



Soft Target Engineering
to Neutralize the
Threat Reality



ALERT
AWARENESS AND LOCALIZATION
OF EXPLOSIVES-RELATED THREATS

Soft Target Engineering to Neutralize the Threat Reality (SENTRY)

A Department of Homeland Security (DHS) Center of Excellence

Awareness and Localization of Explosives-Related Threats (ALERT)

An Emeritus DHS Center of Excellence

Advanced Development for Security Applications Workshop ADSA26 **Reducing the Lethality of Attacks on Soft Targets**

SPEAKER BIOGRAPHIES



Max Abrahms

Northeastern University

Max Abrahms is an Associate Professor of Political Science at Northeastern University and an expert in counterterrorism. His book with Oxford University Press (2019), *Rules for Rebels: The Science of Victory in Militant History*, explains which militant groups are more likely to attack soft targets and why. Abrahms has held fellowships and other research positions with the Center for International Security and Cooperation at Stanford University, the Dickey Center for International Understanding at Dartmouth College, the Department of Political Science at

Johns Hopkins University, the Center for Cyber and Homeland Security at George Washington University, the Moshe Dayan Center at Tel Aviv University, the Washington Institute for Near East Policy, Institute for Peace and Diplomacy, Center for the Study of Terrorism in Rome, the Belfer Center at Harvard University, and the Council on Foreign Relations. Abrahms frequently fields interviews about international security issues for expert analysis in the media (e.g., BBC, New York Times, USA Today, Voice of America, Washington Post) and consults with government agencies about the contemporary terrorism landscape (e.g., CIA, NCTC). At Northeastern, he teaches courses about national security, international relations, and counterterrorism.

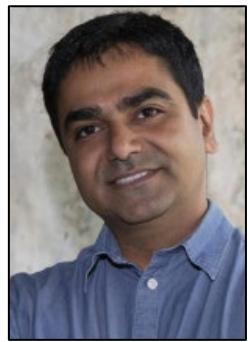


Paul R. Amato

Iroquois Pipeline Operating Company

Paul has over 35 years of Executive and engineering experience within the natural gas industry. As V.P. Engineering & Operations since 2009, Paul provides overall direction of the company's Engineering, Environmental, Field Operations, Right of Way, Health & Safety and Procurement functions. Over his tenure at Iroquois, Paul has led various technical Department's including Engineering, Field Operations and Right of Way. Prior to joining Iroquois in 1997, Paul was with Algonquin Gas Transmission where he held various supervisory and field engineering positions.

Prior to Algonquin, Paul was an inspector for the State of CT's Gas Pipeline Safety Unit. Paul is currently the Chair of the INGAA Foundation which is the trade organization for the entire value chain for midstream natural gas. He is Vice Chair of the Northeast Gas Association Operations Managing Committee and a member of the INGAA Pipeline Safety Executive Committee. He has testified to Congress representing INGAA.



Thomas Anthony

Analytical AI

Thomas is a visionary technology executive and entrepreneur with skills as an Analytical Research Scientist and solutions architect with expertise in Big Data Analytics, Deep Learning, and High Performance Computing (HPC). He has over 15 years of experience in HPC and Big Data system design including the largest Supercomputer in Alabama. He works as a consultant to companies in healthcare, power, financial wealth management, military, and marketing. Thomas is the winner of multiple Kaggle machine learning challenges including the Department of Homeland Security's "Passenger Screening Algorithm Challenge". He is the author of multiple

scientific publications and editor of the book *Big Data and Visual Analytics* (Springer-2018). Thomas is the Founder and CIO of Analytical AI, a company that provides AI solutions to multiple federal agencies and is the Principal investigator on multiple grants, projects, and contracts for the Department of Homeland Security and Department of Defense.



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Ara H. Bagdasarian

Omnilert

Ara H. Bagdasarian founded Omnilert in 2004, which pioneered the first mass emergency notification system and more recently introduced AI-powered visual weapons detection software to identify firearms using existing security cameras. Omnilert connects thousands of organizations with over 15 million people. In 2021, Ara founded ZeroNow, an initiative by safety technology and education leaders to end harmful events in schools. Ara is a frequent speaker and guest lecturer at Georgetown University, Shenandoah University, and George

Mason University, and serves in elected office as a member of Leesburg, VA's Town Council.



Burçin Becerik-Gerber

University of Southern California

Dr. Becerik-Gerber is the Chair and Dean's Professor of Civil and Environmental Engineering at the University of Southern California. She also serves as the co-director of the Center for Intelligent Environments (CENTIENTS) at USC. Her research focuses on interactions between the built environment and its users and aims to understand and predict how and why humans interact with their built environment. She then uses this

information to develop novel technologies, interfaces, tools to improve human experience, well-being and performance as well as to achieve societal objectives, such as energy efficiency, safety, security, health. In her work, Burçin uses machine learning and data science to improve design, construction and system intelligence of user-centered built environments. Burçin joined USC Viterbi School of Engineering as an Assistant Professor of Civil and Environmental Engineering in 2008. Since then, her work has received support worth over \$10m individual and collaborative grants from a variety of agencies, including the National Science Foundation, Department of Energy, Department of Transportation, Department of Homeland Security, California Energy Commission, and various corporate sponsors. She has authored/co-authored over 200 peer-reviewed publications, one book and two book chapters. She serves as an Associate Editor for ASCE's Journal of Computing in Civil Engineering since 2011 and as an Editorial Board Member for Nature's Scientific Reports since 2021.



Gerald Becker

Quanergy Systems

Gerald Becker is a veteran security professional technology evangelist with over 18 years of experience in the physical security space. He is Quanergy's VP of Market Development and Alliances. He held senior positions at SAFR by RealNetworks, N3N (a Cisco-backed startup), and a 7-year tenure with a national systems integrations firm in North America as VP of Product and Security Services. Mr. Becker has an MBA in Information System from the University of Redlands and a B.S. in Technical Management from DeVry University.



Will Bernhjelm

Mall of America

As the Vice President of Security for North America's largest entertainment and retail complex, Bernhjelm's main responsibility is ensuring the safety of the 30 million annual visitors, employees, and celebrity guests. His role includes managerial direction and control of over 120 personnel, partnering with local, state, and federal authorities, managing the department budget, and a pro-active approach to designing and implementing unique procedures and programs focused on prevention rather than reaction to incidents. He believes in extensive training which empowers his staff to make good decisions, efficiently solve problems and allows them to remain flexible.

them to remain flexible. He holds a security clearance through the FBI, serves on the Training and Education committee for the FBI's Domestic Security Alliance Council (DSAC) and is a member of the International Association of Chiefs of Police (IACP), Minnesota Chiefs of Police Association, Association of Threat Assessment Professionals (ATAP) and American Society for Industrial Security (ASIS). Bernhjelm started at Mall of America in 2002 and, prior to becoming Vice President, held the positions of Director, Patrol Captain and Training Supervisor for the Security Department. Bernhjelm holds an A.A. in Law Enforcement from Alexandria Technical College and a B.A. in Criminal Justice from St. Cloud State University. During college, he enlisted in the Minnesota Army National Guard and in his 10-year career, was deployed twice overseas. In 2003-2004 he was deployed as an Infantry Team Leader on a peacekeeping mission in Kosovo and from 2005-2007, Bernhjelm was deployed to Iraq as an Infantry Squad Leader in support of Operation Iraqi Freedom. While stationed in Baghdad, he led a nine-man squad on over 400 combat patrols. For his efforts, Bernhjelm was awarded the Bronze Star and the Combat Infantry Badge.



Nick Betzold

Pacific Northwest National Laboratory

Nick Betzold is a data scientist at the Pacific Northwest National Laboratory (PNNL), conducting research in national security and infrastructure risk analysis. He is a PMP-certified project manager and leads both predictive and agile tasks devoted to artificial intelligence and machine learning, statistical computer programming, R package development/deployment, and resource allocation tools, often playing a leading role in the engagement with sponsors and stakeholders. Nick's work is primarily on behalf of the Department of Homeland Security,

with a special emphasis in aviation security. He holds an MS in Data Science from Northwestern University and a BS in Applied Statistics from Brigham Young University.



Pete Blair

Advanced Law Enforcement Rapid Response Training (ALERRT) Center

Dr. J Pete Blair is the Executive Director of the Advanced Law Enforcement Rapid Response Training (ALERRT) Center and a Professor in the School of Criminal Justice and Criminology at Texas State University. He is an internationally recognized expert on active attacks and police training.



Jennifer King Blanchard

Transportation Security Administration (TSA)

Jennifer King Blanchard is a Lead Program Specialist at the Transportation Security Administration (TSA). She joined TSA in 2009, first working in Security Operations (SO) within the Behavior Detection and Analysis Division as the Training Manager and then as the Branch Chief for the Strategic and Technical Branch. Currently, now in the Requirements and Capabilities Analysis (RCA) Office/Human Performance Branch, her role centers on human factors research within the aviation environment and building a research foundation for Behavior Detection as well as other insider threat capabilities. Prior to coming to TSA, she

worked at the Naval Research Laboratory (NRL) as an Engineering Research Psychologist in the Adversarial Modeling and Simulation Branch. While there, she worked closely with the Department of Homeland Security's Science and Technology Directorate on various elements related to security strategies for identifying malicious behavior including data collection, sensor evaluation, literature reviews, and the development of micro expression training and animation tools. She has 19 years of experience working in the United States Federal Government, with 14 of those years dedicated to researching, developing, assessing, and refining behavior-based capabilities and human factors. Jennifer holds a Masters degree in Industrial-Organizational Psychology and a Bachelors degree in Criminal Justice from East Carolina University (USA).

David Canty

Department of Homeland Security

David Canty is a Program Manager in the DHS Science and Technology Directorate's Office of University Programs (OUP). Within OUP he manages a portfolio of Centers of Excellence (COE) focused on protecting soft targets, engineering secure environments, critical infrastructure resilience and cybersecurity. Active COEs in his portfolio include the Soft-target Engineering to Neutralize the Threat Reality (SENTRY) Center led by Northeastern University and the Critical Infrastructure Resilience Institute (CIRI) led by University of Illinois, Urbana- Champaign. Prior to joining OUP, he worked at DOE's National Nuclear Security Administration as a Program Director managing university led research and education consortia focused on advanced manufacturing, materials science, cybersecurity, and nuclear security technologies.



Carl R. Crawford

Csuptwo, LLC

Carl Crawford is president of Csuptwo, LLC, a technology development and consulting company in the fields of medical imaging and explosive detection for Homeland Security. He has been a technical innovator in the fields of computerized imaging for more than thirty years. His technology has resulted in 90 U.S. Patents. Dr. Crawford was the Technical Vice President of Corporate Imaging Systems at Analogic Corporation, Peabody, Massachusetts, where he led the application of signal and image processing techniques for medical and security scanners. He developed the reconstruction and explosive detection algorithms for a computerized tomographic (CT) scanner deployed in airports worldwide. He was also

employed at General Electric Medical Systems, Milwaukee, Wisconsin, where he invented the enabling technologies for helical scanning for medical CT scanners and physiological motion compensation for projection-based imaging systems. At Elscint, Haifa, Israel, he developed technology for cardiac CT scanners. He also has developed technology for magnetic resonance imaging (MRI), single photon emission tomography (SPECT), positron emission tomography (PET), ultrasound imaging, dual energy imaging and automated threat detection algorithms. He has a PHD in electrical engineering from Purdue University. He is a Fellow of the IEEE and a Fellow of the American Association of Physicists in Medicine (AAPM).

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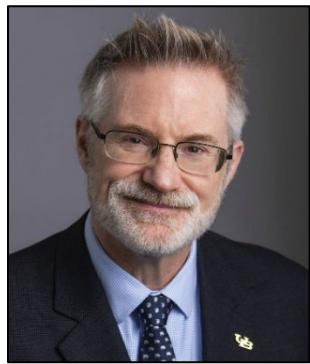
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Nicholas Evert

Mall of America

Nicholas Evert is currently the Security Dispatch and Special Projects Manager for the Mall of America Security Department in Bloomington, MN. Nicholas began working at the Mall of America in 2003 as a Security Dispatcher and has since worked his way up through the ranks to his current role. In his current role, Nicholas oversees the MOA's 24/7 SOC as well as special projects pertaining to Security and Technology.



Mark G. Frank

University at Buffalo

Mark G. Frank received his Ph.D. in Social Psychology from Cornell University, followed by a National Research Service Award postdoc in the Psychiatry Department at the University of California at San Francisco Medical School. From there he joined the School of Psychology at the University of New South Wales in Sydney, Australia, where he worked for 4 years until he joined the Communication Department at Rutgers University. In 2005, he accepted a position at the University of Buffalo. He has published numerous papers on facial expressions, emotion, interpersonal deception, and violence in extremist groups, and has recently won the *SUNY Chancellor's Award for Excellence in Scholarship and Creative*

Activities. He has had research funding from The National Science Foundation, US Department of Homeland Security, and the US Department of Defense to examine deception and hidden emotion behaviors in checkpoint, law enforcement, and counter-terrorism situations, as well as aggression in extremist groups. He is also the co-developer of a patented automated computer system to read facial expressions, for which he won a *Visionary Innovator Award*. He has used these findings to lecture, consult with and train virtually all US Federal Law Enforcement/Intelligence Agencies, as well as local/state and select foreign countries such as Canada, Australian and the UK. He has also done briefings on deception and counter-terrorism to the US Congress as well as the *US National Academies of Sciences*. He was also an original member of the FBI Behavioral Science Unit's *Terrorism Research and Analysis Project*. He recently appeared as a featured expert in a Curiosity Stream 6 part series "Inside the Mind of a Con Artist".



Kevin Gaddis

Transportation Security Administration (TSA)

Kevin Gaddis is currently serving as the Division Director for Operations within Surface Operations. Prior to joining TSA, Kevin served over 26 years with the Metro Transit Police Department in Washington, DC, retiring as Deputy Chief of the Homeland Security Intelligence and Investigations Bureau. He also served as the Deputy Chief of the Patrol Operations Bureau for six years. Kevin Commanded the Department's Office of Professional Responsibility Inspections (Internal Affairs) for four years. He held numerous other

assignments to include District Commander. Prior to serving in the Metro Transit Police Department, Kevin served over six years' active duty in the United States Marine Corps. He served another 22 years in the Marine Corps Reserve as a Counterintelligence Officer. Kevin deployed to Iraq twice after 9/11. Kevin has a Bachelors and Masters of Science in Management from the Johns Hopkins University. A Master of Science in Strategic Intelligence from the National Intelligence University, and a Masters of Public Administration from George Mason University.

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Anish Goyal

Block Engineering

Dr. Anish Goyal is currently the VP of Technology at Block Engineering/MEMS. Prior to joining Block, he was Technical Staff at MIT Lincoln Laboratory in the Laser Technology and Applications Group where he led the effort to develop quantum cascade lasers (QCLs) and standoff chemical detection systems. His current efforts are directed towards maturing this technology so that it can be deployed and commercialized.



Dan Grabski

Navigate360

Dan Grabski is a Product Manager at Navigate360, a company specializing in school and student safety. He currently oversees the Detect and Filter products, which are part of the Threat Detection and Awareness suite. Detect helps identify possible threats and alerts administrative staff so they can intervene before an event occurs. Filter prevents certain content and websites from being viewed on school devices and networks and can generate an alert in Detect if appropriate. Dan has been a Product Manager for five years after getting his start in Customer Support and comes from a Student Information System (SIS) company, bringing much background to how his current users operate. He has helped build several products over the years, including a Special Education solution from the ground up. He also oversaw the development of an award-winning daily screener during the COVID pandemic that would allow students, family, and staff to answer a brief survey each day before entering school buildings attesting to their COVID-related symptoms and exposure, helping to reduce the number of cases in the schools.



Jennifer Hesterman

Watermark Risk Management International

Dr. Jennifer Hesterman is a retired Air Force colonel who served in three Pentagon tours and commanded in the field multiple times. Her final assignment was Vice Commander, Andrews Air Force Base, Maryland, where she led installation security, including protection of Air Force One. A counterterrorism and soft target hardening expert, Dr. Hesterman is Vice President at Watermark Risk Management International. She designs and instructs graduate-level courses for the Defense Counterintelligence and Security Agency and advises the Homeland Security Training Institute at the College of DuPage and the Crisis Response Journal. She holds a doctoral degree from Benedictine University, Master of Science degrees from Johns Hopkins University and Air University, and a Bachelor of Science from Penn State University. She was a National Defense Fellow at the Center for Strategic and International Studies, is a graduate of the Harvard Senior Executive Fellows program and was a fellow at the Center for Cyber and Homeland Security at George Washington University. She is an academic author for Routledge, Taylor & Francis Group. Her first edition of *Soft Target Hardening: Protecting People from Attack* was the ASIS Security Industry Book of the Year for 2015. The second edition received the same honors in 2019, and was also named Taylor & Francis Social Sciences Book of the Year. She also authored *Soft Target Crisis Management* (2016) and *The Terrorist-Criminal Nexus* (2013).



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Don Hough

Department of Homeland Security

Mr. Don Hough serves as the Deputy Associate Director (A) for the School Safety Task Force at the U.S. Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA). The School Safety Task Force was established to strengthen the safety and security of more than 130,000 schools across the country. In his leadership role, Mr. Hough has supported the design and development of SchoolSafety.gov, the Federal School Safety Clearinghouse, the CISA K-12 School Security Guide Product Suite, the 2022 National Summit on K-12 School Safety and Security, and the National Seminar and Tabletop Exercise for Institutions of High Education series. Prior to this role, Mr. Hough led the Department of Homeland Security's Campus Resilience Program, dedicated to helping colleges and universities build, sustain, and promote resiliency to the threats that confront institutions across the nation. Additionally, Mr. Hough supported the Homeland Security Academic Advisory Council, which provides advice and recommendations to the Secretary and senior government leadership on matters related to homeland security and the academic community.



Pardeep Kaleka

Serve 2 Unite

A native of Punjab, India, Pardeep Singh Kaleka is a first-generation immigrant who grew up in Milwaukee and received his B.A. at Marquette University, and M.S. at Alverno College. As a former Police Officer and Educator in the inner city of Milwaukee Pardeep understands the difficulty facing our communities. He firmly believes that the lamp of knowledge and truth outshines all the darkness in the world, This belief informs his specialization in holistic trauma-informed treatment with survivors of assault, abuse and acts of violence. Both in his practice and out, Pardeep's passion remains one of healing and recovery. An example of this is Serve2Unite, an organization he founded in response to tragedy. This organization engages youth in service learning, artistic response, and global engagement to build positive school environments and communal identity addressing conflict and radicalization from a trauma-informed lens. Over the past 4 years, the work of Serve2Unite has been locally and internationally recognized as the recipient of The Guru Nanak Award, and The Parliament of World Religions for the work of building safe, inclusive communities. Partnership organizations include; Arts@Large, Against Violent Extremism, The Forgiveness Project, Interfaith Council of Milwaukee, Not In Our Town.



Dave Klepp

Corsight

An Engineer, Creator and Innovator, Dave Klepp has been developing real-time response solutions for 32 years and running physical security technology companies for 15 years. He focused on Critical Infrastructure protection with Operational Security Systems before being acquired by Convergint. Dave chose to lead Corsight US as Sales Director after his assessment concluded they are the leader of the latest generation of face comparison. Living in Atlanta, he is a native of NY, so he knows how cold it will be in Boston for ADSA and appreciates you coming.

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Jenny Krueger

German Federal Police

Dr. rer. nat. Jenny Krueger is Senior Desk Officer Research at the German Federal Police Headquarters, Section for Aviation Security and is leading the Team Human Factor in Aviation Security Research. As research psychologist, she oversees projects and implementation of results of Behaviour Detection research. Furthermore, she is involved in research projects investigating different aspects of aviation security as for instance the implementation of new technologies e.g. Screening Performance with Computer Tomography (CT). With her team, Jenny supports and advises different police sections about the human factor research in security.

Jenny's doctoral degree in natural science in psychology from the Ruhr-University Bochum, Germany focused on cognitive aspects of aviation security screeners concerning shift-work and training. Studying psychology at Humboldt-University, Berlin, her interest was in cognitive neuroscience, especially cognitive aspects of attentional processes. Therefore, the attentional bias about excessive computer gaming was the topic of her diploma thesis in cooperation with Charité, Department of Psychiatry and Neuroscience. Holding scholarship, she had the opportunity to stay as research intern at Yale University, Memory and Cognition Lab, USA, assisting investigations of biases in recognizing emotional facial expressions (e.g. own-age bias). Likewise, Jenny stayed as a student at Université Victor-Segalen II, Bordeaux, France. Following her fascination for the human factor, Jenny finished prior university studies a training as occupational therapist focusing psychiatric disorders. For the European Civil Aviation Conference Behaviour Detection Study Group, Jenny is representing the German Federal Police.



Gale M. Lucas

University of Southern California

Dr. Gale M. Lucas is a research assistant professor at the University of Southern California, affiliated with the Institute for Creative Technologies and the Departments of Computer Science, Civil Engineering, and Psychology. She obtained her PhD from Northwestern University in 2010. She works in behavioral science at the intersection of social science and engineering disciplines. Her research is in the areas of human-computer interaction, affective computing, trust-in-automation, and human-building interaction. Her research focuses on rapport, disclosure, trust, persuasion, and negotiation with virtual agents, social robots and intelligent built environments.



Harry E. Martz

Lawrence Livermore National Laboratory

Harry Martz is the Director for Non-destructive Characterization Institute and a distinguished member of the technical staff at Lawrence Livermore National Laboratory. He is also Principal Investigator (PI) on Department of Homeland Security, Science and Technology, Homemade Explosives Identification, Detection and Mitigation (*HEIDM*) program. Harry joined the Laboratory to develop the area of X-ray imaging and proton energy loss computed tomography for the non-destructive inspection of materials, components, and assemblies. He received his M.S. and Ph.D. in Nuclear Physics/Inorganic Chemistry from Florida State University, and his B.S.

in Chemistry from Siena Collage. Harry has applied CT to inspect one-millimeter sized laser targets, automobile and aircraft components, reactor-fuel tubes, new production reactor target particles, high explosives, explosive shape charges, dinosaur eggs, concrete and for non-destructive radioactive assay of waste drum contents. Recent R&D efforts include CT imaging for conventional and homemade explosives detection in luggage and radiographic imaging of cargo to detect special nuclear materials and radiological dispersal devices.

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Erin Miller

Global Terrorism Database (GTD)

Erin Miller is the principal investigator for the Global Terrorism Database (GTD) at the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland. Miller earned a BA in Sociology from the University of Pennsylvania, and an MA and PhD in Criminology and Criminal Justice from the University of Maryland. Her research investigates patterns of terrorism and movements engaging in terrorism worldwide, and she frequently consults with users of the database, including researchers, policy makers, analysts, journalists, and students. Miller has served as principal investigator on a number of START research projects related to the GTD, including the Program to Prepare Communities for Complex Coordinated Terrorist Attacks, and the Terrorism and Targeted Violence (T2V) project.



Pauline Moore

RAND Corporation

Pauline Moore is a political scientist at the RAND Corporation and a professor of policy analysis at the Pardee RAND Graduate School. Her research focuses on violent extremism, targeted violence, terrorism and counterterrorism, and safety and security in K-12 schools. At RAND, she has led research on ways to improve school safety and security for the Cybersecurity and Infrastructure Security Agency's (CISA's) School Safety Task Force, publishing reports on systems-based approaches to layered security and strategies to encourage student reporting to tip lines. She is the co-author of other RAND reports related to countering violent extremism and terrorism, as well as the co-author of *The Politics of Terror* (with Erica Chenoweth; Oxford University Press 2018). She holds a Ph.D. in International Relations from the University of Denver's Josef Korbel School of International Studies, a MA in International Relations from the Johns Hopkins School of Advanced International Studies (SAIS), and a BA in International Studies from Middlebury College.



David Mussington

Department of Homeland Security

Dr. David Mussington serves as the Executive Assistant Director (EAD) for the Infrastructure Security Division (ISD) at the Department of Homeland Security's (DHS) Cybersecurity and Infrastructure Security Agency (CISA) as of February 2021. As EAD, he helps lead CISA's efforts to secure the nation's critical infrastructure in coordination with government and the private sector. His priorities for ISD include vulnerability and risk assessments; securing soft targets and crowded places; training and exercises; and securing high-risk chemical facilities. Prior to joining CISA, Dr. Mussington was Professor of the Practice and Director for the Center for Public Policy and Private Enterprise at the School of Public Policy for the University of Maryland. At RAND Corporation he led counter terrorism and cyber security studies for the Department of Defense, the Department of Transportation, and Amtrak. He later took on the role of Chief of Corporate Security for Amtrak where he was the senior official overseeing infrastructure protection, counter terrorism, and emergency response programs. Later at the Institute for Defense Analyses (IDA), he was assistant director of the Information Technology and Systems Division (ITSD), and directed cybersecurity studies for DHS, the Office of the Director of National Intelligence, the Federal Communications Commission, and the North Atlantic Treaty Organization. Moreover in 2010, Dr. Mussington was senior adviser for cyber policy in the U.S. Department of Defense (DOD), later serving on the Obama administration's National Security Council staff as Director for surface transportation security policy. In the former role, he led preparation and release of the 2011 Defense Strategy for Operating in Cyberspace, which was DOD's first enterprise-wide cyber strategy document. Dr. Mussington has a Doctorate in Political Science from Canada's Carleton University. He also received a Bachelor of Arts and a Master of Arts degree in Economics and Political Science from the

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University of Toronto. He undertook post-doctoral work at Harvard's Belfer Center where he was a MacArthur Scholar, and at the U.K.'s International Institute for Strategic Studies (IISS).



Scott Parker

Cybersecurity and Infrastructure Security Agency (CISA)

Scott Parker is the UAS Security Branch Chief for Infrastructure Security within the Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA). In this role, he leads efforts to enhance the security and resilience of the nation's critical infrastructure against cyber and physical threats from small unmanned aircraft systems. Prior to this position, he served as the Advanced Threats Security Branch Chief where he advised critical infrastructure partners in mitigating risk posed by cyber-physical system convergence and autonomous vehicles. He also managed the DHS Soft Targets and Crowded Places Executive Steering

Committee that was responsible for coordinating and communicating Department-wide efforts to protect public gatherings. Before joining CISA, he served 27 years in the U.S. Army and held several leadership positions in airborne, intelligence and special operations organizations.



Alysia M. Sagi-Dolev

Qylur Intelligent Systems

Dr. Dolev is a technology entrepreneur, inventor and thought leader. She is the founder and Chief Executive Officer of Qylur Intelligent Systems, an intelligent machines technology company specializing the 4th wave of evolving cognitive AI / IIoT based networks of autonomous intelligent machines, based in Silicon Valley. The company's initial implementation and product is based on her invention of the first of its kind intelligent machine, for entry security for public venues. Prior to founding Qylur, Dr. Dolev worked for

more than a decade with defense agencies, where she managed multi-disciplinary technology programs and acted as liaison officer between international defense and military agencies. In the course of these activities, Dr. Dolev established and managed the first human-focused Suicide Bomber Detection program. In parallel to her work in defense consulting and management, Dr. Dolev founded, managed, and consulted for early stage technology companies in the biomedical, high tech, and consumer markets. Dr. Dolev was a recipient of the Woman of the Year in Technology and Business, and in 2019 named one of the Top 50 CEO's to watch by Technology Headlines. Dr. Dolev holds a Ph.D. in Biomedical Engineering. She is the author of number of professional papers; is a frequent speaker across technology and security forums, and is the inventor of several technology-patents including the QTM intelligent entry security technology and co inventor of SNIMTM (Social Networks of Intelligent Machines).



Alexander Sappok

RaySecur Inc

Dr. Alexander Sappok is CEO of RaySecur, Inc., a Boston-based technology company developing advanced security imaging systems. Previously, Dr. Sappok served as CEO of FST, an MIT spin-out company developing radio frequency-based sensing technologies acquired by CTS Corporation (NYSE: CTS) in 2015. He holds over a dozen patents and two R&D100 awards. Dr. Sappok received S.M. and Ph.D. degrees in Mechanical Engineering from MIT, where he also held the Cummins-MIT Fellowship. He is a member of ASIS, SIA, SPIE, SAE, and ASME.

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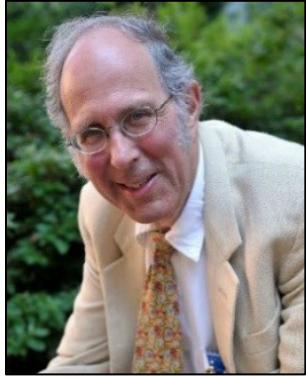
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Michael B. Silevitch

Northeastern University

Michael B. Silevitch is currently the Robert D. Black Professor of Engineering at Northeastern University in Boston, an elected life fellow of the IEEE, the Director of the Homeland Security Center of Excellence for Awareness and Localization of Explosives Related Threats (ALERT), and the Director of the Bernard M. Gordon Center for Subsurface Sensing and Imaging Systems (Gordon-CenSSIS), a graduated National Science Foundation Engineering Research Center (ERC). His training has encompassed both physics and electrical engineering disciplines. An author/co-author of over 65 journal papers, his research interests include laboratory and space plasma dynamics, nonlinear statistical mechanics, and K-12 science and mathematics curriculum implementation. Prof. Silevitch is also the creator of the Gordon Engineering Leadership (GEL) Program at Northeastern University, a graduate curriculum offered through the College of Engineering, with the mission of creating an elite cadre of engineering leaders. He and the current GEL Director, Simon Pitts, were awarded the 2015 Bernard M. Gordon Prize for Engineering Education by the National Academy of Engineering (NAE).



Jay Stanley

American Civil Liberties Union

Jay Stanley started working on privacy and technology issues at the ACLU five weeks before 9/11. His role at the ACLU is to help the organization think through, monitor, and explain the impact of new technologies on our privacy, free speech and other civil liberties. He has worked on a wide variety of cutting-edge science and technology issues and authored and co-authored a variety of influential ACLU reports, policy papers, and blog posts. Among his current areas of focus are airline security, digital currency, license plate scanners, aerial surveillance, and digital identity. Before joining the ACLU, he worked as an analyst at the technology research company Forrester Research, and did graduate studies in 20th century American history at UVA (ABD). Before that he worked as an editor and newswriter for a New York City publishing company, and held several technology-oriented jobs.



Stephanie Viegas

Secure Community Network

Stephanie Viegas joined the Secure Community Network (SCN) as Deputy National Security Advisor in March 2022. In this role, Stephanie provides consultations; building and organizational assessments; training and exercise facilitation; and threat mitigation guidance to Jewish organizations nationwide. Stephanie works with schools, daycare centers, synagogues, camps, campus organizations, assisted living facilities, and other centers of Jewish life. Before joining the Secure Community Network, Stephanie served as the Director of Community Security for the Greater Miami Jewish Federation, where she developed a

collaborative security program that provided security consultations, site assessments, and training to over 150 Jewish institutions. Previously, Stephanie spent more than two decades as a Special Agent with the FBI, where she served as a subject matter expert in weapons of mass destruction (WMD). Her 22-year career involved extensive operational experience investigating, managing, and advising complex law enforcement and sensitive national security matters. She led efforts to prevent and neutralize WMD threats against the U.S. homeland and interests abroad. Stephanie served as



Soft Target Engineering
to Neutralize the
Threat Reality



ALERT
AWARENESS AND LOCALIZATION
OF EXPLOSIVES-RELATED THREATS

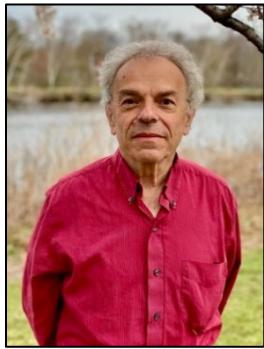
Soft Target Engineering to Neutralize the Threat Reality (SENTRY)

A Department of Homeland Security (DHS) Center of Excellence

Awareness and Localization of Explosives-Related Threats (ALERT)

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an instructor for the FBI/Department of Defense Counter-Proliferation program, which provides specialized training to law enforcement agencies within the Balkans, Baltics, states of the former Soviet Union, and Asia. In addition, she worked as an instructor for Interpol's Bioterrorism Program and served in a temporary duty assignment at Interpol headquarters in Leon, France. Stephanie holds a bachelor's degree from Kutztown University and a master's degree in criminology with a leadership emphasis in weapons of mass destruction from the Indiana University of Pennsylvania.



Jeremy Wolfe

Harvard Medical School

Jeremy Wolfe is Professor of Ophthalmology and Professor of Radiology at Harvard Medical School. He is Director of the Visual Attention Lab at Brigham and Women's Hospital. Wolfe received an AB in Psychology in 1977 from Princeton and his PhD in Psychology in 1981 from MIT. His research focuses on visual search and visual attention with a particular interest in socially important search tasks in areas such as medical image perception (e.g. cancer screening), security (e.g. baggage screening), and intelligence. His lab has been funded since 1982 by NIH (NEI, NIMH, NCI), NSF, AFOSR (Air Force), ONR (Navy), ARO (Army), Homeland Security, and the Nat. Geospatial Agency as well as by IBM, Google, Toshiba, Hewlett-Packard, & GE. Wolfe taught Intro. Psychology and other courses for 25 years, mostly at MIT. He has served as Past President or Chair of the Federation of Associations in Behavioral and Brain Sciences (FABBS), Psychonomic Soc, APA Division 3, Eastern Psychological Assoc, NAS Panel on Soldier Systems. He has served on the Governing Boards of the Vision Sciences Society, APA Div 1 and 6. Wolfe is Founding Editor-in-Chief of Cognitive Research: Principles and Implications (CRPI), the newest Psychonomic Society journal and Past-Editor of Attention, Perception, and Psychophysics. Wolfe also serves on the Board and Oversight Committee of the North American Board of the Union for Reform Judaism. He was elected to American Academy of Arts and Sciences in 2019.