



Architects' and Shooting Range Designers' Seminar 2018



April 18, 2018
Crowne Plaza Hotel
14670 Duval Rd
Jacksonville, FL

Sponsored by **TROY ACOUSTICS CORPORATION**



Architects' and Shooting Range Designers' Seminar 2018



The following pages include preliminary details relating to this seminar.
Once you RSVP, more details will be provided to you as they unfold.



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and

**SIEBEIN
ASSOCIATES**



ARCHITECTS' AND RANGE DESIGNERS' SEMINAR April 18, 2018 RSVP March 29, 2018

We look forward to meeting you at the 2nd Annual Architects' and Range Designers' Seminar in Jacksonville, FL.

Enclosed are the promised details.



Crowne Plaza Jacksonville Airport/I-95N
14670 Duval Rd, Jacksonville, FL 32218

Room Rate: \$99.00
\$93.00 for government employees with ID

Check in: Tuesday, April 17, 2018
Check out: Thursday, April 19, 2018

Reservations: [1-904-741-4404](tel:1-904-741-4404)

Shuttle Service available Starts at 4:00 am. Runs every 15 minutes

AIA CES with 7 HSW Learning Units

Troy Acoustics Corporation in partnership with Siebein Associates, Inc. which is a registered provider with the American Institute of Architects continuing education system which offers credit earned on completion of this program. This will be reported to CES records for AIA members. Certificates of completion for non-AIA members are available on request.

This program is registered with the AIA / CES for continuing professional education. As such, it does not include the content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product. Questions related to specific materials will be answered at the end of each presentation.

Seminar: Starts at 7:30 a.m. (full buffet breakfast) and ends at 8:00 p.m.

Wednesday, April 18, 2018

Lunch and Dinner included.

Administrative Fee:

\$50.00

This fee may be paid by check when you make your reservation.

Please mail check to

Troy Acoustics Corporation
2580 Sidney Lanier Drive
Brunswick, GA 31525.

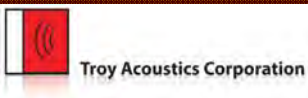
Any questions?

Please call or write

Joan Terry Drucker

joan.drucker@troyacoustics.com

800-987-3306 Ext. 400



An opportunity to learn how to create a safer environment



ARCHITECTS' AND RANGE DESIGNER SEMINAR

April 18, 2018 Agenda

Speakers (in alphabetical order)

- Page 5 BOBBY CUMMINGS, PE, DBIA
- Page 6 RANDY M. JACKSON, PE
- Page 7 CAPTAIN WILLIAM J. MURPHY, PHD.
- Page 8 GARY SIEBEIN, PROFESSOR EMERITUS
- Page 9 ED SOBIERANSKI, USMC
- Page 10 BRIAN WRIGHT, CAREY'S HVAC SME
- Page 11 NING XIANG, PHD RPI

Tuesday	Check-in April 17 Crowne Plaza at JAX Jacksonville, FL
Wednesday	April 18, 2018
7:00 a.m.	Full Breakfast Location: Canary Room
8:00 a.m.	Introductions by Bill Bergiadis, Location: Sago Room CEO, Troy Acoustics Corporation
8:15 a.m.—9:15 a.m.	Speaker: Bobby Cummings, PE, DBIA Topic: Shooting Range Architecture and Engineering
9:15 a.m.—9:30 a.m.	Break
9:30 a.m.—10:30 a.m.	Speaker: Captain William Murphy, PhD Topic: Assessments of Firearms Noise Exposures and Hearing Loss Prevention
10:30 a.m.—10:45 a.m.	Break
10:45 a.m.—11:45 a.m.	Speaker: Ning Xiang, PhD Topic: Architectural Acoustic Fundamentals and Challenges for Shooting Ranges
11:45 a.m.—12:45 p.m.	lunch Location: Canary Room
12:45 p.m.—1:45 p.m.	Speaker: Brian Wright, Shooting Range HVAC SME Topic: Shooting Range HVAC
1:45 p.m.— 2:00 p.m..	Break
2:00p.m.—3:00 p.m.	Speaker: Ed Sobieranski, USMC Topic: Bullet Traps and Earthen Berms
3:00 p.m.—3:10 p.m.	Break
3:10 p.m.—4:10 p.m.	Speaker: Randy Jackson, PE Topic: Range Safety and Standards
4:10 p.m.-4:20 p.m.	Break
4:20 p.m.—5:20 p.m.	Speaker: Gary Siebein, FASA, FAIA Professor Emeritus Topic: State-of-the-Art Design Methods for Indoor and Outdoor Firing Range Acoustics
Dinner at 6:00 p.m.—	Location and Logistics to be announced



Bobby Cummings PE, DBIA

TOPIC: SHOOTING RANGE ARCHITECTURE AND ENGINEERING
Architects' and Range Designers' Seminar April 18, 2018

“ His professional focus is fueled by personal passion. As a reserve deputy sheriff in Bedford County, his firsthand experience informs and enhances his public safety facility design “

Clark Nexsen

- Principal, Clark Nexsen
- Member of the Society of American Military Engineers (SAME)
- Served on the board for the Tidewater Chapter of the Virginia Society of Professional Engineers.
- Clark Nexsen ranked as a top 10 military design firm by Building Design + Construction
- Enjoys outdoor activities such as hunting and camping.
- Reserve Deputy Bedford County Sheriff's Office

“We also understand that firearms and police training is a hot-button issue, putting safety at the forefront of our shooting range design effort. With design leaders who have personally served in law enforcement, our public safety team understands the challenges facing law enforcement, military, and commercial agencies today. We partner with our clients to determine which trends are generating the most impact in their situation, from increasing training needs, to budget constraints, to community interest, and develop solutions that enable them to train more effectively in safe range environments.” Clark Nexsen



Contact information:

Title: Principal
Company: Clark Nexsen
Location: 213 South Jefferson Suite 1011
Roanoke, VA 24011
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Phone: 540.613.6686
Website: www.clarknexsen.com

An opportunity to learn how to create a safer environment



Randy M. Jackson, PE

TOPIC: RANGE SAFETY AND STANDARDS

Architects' and Range Designers' Seminar April 18, 2018

"There are very few standards addressing safety issues on private, commercial, and municipal ranges."

- NAVFAC Worldwide Range Subject Matter Expert (SME): 15+ Years
- Contractor supporting NSW (SEALS): 1.5 years
- Ranges visited: 251 (does not include perfunctory or re-visits, that number would be well over 1,000)
 - Agencies supported: Navy, SOCOM, USMC, Army, Air Force, CIA, Secret Service, Pentagon Defense Force
 - Navy Ranges Inspected/Certified: 183 (not including re-certifications of the same ranges)
 - Non Navy Ranges Inspections/ Reports: 39 (Similar to certifications)
 - Range MILCON Projects (\$2M - \$30M): 38 including 18 with SOCOM
 - Range Special Projects (\$50k - \$2M): 117 including 31 with SOCOM
 - Major Range Planning Studies: (as SME): 17
 - Planning Studies (authored): 16 Other applicable experience: 2 years field engineer in heavy construction, 2 years civil engineer at consulting firm, 6 years in NAVFAC design branch, 4 years as CERCLA (environmental cleanup) project management



Locations of Shooting Range Facilities cited.

Contact information:

Title: President
Company: Small Arms Range Consulting LLC
Location: Virginia Beach, VA
Email: RJackson@RangeCon.Com
Phone: 757-774-1142
Web page: www.rangecon.com



Captain William J. Murphy PhD

**TOPIC: ASSESSMENTS OF FIREARM NOISE EXPOSURES
AND HEARING LOSS PREVENTION.**

Architects' and Range Designers' Seminar April 18, 2018

“A major proponent of proactive hearing loss prevention programs that reduce workplace noise, shifting the focus from documentation of an injury to the prevention of occupation hearing loss”

**NIOSH (National Institute for Occupational Safety and Health)
Division of Applied Research and Technology, Hearing Loss Prevention Team**

Captain Murphy has been involved with research for the causative factors for occupational hearing loss for more than 25 years. He is a subject matter expert on noise exposure due to firearm noise and methods to prevent noise-induced hearing loss. He has served as the chair of the American National Standards Institute, Subcommittee 12 on Noise and he is the chair of the Acoustical Society of America's Technical Committee on Noise Recipient of the National Hearing Conservation Association's Outstanding Hearing Conservationist Award in 2015.

- Keynote speaker for the 2017 National Hearing Conservation Association conference.
- Authored more than 100 peer-reviewed papers, articles and reports on topics related to hearing loss prevention, noise exposure assessments, and hearing protection devices.
- Co-inventor of the NIOSH HPD Well-Fit™ hearing protector fit-testing system.
- Developer of software for testing hearing protector attenuation.
- Co-designer of the GRAS 67SB blast probe for measuring high level impulse noises.
- Recipient of the USPHS Meritorious Service Medal for his research in impulse noise.
- Recipient of the USPHS Outstanding Service Medal for his work on developing acoustic standards for hearing protection devices.

Contact information:

Title: Captain, Commissioned Corps of the
United States Public Health Service
Centers for Disease Control and Prevention

Agency: National Institute for Occupational Safety and Health

Location: 1090 Tusculum Ave. MS C-27
Cincinnati OH 45226-1998

Email: wjm4@cdc.gov

Phone: (513) 533-8125 (Voice)
(513) 533-8139 Fax

Website: <https://www.cdc.gov/>

(preferred)
niosh/



Gary W. Siebein, FASA, FAIA

TOPIC: STATE-OF-THE-ART DESIGN METHODS FOR INDOOR AND OUTDOOR FIRING RANGE ACOUSTICS

Architects' and Range Designers' Seminar April 18, 2018

“Siebein implemented a long term research agenda to provide a scientific basis for environmental and building acoustic design issues.”

Senior Principal and
Professor Emeritus,
Architecture and Acoustics
University of Florida

- Gary W. Siebein, Senior Principal Consultant, has worked on over 2,000 architectural and environmental acoustics projects around the world and conducted NSF-sponsored research in building acoustics through his Architecture Technology Research Laboratory at the University of Florida during a 37-year career.
- His firm has developed unique measurement systems that can be taken in the field to measure firearms sound levels; developed computer modeling and noise assessment methods to address acoustical design issues in both indoor and outdoor ranges; and has developed instrumentation to measure the noise exposure of active shooters on ranges at their ears.
- His firm has worked on a number of ranges including the FBI Academy range in Quantico, Virginia; the Federal Law Enforcement Training Centers in Cheltenham, Charleston and Glynco (Brunswick); Camp Hansen in Okinawa; the Asymmetric Warfare Group range at Fort A.P. Hill; the Special Weapons Assessment Range in Crane, Indiana; police training facilities in Montgomery County, Maryland; Omaha, Nebraska; Dubuque, Iowa; Tampa, Florida; Pinellas County, Florida; and Albemarle, Virginia among others.
- The firm works on the full range of acoustical design and consulting for firing ranges including the work areas listed below.

Contact information:

Title: Senior Principal Consultant in Architectural and Environmental Acoustics and Professor Emeritus, Architecture and Acoustics, Univ. of FL

Company: Siebein Associates

Location: 625 NW 60th Street, Suite C
Gainesville, Florida 32607

Email: gsiebein@siebeinacoustic.com

Phone: 352.331.5111 ext. 25

Website: www.siebeinacoustic.com

**SIEBEIN
ASSOCIATES**



Ed Sobieranski, USMC

TOPIC: BULLET TRAPS AND EARTHEN BERMS

Architects' and Range Designers' Seminar April 18, 2018

- Extensive experience and proven ability to provide technical expertise to the Department of Defense for Range Design, Range Safety, Range Operations, and Range Regulatory Compliance worldwide.
- Ten years experience as the subject matter expert for the U.S. Marine Corps as the Head, Range Safety and Design Branch.
- Eleven years experience as a training analyst and training program course writer. Experienced supervisor exceeding seventy-five (+) military and civilian personnel.
- Serves as the Head, Range Safety and Design Branch, Training and Education Command, Quantico, Virginia. Plans, develops, directs, and executes an institutional level range safety program for the Marine Corps including range design and range safety policy for both ground and aviation range operations.
- Serves as the Marine Corps representative at Office of the Secretary of Defense (OSD) meetings and serve as the Marine Corps lead for working groups concerning range safety and range design issues.
- Serves as the Marine Corps Range Safety Subject Matters Expert for NATO Range Safety Panel and the International Range Safety Advisory Group (IRSAG).
- Serves as the ranges and training areas subject matter expert for the relocation of 10,000 Marines from Okinawa, Japan to Guam, USA. This estimated \$30 billion dollar effort consists of constructing an entire base to include new ranges and training areas throughout the Marianas Islands.

“Responsible for the management and execution of a \$68 million dollar program for USMC Range:

Safety Policy

Development and Design

Certification / Recertification

Range Inspections

Laser Range Safety

Operational Clearance

Range Professional

Education and

Development”

Contact information:

Title: GS-15, Training and Education Command
Deputy Director,
Training and Education Capabilities Division (TECD)

Military Branch: US Marine Corps

Location: Quantico, VA

Email: edward.r.sobieranski@usmc.mil

Phone: (703) 784-4480



Brian Wright

TOPIC:

SHOOTING RANGE HEATING, VENTING AND AIR CONDITIONING
Architects' and Range Designers' Seminar April 18, 2018

Brian and his team have collectively:

- *Designed and installed successful small arms indoor firing range ventilation systems for the past two decades.*
- *Designed and installed over 800 ventilation systems in military, federal, municipal, and commercial indoor firing range projects over the past 25 years.*
- *Specialized their design in the control of contaminants created by indoor ranges and are currently known as an industry leader.*
- *Worked with the United States Navy to develop the current range ventilation standards as described in the Unified Force Criteria (UFC).*
- *Written the ventilation standards for the GSA, edited the standards for the United States Air Force as published in the ETL, and have been consultants for the Federal Law Enforcement Training Center (Department of Homeland Security) and FBI.*

“The design, installation, and control of the range ventilation system can be the difference between an unsafe range and a range that meets the IMC 2009, OSHA, EPA and NIOSH standards.”

Contact information:

Title: Shooting Range HVAC SME
Company: Carey's Small Arms Heating and Air Conditioning
Location: Tinley Park, IL
Email: bwright@careyscentral.com
Phone: (708) 532-2449



Ning Xiang PhD

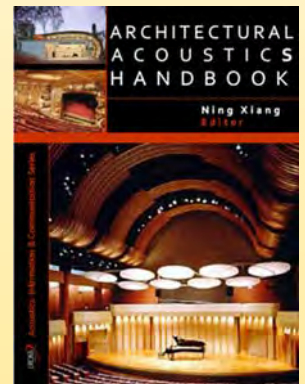
TOPIC: ARCHITECTURAL ACOUSTICS: FUNDAMENTALS AND CHALLENGES FOR SHOOTING RANGES
Architects' and Range Designers' Seminar April 18, 2018

" The need to understand acoustics is more profound than ever. As we have more sound and understand how to control and improve the sound, we are making a real difference in society. "

- Director, Architectural Acoustics Graduate Program, RPI (Rensselaer Polytech Institute), Troy, NY.
- Extensive knowledge of ASTM RT 60 advanced computer-based simulations, designed specifically for shooting range conditions.
- A researcher, educator, and inventor, Xiang is one of just 16 individuals worldwide to win the prestigious Wallace Clement Sabine Medal, the architectural acoustics field's top honor.
- Recipient, Wallace Clement Sabine Award, Acoustical Society of America
- Editor **Architectural Acoustics Handbook**, (504 pages, J. Ross Publishing), which culls the theory and applications from some of the leading minds in architectural acoustics, including his advanced RT methods.
- [Presented with the Albert Nelson Marquis Lifetime Achievement Award by Marquis Who's Who](#)
- Doctorate, Ruhr-Universität Bochum

Contact information:

Title: Professor
Company: Rensselaer Polytechnic Institute
Location: Troy, NY United States
Email: NXiang1688@yahoo.com
Phone: (518) 469-0659





TROY ACOUSTICS CORPORATION

To attendees:

We look forward to meeting you at our 2nd Annual Architects' and Range Designers' Seminar with a focus on acoustics and health, safety and welfare as it relates to shooting range design.

Troy Acoustics is proud to be the sponsor of this one of a kind opportunity, bringing the best of the best in the shooting range industry to share their experiences.

We are here to answer any questions that you might have. Just call us at 800-987-3306 Ext. 400

Best regards.

Bill Bergiadis, CEO

TROY ACOUSTICS CORPORATION



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2580 Sidney Lanier Dr.
Brunswick, GA 31525

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