Richard K. Pumerantz, Ph.D.

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PROFESSIONAL EXPERIENCE

LEAD EXPERT WITNESS

Guns and Ammo Witness Consulting, Lake Arrowhead, CA

June 2019 – Present

- Providing Services that include expert witness analysis, report writing, testimony, and consulting with attorneys on legal strategies.
- O Internationally recognized experience in the areas of ammunition identification and classification, ammunition design and manufacturing, cartridge failure analysis, shooting incident reconstruction, ballistic trajectory analysis, toolmark examination, internal and external ballistics, terminal ballistics, firearm identification and classification, firearm design and manufacturing, firearm failure analysis, firearms training and safe handling evaluation, antique weapons and antique cartridges, and the use of black powder.
- o Judicially recognized experience testifying in civil and criminal matters in the United States and internationally, most recently in the Bahamas.

PRESIDENT

PolyFrang, LLC, Parrish, FL

May 2015 – Present

- o More than a decade of research and development in the area of frangible projectiles led to the acquisition of investors and formation of PolyFrang, LLC.
- The implementation of a novel Metal Impregnated Polymer (MIP) technology into the creation of the world's only functional injection molded frangible projectiles has become a game changer in the industry. Intellectual property and a trademark were also created.
- O Customers include the Federal Bureau of Investigation, Internal Revenue Service, Customs and Boarder Protection, United States Secret Service, United States Navy, numerous local and county law enforcement agencies, and private security firms for protection of facilities such as the Three Mile Island and Diablo Canyon Nuclear Power Plants.
- o PolyFrang current offerings includes: 9mm, .223/5.56mm, .308 Win, and .300 AAC Blackout.
- Collaborative projects are ongoing with United States Special Operations Command, and firearm manufacturers like Patriot Ordnance Factory.

PRESIDENT

Ten-X Ammunition, Inc., Lake Arrowhead, CA

Oct 2005 - Present

- O Purchased small arms ammunition manufacturer, founded in 1991, and grew revenues more than \$1 million within 2 years. Broke \$2 million revenue mark in 2010.
- o Created a dealer network that covered ammunition sales to all 50 states and Canada.
- o Became the 3rd largest provider of specialty blank and live fire ammunition to the movie, entertainment, and reenactor market. Invented several blank cartridges and blank cartridge carriers to better cycle through firearms.
- o Recognized in the firearms industry as an expert in antique and replica cartridge development and manufacturing, including the production of proof loads. "Official" ammunition benchmark for half a dozen firearm manufactures.
- o Ongoing resource/consultant to numerous reloading equipment, projectile, and firearm manufacturers.
- o Invented and produce the only wax firing casings capable of being cycled through lever action rifles and shotguns. These wax shells are used worldwide for indoor and outdoor shooting events and training.
- o Invented and manufacture the TX-40 less lethal reloading press and propelling charge system for the major brands of 40mm less lethal foam rounds. These systems are used by law enforcement agencies and correctional facilities to significantly increase officer training while reducing training expenditures. The TX-40 was honored as a finalist in the less lethal category for the law enforcement industry's best new product of the year in 2009.
- o Invented and manufacture the TX-50, auto-indexing, progressive reloading press capable of loading up to .50 BMG. Capable of loading more than 500 rounds per hour, a conversion is available for large rifle primer cartridges.
- O Provide educational opportunities on the ammunition manufacturing process and corresponding toolmarks for law enforcement agencies, specifically for their crime lab and firearm unit technical staff. I have provided this training for such agencies as the California Criminalistics Institute (CA-DOJ), Los Angeles Police Department Firearms Unit, Los Angeles County Sheriff's Department Crime Lab, and Orange County Sheriff's Department Crime Lab.

- O Honored by the Association of Firearm and Took Mark Examiners (AFTE) to serve as a Technical Advisor to AFTE members worldwide to assist in the furtherance of the work of law enforcement crime labs.
- o Received industry recognition when elected as a Voting Member of the National Shooting Sports Foundation (NSSF).
- O Created "Steel Safe" training ammunition, the industry's only low velocity .223/5.56mm frangible training ammunition capable of cycling fully automatic AR-style rifles, while not damaging steel targets. Used by agencies nationwide and required for use at many live fire shoot houses. Also created the "Steel Safe" .308/7.62x51mm frangible round for Sniper Entry Training.
- O Work with defense contractors, SWAT/HRT teams, and explosives disposal teams on custom ammunition needs. Also work with law enforcement agency training officers on developing purpose-built munitions and systems.
- o Licenses: Type 10 FFL (Manufacturer of Destructive Devices), Special Occupations Tax Stamp, and all Dangerous Weapons Permits available from the State of California, DOJ.
- o Inventor and manufacturer of the TX-12 STW (Special Task Weapon), the lightest close quarters tactical 12ga firearm specifically designed to meet the demanding requirements of the Law Enforcement and Military sectors. It's mounted under-barrel on a tactical rifle and weighs less than 1 kilo. The TX-12 STW is offered through Ten-X Tactical (A Division of Ten-X Ammunition, Inc.). Ten-X Tactical was created in 2010 for the purpose of promoting and selling specialty LE/Mil products and services.
- o Inventor of PolyFrang® frangible ammunition and President of PolyFrang, LLC. PolyFrang® projectiles are capable of being fired at rifle targets at mere inches without splashback and without damage to rifle targets, and still surpass the minimum accuracy requirements of the military at 100 yards and beyond. The first bullet released was the 45gr 5.56mm round. Now considered to be the leading technology in frangible ammunition, and selected for use by departments and agencies nationwide. Other calibers include 9mm, .40 S&W, 308 Win and 300 AAC BLK.

PRESIDENT & CEO

Impact Training Systems, Inc., Rancho Cucamonga, CA

Mar 2004 - 2012

- O Co-founded a technology corporation to provide educational, electronic training equipment for the martial arts, boxing, and law enforcement. The HitMasterTM Personal Trainer is used to test, train and improve reaction time, speed, and endurance. Designed to be used by martial arts and boxing instructors, schools, and practitioners.
- Invented and produce the sporting goods industry's first training aid to link punching bags and shields to a computer. Received international recognition in industry magazines (i.e., Men's Fitness, Black Belt, Boxing Digest, Law Enforcement Product News), and general circulation newspapers (i.e., New York Times).

DIRECTOR OF DEVELOPMENT, COLLEGE OF SCIENCE

California State Polytechnic University, Pomona, Pomona, CA

Jan 2002 – Dec 2004

- O Conducted continuous and future needs assessment for the College of Science, and immediately increased fundraising activities. Provided continuous training for the Dean, Department/Program Chairs, and faculty in cultivation, solicitation and stewardship. Provided Gift Planning support to central advancement.
- O Secured over \$1.35 million in major & planned gifts in first 18 months. Identified nearly \$65 million in gifting projects. Doubled college's annual fundraising within 2 years. Worked closely with faculty to secure research funds in such areas as biotechnology, chemistry, genetics, and computer science. Cultivated prospects for 6- & 7-figure gifts.
- o Selected as one of 6 experienced CSU gift planners to assist the Vice Chancellor for Advancement in achieving the overall improvement of the gift annuity program for the CSU system.
- Managed the completion of the BioTrek Rain Bird Learning Centers at Cal Poly Pomona, which had been stalled for over 6 months. Included major donor stewardship, construction budget management, and academic liaison. Completion time cut from 18 months to 6 months & within available budgetary resources.

TELECOM PRODUCTS ACCOUNT MANAGER

General Micro Systems, Rancho Cucamonga, CA

Mar 2001 - Oct 2001

- o Increased telecom products division revenue pipeline from less than \$100K to nearly \$15 million.
- Established reputation among competitors as knowledgeable, and successful at building customer loyalty.
- o Demonstrated superior product engineering expertise.
- o Selected as the company's primary trainer for the manufacturer's representatives.

VICE PRESIDENT OF UNIVERSITY ADVANCEMENT

Western University of Health Sciences, Pomona, CA

Jan 1995 – Mar 2001

- O Developed comprehensive major gifts and gift planning programs which generated \$2 million in planned gifts in first year and nearly \$10 million over the next four years. Networked with the existing constituency base, my former financial advisory clients, and clients of other advisors.
- O Developed and managed a \$2 million budget and provided leadership to 25 employees in development, fundraising, community affairs, media/government relations, publications and website design/management. Established and maintained strong working relationships with local, county, state and federal elected and appointed officials and governmental organizations.
- O Reorganized the primary annual fundraising event for the University which increased event net from \$75,000 to \$125,000, \$150,000 and \$175,000, respectively over three years. Major gifts grew from less than \$100,000 to more than \$500,000 as a direct result of the event.
- o Managed the University's endowment portfolio and grew it from \$4 million to \$13 million in 3 years. Re-wrote investment policies and guidelines and designed and wrote analytical software to evaluate performance.
- o Rewrote IT (Information Technology) policies & guidelines. Developed new budgetary system that saved over \$1 million. More satisfied users, easier accounting methods, lower procurement cost & IT staffing needs.

ADVANCED FINANCIAL ADVISOR, REGISTERED REPRESENTATIVE

American Express Financial Advisors, Glendora, CA

May 1992 – Jan 1995

- Started a financial planning practice from the ground up. Networked, cold-called and lectured at seminars to build qualified prospects. Worked extensively with charities on planned giving and in investment fund management for charities and advanced estate planning for individuals. Hired and trained staff.
- Built practice to top 15% nationally in two years. Received Jupiter Award and Silver Team Honors.
- Production: \$2.5 million year 1; \$3 million year 2. One of the top closers nationally with a 93% closing ratio.
- Expertise in advanced estate planning and investment management of trust and endowment funds.

ASSOCIATE FOR CORPORATE AND FOUNDATION SUPPORT

College of Osteopathic Medicine of the Pacific, Pomona, CA

Dec 1990 - May 1992

- Facilitated the gifting of properties resulting in significant campus expansion.
- Developed and implemented a grant writing program totaling nearly \$5 million in proposals within 18 months.

BROKER

Lee & Associates, Riverside, CA

Sep 1989 – Dec 1990

- Created investment division. Designed investment analysis software. Created public relations, marketing and advertising plans. Hired staff and created strong client base.
- Brokerage representation of over \$200 million in 18 months.

EDUCATION

| THE CLAREMONT GRADUATE UNIVERSITY Center for Educational Studies Ph.D. in Higher Education | Claremont, California | 1997-2004 |
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| THE CLAREMONT GRADUATE SCHOOL Peter F. Drucker Graduate Management Center M.B.A. with Public Policy emphasis | Claremont, California | 1991-1992 |
| SOUTHWESTERN UNIVERSITY SCHOOL OF LAW | Los Angeles, California | 1988-1989 |
| UNIVERSITY OF SOUTHERN CALIFORNIA School of Business Administration B.S. with Real Estate Finance emphasis | Los Angeles, California | 1983-1988 |

PUBLICATIONS

Alumni-In-Training: A Public Roadmap for Success, International Journal of Educational Advancement, Submitted March 2005. Author.

Dollars, Distance, and Online Education: The new Economies of College Teaching and Learning, ACE/Oryx Press, October 2000. Contributing author.

Planning for Instructional Technology: What You Thought Could Lead You Astray, Change Magazine, July/August 1999, Pages 24-33. Co-author.

LICENSES, PROFESSIONAL ORGANIZATIONS AND CERTIFICATIONS

- o ATF (Bureau of Alcohol, Tobacco, Firearms & Explosives)
 - o Type 10 Federal Firearms License, Manufacturer of Destructive Devices
- o Cal DOJ (California Department of Justice)
 - o Machine Gun Permit
 - o Destructive Device Permit
 - o Short-Barreled Rifle/Shotgun Permit
 - o Assault Weapon/.50 BMG Rifle Permit
- AFTE (Association of Firearm and Tool Mark Examiners)
 - o Technical Advisor
 - AFTE Annual Training Seminar 2010 Workshop Presenter. <u>Evaluation of Re-Loaded Ammunition and Questions for NIBIN</u>, based on preliminary research done collaboratively with Matthew Noedel, Noedel Scientific LLC, and the Las Vegas Metropolitan Police Department.
 - o AFTE Annual Training Seminar 2010, facilitator of the Indoor Wax Shooting Event
- o IAI (International Association for Identification)
 - o Sustaining Active Member
- o ASTM International, Member
 - o Technical Committee, E58 Forensic Engineering
- Certifications
 - Crime Scene Investigations
 - Death Investigations
 - o Crime Scene Safety
- o Glock Certified, Law Enforcement Armorer
- o Remington Certified, Law Enforcement Armorer
- o Patriot Ordnance Factory (POF) Certified, Law Enforcement Armorer
- o National Training Consultants, Less Lethal Instructor
- o NRA Certified Range Safety Officer
- o California Commission on Peace Officer Standards and Training (POST)
 - o POST Certified Firearms Instructor
 - o POST Certified Less Lethal Weapons Instructor
 - o POST Certified Select Fire Weapons, SBR (Short Barreled Rifle), and Shotgun Instructor
- o San Bernardino County Sheriff's Department (SBCSD), Retired Deputy (Reserve Level III)
 - o SBCSD, SSB (Specialized Services Bureau) Reserve Unit Commander
 - o SBCSD, Continuing Professional Training, Range, & Armorer Reserve Unit
 - o SBCSD, Disaster Assistance Team
- o Claremont CERT (Community Emergency Response Team), Search and Rescue Team