assessment; effective respiratory management; defibrillation and synchronized cardioversion; intraosseous access and fluid bolus administration; and effective resuscitation team dynamics.

Activities and Societies: American Heart Association, AHA

American Heart Association
BLS Healthcare Provider, Emergency Medicine, Professional Certification
2008 – 2008

The BLS Healthcare Provider Course is designed to provide a wide variety of health-care professionals the ability to recognize several life-threatening emergencies, provide CPR, use an AED, and relieve choking in a safe, timely and effective manner.

Note: I repeat this or a similar course approximately every six months in order to maintain an extremely high level of proficiency, and have been certified in professional level or healthcare level CPR since 1981, and prior to that certified at the lay responder level.

American Heart Association Healthcare Provi…

American Heart Association
ACLS, Advanced Cardiac Life Support, Professional Certification
2008 – 2008

Emergency clinical interventions for the urgent treatment of cardiac arrest and other life threatening medical emergencies, as well as the knowledge and skills to deploy those interventions. Highlights the importance of team dynamics and communication, systems of care and immediate post-cardiac-arrest care. It also covers airway management and related pharmacology.

American Red Cross - CPR/AED for the Profe…

American Red Cross
Emergency Response, First Aid, CPR, and Emergency Medicine, Professional Certification
2008 – 2008

This was a 58 hour course designed for training first responders, the comprehensive course followed the 1995 US DOT First Responder National Standard Curriculum and meets ECC Guidelines.

Key content areas included: First Aid for injuries and sudden illnesses, Cardio-Pulmonary Resuscitation on Adults, Children, and Infants, Automated external defibrillation, Preventing disease transmission/ blood-borne pathogens, Using basic and supplemental oxygen breathing devices, Spinal injury management, Muscle, bone, and joint injuries, Special considerations for seniors and children, Critical incident stress debriefing, Healthy lifestyle tips. Emergency childbirth, Metered dose inhalers, Epi-Pens

This was a repeated class that was taken to renew my periodic DOT First Responder re-certification (repeated yearly since 1995), and was used to supplement my CLS skills.

American Red Cross - Oxygen Administration…

American Red Cross - Epinephrine Auto-Injec…

American Red Cross - Fund…

American Red Cross - Bloo…

American heart Association
NRP, Neo-Natal Resuscitation Program, Professional Certification
2008 – 2008

This course is to teach an evidence-based approach to resuscitation of the newborn.

The causes, prevention, and management of mild to severe neonatal asphyxia are carefully explained so that health professionals may develop optimal knowledge and skill in resuscitation.

The Neonatal Resuscitation Program is an educational program that introduces the concepts and basic skills of neonatal resuscitation.

DHS/FEMA - Emergency Management Institute
PDS, Emergency and Disaster Management, Professional Certification
2008 – 2008

The very first TSCM specialist in the world to complete this highly coveted and prestigious program and to receive PDS certification by FEMA.

IS-1900 NDMS - National Disaster Medical S…

IS-197 Special Needs Planning Consideration…

IS-393A Introduction to Haz…

IS-547 Introduction to Conti…

IS-800 National Response …

SEE MORE

DHS/FEMA - Emergency Management Institute
ICS-100, Incident Command System Introduction, Professional Certification
2008 – 2008

ICS 100, Introduction to the Incident Command System, introduces the Incident Command System (ICS) and provides the foundation for higher level ICS training.

This course describes the history, features and principles, and organizational structure of the Incident Command System. It also explains the relationship between ICS and the National Incident Management System (NIMS).

The Emergency Management Institute developed its ICS courses collaboratively with: National Wildfire Coordinating Group (NWCG), U.S. Department of Agriculture, United States Fire Administration's National Fire Programs Branch.

ICS-100 Certification by the Commonwealth o…

IS-100 Health Care Certification by FEMA

HUR-111 Hurricane Emerge…

DHS/FEMA - Emergency Management Institute
ICS-200, ICS for Single Resources and Initial Action Incidents, Professional Certification
2008 – 2008

ICS 200 is designed to enable personnel to operate efficiently during an incident or event within the Incident Command System (ICS). ICS-200 provides training on and resources for personnel who are likely to assume a supervisory position within the ICS.

The Emergency Management Institute developed ICS its ICS courses collaboratively with: National Wildfire Coordinating Group (NWCG), U.S. Department of Agriculture, United State Fire Administration's National Fire Programs Branch

Primary Audience: Persons involved with emergency planning, response or recovery efforts.

NIMS Compliance: This course is NIMS compliant and meets the NIMS, Baseline Training requirements for I-200.

ICS-200 Certification by the Commonwealth o…

IS-15 Special Events Contingency Planning f…

DHS/FEMA - Emergency Management Institute
ICS-300, Intermediate ICS for Expanding Incidents (EMI Course Number: G300), Professional Certification
2008 – 2008

FEMA recommends that all mid-level management personnel should take ICS-300. The course material is specific to personnel who will be serving in the following positions: command staff, section chiefs, strike team leaders, task force leaders, unit leaders, division/group supervisors, branch directors, and multi-agency coordination system/emergency operations center staff. Federal, State, territory, tribal or local agency/organization/jurisdiction reserve the right to make the final decision as to who should complete this course.

Approved ICS-300 level training which included the content and objectives stated in the NIMS National Standard Curriculum Training Development Guidance.

ICS Staffing and organization to include: reporting and working relationships and information flow. Transfer of Command, Unified Command functions in a multi-jurisdictional or multi-agency incident. ICS forms, Resource Management, Interagency mission planning and procurement

ICS-300 Certification by the Commonwealth o…

IS-346 Hazardous Materials for Medical Pers…

DHS/FEMA - Emergency Management Institute
ICS-400, Advanced ICS Command and General Staff—Complex Incidents (EMI Course Number: G400), Professional Certification
2008 – 2008

FEMA recommends that all command and general staff personnel should take ICS-400. The course material is specific to personnel who will be serving in the following positions: command or general staff in an ICS organization, select department heads with multi-agency coordination system responsibilities, area commanders, emergency managers, and multi-agency coordination system/emergency operations center managers. Federal, State, territory, tribal or local agency/organization/jurisdiction reserve the right to make the final decision as to who should complete this course.

Approved ICS-400 level training has been developed by the United States Fire Administration (USFA), the Emergency Management Institute (EMI), the National Wildland Coordinating Group (NWCG) as well as other Federal government agencies. These organizations have included the content and objectives outlined in the NIMS National Standard Curriculum Training Development Guidance dated March, 2007 in the training.

ICS-400 Certification by the Commonwealth o…

DHS/FEMA - Emergency Management Institute
Principles of Emergency Management, Professional Certification
2008 – 2008

Understanding the fundamental principles and practices of emergency management provides a framework for the future professional growth of every emergency manager and responder. This 20 hour course is designed to provide a basic framework of understanding of emergency management in the following areas:

Overview of the Integrated Emergency Management System, The emergency management cycle, The Plan as program centerpiece, Planning and coordination, Functions of an emergency management program, Emergency management program participants, Applying emergency management principles

IS-809 Emergency Search and Rescue

IS-230 Principles of Emergency Management

Cisco
DOCSIS Systems Engineering, Electronics Engineering
1999 – 1999

In depth component, operating system and firmware examination of all major commercially available broadband cable modems, plus comprehensive analysis of the raw DOCIS broadband signal on the cable system, and methods of effectively and efficiently decoding data present on a shared link, remotely reprogramming the cable modems, ensuring security, and limiting cable modem box tampering or hacking.

CISCO
Electronics Engineering and Computer Programming, DOCSIS Cable Modems
1997 – 1997

Intense government sponsored electronics engineering course of the hardware involved in all emerging DOCIS cable modems, the (then) new DOCSIS Standard, the proposed encryption and key management system and the internal mechanisms by which each cable box as used to provide high speed data service. In depth examination of the "CISCO" way broadband cable service.

DHS/FEMA - Emergency Management Institute
Emergency Planning, Professional Certification
2008 – 2008

Being able to use all the basic elements of the planning process gives emergency managers, planners and other stakeholders a basis for working together to shape the community's disaster response to all types of hazards and problems.

This course is designed to prepare planners to use the standard terminology and concepts of a properly structured Emergency Operations Plan in the following areas: The planning process, Hazard analysis, The basic Emergency Operations Plan (EOP), Annexes and appendices, Implementing instructions

IS-706 NIMS Intra-State Mutual Aid and Intro…

IS-235 Emergency Planning

DHS/FEMA - Emergency Management Institute
Effective Communication, Professional Certification
2008 – 2008

Being able to communicate effectively is a necessary and vital part of the job of every emergency manager, planner, and responder. This 16 hour course is designed to improve emergency and disaster communication skills. It addresses:

Basic communication skills, How to communicate in an emergency or disaster, How to identify community-specific emergency communication issues, Using technology as a communication tool during a disaster, Effective oral communication. How to prepare an oral presentation during an emergency situation.

IS-242 Effective Communications

DHS/FEMA - Emergency Management Institute
Decision Making and Problem Solving, Professional Certification
2008 – 2008

Being able to make decisions and solve problems effectively during a disaster is a necessary and vital part of the job for every emergency manager, planner, and responder. This 8 hour course is designed to improve decision-making skills under difficult conditions. It addresses: The decision-making process, Decision-making styles, Attributes of an effective decision maker, Ethical decision making and problem solving

IS-241 Decision Making and Problems Solving

DHS/FEMA - Emergency Management Institute
Leadership and Influence, Professional Certification
2008 – 2008

Being able to lead others during emergencies – to motivate them to commit their energies and expertise to achieving the shared mission and goals of the emergency management system – is a necessary part of the job for every emergency manager, planner and responder. This 16 hour course is designed to improve leadership and influence skills. It addresses: Leadership from within, How to facilitate change, How to build and rebuild trust, Using personal influence and political savvy, Fostering an environment for leadership development.

IS-240 Leadership and Influence

DHS/FEMA - Emergency Management Institute
Developing and Managing Volunteers, Professional Certification
2008 – 2008

This course is for emergency managers and related professionals working with all types of volunteers and coordinating with voluntary agencies. The 16 hour course provides procedures and tools for building and working with voluntary organizations during disasters and emergencies. Topics include: Benefits and challenges of using volunteers, Building a volunteer program, Writing job descriptions, Developing volunteers through recruitment, placement, training, supervision and evaluation, Coordinating with voluntary agencies and community-based organizations, Special issues including spontaneous volunteers, liability, and stress

IS-244 Developing and Managing Volunteers

DHS/FEMA - Emergency Management Institute
Exercise Design, Professional Certification
2008 – 2008

Emergency managers, emergency services personnel, and individuals who are part of the emergency preparedness and response communities at all levels need to be able to use the fundamentals of exercise simulation and design as an integrated system of resources and capabilities. This 24 hour course is designed to develop their exercising skills in the following areas: Comprehensive emergency and disaster exercise program, The emergency and disaster exercise process, Emergency and disaster exercise design steps. Tabletop, Functional, and Full-scale emergency and disaster exercises, Exercise evaluation, Exercise enhancements, Designing a Functional exercise

IS-139 FEMA Exercise Design

FEMA
EOC, Emergency Operations Center Management and Operations, Professional Certification
2008 – 2008

This course examined the role, design, and functions of Emergency Operations Centers (EOC) and their relationships as components of a multi-agency coordination system. The course provided training about staffing and organization, information, systems, communications and equipment needs at the EOC; activating and deactivating the EOC; EOC operations; and EOC testing, emergency communications, training and exercising.

The course used activities and case studies about Emergency Operations Centers and multi-agency coordination systems at the local, State and Federal levels of government.

Emergency Operations Center (EOC) Management is the capability to provide multi-agency coordination (MAC) for incident management by activating and operating an EOC for a pre-planned or no-notice event.

Activities and Societies: EOC management includes EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities.

IS-288 Role of Voluntary Agencies in Emerge…

IS-302 Modular Emergency Radiological Tran…

Private School
Emergency Care and Transportation of the Sick and Injured, A
2008 – 2008

Introduction to Emergency Medical Care, Medical, Legal, and Ethical Issues, The Human Body, Baseline Vital Signs and SAMPLE History, Lifting and Moving Patients, Airway, Patient Assessment, Communications and Documentation, General Pharmacology Respiratory, Cardiovascular, and Neurologic Emergencies, The Acute Abdomen, Diabetic Emergencies, Allergic Reactions and Envenomations, Substance Abuse and Poisoning, Environmental Emergencies, Behavioral Emergencies, Obstetric and Gynecologic Emergencies, Kinematics of Trauma, Bleeding Shock, Soft-Tissue Injuries, Eye Injuries, Face and Throat Injuries Chest Injuries, Abdomen and Genitalia Injuries, Musculoskeletal Care, Head and Spine Injuries, Pediatric Emergencies, Geriatric Emergencies, Assessment and Management, Ambulance Operations, Gaining Access, Special Operations, Response to Terrorism and Weapons of Mass Destruction, ALS Techniques, Advanced Airway Management, Intravenous Therapy, Cardiac Monitoring

American Red Cross
Volunteer Instructor, Emergency Medicine, Professional Certification
2007 – 2008

Series of courses, and refresher courses, leading up to becoming fully certified as a volunteer American Red Cross instructor, and becoming an Authorized Provider to teach Red Cross curriculum in First Aid, CPR, AED, Oxygen use, and related subjects to lay responders, professional rescuers (police, fire, EMS), and to health care workers.

Activities and Societies: Granite Island Group is an Authorized Provider of CPR, First Aid, and related Red Cross courses, and all courses are taught so that the students develop an extremely high level of knowledge and proficiency.

American Red Cross - CPR/AED - Adult

DHS/FEMA - Emergency Management Institute

Incident Command System, Incident and Emergency Management

2006 – 2008

The very first TSCM specialist in the world to become fully NIMS (National Incident Management System) and ICS (Incident Command System) trained. ICS Certified at all levels for single resources and specialized strike teams (ICS-100); intermediate (ICS-200) or expanding incidents (ICS-300), and for extremely large and extremely complex expanding incidents (ICS-400).

Also,
IS-800.b National Response Framework, An Introduction

IS-100.HC Introduction to the Incident Command System for Health-care/Hospitals

IS-200.HC Applying ICS to Health-care Organizations, Single Resources and Initial Action Incidents

Over 50 additional FEMA courses.

Analog Devices

Blackfin, Electronics Engineering

2007 – 2007

System development and programming with the Analog Devices high performance Blackfin processor family

Engineering course that is designed to systematically teach how to use the Blackfin processor to its fullest potential.

Emphasis is placed on understanding the steps required to create an efficient Blackfin CPU based system in the way that Analog Devices had intended the processor to be used.

The VisualDSP++ IDDE covered in detail, including topics on projects and project configuration, the build process, and debug features. Tools based optimizations including compiler and linker optimization are covered. Architecture topics covered include loop/branch optimization and interrupt handling, L1 Memory configuration (ie L1 SRAM and Cache), specialized instructions including the quad 8-bit Video ALU operations, and DMA operation between peripherals and memory, as well as from memory to memory.

Research Electronics International, LLC

TSCM, Technical Surveillance Counter Measures

2007 – 2007

Nine days of Advanced TSCM equipment specific training, heavy focus on performing TSCM on Telephone Methods and Procedures.

Mostly focused on the REI TALAN telephone analyzer, which at this point in time was still a pretty flakey unit, that often stopped lab time or practical exercises when they would crash or flip out for no apparent reason.

DHS/FEMA - Emergency Management Institute

IS-1900, National Disaster Medical Services (NDMS) Federal Coordinating Center Operations Course

2006 – 2006

Course provides training to address the needs of Federal Coordinating Centers (FCCs) in the event of a large scale national medical disaster.

The purpose of this course is to: Provide the training necessary to ensure all Federal Coordinating Centers as being proficient to perform their duties. Provide flexible training for Federal Coordinating Centers which will not sacrifice training quality or standards. Provide a forum for Federal Coordinating Center development through individual participation. Acclimate Federal Coordinating Centers to function during incidents of national significance. Acclimate Federal Coordinating Centers to function in support of Department of Defense operations.

The primary audience of this NDMS Operations Course are Federal Coordinating Centers Directors as well as FCC Coordinators and staff. Secondary audiences include others who support NDMS patient movement and definitive care components.

National Instruments

Electronics Engineering
2006 – 2006

Two week update course for LabVIEW version 8.2.

Research Electronics International, LLC
TSCM, Technical Surveillance Counter Measures
2006 – 2006

Advanced TSCM equipment specific training, heavy focus on RF Methods and Procedures.

Mostly on the REI OSCOR OSC-5000 with and without the microwave downconvertors, and CPM-700.

Research Electronics International, LLC
TSCM, Technical Surveillance Counter Measures
2004 – 2004

Factory TSCM equipment training.

Primarily the REI CPM-700 in several varieties, OSC-5000 with and without the microwave down convertor, the NJE-4000 ORION NLJD, and CMA-100 Audio Amplifier.

A lot of experience finding the plethora of illegal bugging devices that the school maintained in various concealments and hiding places.

Advanced Micro Devices, Inc.
x86, Athlon 64 and AMD Opteron Design and Programming
2003 – 2003

Hardware design course, coupled with programming the chips in assembler language.

These courses were AMD "design in" sessions using the Athlon and Opteron as a FFT engine to convert the RF spectrum (frequency domain) into datasets for analysis of a variety of signals.

Virginia State Police Academy
Investigation of Cons, Scams, and Crooked Carnival Games

Virginia State Police Academy
Advanced Workshop on Interrogation

Analog Devices
ADSP-2106x, Electronics Engineering
2003 – 2003

Update on the Analog Devices ADSP-2106x series of DSPs signal processing microcomputers for use as a pre-processor of signals and development of DSP to CISC interfacing.

Avaya
Telecommunications
2003 – 2003

Course on the design, installation, configuation, and administration of the Avaya Media Gateways and instruments.

Government School
Emergency Medicine Refresher
2002 – 2002

This was a 160 hour course regarding trauma level emergency room medicine, involving extremely injured patients brought to the field hospital in a combat environment.

Involved 80 hours of classroom instructions and labs, followed by 80 hours of observational time in multiple types of trauma units.

U.S. Government
CLS - Combat Lifesaver, Emergency Medicine
2002 – 2002

The combat lifesaver (CLS) is a team member trained to provide immediate emergency care. Each field team must have at least one member trained to be a combat lifesaver.

On the battlefield or in hostile zones, the ability of trained medical personnel to provide immediate, far forward care is limited. Immediate far-forward first aid is essential on a widely dispersed and fluid battlefield to prevent soldiers and civilian contractors from dying of wounds.

Medical personnel may not be able to reach all wounded operators at all points on the battlefield in a timely manner. The CLS is usually a nonmedical person specially trained to provide advanced first aid and immediate lifesaving procedures beyond the level of self-aid or buddy aid.

The CLS is not intended to take the place of medical personnel, but to slow deterioration of the wounded until medical personnel arrive. Functioning as a CLS is a secondary mission undertaken only when the tactical situation permits.

U.S. Government
CT/MRI Refresher, Emergency Medicine
2002 – 2002

Course on ordering and reading the CT and MRI images of trauma patients, plus the logistics of setting up a field portable system, and getting a trauma patient quickly into and out of a CT/MRI scanner.

Heavy emphasis on "wet reading" of the STAT scans, and using software tools to rapidly triage combat injured patient in a quasi-tactical hospital environment.

Yale University School of Medicine
EKG Refresher, Emergency Medicine - Cardiology
2002 – 2002

Ninety six hour, crash course on using recently developed EKG systems for use in forward tactical situations, and in battlefield staging areas and hospitals.

The course included 24 hours of actual machine instruction and classroon practicum, followed by 24 hours of supervised clinical internship, then 32 hours of determining both common and complex arrhythmias, with 16 hours of supervised internship beyond that in a clinical environment.

Virginia State Police Academy
Fanatic Mentality and Occult Investigations

Virginia State Police Academy
Personality Profiling/Crime Scene Assessment

Agilent Technologies
PSA, Electronics Engineering
2000 – 2000

Comprehensive course on the PSA spectrum analyzer including use, repair, and calibration. Special emphasis on programming for remote instrument control, and setting up testing masks, templates, and macro's for automated testing with ultra-high performance laboratory equipment.

Private
TSCM, Technical Surveillance Counter Measures
2000 – 2000

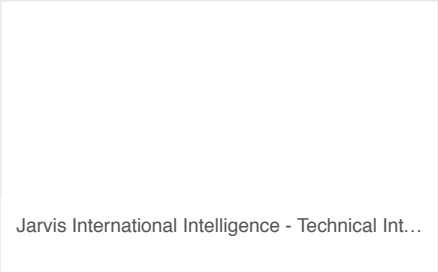
Short one week course provided by a company who manufactured and marketed very low end spy-shop toys, and how they use flash, sizzle, hype, and deceit to perform what they consider to be sweeps. Really learned nothing of value in the course, other then how so many spy-shop get away with their illicit business so well.

National Instruments
Electronics Engineering
1999 – 1999

Ten day course on LabVIEW Real-Time, with a heavy emphasis on control Watkins-Johnson equipment and high speed digitizers.

Private School
Black Bag, Technical Intelligence Operations
1999 – 1999

Course focusing strictly on sophisticated telephone eavesdropping methods, and the TSCM measures that can be used to detect each of them. Heavy study of the essential phone circuits and subtle modifications which can be made to either the instrument or the transmission path to exploit either for technical eavesdropping.



Jarvis International Intelligence - Technical Int…

Private School
X-Ray Tech., Industrial 3-D X-Ray Tomography
1999 – 1999

Long course on the industrial use of X-Ray imaging equipment to detect extremely tiny, and often microscopic anomalies inside something being tested.

High emphasis on using the equipment to create 3-D images of a near microscopic item being imaged, and optimizing equipment to obtain the maximum clarity of details.

Also, trained of reverse engineering of circuit boards, components, and development of schematics based solely on the analysis of X-Ray plates and data files, and the analysis of cryptographic devices and systems through X-Ray based micro-tomography.

Research Electronics International, LLC
TSCM
1999 – 1999

Course on the REI ORION NLJD, and REI OSC-5000, both of which were fairly new products (and not yet widely accepted).

Taught in their small conference room as their had no actual training facility, and no training staff at the time. I was one of their very first students.

Sony/Tektronix
RTSA, Electronics Engineering
1999 – 1999

Programming, Service, and Calibration courses on the Sony/Tektronix 3066 and 3086 Microwave Real Time Spectrum Analyzer.

Led to the purchasing and then transplanting of two fully configured 3086 systems with option 1S into customized suitcases with panel mounts for use as TSCM instruments. This became the very first RTSA used by any TSCM or bug sweep firm on a regular basis.

Hewlett-Packard
HP4407/ESA, Electronics Engineering
1998 – 1998

Programming, Service, and Calibration courses on the Hewlett-Packard HP4403, HP4407 and ESA series of Spectrum Analyzers.

Watkins-Johnson/Condor Systems
WJ-32320, Coyote - Operation, Maintenance, Service, and Programming
1998 – 1998

Training of an early version of the WJ-32320 (Coyote) mobile networked ELINT/ESM DF and training system as it applies to mobile and in-motion TSCM platforms.

The WJ-32320 was a truck-mobile, self-deploying 0.5 to 18+ GHz ELINT/ESM system with a high probability of intercept threat-warning broadband IFM receiver. It has an omnidirectional and monopulse instantaneous direction-finding antenna subsystem, a high-sensitivity and precision analysis superheterodyne subsystem, and a high-gain spinning direction-finding antenna subsystem.

Capabilities include: extended pulse and waveform analysis; emitter AOA determination, parameterisation, library identification and analysis; emitter geolocation and tracking with integrated GPS, compass and colour mapping; digital recording of signal data, maps, logging, reports and mission scenarios; digital simulation of emitters for multi-emitter/multiplatform/multi-operator training and RF simulation of emitters for training and testing.

Electro-Metrics
Electronics Engineering
1996 – 1998

Careful hands-on study of the operation, programming, and use of the EM series of analyzers, switching systems, preselectors, preamplifiers, turntables, towers, probes and antenna for laboratory and test range evaluation of cryptographic devices and classified systems to detect signal, data, or cipher

leakage. This was a follow-on and update to the courses I had taken in 1986 and 1991.

Analog Devices
ADSP-2106x, Electronics Engineering
1997 – 1997

"Design in" course for the Analog Devices ADSP-2106x series of DSPs signal processing microcomputers, with an focus on development of Electronic Warfare, SIGINT platforms, and Software Defined Radios. Included both hardware design, and software development.

Virginia State Police Academy
Investigation of Sexual Abuse: Development, Dynamics and Profiles

Massachusetts State Police Academy
Criminal Interview and Interrogation
1997 – 1997

Course to refine the eliciting of information from a cooperative or uncooperative subject in a major criminal or felony case though the use of subtle psychological conditions, controls, manipulations, and exploitations.

Course also involved the methods to "read" the facial gestures, physical mannerisms, behaviors, and statements to provide leads towards actual facts versus fabricated information.

Exposure to the interviewing and interrogation of serial killers, arsonists, mass murders, murderers, rapists, and child molesters. Training on the interviewing of the mentally ill, or people pretending to be mentally ill, and the interviewing and interrogation of both sociopaths and psychopaths.

Certificate - Criminal Interview and Intelligence

Morrow Technologies
Electronics Engineering
1997 – 1997

Engineering and computer programming course for the V9085 (8.5 GHz) and V9054 (1.6 Ghz) VXI - Based Spectrum Analyzers, and MU-8000 VXI Communications Decoder.

Studied instrument control via C programming libraries, LabView, and other Graphical User Interfaces.

Private School
Black Bag, Technical Intelligence Operations
1997 – 1997

Four week (320 hours), Black Bag and Surveillance Operations Course taught by ex-government operators to private espionage students. Heavy emphasis on covert photography and video, bugging, and wiretapping. Moderate teaching of vehicle surveillance. Heavy emphasis in physical surveillance and tracking of targets both via vehicle based options and while on foot using both large team operations, and small one-on-one details.

Private School
Executive Protection
1997 – 1997

Four week (320 hours), Executive Protection Course taught by ex-government operators to high profile private security and corporate protection details. Heavy emphasis on offensive and defense driving, motorcade operations, bomb detection, firearms, first aid, martial arts, and related subjects.

A moderate amount of introductory TSCM was taught, but more of what can be performed in a matter of minutes as opposed to real sweeps which take days.

Watkins-Johnson
WJ-8991 Independent Collection Equipment (ICE) Tactical Man-pack DF System
1997 – 1997

Operations, field service, maintenance, and programming of small, highly deployable man-pack based signals intelligence system. Training in rapid deployment of antenna, covert set up of listening post, and network communications of collected intelligence to SIGINT analyst.

My prime focus in this course was to learn to successfully interface the ICE into another system being developed for the U.S. Government, with a heavy focus on software development for Signals Intelligence, COMINT, and TSCM along with networking these units together to provide highly covert coverage of an area.

Included both assembly level and component level field repair of the WJ-8996 Correlative-Vector DF Processor

Watkins-Johnson Company - Telecommunications Group
WJ-8711A, WJ-8712A, HF-1000 Operations and Intermediate Level Maintenance
1997 – 1997

Three day overview of the receiver functions and capabilities as they apply to signals intelligence, and TSCM.

Instructions on rack mounting, special unit configurations, remote address settings, external connectors, and resident signals.

Detailed instructions on the use of the instruments front panel controls, displays, indicators for Direct tuning, channel programming, F1-F2 scans, and step scans.

Basic introduction to remote control capabilities, interface protocols, and remote command sets.

Functional descriptions of the major electronic circuits of the receivers including signal tracing and analysis with block diagrams and schematics. Established functional relationships between inputs and outputs of each assembly.

Maintenance to the assembly level: Using BIT and status registers; Performance testing; Troubleshooting/signals analysis; Assembly removal and replacement.

Watkins-Johnson Company - Telecommunications Group
WJ-8607A Operations and Intermediate Level Maintenance
1997 – 1997

Four day overview of the receiver functions and capabilities as they apply to signals intelligence, and TSCM.

Instructions on rack mounting, special unit configurations, remote address settings, external connectors, and resident signals.

Detailed instructions on the use of the instruments front panel controls, displays, indicators for Direct tuning, channel programming, F1-F2 scans, and step scans.

Basic introduction to remote control capabilities, interface protocols and remote command set, direct tuning, channel programming, sweep, and scan steps.

Functional descriptions of the major electronic circuits of the receivers including signal tracing and analysis with block diagrams and schematics. Established functional relationships between inputs and outputs of each assembly.

Maintenance to the assembly level: Using BIT and status registers; Performance testing; Troubleshooting/signals analysis; Assembly removal and replacement.

Watkins-Johnson Company - Telecommunications Group
WJ-8691A/CCS & WJ-8690A/MRS Operations and Intermediate Level Maintenance
1997 – 1997

Three day overview of the receiver functions and capabilities as they apply to signals intelligence. Overview of the WJ-8691A/CCS & WJ-8690A/MRS Intercept Systems.

Overview of the communications systems; cellular systems infrastructures, Call setups, hand-offs, frequency plans, Cell phone intercept strategies.

Instructions on special unit configurations, remote address settings, external connectors, and resident signals. Detailed instructions on the use of the instruments front panel controls, displays, indicators for Direct tuning, channel programming. Use of the PC-Driven applications program, including system surveys, creating target lists, analysis results; Control post-processing options and system peripherals.

Remote control capabilities, interface protocols and remote command set, direct tuning, channel programming, sweep, and scan steps. Study of the major electronic circuits of the receivers including signal tracing and analysis with block diagrams and schematics.

Watkins-Johnson Company - Telecommunications Group
WJ-8611 Operations and Intermediate Level Maintenance
1997 – 1997

Three day overview of the receiver functions and capabilities as they apply to signals intelligence, and TSCM.

Instructions on rack mounting, special unit configurations, remote address settings, external connectors,

and resident signals.

Detailed instructions on the use of the instruments front panel controls, displays, indicators for Direct tuning, channel programming, F1-F2 scans, and step scans.

Basic introduction to remote control capabilities, interface protocols and remote command set, direct tuning, channel programming, sweep, and scan steps.

Functional descriptions of the major electronic circuits of the receivers including signal tracing and analysis with block diagrams and schematics. Established functional relationships between inputs and outputs of each assembly.

Maintenance to the assembly level: Using BIT and status registers; Performance testing; Troubleshooting/signals analysis; Assembly removal and replacement.

Watkins-Johnson Company - Telecommunications Group

WJ-9548 Operations, Programming, and Organizational Level Field Maintenance
1997 – 1997

Four day overview of the system functions and capabilities as they apply to signals intelligence and intercept systems.

Overview of channel selections, CCITT 960/2700 plans, and system programming for effective signal interception, and collection of intelligence.

Instructions on special unit configurations, remote address settings, external connectors, and resident signals. Detailed instructions on the use of the instruments front panel controls, displays, indicators for Direct tuning, channel programming. Use of the PC-Driven applications programs, including creating target lists, analysis results; Control post-processing options and system peripherals.

Remote control capabilities, interface protocols and remote command set, programming.

Study of the major electronic circuits of the system including signal tracing and analysis with block diagrams and schematics.

Assembly diagnostics, removal, and replacement.

AT&T

Optical Multiplexing, Electronics Engineering
1996 – 1996

Two weeks of training on the AT&T optical multiplexing products, from both a hardware and software perspective.

Courses included:
LW2212 DDM-2000 OC-3 and OC-12 Apps & Arch.
LW2312 DDM-2000 OC-3 and OC-12 Engineering

LW2248 FT-2000 OC-48 Apps and Arch.
LW2348 FT-2000 OC-48 Engineering

Cisco Systems

7500 Series, Computer Science
1996 – 1996

Cisco 7500 series high performance router installation, set-up, and administration course. Heavy focus on photonic or optical systems and topologies for backbone and infrastructure operations

Condor Systems, Inc.

Spinning DF, Search and Collection Antennas
1996 – 1996

"Design in", interface, and programming course for a wide range of military grade spinning DF systems to include both the antenna itself, all control systems, and display, networking, and connectivity.

Hands-on installation engineering, field repairs and maintenance, sub-system interfacing, and software development and control of networks.

Included training on the AS-105, AS-106, AS-135, AS-159, AS-9157, AS-9203, AS-9213, CS-9184 providing spinning DF coverage to 110 GHz.

Also intensive training on hardware interfacing to the CS-8050 3-Axis Antenna System, and software control of the CS-8050.

Plus programming the C-128 Antenna Control and Display Unit, and the C-861 Controller/Display (WJ-49861) into world-wide networks of other fixed and mobile SIGINT assets being used for both TSCM and hostile SIGINT/COMINT collection.

Hewlett-Packard

HP4411, Electronics Engineering

1996 – 1996

Programming, Service, and Calibration courses on the Hewlett-Packard HP4411 Spectrum Analyser which represented HP entering their "Third Golden Age of Spectrum Analysers".

Private School
Technical Intelligence Operations, Audio Surveillance
1996 – 1996

Two week technical surveillance course focusing on audio eavesdropping methods, techniques, equipment, operations, and procedures from the perspective of legal (and sometime illegal) law enforcement and/or government based operations. Training included extensive acoustic training, microphone placement, active and passive filtering methods, and both hardwired and wireless methodologies. Studied and refined a significant breadth and depth of knowledge, along with extensive practical exercises.

Private School
Technical Intelligence Operations, Video Surveillance
1996 – 1996

Two week technical surveillance course focusing on covert video eavesdropping methods, techniques, equipment, operations, and procedures from the perspective of legal (and sometime illegal) law enforcement and/or government based operations. Training included extensive video camera training, camera placement, overt and covert lighting methods, and both hardwired and wireless methodologies. Studied and refined a significant breadth and depth of knowledge, along with extensive practical exercises.

Research Electronics International, LLC
TSCM
1996 – 1996

Training on the newly introduced REI OSC-5000 (which operated similar to a system I had shown the folks at REI, of my own design a few years previously).

Also trained on the CPM-700

One full day of training, half of which was a sales seminar, the other half the day taught everything you needed to know about the equipment.

Watkins-Johnson Company
WJ-30103
1995 – 1996

Comprehensive training on all aspects of the WJ-30103, 500 MHz to 40 GHz Microwave interception system, involving all sub-systems, and sub-components including the WJ-49213 spinning DF antenna, WJ-31200 Windjammer Premium Search Receiver, various digital demodulator's, FDM demultiplexers, voice grade channel processors, system controller, and voice, fax, and data logging systems for extended operations.

Instruction on both module or assembly replacement, and component level field repair.

Extensive training of programming all elements of the WJ-30103 and all sub-components, with an emphasis on writing code in C on Unix platforms.

AT&T
Autoplex, Electronics Engineering
1995 – 1995

A 656 hour crash course on the AT&T Autoplex 1000 system including the designing of cellular and micro-cell sites, site mapping, drive testing, system administration, and hardware maintenance.

TC1600 AT&T Telessentials Curriculum

CL2501 Autoplex System 1000 Cell Site Maintenance Introduction
CL3501 Series I, Mod 2 Cell Site
CL3501 Series II, Cell Site
CL3501 Series II, Micro Cell Maintenance

CL3504 MSC Maintenance
CL1505 Autoplex System 1000 Translations DB

CL1507 Fundamentals of Performance Modules
CL1509 Performance Optimization w/ PA Tools
CL1510 Intro to PACE Cellular Engineering Tools
CL1511 Advanced Cellular Engineering using PACE Tools

CL4401 Series II, Cell Site Installation
CL4403 Series II, Micro Cell Installation

Apple Computer

970MP, Electronics Engineering
1995 – 1995

Three weeks, PowerPC 970MP, Hardware Design and Development course.

Cubic Communications
Electronics Engineering
1995 – 1995

Software development course on the VXIbus based products, to include the VXI-3250 LF-HF DSP Receiver, VXI-3550 VHF/UHF DSP Receiver, VXI-3350 LF/HF Tuner, VXI-3700 VHF/UHF Tuner, along with frequency extenders, distribution systems, and shared phase locked frequency standards.

Also, attended training on Visual Interactive Surveillance and Target Acquisition (VISTA) with an emphasis on DSP controlled systems operating under remote control as a TSCM solution for in-place monitoring and supervision of the electromagnetic spectrum.

Hewlett-Packard
E3238S Scanning Signal Analysis System
1995 – 1995

Set-up, configuration, operation, and programming of the HP E3238S Scanning Signal Analysis System based on a VXIbus platform with a HP9000 V743 controller. Included control of both Watkins-Johnson, Rockwell, and Cubic VXIbus receivers and tuners for TSCM and TEMPEST instrumented inspections both on a local and remote control basis.

Private School
TSCM, Technical Surveillance Counter Measures
1995 – 1995

Two, one week courses on TSCM - Technical Surveillance Counter Measures.

Designed for students with little or no prior technical training or background. Rather many of the students came from prior law enforcement, corporate, or private investigator backgrounds. A strongly non-technical course, for non-technical people.

This course provided a better understanding of why private investigators and police have historically had a really tough or impossible time actually finding bugs and wiretaps, and why PI's and police should never be engaged to find bugs or wiretaps.

Private School
Black Bag, Technical Intelligence Operations
1995 – 1995

Two week course on government black bag operations, lock picking, safe cracking, alarm bypassing, general burglary, bugging, wiretapping, camera installations, and vehicle tracking, document copying, and related technical intelligence tasks and operations.

Private School
Tactical EMS, Emergency Medicine
1995 – 1995

Tactical EMS Operations course, involving the medical concerns relative to injuries suffered by SWAT or dynamic entry teams, distraction devices, chemical weapons, explosive breaching, and traumatic tactical firearms related injuries.

Private School
Technical Intelligence Operations, Telephone Surveillance
1995 – 1995

Two week technical surveillance course focusing on telephone eavesdropping methods, techniques, equipment, operations, and procedures from the perspective of legal (and sometime illegal) law enforcement and/or government based operations. Training included extensive instrument training, outside plant and facilities access, wiretap placement, active and passive filtering methods, and both hardwired and wireless methodologies. Studied and refined a significant breadth and depth of knowledge, along with extensive practical exercises.

Private School
Technical Intelligence Operations, Wireless Communications Eavesdropping
1995 – 1995

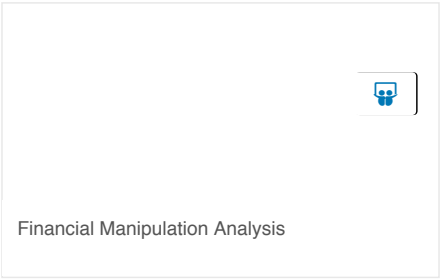
Two week technical surveillance course focusing on the detection and interception of cellular telephones, paging devices, alpha-numeric pagers, and cordless telephones. Techniques, equipment, operations, and procedures from the perspective of legal (and sometime illegal) law enforcement and/or government based operations. Training included extensive mapping of the RF spectrum to detect signal activities, and then selection and use of actual intercept equipment. Studied and refined a significant breadth and depth of knowledge, along with extensive practical exercises.

Virginia State Police Academy
Practical Homicide Investigation

Virginia State Police Academy
FMA, Financial Manipulation Analysis
1995 – 1995

Two week course on the enhanced methods of investigation, analysis, and prosecution of criminal cases involving large scale financial manipulation and subversion of business and banking systems for moving and disguising funds gaining from illegal activities.

Heavy emphasis on counter-narcotics operations, and counter-terrorism.



Financial Manipulation Analysis

Virginia State Police Academy
AIA, Advanced Intelligence Analysis
1995 – 1995

Advanced intelligence analysis course on utilizing various computer software to automate the processing and basic analysis of raw data, and using the computer to form inferences and assessments in regards to various types of highly complex major cases.

Also using the computer to create detailed charts and graphs, with link charts, traffic charts, telephone call analysis, and so forth.

Development of presentations and exhibits in regards to intelligence analysis, and building a case from these exhibits.

Heavy use of both proprietary analysis software, as well as Excel spreadsheets, flowcharts, various graphics packages, and related equipment.

Watkins-Johnson
TN-180 Ultra-Wideband VXI Microwave Tuner
1995 – 1995

Twelve days of training learning to "design in" the TN-180 into other systems to utilize the 10 MHz to 40 GHz coverage with extremely wide bandwidths, and extremely high probability of detection of even the most covert of radar or pulsed signals on a real time basis.

Included extensive programming training on getting the TN-180 integrated into other designs and controlling it via the VXI bus in order to capture sub-nanosecond pulses of very low amplitude, or signals of very wide (and often covert) bandwidth.

Primary application was for TSCM, but also invaluable in national defense to detect stealth aircraft and covert communications.

Boston Police Academy
CIA, Criminal Intelligence Analysis
1994 – 1994

A two week (80 hour) course in criminal intelligence analysis techniques for organized criminal activity; racketeering, economic crime, narcotics trafficking, terrorism, corruption, computer hacking, and related complex criminal conspiracies.

Designed to equip intelligence analysts and field investigators with the skills needed to analyze large amount of raw information from a variety of sources and to develop accurate intelligence from this information. Because the ultimate value of the analytical process is to obtain meaning from the available information, the course emphasized the development, assessment, and communications of inferences.

A great deal of time was spent of developing intelligence through completely manual methods in order to ensure the complete education of the student.

Criminal Intelligence Analysis

Massachusetts State Police Academy
Advanced Interview and Interrogation
1994 – 1994

Refining the eliciting of information from a cooperative or uncooperative subject in a minor criminal or civil case though the use of subtle psychological conditions, controls, manipulations, and exploitations.

Course also involved the methods to "read" the facial gestures and physical mannerisms to provide leads towards actual facts versus fabricated information.

Primary focus was on corporate security situations, and insurance fraud interviews, where the goal is the obtain a confession from a sneak thief, white collar criminal, or insurance fraudster.

Massachusetts State Police Academy
Interview and Interrogation
1994 – 1994

Introduction to the eliciting of information from a cooperative or uncooperative subject in a minor criminal or civil case though the use of subtle (or not so subtle) psychological conditions, controls, psychological manipulations or twisting, and emotional exploitation of the subject.

Course also involved the methods to "read" the facial gestures, verbal cues, and physical mannerisms to provide leads towards actual facts versus fabricated information and to coerce the subject into letting their guard down and making admissions of wrong doing.

Primary focus or goal is to casually obtain a voluntary confession or admission from a sneak thief, white collar criminal, shop lifter, or retail fraudster.

Dektor Counterintelligence
TSCM, Technical Surveillance Counter Measures
1994 – 1994

TSCM Course from a company considered a luminary (LtC (ret). Allen Bell) of the TSCM business, and originator of classified TSCM equipment for the government agencies for several decades.

Private School
Executive Protection
1994 – 1994

Intense two week (180 hours), comprehensive executive protection course for private security or corporate protection details. Heavy emphasis on defense driving, motorcade operations, bomb detection, firearms, first aid, martial arts, etiquette, and related subjects.

A moderate amount of introductory TSCM was taught, but more of what can be performed in a matter of minutes as opposed to real sweeps which takes days.

Rockwell International - Collins Avionics & Communications Division
MSS-2100 Miniature Surveillance System
1994 – 1994

Training on MSS-2100 hardware operations and usage of the briefcase sized system as a versatile TSCM platform, and training on software usage and development for both the WJ-8710, WJ-8607, and WJ-8608 Miniceptor receivers.

Also included training on the DF-2100 Direction Finding platform, MR-2100 Modulation Recognizer, Power Line Antennas, and related accessories.

Ross Engineering
TSCM, Technical Surveillance Counter Measures
1994 – 1994

Two, one week back to back TSCM courses. Nothing really earth-shaking or leading edge, but more of my just attending every TSCM school that was out there at the time. The instructor spent most of the class teaching basic electronics, and not actually teaching of value about TSCM. Most of the students who attended were certainly not technical people, and many learned to solder for the first time in this class.

Apple Computer
ATC - Apple Technical Coordinator, Computer Science
1993 – 1994

In-depth technical course for the internal technical support, IT, and Hardware repair specialists who worked inside Apple Corporate facilities on their own in-house systems. These courses and this level of certification allowed me to refine my Apple technical skills to an absolute maximum level. As a result I became the very first non-Apple employee to ever complete this very intense certification program.

Activities and Societies: Computer Programming, Systems Administration, Networking, Customer Support. UNIX, C++, Mac OS

Private School
Locks, Locksmithing and Safe Cracking
1993 – 1994

Just over ten weeks of technical training of locksmithing, safe and vault technologies, safe cracking, lock picking, and in general how to properly install, maintain, and repair all major locks and vaults.

Included specialized training on how to examine and evaluate a lock or safe to determine if it has been picked, bypassed, or manipulated in any way.

Siecor
Fiber Optics, Electronics Engineering
1993 – 1994

Four weeks of advanced courses on fiber optics fusion splicing of both single and multi-mode fiber optics cable, both in an indoor, and outdoor/field environment and products. This was a very important cutting edge course as the students were taught how to tap into an in-service single mode fiber without actually breaking it or inducing any kind of service outage or detectable signal drop or anomaly.

AT&T Bell Labs
Electronics Engineering
1992 – 1994

A series of eleven weeks of electronics engineering courses regarding photonics, fiber optics, and emerging optical carrier technologies for engineers developing emerging technologies or leading edge products.

Much of this training involved fiber optic networking and/or photonics, multiplexing, protocols or services being developed to operate over photonic networks.

Completed the following courses:

SW2100 Switching Fundamentals
SW2101 Signaling and Traffic Engineering
SW2102 Electronic Switching
SW2103 Customer Switching
SW2104 Packet Switching
SW2105 Photonic Switching

GC3400 Asynchronous Transfer Method (ATM)
DC2115 High-Speed Networking
DC2250 Integrated Services Digital Network (ISDN)

OC3000 Synchronous Optical Network (SONET)
OC4000 Optical Fiber Communications
OC4500 Optical Area Networks
OC4010 Optical Fiber Communications Laboratory
OC5400 HDTV
OC4600 Trends in Optical Communications
OC4700 Photonic Switching & Optical Computing

Silicon Graphics, Inc. (SGI)
SGI, Computer Science and Software Development
1992 – 1994

Attended advanced training on every workstation, server product, and peripheral which Silicon Graphics made up until that point. Courses included comprehensive studies of IRIX, intermediate and low level code development, graphics and database programming, advanced modeling applications, direct assembler code development, hardware maintenance and admin; and component level repair of high performance workstations and hardware.

Attended over sixty Silicon Graphics courses over a 2 year period, involving long periods spent in SGI facilities near Boston, Washington DC and on the West Coast.

Heavy focus on refining software development skills for a classified government project, involving the coding of low level, extremely high performance software, and utilization of the SGI hardware to provide a fully automated suite for SIGINT and high performance fixed and portable monitoring systems for TSCM and related technical counterintelligence activities.

Activities and Societies: Lots of IRIX, and lots of GL programming, more then a little assembly language

and C.

Apple Developer Program
Apple Developer, Hardware and Software Development
1985 – 1994

Completed 630 hours of software plus 320 hours of hardware design courses.

Attended multiple ADPA, Apple Developer University, Mac Developer Program, and related design courses.

Became certified as both a software and hardware developer on the original Macintosh platforms.

Primary focus was using the Macintosh as a high performance signals intelligence workstation where the superior performance of the Mac (at the time) was leveraged.

As a result of these courses I learned enough about Mac to design several high speed digitizers and frame grabbers, plus a modulation recognition hardware and software product used for SIGINT and TSCM.

Developed the methods involved in modifying TSCM equipment and electronic test equipment to give the Mac workstations direct memory access so that the high speed memory of the test equipment essentially became the extended memory of the Mac itself (something that was tough to do with IBM PC's at the time).

AT&T
5ESS-2000, Switching Systems
1993 – 1993

Advanced 5ESS-2000 hardware course series in Lima, including the designs, set-up, and operation of a Central Office Based on the 5ESS-2000 switch, DDM-2000, and related equipment.

Cisco Systems, Inc.
7000 Series, Computer Science
1993 – 1993

Cisco 7000 series high performance router installation, set-up, and administration course.

FBI National Academy, Quantico, VA
TIA, Terrorism Intelligence Analysis
1993 – 1993

A two week (80 hour) course in intelligence analysis techniques for uncovering organized terrorism activity; detecting recruiting, tracing funding, locating safe houses, revealing logistics, exploiting covert communications and computer usage, and related subject matters.

Designed to equip intelligence analysts and field investigators with the skills needed to analyze large amount of raw information from a variety of sources and to develop accurate intelligence from this information in real-time.

Because the ultimate value of the analytical process is to obtain meaning from the available information, the course emphasized the rapid development, assessment, and communications of inferences to uncover, exploit, and neutralize all types of terrorist activities.

A great of time was spent of developing intelligence through completely manual methods in the field in order to ensure the in-depth education of the student.

Hewlett-Packard
Computer Science
1993 – 1993

A series of courses involving 52 days of system admin and programming training on the HP9000 series of computers which had evolved from the HP2100 series.

Included:
HP-51434B Fundamentals of UNIX
HP-51436D W/S Admin (300/400/700)
HP-51482D System Admin (Series 800)
HP-2550S Network Administration
HP-H5001A OpenView Network Management
HP-H5278A Series 800 Performance and Tuning
HP-H5001A Security Seminar
HP-B3312S Netware for the HP9000
HP-H5278A ANSI C Programming
HP-B1810S C++ Programming
HP-H5366S Fundamentals of X Windows and HP Vue
HP-50767S Programming with OSF/Motif

The end result of taking these courses was the development and implementation of HP workstations in a TSCM related programming and hardware design instrumentation project.

HP-UX-Lan (LAN Link, AB NFS, Diskless

IBM
PowerPC, Electronics Engineering
1993 – 1993

IBM PowerPC 601, 603, 604, 620 Summer Boot Camp including component level design, and development of low level device drivers.

National Intelligence Academy
TSCM, Technical Surveillance Counter Measures
1993 – 1993

Two week course, focusing heavily on law enforcement TSCM skills and products, and the basic TSCM equipment that could be carried in only one or two briefcases and operated by non-technical people.

This course only involved the equipment made by this particular company, but while the equipment taught was very limited it did involve a huge amount or range time and practical exercises.

Sun Microsystems
Computer Science
1993 – 1993

Training on the Sun version of Unix, system administration, network operations, hardware maintenance, and related subjects for a comprehensive understanding all of the hardware that Sun had in production at the time, or which was being supported under their legacy programs.

SA-101 System Administration Essentials
SA-270 System Administration 4.1.x
SA-370 Advanced System Administration
SA-340 Network Management w/ SunNet Manager
SA-271 SunOS 4.x to Solaris System Administration
Sun SPARC Programming
Printer Maintenance
SM-210 SPARC Desktop Systems Maintenance
SM-220 SPARC Deskside/Datacenter Systems Maintenance

Also attended advanced C++ software development training series on Sun platforms.

The end result of taking these courses was the development and implementation of Sun workstations in a TSCM related programming and hardware design instrumentation project.

Sun Solaris System Administrator 4.1

Sun Solaris System Administrations Essentials

Tektronix
Spectrum Analyzers, Electronics Engineering
1993 – 1993

Programming, Service, and Calibration courses on the Tektronix 2794 series of Spectrum Analyser (10 kHz to 325 GHz).

Watkins-Johnson
WJ-8654 Miniature VHF/UHF/SHF Microcepter Receiver
1993 – 1993

Four day Operations, diagnostics, alignment, and component level repair of the Microcepter.

Eight Day program of programming the Microcepter for TSCM, TEMPEST, and Signals Intelligence Applications on both DOS/Windows and later to the Apple Macintosh platforms in C. I would later migrate

these programs to the SparcBook and Toughbook systems.

AT&T
Electronics Engineering
1992 – 1992

Classroom, lab, and field based courses on network distribution which focused solely on the physical layers of the network to include both copper based and fiber optical based media.

Trained on all AT&T copper and fiber products in production at the time as well as many of the legacy and emerging products which could be encountered in the field.

Included installation, repair, certifications, acceptance testing, troubleshooting, and engineering considerations.

ND2633 Fiber Optic Installation and Splicing
ND2634 Fiber Optic Installation and Maintenance Testing

ND3600 Premises Distribution Systems Installation and Maintenance
ND4200 Electronic Wire and Cable Applications

National Instruments
Electronics Engineering
1992 – 1992

Two week course for LabVIEW version 3.0 for Sun Solaris OS (first version of LabVIEW that NI published outside of the original Macintosh version).

Novell, Inc.
CNE, Certified Netware Engineer
1992 – 1992

Certified Netware Engineer courses leading to full certifications on Novell Netware to permit desktop computers to communicate.

Private School
TSCM, Soviet and Warsaw Pact TSCM
1992 – 1992

Soviet and Warsaw Pact technical surveillance operations and covert physical penetrations methods; TSCM/countermeasures methods; technical espionage operations management; and TSCM equipment. Included physical and electronic inspection methods and how and where the Soviets most frequently installed their devices, and how those devices could be found without tipping off the eavesdropper.

Special emphasis was spent on TSCM tradecraft, TSCM equipment, and TSCM methods used by both the Soviet and the Warsaw Pact during the Cold War from 1948 until 1991 at which time the instructor defected to the West.

Course was taught by a (then recently) defected KGB officer who was an instructor at the Red Banner Institute for several decades, and who was a high level electronics engineering expert within the USSR on Soviet and Warsaw pact eavesdropping methods.

Private School
TSCM, Technical Surveillance Counter Measures
1992 – 1992

Course in Europe on the RF and Telephone TSCM equipment used by NATO governments, and popular in Europe.

Watkins-Johnson
Miniceptor Programming
1992 – 1992

Operation and computer programming course for the Watkins-Johnson Miniceptor family to include the WJ-8609 VHF/UHF Wide Bandwidth Surveillance Receiver and the WJ-8607 VHF/UHF Receivers and WJ-9607 Multi-Receiver Front Control Panel. Included traning in setting up large arrays and strings of Miniceptors in equipment frames for local and remote Net control in order to perform TSCM specific operations.

Antenna Research, Inc.
Electronics Engineering
1991 – 1992

In depth series of courses on antennas made by ARA and used for SIGINT, COMINT, EMC, ECM/ECCM, TEMPEST, TSCM, and related specialized measurements.

Special focus on those antennas which were mounted in SIGINT/COMINT aircraft or ground vehicles, and those which could be broken down and transported for covert or quasi covert usage during RF surveys, instrumented TEMPEST inspections, and TSCM sweeps.

Heavy emphasis on the actual engineering of the antenna and the development of performance models and correction tables for various types and usage to predict performance in advance of field usage. Included broadband and extremely broadband reception systems for both E-Field, and magnetic field measurements.

AT&T
Systimax Premises Distribution Systems, Electronics Engineering
1991 – 1991

Nine week series of engineering and design courses on Structured Premises Distribution Systems used for complex voice and data communications. Coverage of Fiber Optics, Coaxial, UTP, and STP media. While the focus of course was how to design-in structured cabling systems, three extra weeks of time was spent learning how to perform extremely effective TSCM inspections on these cabling systems.

Included Four weeks of engineering, two weeks of installation methods, three weeks of certification and inspection methods.

Lotus Development Corporation
Lotus Notes, Computer Science
1991 – 1991

Course taught by Lotus on how to install, set-up, and administer Lotus Notes version 2.0 servers, and user machines.

National Intelligence Academy
TSCM, Technical Surveillance Counter Measures
1991 – 1991

TSCM Training in telephone systems, with RF, telephone, and audio analysis taught at the school at Audio Intelligence Devices.

Activities and Societies: Bugging, Eavesdropping, Black Bag Operations, Burglary, Espionage, Covert Execution of Search Warrant, Overt Executions of search warrant, audio surveillance, video surveillance, mobile surveillance, vehicle and package tracking, electronic undercover operations.

Watkins-Johnson Company
WJ-8999, Portable EMC/TEMPEST Test Receiver
1991 – 1991

Operators Course, followed by Programmers Course, and then the Component Level Repair and Calibration courses.

Progression from the WJ-8940 courses taken a few years previously.

Polygraph School
1991 – 1991

Voice Stress Analysis course

AT&T
System 25/75, Electronics Engineering
1990 – 1990

Hardware courses for the design and installation of large scale Systems 25 and System 75 PBX systems followed by component level repair courses.

Included 41 days of training in the following courses:

SW2106 Definity Communications Systems
SD7100 System Design Presentation on Definity

Merlins and Partner Systems
System 25 Administration
System 25 Maintenance and Installation

BC1000A Definity/Sys 75-Generic 3/4 Admin.
BC1004A Audix System Admin
BC1005A Audix System Networking

T105 Sys 75-Level 1 Maintenance
T106 Sys 75-Level 2 Maintenance

M.V.Lomonosov Moscow State University of the Order of Lenin, the Order of the October Revolution and the Order of the Red Banner of Labour
Honorary Doctorate, Electronics Engineering
1990 – 1990

U.S. Government "Sponsored" post-graduate studies relative to TSCM and SIgnals Intelligence

Processing.

Guest lecturer on topics within my areas of experience.

Awarded Honorary Doctorate.

Polygraph School
1990 – 1990

10 week polygraph school

Polygraph School
1990 – 1990

8 week polygraph examiners school

Tektronix
TDR, Electronics Engineering
1990 – 1990

Repair and Calibration courses on the Tektronix 1502C and 1503C "Modern" Time Domain Reflectometers. Plus training on the 1502, 1503, 1502B, and 1503B Legacy TDR's.

National Instruments
Electronics Engineering
1989 – 1989

One week update on LabVIEW on the Macintosh, Version 2b (Beta Version).

Private School
EMI, RF Anechoic Chamber Operations
1989 – 1989

Design and operation of medium to large scale anechoic chambers and outdoor ranges as RF measurement lab for both civilian and government EMI/EMC measurements.

Actual hands-on training on chamber layout, wall treatments, and platform and quiet zone calculations.

Heavy emphasis on compliance with military and intelligence agency technical standards, and taking measurements of equipment being examined or certified in order to minimize compromising emanations and thus to stop classified information from leaking from the equipment. Included FCC, MIL-STD, VDE and TEMPEST Testing standards.

Included training on operating fixed and turntables both in closed indoor ranges or chambers (3 meter, 10 meter, etc.) and large open outdoor ranges (30 meter, 100 meter, 300 meter, and 1000+ meter ranges).

M.V.Lomonosov Moscow State University of the Order of Lenin, the Order of the October Revolution and the Order of the Red Banner of Labour
Honorary Doctorate, Computer Programming
1989 – 1989

U.S. Government "Sponsored" post-graduate studies relative to TSCM and SIgnals Intelligence Processing.

Guest lecturer on topics within my areas of expertise

Awarded Honorary Doctorate

Watkins-Johnson
WJ-9009 Portable Receiving System
1989 – 1989

Operators Course, Programmers Course, and Assembly Level Repair courses.

BISCI
Electronics Engineering
1988 – 1988

Early design course, involving Telecommunications Distribution Methods, and structured wiring design.

Fairchild Electro-Metrics
EMI, Electronics Engineering
1988 – 1988

Electromagnetic interference measurement course involving every major Fairchild Electro-Metrics EMI product built up to that date, including some of the specialized products provided only to government agencies.

Training included all major EMI and TEMPEST inspection antenna's, amplifiers, filters, controllers, and receivers available from Fairchild Electro-Metrics at the time.

Refined methods and techniques used to isolate and extract extremely low power, covert signals out of a dense RF environment. This allowed extremely low powered (and highly covert) bugging devices to be detected from a considerable distance.

Hewlett Packard
MMS, Electronics Engineering
1988 – 1988

Programming, Service, and Calibration courses on the HP MMS platform including high performance 71000 series of Spectrum Analysers.

Followed by a long systems design course to permit plug-in module development and complete systems design which integrated a wide range of components for use as a SIGINT and TSCM platform.

Rockwell International - Collins Avionics & Communications Division
MSS-1200 Miniature Surveillance System
1988 – 1988

Training on MSS-1200 hardware operations and usage of the suitcase sized system as a versatile TSCM platform, and training on software usage and development on several internal receivers.

Also included training on the Direction Finding platform, MR-1 Modulation Recognizer (DSP based), Power Line Antennas, and related accessories used for TSCM and SIGINT.

Watkins-Johnson
WJ-8990, Man-pack Tactical Intelligence System (MANTIS)
1988 – 1988

Operations, field service, maintenance, and programming of small, highly deployable man-pack based signals intelligence system. Training in rapid deployment of antenna, covert set up of listening post, and network communications of collected intelligence to SIGINT analyst.

My prime focus in this course was to learn to successfully interface the MANTIS into another system being developed for the U.S. Government.

Apollo Computer
Computer Science
1987 – 1987

Four weeks of systems administration, computer programming , and related training on the DN and DSP series of Apollo/Domain Workstations.

National Instruments
Electronics Engineering
1987 – 1987

Two week developers course to design additional instrument drivers for LabVIEW on the Macintosh, and the development of virtual instruments or VI's to control search receivers and spectrum analysers.

As a result of this course I was able to port a number of my own TSCM programs which I had previously written in C, Assembler, BASIC, and FORTRAN over to "G" for LabVIEW in order drive Hewlett-Packard, Watkins-Johnson, and Micro-Tel gear. At this point the best option for controlling TSCM equipment was still a Zenith Z-151T or Z-80 black box controller, but the Macintosh was a close contender.

Tektronix
Spectrum Analyzers, Electronics Engineering
1987 – 1987

Programming, Service, and Calibration courses on the Tektronix 494 and 2710 series of Spectrum Analysers.

Included programming and interfacing with MATE and CIIL

Motorola
DSP56000, Electronics Engineering
1986 – 1986

Five week firmware and hardware design course for the DSP56000 (56K) Digital Signal Processor chip. Heavy emphasis on high performance voice and data encryption, and cryptographic siege engine applications.

National Instruments
Electronics Engineering
1986 – 1986

One week study of the original Macintosh version (v 1.0) of LabVIEW to configure and control spectrum analyzers, EMI instruments, related receivers, multiplexers, digitizers, oscilloscopes, signal switches, oscillators, frequency counters, time bases, and laboratory grade test equipment to perform complex automated TSCM measurements.

U.S. Government
Foreign Instrumentation Signals Externals, Electronics
1986 – 1986

Electronic intelligence analysis course involving the collection and exploitation of signals from ground, airborne, missile, and earth satellite assets. Electronic analysis, telemetry and beaconry, signal analysis and recognition, radar types and function, radar signal analysis, traffic analysis, signal signature analysis, and electronic orders of battle.

Training on equipment to record and analyze the minute fluctuations in signal parameters, and to prepare technical analysis reports.

Instruction on both manual and automated analysis of virtually any kind of electronic emissions found on the radio spectrum.

USAF
Cryptographic Communications, Electronics
1986 – 1986

Course on the installation, maintenance and repair of hardware based cryptographic systems.

Training included module and component level troubleshooting, repair of the TSEC/KG-13, TSEC/KY-65, TSEC/KY-75, TSEC/KG-84, and TSEC/KG-30 encryption devices. Also included training on the TSEC/KY-3, and several related ciphering systems including the older legacy KW-26 systems, and systems of historical interest.

Extensive training in communications systems operations, safeguarding of classified information, TEMPEST methods, identification of COMSEC materials, COMSEC Courier certification, and technical counter-intelligence operations.

Hewlett Packard
HP 8566 Spectrum Analyser
1985 – 1985

Programming, Service, and Calibration courses on the HP 8566 and HP 8569 Spectrum Analysers.

Two month course overall, including 3 day operators course, 10 day programmers course, 5 day module level repair and maintenance, 15 day component level repair, 10 day laboratory calibration course.

USAF
Shelter Manager, Nuclear, Chemical, and Biological Shelter Operations
1985 – 1985

Course on the management, operation, and leadership of short term Nuclear, Chemical, and Biological shelters and hardened locations both in a strategic and tactical theater.

Primary focus was on bunkers, military shelters, and improvised shelters for short notice occupation. Instruction on large scale foraging and commandeering of supplies and premises, and how to survive the initial strikes and counter-strikes of a nuclear holocaust.

Methods of shelter and bunker selection, construction, set-up, logistics, security, occupant intake, screening, release, as well as sanitary, medical, and legal aspects.

Watkins-Johnson
WJ-8922, TSCM Receiver
1985 – 1985

Course on the operations and programming of the WJ-8922A TSCM Receiver..

Small briefcase system, with sub-carrier capabilities, raster analysis, and of having the capability to have the upper range increased significantly into the high microwave ranges.

One of great Watkins-Johnson products that was on par with the Micro-Tel line of briefcase sized TSCM gear.

Watkins-Johnson Company
WJ-8940, EMC, EMI, TEMPEST and Wide-Band RF Ambient Receiver
1985 – 1985

Operators Course, followed by Programmers Course, and then the Component Level Repair and Calibration courses. Preparatory course for the use of the WJ-8940 as a TEMPEST, TSCM, EMI, and EMC instrument

Several years after taking this course I was able to locate a large shipment of these systems that had

been seized by Customs due to export law violations. I was able to bid on and purchase four complete, intact, never unpacked highly customized systems that had originally be destined for a foreign intelligence agency. Ownership and operation of this equipment provided to a huge asset to my TSCM operations as this was the best-of-the-best signals intelligence gear available which I retrofitted into a mobile lab environment, which Granite Island Group could bring to any site in North America. I also wrote tens of thousands of lines of code to customize both this and other related equipment to provide the most sophisticated mobile TSCM and TEMPEST testing systems available anywhere.

AT&T
5ESS, Switching Systems
1984 – 1984

Initial 5ESS hardware installation and maintenance course series in Lima, along with system admin training on the 3B.

Apple Computer
Macintosh, Service and Maintenance
1984 – 1984

Apple Macintosh Computer Service and Maintenance Course. This was the first service course on the Apple Macintosh Service taught to people from outside the company.

Private School
TSCM, Technical Surveillance Counter Measures
1984 – 1984

Two week course focusing on the performance of corporate bug sweeps and TSCM efforts. Heavy emphasis on operating under narrow time constraints, and the usage of very limited equipment. Essentially, this course focused on performing a rapid 4-6 hour sweep (typically a board room or single office), using no more then a couple of briefcases of equipment, but no advanced or sophisticated equipment.

USAF
Relational Databases, Computer Science
1984 – 1984

Several weeks of training on large scale relational databases, and system administration and maintenance of relational databases on Burroughs 3500 and 4700 mainframe computers.

Included programming in FORTRAN, COBOL, and the AFOLDS query language.

Introduction to Maintenance Data Processing
Maintenance Management Information and Control Systems
Air Force Online Data Systems
Introduction to Online Systems
Loops and Arrays
Data Input and Branching
Computer Numbering Systems Course
Computer Components Course
Remote Terminal Operators Course

USAF
COBOL, Computer Programming
1984 – 1984

Top Down Structured COBOL course for the Burroughs 3500 and 4700 mainframes.

Follow-on COBOL Programming course for the Phase IV mainframes that were being used as a transition from the B3500/B4700.

Zenith Data Systems
Z-151T, Computer Installation, Maintenance, and Repair
1984 – 1984

Comprehensive course on site preparation, installation, maintenance, repair, and on-going inspection of the Zenith Z-150 series of PC computers, to include servicing of the Z-151T TEMPEST complaint version and TEMPEST certified peripherals, monitors, printers, and related equipment.

The Z-151T was used in a TSCM and SIGINT capacity to control test equipment and to process classified information, so it was critical to maintain extremely low emissions or leakage from all equipment.

Honeywell
Level-6, Computer Science
1983 – 1984

Special hardware maintenance course on the Honeywell GCOS Level-6, but of a custom government variant that was approved for classified information up to the level of Top Secret, including codeword, special access, and data used by the intelligence community.

Activities and Societies: -

Strategic Air Command NCO Leadership Academy
Military Leadership
1983 – 1983

Very intense leadership school, focus on leading combat flights, command post operations, missile silo management, and short notice strategic deployments.

Honed my ability to lead people in difficult conditions.

Cray Research
X-MP, Computer Programming
1983 – 1983

Nine weeks of training for writing programs for the Cray X-MP multiprocessor computer, and methods of using a Vector Processor as a cryptographic and signals intelligence siege engine.

Micro-Tel Corporation
Micro-Tel, Electronics Engineering
1983 – 1983

Repair, Calibration, and Programming course for various Micro-Tel products including the PR-700, PR-707, MSR-904, 903, 902, IO-1000, WR-550, RAS-550, FCS, VDA, 1200 and related products.

Texas Instruments
TMS32010, Electronics Engineering
1983 – 1983

Programming and hardware design course for the TMS32010 Digital Signal Processor chip.

U.S. Government
Signals Intelligence (SIGINT) Fusion, Intelligence
1983 – 1983

Course on photographic interpretation and preparing intelligence analysis products based on the matching of aerial and satellite imagery with signals and communications intelligence to identify strategic and diplomatic communication facilities or infrastructure and exploitation points for the purpose of hostile intelligence operations, eavesdropping, bugging, monitoring, and wiretapping.

Extensive training on studying aerial reconnaissance of overt and covert ground stations, and evaluation of other photography to determine systems being used, antenna capabilities, transmission paths, cable routes, and estimating communications capabilities, manning requirements, logistical issues, and developing plans to exploit, potentially destroy, or sabotage the facility.

Gained a high level of proficiency with 70 mm roll, 130 mm roll, 10 x 10 inch and 36 x 36 inch large format aerial cameras, and in-flight analog film processing by roll and sheet methods, and in flight print processing.

Eastman-Kodak Hawkeye/Bridgehead Plant
Geospatial and Aerial Photography
1983 – 1983

Operations and engineering course on the specialized photographic systems used by the U.S. Intelligence Community.

In depth understanding of the specialized emulsions and chemistry involved in airborne and space borne imagery programs.

Honed my skills in the darkroom with both hand developed and machine developed film in astronomical volumes.

Included training on improvised chemical development of various films used by the intelligence community in the field.

Became quite skilled with hand and machine developing 70 mm, 5-inch, 6.5-inch, 9-inch, and 10-inch roll films, as well as large format and ultra-large format roll and cut sheet films used by the U.S. Intelligence Community.

Highly skilled in the processing of 6.6 inch film from the NRO Hexagon program.

Hewlett-Packard
HP856X Spectrum Analyzer
1982 – 1982

Four day operators course on the HP 8566 and HP 8569 Spectrum Analyzers.

IBM

026/029/129, Service and Maintenance
1982 – 1982

Service and Maintenance course on the top three IBM keypunch machines still in use by the government at the time. Heavy emphasis on the IBM 029 and 129 which we were still in heavy use. Legacy training on the older IBM 026 which was still in use in some government locations.

Teletype Corporation
ASR-33, Service and Maintenance
1982 – 1982

Service and Maintenance course for the ASR-33 and KSR-33 Teletype Terminals both with and without paper tape readers/punches.

U.S. Government
TSCM, TSCM
1982 – 1982

Classified course on the basics of TSCM. Review of microwave spectrum analysers, search receivers, NLJD's, TSCM antenna, and other equipment such as phone analysers and audio amplifiers.

USAF
Analex Printer, Electronics, Professional Certification
1982 – 1982

Maintenance of the high speed Analex Printer equipment of SACCS. Theory of operation, alignment, adjustment, preventive maintenance routines, malfunction analysis, and use of pertinent aerospace ground equipment.

The equipment was located in every major SAC Command Post, Intelligence, War Planning, and Force Status office.

The most secret of the Top Secret material of the Cold War came across these machines, and they were considered the "Doomsday Printers" as they would print the coded orders to launch World War III or initiate a nuclear holocaust.

USAF
SRCC/Sub-C, Electronics
1982 – 1982

Maintenance of SRCC and Sub-C equipment of SACCS. Theory, routine malfunction analysis, and use of pertinent aerospace ground equipment.

This is the equipment in the SAC missile silos, missile launch control centers, and at remote communications facilities.

USAF
AMPEX Tape Drives, Electronics, Professional Certification
1982 – 1982

Comprehensive training course on the maintenance and repair of the entire range of AMPEX military data and wide-band tape drives.

Included training on high speed 1/2" reel-to-reel vacuum column data decks, intermediate bandwidth instrumentation, 1" & 2" wide-band instrumentation, and large wide-band, high speed signals intelligence decks.

Theory of operation, alignment, adjustment, preventive maintenance routines, malfunction analysis, and overhaul.

American Heart Association
CPR, CPR and First Aid, Professional Certification
1981 – 1981

Two day military course on CPR, taught by instructors from the American Heart Association.

While this was not my first CPR course, it was the first time that I received serious professional level training in CPR.

I also learned that lay responder type CPR is valuable for the general public, but that anybody involved with public safety, a technical trade, sports, or who works in an profession where someone could get severely hurt really needs to attend professional level training such as this, and practice... practice... practice...

Hewlett-Packard
1981 – 1981

Component level repair and calibration course for the HP 140 series oscilloscope mainframe and the entire 855X Spectrum Analyzer Plug-in series.

Included the older 8552A and 8553L twin plug-ins and the 141S Display section (1 KHz to 110 MHz) to create a "Fully Calibrated Frequency-Domain Measurement System" which had been popular since the late 60's and throughout the 70's.

Also trained on the 8554L (500 kHz to 1250 MHz) and 10 MHz to 18/40 GHz (8555A) RF plug-ins as well as the low frequency section that covered 20 Hz - 300 kHz (8556A) and two Tracking Generators (8443A, 0.1 to 110 MHz) and (8444A, 0.5 to 1300 MHz).

U.S. Government
TSCM, Technical Surveillance Threat Awareness
1981 – 1981

Ten day classified course taught during the height of the Cold War to expose the student to the threat of modern technical espionage, and methods used to detect such hostile penetrations, or exploitation. Course was based on historically what had been found, and also on what should be getting found, but was not. Main thrust of the course was that we must be ever vigilant and always pay close attention to the details.

Heavy study of the technical espionage operations of other countries directed against the United States both at home and abroad. Emphasis on the operations of the Soviets against military and diplomatic targets, but also Soviet targeting and successful penetrations of our domestic communications infrastructure.

USAF
Computer and Switching Systems Technician, Electronics, Professional Certification
1980 – 1981

1000+ Hour Course on Cold War era Computers and Switching Systems.

Including training on:
Card Input/Output Systems
Data Processing Multiplexing Equipment
Static and Dynamic Computer Memory
Magnetic Core Memory
Magnetic Drum Memory
Central Process Units
Computer System Troubleshooting
Advanced Memory System
Drum, Tape, and Peripheral Devices
High Speed Printers
Timing and Control
Machine Language Programming
Computer Systems
Peripheral Data Buffering
Computer Math
Electronic Principles and Circuits
Vacuum Tube Principles
Soldering Techniques
Solid State Circuits

Focused on large mainframe systems used in all SAC Command Posts, Missile Silo's, NMCC, ANMCC, E-4, CMC, and related strategic and SIOP facilities.

Also trained on tactically deployed systems for forward combat control and communications, or used during the period after a post nuclear or biological holocaust.

Initially Certified on the 407L TACCS System, and then on the 465L SACCS Systems (certified on two major systems)

Activities and Societies: Student Flight Leader of 50 other Airmen, Precision Drill Team, Honor Guard

Motorola
MC6800, Computer Science
1980 – 1980

Three week MC6800 and MC68000 assembler language programming course.

AT&T Bell Laboratories
C, Computer Science
1978 – 1978

Three week introductory course on C, followed by five weeks of intermediate and advanced labs using C in various applications. Part of the course was taught by Dennis Ritchie, and other AT&T Bell Labs developers. Some of the applications work was on an early prototypes of the 3B

Hewlett-Packard Corporation
HP 9845, Computer Programming
1978 – 1978

Long course on programming the HP 9845 Technical Computer and HP 9872 Flatbed Plotter for the advanced control of laboratory electronic test equipment.

Zilog Corporation
Z-80, Computer Programming
1978 – 1978

One hundred twenty hour course (3 weeks) on Z-80 Assembly Language Programming, followed by forty hours (1 week) of hardware CPU development, and twenty hours (3 days) of external interfaces.

I initially attended the computer programing course to fine-tune my Z-80 software development skills, but was invited to stay for the hardware design courses as well even though I was not an electronics engineer at the time.

This course proved to be a major catalyst in my future as it got me excited about low level hardware development and instead of working on the "upper layers" of the computer and merely writing software I developed an intense hunger to work with and develop things at the circuit board and component level.

Hewlett-Packard
HP2116, Computer Programming
1977 – 1977

Long series of course on writing code of the Hewlett-Packard HP2100 and HP2116 mini-computer in BASIC, FORTRAN, and Assembly language.

Programming for the control of multiple data acquisition boards, instrument controllers, proprietary bus configurations, and wide band data collection system to include wide band magnetic tape for instrumentation.

Instruction on the control of HP Model 8580A ASA and spectrum analyser components and modules for the automated detection and analysis of RF signals.

Hewlett-Packard
HP2116, Advanced Assembly Language Programming
1977 – 1977

Eight day course on writing code of the Hewlett-Packard HP2100 and HP2116 mini-computer in Assembly language.

High performance programming for the control of multiple data acquisition boards, instrument controllers, proprietary bus configurations, and wide band data collection system to include wide band magnetic tape for instrumentation.

Instruction on the control of HP Model 8580A ASA and spectrum analyser components and modules for the automated detection and analysis of RF signals through Assembly language programs and drivers.

Hewlett-Packard
Electronic Instrumentation
1977 – 1977

Course on the operation, and programming of the Hewlett Packard 8580A Automatic Spectrum Analyzer that combined both the HP2100 Computer and the HP855X spectrum analyzer plug-in family and created the worlds very first Fully Automatic Spectrum Analyzer System.

The 140 series oscilloscope mainframes and 855X SA Plug-in series were basic core of these systems, so I first had first to learn to master running the (all analog) Spectrum Analyzer system using numerous modules to cover the 20 Hz - 40 GHz spectrum.

These were used for automated "Spectrum Monitoring" to detect bugs present in high risk areas and to maintain watching over the airwaves of an area. Also used for surveillance, system monitoring, electronic compatibility testing, TEMPEST testing, and electronic intelligence.

This was the very first HP fully computerized and fully automated spectrum analyzer, until replaced by the HP8566 and HP8569, which became the flagship Automatic Microwave Spectrum for HP.

AT&T Bell Laboratories
IBM, Computer Programmer
1974 – 1975

In-house (160 hours) training course in FORTRAN and Job Control Language on an IBM System/360 and System/370 mainframe for an entry level, part time technical position at AT&T Bell Laboratories on a work-study internship and apprenticing program.

This course started me on the path of becoming a computer programmer, and thus became a type of seed course for my career with computers.

AT&T Bell Laboratories
IBM 029, Keypunch Operator
1974 – 1974

In-house training course for new keypunch operators, for the IBM 029 Hollerith card punch machines. Attended in order to learn how to keypunch computer programs written in FORTRAN onto large decks of cards for an entry level, part time technical position at AT&T Bell Laboratories as part of a work-study internship and apprenticing program.

Bunker Hill Community College
Certificate, CISCO Systems CCNA, GPA 3.92

CCNA Certificate Program designed for those students interested in pursuing a career as Cisco Systems Networking Specialists. All course work is offered through the internationally recognized Cisco Systems Networking Academy.

Activities and Societies: Deans List, Highest Honors, Honor Roll, Student Veterans Organization, Phi Theta Kappa Honor Society

Bunker Hill Community College
Certificate, Information Technology Security and Essentials, GPA 3.92

Designed for the IT technician or professional seeking new and updated skills in the area of information security and assurance, this basic level certificate will enhance existing knowledge for increased job opportunities and employment growth. The Information Technology Security + Essentials Certificate aligns with the COMPTIA National Standards for Security + Certification. It will prepare students to be responsible for desktop security support contained within a networked environment.

Activities and Societies: Deans List, Highest Honors, Honor Roll, Student Veterans Organization, Phi Theta Kappa Honor Society

Bunker Hill Community College
Certificate, Health Information Networking Specialist, GPA 3.96

In addition to the CCNA R and S (Cisco Certified networking Associate - Routing and Switching) certificate courses, earned an advanced Cisco networking certificate. Enhance core routing and switching skills and gain the networking and security skills needed to work in the industry and the healthcare fields. The Health Information Networking certificate program is designed to expand networking skills with healthcare specific information and communication technology (ICT) and to develop security specialist skills.

Bunker Hill Community College
Certificate, Computer Forensics (candidate), 3.94

Bunker Hill Community College
Associate's Degree, General Concentration with World Studies Emphasis (Candidate)

Bunker Hill Community College
Associate's Degree, Criminal Justice (candidate), GPA 3.94

Bunker Hill Community College
Associate's Degree, Digital Device and Computer Forensics and Investigation (Candidate), GPA 3.94

Bunker Hill Community College
Certificate, PC Hardware Support Specialist (Candidate), GPA 3.94

Bunker Hill Community College
Associate's Degree, Information Technology Security (Candidate), GPA 3.94

Courses

Granite Island Group

- Cisco - CCNA R and S Semester 1
- Cisco - CCNA R and S Semester 2
- Cisco - CCNA R and S Semester 3
- Cisco - CCNA R and S Semester 4
- Cisco - Linux
- Cisco - Health Information Networking

- Cisco - Advanced CCNA
- Cisco - PC Hardware and Software
- Cisco - Cybersecurity
- Cisco - Packet Tracer
- Cisco - CCNA Security
- Cisco - CCNA Voice

Additional Info

• Interests

Professional Interests: Hard Core, Bare Knuckled, Hands-On, Full Contact Spy Hunting, Bug Sweeping, Wiretap Detection, Communications Security, Emissions Security, and related subject areas. The use of exhaustive scientific protocols for performing bug sweeps with high-performance laboratory test equipment. High level of expertise working on methods to detect, analyze, and exploit covert signals deep within the noise floor. Significant interest in expedition, jungle, wilderness, tactical, and street emergency medicine. Volunteer Emergency Medical Technician, Emergency First Responder, teaching CPR, first aid, emergency operations and management, disaster preparedness. Interested in fine arts portraiture photography in large format (8*10 or 11 x 14 and larger) formats. Non-Professional interests: Italian Opera, Classical Western Symphony, Old School Blues, Fine Arts exhibitions, French Cooking. Active in Tai chi chuan, Aikido, and related subjects.

• Advice for Contacting James

E-Mail: jmatk@tscm.com

If you need a bug sweep, you need to act extremely quickly and get someone on site to perform the inspection before the spy retrieves the bug, or the batteries in the bug dies or it becomes dormant for other reasons. Call us as quickly as possible, make quick arrangements for the engagement and be extremely discrete. Do not delay, timing is critical as minutes and hours matter. This requires a very fast response, so do not delay.

If you need a TEMPEST, NONSTOP, or HIJACK inspection or design, as opposed to a TSCM inspection, if the matter is less urgent (usually) and there can be more of a slower engagement process than that used in TSCM project. But with TSCM you must act fast, without delay.

If you wish to engage me as a photographic artist to create a photographic or other artistic portrait of yourself, or someone else, then please contact me well in advance so that we can work out the details of the project. A high-quality portrait takes time, and I perform this by taking a series (usually 3 or 4 sessions) of 3+ hours studio or on-location photography sessions. When possible I like to spend about 9-12 hours (3-4 sessions, 3 hours each), with a single subject to create simply amazing portraits that captures the true essence of a person and not merely a boring image, and this take time. I do not take snap-shots, I create well-done portraits of stunning quality, that make the viewer feel and emote, and to transform the way that they view the world.

If you need an electronics engineer or computer programmer who can perform an accelerated design, and who can provide you with a functional prototype of complex circuits, especially designs that use embedded controllers, or you need assembly code level programming then give me a call.

Honors & Awards

Air Force Training Ribbon
United States Air Force

Background
This ribbon was authorized by the Air Force chief of staff on Oct. 12, 1980.

Criteria
It is awarded to U.S. Air Force service members on completion of initial accession training after Aug. 14, 1974. In December 1986, the criteria expanded and authorized the ribbon to anyone who was on active duty regardless of when they completed initial accession training.

The ribbon may not be awarded for completing technical training,... **more**

Small Arms Expert Marksmanship Ribbon
United States Air Force

Background
This ribbon was authorized by the Secretary of the Air Force on Aug. 28, 1962. It is awarded to all Air Force service members who, after Jan. 1, 1963, qualify as "expert" in small-arms marksmanship with either the M-16 rifle or issue handgun.

Criteria
Qualify as an expert in small-arms marksmanship with either the M-16 rifle or issue handgun. These rules will apply to the Air Force standard service small arms weapon selected.... **more**

Top Secret Security Clearance
Department of Defense, w/ CIA, NRO, CSS, NSA, DOE, SIOP, ECI, ESI compartment Access
1982

Full time, unsupervised access and control of highly classified systems, cipher system, work product, and courier activities.

Strategic Air Command Education Achievement Award (1 of 3)
United States Air Force - Strategic Air Command

Series of awards due to exemplary academic achievement

Strategic Air Command Education Achievement Award (2 of 3)
United States Air Force - Strategic Air Command

Due to exemplary academic achievement

Strategic Air Command Education Achievement Award (3 of 3)
United States Air Force - Strategic Air Command

Due to exemplary academic achievement

Letter of Commendation
United States Air Force - Strategic Air Command - 8th Air Force Command Post
1983

Through statistical analysis, and the scientific process; identified faulty components introduced during the manufacturing of a highly classified computer system. Resolved the flaw by locating suitable replacements via an alternate vendor, and making proper engineering changes to overcome extended down times. Established special analysis fusion program to screen for similar weaknesses at the acceptance level, and to resolve them before an outage... **more**

Certificate of Appointment as Noncommissioned Officer, in the Grade of Sergeant
United States Air Force - 8th Air Force, 2nd Bomb Wing

Promoted ahead of contemporaries, "below the zone", moved into a supervisory position upon promotion, and later promoted into a superintendent position.

Air Force Good Conduct Medal
United States Air Force

Background
The Air Force Good Conduct Medal was authorized by Congress on July 6, 1960, with the creation of the other medals of the Air Force. The medal was not created until June 1, 1963 when the secretary of the Air Force established it.

Criteria
It was awarded to Air Force enlisted personnel during a three-year period of active military service or for a one-year period of service during a time of war. Airmen awarded this medal must have... **more**

Air Force Longevity Service Award Ribbon

Air Force Longevity Service Award, who complete four years of honorable active or reserve military service.

Background
The Department of the Air Force General Order 60, Nov. 25, 1957 authorized this ribbon.

Criteria
It is awarded to all service members of the U.S. Air Force who complete four years of honorable active or reserve military service with any branch of the United States Armed Forces. The Air Force Longevity Service Award is a... **more**

Letter of Commendation
Commander, 46th Communication Group

During a short deployment, there was a catastrophic equipment failure, which required immediate action on my part and emergency medical intervention to save another persons life.

Selection for USAF Officers Training School/Officer Candidate School
United State Air Force
1986

Selected and issued orders to attend USAF Officers Training School starting 3 September 1987, unable to attend due to serious duty related traumatic injuries. Chosen field of entry, airborne electronics warfare/SIGINT analysis officer.

Honorable Discharge from the Armed Forces of the United States of America
United States Air Force
August 1987

Additional Honors & Awards

Discovered a mechanism by which Soviet spies were able to penetrate classified encrypted communications networks, thus allowing the United States to seal a major 20+-year-old breach.

Recipient of multiple and significant government awards involving my professional area of expertise.

Testified before Congress three times, have briefed specific members of Congress seven times, and have been consulted or engaged by the Executive Branch, Kings of other countries, Prime Ministers, Sheiks, Directors, Actors, Physicians, Attorneys, Musicians, and some of the most powerful people in the world.

For Example http://transportation.house.gov/News/PRArticle.aspx?NewsID=163

The single most published person on Earth on the subject matter of TSCM. Regarded as THE international subject matter expert on bug and wiretap detection, and methods to protect against their installations or usage.

The very first person on the Internet to publish anything related to TSCM on the Internet.

Publications

Advanced Chemical Weapons
Granite Island Group
April 3, 1995

Testimony Before the House Committee on Transportation and Infrastructure; U.S. Coast Guard Budget and Oversight Hearing
U.S. House Committee on Transportation and Infrastructure
April 18, 2007

Unclassified written testimony in regards to a corrupt 25 billion dollar black budget debacle

(U) Classified Addendum to Testimony Before the House Committee on Transportation and Infrastructure; U.S. Coast Guard Budget and Oversight Hearing (TS)
U.S. House Committee on Transportation and Infrastructure
April 25, 2007

Classified technical addendum in support of House Testimony provided on April 17, 2007, to include details of deliberately induced weaknesses in TEMPEST testing and certification, and deliberate weaknesses introduced to cause Coast Guard systems to openly leak highly classified information. This classified addendum was integral in Congress as it provided irrefutable proof of a long term racket... **more**

Pyrotechnic Chemical Munitions for U.S. Infantry Forces
United States Army
March 1993

(U) China Study: Modalities of Technical Espionage used by Peoples Republic of China (TS)
Central Intelligence Agency
August 2003

Forensic examination of recovered eavesdropping devices used by the PRC for use against high-value target to include the United States.

Perfect EMT and Paramedic Notebook
Granite Island Group
September 4, 2009

Pocket sized version, to permit the accelerated intake, triage and treatment of patients during life-threatening or near life-threatening medical situations.

TSCM Procedural Guide - Structural Elements
Granite Island Group
2006

Detailed process used to examine and evaluate structural elements of a place being subjected to TSCM inspections in order to protect classified information.

TSCM Procedural Guide - Mid Sized Residential
Granite Island Group

TSCM Procedural Guide - Telephone Loop Line Analysis
Granite Island Group
1988

TSCM Procedural Guide - AC Mains/Power Line Analysis
1988

Master TSCM Protocol
Granite Island Group
1989

Utterly massive book on every aspect of performing a bug sweep, from the most mundane of supplies and measurements; to sophisticated methods for detecting changes in wood fibers, tiny fluctuation in the thermal noise floor, or microscopic variations in paint. Included sections on writing the reports, proper chain of custody, details for the engagement that often are overlooked, performance of... **more**

TSCM Procedural Guide - AM Broadcast Signal Analysis
1987

TSCM Procedural Guide - FM Broadcast Signal Analysis
1987

TSCM Procedural Guide - Mode and Emission Signal Analysis
1987

TSCM Procedural Guide - Discovery Protocol
Granite Island Group
1990

A specialized book that dealt with TSCM inspections where an actual eavesdropping device or activity with identified, and how to handle the matter in a manner so as not to tip off the eavesdropper. Facilitate a forensically sound discovery, location, processing, notifications, and examination.

TSCM Procedural Guide - Letters and Writing Guide
1991

A series of pre-written letters or notifications used in the TSCM and TEMPEST industry, so that all that needed to be done was to fill in a few banks and the letter or memo was complete. Included details on how to write reports, and to explain TSCM activities to senior executives both orally and in writing.

TSCM Procedural Guide - Law Enforcement Device Signal Analysis

To be quite candid, this is a book specifically how to find most eavesdropping devices utilized legally or illegally by various law enforcement agencies.

TSCM Procedural Guide - Marine and Aerospace Long Range Signal Analysis
Granite Island Group
1990

TSCM Procedural Guide - Moscow Rules
Granite Island Group
1989

Book about how to operate clandestine activities under highly hostile environments, while under intense physical or electronic surveillance.

TSCM Procedural Guide - "Walter Mitty" Rules
Granite Island Group
1991

A tongue-in-cheek exploration of amateur and "not so professional" spies and counter-spies, and details on how to catch them the act of eavesdropping or engaging in espionage. Deconstruction of an amateur motives, methods, tools and devices, and how to target each to expose the spy.

(U) TSCM Procedural Guide - Noise Floor Signals Analysis (S)
Granite Island Group / United States Army
1987

Classified manual all about noise, where it comes from, how to manipulate it, not to find bugs using it properly, how to extract bugs from the noise, and even now to use various forms of noise to assist in the detection of bugs, gaps in shielding, or technical vulnerabilities in classified electronics such as electric encryption equipment.

TSCM Procedural Guide - Subcarrier Signal Analysis
Granite Island Group
1991

TSCM Procedural Guide - Composite Television Broadcast Signal Analysis
1987

Manual on the examination of various form os rasterized images to include broadcast television signals to detect devices cloaked with the energy envelope of a TV station, or where the TV broadcast was being used to power or to illuminate an eavesdropping device. Included both cable/CATV systems and over the air systems, on all known international formats. Extremely granular.

(U) TSCM Procedural Guide - Raster Signal Analysis (S)
Granite Island Group / United States Army
1987

Textbook on detecting and reconstructing raster-based data or video signals.

(U) TSCM Procedural Guide - Underground Covert Tunneling Analysis (TS)
Granite Island Group

Used to teach U.S. counterintelligence agents and technicians how to detect underground mining or tunneling operations in or near sensitive or classified locations, or the detection of tunneling activities in support of installing wiretaps.

Test Scores

Law School Admission Test - LSAT
Score: 176

Miller Analogies Test (MAT)
Score: 572 , 97%

SAT
Score: 2380 out of 2400

MCAT
Score: 42

USMLE Step 1
Score: 268

USMLE Step 2 - Clinical Knowledge
Score: 296

USMLE Step 3
Score: 290

AFOQT - Pilot
Score: 125

AFOQT - Navigator - Electronics Warfare - SIGINT
Score: 147

AFOQT - Academic Aptitude
Score: 96

AFOQT - Verbal
Score: 48

AFOQT - Quantitative
Score: 48

GPA
Score: 3.971

Recommendations

Received (13) Given (5)

President and Senior Engineer
Granite Island Group

Stephen Spring
Association of Former Intelligence Officers AFIO at Association of Former Intelligence Officers

"Jim is the consummate professional in every respect. His integrity and dedication to his clients in maintaining the integrity of his clients' communications from illicit eavesdropping is exemplary. Besides being one of the world's foremost authorities in the subject, his contributions to helping other colleagues is exemplary. In addition, as an intelligence analyst he is... **more**

February 19, 2011, Stephen reported to James at Granite Island Group

Paul Curtis
Retired

"I would commend to you the services and expertise of James Atkinson. He is highly competent in his field, and generously shares information with anyone who asks. He has served as one of the guiding lights in the TSCM world and leaves no stone unturned whether it be with a flashlight and ladder of any of the electronic devices he uses in his work.

He will never stear... **more**

December 18, 2010, Paul was with another company when working with James at Granite Island Group

Adam Penenberg
Journalist/Author/Educator

"As a journalist I have relied on Jim Atinson's expertise in helping me navigate extremely complicated issues related to technology and espionage. Although I got the credit for outing Dean Kamen and Ginger in 2001—a scoop that landed me on the Today Show--Jim was 10 steps ahead of me the whole time. He taught me how to gather deep intel (legally) that was like a crash... **more**

May 1, 2009, Adam worked directly with James at Granite Island Group

Paolo Sfriso CFE, CII
Italy Private Investigator, Detective and Bodyguard

"I have known James for over ten years now and his reputation as one of the major experts is unsurpassed; not only in the US but Globally ! James has an encyclopedic 360° vision of this particular speciality and is universally recognized by his peers as a leader in this field.

August 30, 2009, Paolo was with another company when working with James at Granite Island Group

Steve U.
TSCM Expert, Owner Lookout Security

"I have known James Atkinson of Granite Island Group since Summer 2002, and have found him to be an excellent instructor, experienced mentor, and is a wealth of information about TSCM, electronics, strategy, business in general, and also in matters of faith and spirituality. He is always willing to help others, and provides a high moral, ethical, and technical standard that... **more**

August 31, 2009, Steve was with another company when working with James at Granite Island Group

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