



# Menlo Park Fire Protection District

## UAS/Drone Symposium 2017



### **Michael Ralston, Crisis Technology Leader & Public Affairs Officer**

*Menlo Park Fire Protection District*

Supporting Menlo Fire's emerging operational focus on Public-Private Partnerships, Technology & Innovation, Michael integrates decades of enterprise innovation and analytics senior leadership, Public Safety crisis management and response, and technical/communications leadership in disaster response teams. His unique focus is on new improvement opportunities at the intersection of disruptive technology and disaster response. As a ten-year veteran firefighter, and twenty-year veteran technology leader, Michael has evolved to specialize in technology-focused crisis management, emergency operations innovation and exercise development in the global Emergency Management domain.

After completing undergraduate work in Aerospace Engineering (Wisconsin), and graduate work in mechanical engineering (Stanford) and business (Berkeley), Michael developed strong big data, IoT and SMART solutions technology perspectives from many years as a research scientist (NASA), technology evangelist (SAS, Cisco, HP), and business founder (terraneos.org). His true passion however, is in the critical problem solving and grounded humanitarian teamwork of firefighting and disaster response. Now focusing on the intersection of those two worlds, Michael is a PhD candidate in the field of Crisis Technology and Emergency Management, researching applications for Disruptive Emergency Response Technology in Developing or Vulnerable Communities.

Michael was raised in Wisconsin, relocated to Silicon Valley for graduate school, and soon realizing that this was indeed home. Currently living in Mountain View, Michael is the proud father to three teen-aged girls and splits time between ice hockey, soccer and humanitarian travel as diversions.

### **Peter Carpenter, Board President**

*Menlo Park Fire Protection District Board of Directors*

Peter received his BA degree in Chemistry from Harvard College and his MBA in Research and Development Management from the University of Chicago. He was a Smokejumper with the U.S. Forest Service and holds US Air Force and US Marine Corps Master Parachutists ratings and private pilot single engine, instrument and glider ratings. He served in the U.S. Air Force from 1962 to 1968 with assignments with the Air Force Systems Command, 5th Force Reconnaissance Company (USMC), HQ 19th Air Force and as a Program Manager in the Advanced Research Projects Agency (ARPA). From 1968 until 1971 he was the Assistant Director of the Center for Materials Research at Stanford University and a doctoral student in Organizational Behavior at Stanford University Graduate School of Business. He subsequently served in the U.S. Office of Management and Budget (OMB) and as the Deputy Executive Director of the U.S. Price Commission. He served as the Assistant Vice President for Medical Affairs and then Executive Director of the Stanford University Medical Center from 1973 to 1976. Peter was a Planning Commissioner in Palo Alto from 1974-78. He joined the ALZA Corporation in 1976 and retired as Executive Vice President in 1990.

Since 1990 he has served on more than a dozen non-profit Boards including Annual Reviews, InSTEDD, the United States International University-Kenya, and the Village Enterprise Fund.

Peter was previously elected as a Director of the Fire District in 2001 and 2005 served from 2001 to 2009. He also served as an appointed Director to fill Board vacancies in 2001 and in 2010-11. He was reelected as Director in 2013 and currently serves as Board President.

### **Harold Schapelhouman, Fire Chief**

*Menlo Park Fire Protection District*

Harold Schapelhouman is a 36 year veteran firefighter with the Menlo Park Fire Protection District and became the first internally selected Fire Chief in 21 years on January 1, 2007.



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During his career he was involved with the 1989 Loma Prieta Earthquake (SF Bay Area), 1992 Hurricane Iniki (Hawaii), 1994 Northridge Earthquake (Los Angeles), 1995 Oklahoma City Terrorist Bombing, 1997 & 1998 California Floods, 1999 Chi Chi Earthquake (Taiwan), 2001 World Trade Center Terrorist Attacks (New York), 2002 Winter Olympics (Salt Lake City), 2003 Space Shuttle Columbia recovery, 2004 Republican National Convention Security Detail, and 2005 Hurricanes Charlie, Frances, Ivan, Katrina (New Orleans Branch for Water Rescue), and Wilma (Branch Director for South East Florida).

He is one of the founding members of National Urban Search and Rescue Program for the United States, serving on the development committee prior to the selection of the original 25 National FEMA Teams. He formerly chaired the California State FIRESCOPE US&R Working Group, as well as the State's US&R Training Working Group. He is also a past member FEMA's National Training Working Group as well as the Public Affairs Working Group and served as the Western Regional Coordinator for the National Task Force Leaders from 1999 - 2004. He served as a Technical US&R Specialist in the Federal US&R Incident Response System on the Blue Team until he was promoted to Fire Chief. In 2012 he was appointed to the Legal Issues Working Group for the National Urban Search and Rescue Program and was elected as the Chairman until the group's elimination in 2016.

He has traveled across the Country and World as a guest lecturer on Urban Search and Rescue operations, working with NATO on responses to threats posed by terrorism. He was a Fire Technology Instructor with the College of San Mateo and worked as a certified California State Rescue and Incident Command Instructor for over two decades, training thousands of fire personnel and civilians.

"I grew up in the Bay Area before it was "Silicon Valley", we lived next door to an apricot orchard in Mountain View, where we could often be found eating cots and looking up to watch the P-3 and U2 aircraft on approach to Moffett Field, Naval Air Station. The highlight of our year was the Air Show featuring the Blue Angeles and the latest NASA equipment over at Moffett".

He is the son of Dutch immigrants who survived World War II. His father was freed by American Forces from Mauthausen Concentration Camp and his mother's home town was liberated by the Royal Canadian Dragoons. Harold was born in Canada and his family moved to the United States when he was 2 years old. He became a US Citizen in 1974.

He lives with his wife and daughter in the Willow Glen neighborhood of San Jose. In May of 2013, he suffered an off-duty 16 foot catastrophic fall from a ladder that resulted in a C-5, 6 and 7 spinal injury that has left him confined to a wheel chair. He returned to work in January 2014.

### **Dr. Matt Barney, Founder & CEO**

#### *LeaderAmp*

Matt Barney, Ph.D. is the Founder and CEO of LeaderAmp, a firm with a patent-pending mobile platform for assessment, and mobile, artificially intelligent coaching. For the Fire/Safety service, he is pioneering a new high touch/high tech approach to leader coaching with the Menlo Park Fire Protection District, and is also developing a new form of artificially intelligent coaching for the Fire service with former Fire Marshall of the State of CA, Ronny Coleman.

Dr. Barney has held senior and innovative leadership roles for over 20 years at multinationals such as Infosys, AT&T/Lucent, and Motorola. He was also previously the Chief Learning Officer of Sutter Health. He has coached and taught hundreds of leaders around the world, authored six books, seven patents, over 40 peer-reviewed works and has presented 178 keynotes in 13 countries. In 2015, he was appointed to the Business Affairs Committee of not-for-profit scientific publisher, Annual Reviews in Palo Alto, California. He holds a B.S. in Psychology from the University of Wisconsin-Madison; and an M.A. and Ph.D. in Industrial-Organizational Psychology from the University of Tulsa.



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## **Prof. Blas L. Pérez Henríquez, Director of Smart City: Policy, Strategy & Innovation Institute**

*Stanford University*

Blas Pérez Henríquez founded and serves as director of the California Global Energy, Water & Infrastructure Innovation Initiative at Stanford University, sponsored by the Bill Lane Center for the American West and the Precourt Institute for Energy. He is also the faculty director of the Local Governance Summer Institute @ Stanford (LSGI) and of the Smart City: Policy, Strategy and Innovation Institute at Stanford.

He holds the position of Precourt Energy Scholar at Stanford and he is a Distinguished Visiting Professor at the School of Engineering and Sciences of the Technological Institute of Superior Studies of Monterrey (ITESM) in Monterrey, Nuevo Leon, Mexico, and has served as Senior Visiting Research Fellow at the Grantham Research Institute on Climate and the Environment at the London School of Economics and Political Science (LSE) in London, United Kingdom, and as Guest Professor at the Centre of Economics Research and Teaching (CIDE) in Mexico City, Mexico.

He is the author of "Environmental Commodities and Emissions Trading: Towards a Low Carbon Future," Resources for the Future – RFF Press/Routledge, Washington, DC (2013) and co-editor of "Carbon Governance, Climate Change and Business Transformation," Routledge Advances in Climate Change Research, Taylor & Francis Group, Oxford, UK (2015). He most recently co-edited the book "High-Speed Rail and Sustainability, Decision-making and the political economy of investment," Routledge Explorations in Environmental Studies, Taylor & Francis Group, Oxford, UK (2017). He has written on public-private environmental and energy collaboration in Silicon Valley, and on the use of information technology to support environmental markets and smart policymaking.

Pérez Henríquez is a member of the Mexico – United States Entrepreneurship & Innovation Council (MUSEIC) and is the U.S. Co-chair of the MUSEIC Energy & Sustainability Subcommittee. He also serves on the International Advisory Board of Public Administration & Policy: An Asia-Pacific Journal. From 2002 to 2015, he directed UC Berkeley's Center for Environmental Public Policy which he had founded, and was a faculty member of the Goldman School of Public Policy. He has served as an ex-officio member of the Goldman School advisory board (2002 -2012), and as a Quarterly Chair of the Commonwealth Club of California, the nation's oldest and largest public affairs forum.

Pérez Henríquez holds a Masters and a Ph.D. in Public Policy from UC Berkeley, a law degree from the National Autonomous University of Mexico (UNAM), a diploma in Public Policy from the Autonomous Technological Institute of Mexico (ITAM), and a certificate in Compared Environmental US – EU Law & Policy from Indiana University, Leiden & Rotterdam Universities.

## **Parimal ("PK") Kopardekar, Senior Technologist**

*NASA Ames Research Center*

Parimal Kopardekar (PK) serves as NASA's Senior Technologist for Air Transportation Systems where he develops concepts and technologies to increase efficiency of current operations and future airspace operations for UAS. He is particularly passionate about identifying and initiating high-risk and high-reward, game changing, and disruptive innovations.

## **Col. John Blich, Senior Scientist**

*Airforce Research Lab*

John G. Blich is currently serving as Senior Scientist for the Warfighter Interface Division of the 711th Human Performance Wing at the Air Force Research Laboratory in Dayton Ohio. Colonel Blich's operational background spans five consecutive command tours at the company grade level extending from nuclear weapons delivery and special operations to hostage rescue and WMD counter proliferation. Dr. Blich's technical focus resides in the application of cognitive neuroscience and artificial intelligence to the design and employment of human robot teams for denied area access and humanitarian crisis response. He holds a Bachelor's degree in Civil Engineering from the U.S. Military Academy at West Point, a Master's degree in Math and Computer Science from the Colorado School of Mines, and a Doctorate and second Master's degree in cognitive psychology from Colorado State University.



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### **Dr. Mark Micirie, Research Scientist**

*NASA Ames Research Center*

Dr. Mark Micirie joined NASA as a Research Scientist in 2016. His interests include mobile and space robotics, multi-touch interfaces, search and rescue, human-robot interaction and autonomy. Before joining NASA, Dr. Micirie worked for DARPA as a program manager, focused on robotics and autonomy for defense applications. In his previous employment with NASA, he served as the Engineer Manager for the International Space Station and project lead for the Intelligent Robotics Group Human Exploration and Telerobotics Smart SPHERES program.

### **John Meehan, Management & Program Analyst**

*Federal Aviation Administration – UAS Integration Team*

John is a Management & Program Analyst and Industry Liaison in the Federal Aviation Administration's (FAA) Unmanned Aircraft Systems (UAS) Integration Team, located at FAA Headquarters in Washington, DC. In this role, John provides technical support, subject matter expertise, and performs detailed research in response to inquiries from within the agency, other agencies, industry, Congress, and the general public, and coordinates responses with appropriate FAA personnel. He also provides subject matter expertise in the development of concepts, policies, standards, procedures and guidance related to the safe integration of UAS into the NAS. He also participates in Inter Agency Working Group meetings with DOD, DHS, CIA, SS, FEMA, and other Federal and State Agencies, and Trade Associations. He acts as a champion and evangelist for UAS stakeholders within the Agency, and performs educational outreach and assistance with key stakeholders such as Public Aircraft Operators (Law Enforcement, 1st Responders, Public Health, etc.) and Civil Operators in a variety of industries.

John is a graduate of West Point and former US Army Helicopter Instructor Pilot and served just over 5 years in the Army as an Aviation Officer before getting his MBA from Boston College and joining private industry, mostly in International Sales and General Management positions. He has worked at three Aircraft OEMs and run Fixed Base Operations at Stewart Airport in New York and Washington Dulles Airport in Virginia. Prior to joining the FAA, John was most recently the Chief Operating Officer and Head of Global Sales at Wyvern Ltd, an aviation risk management company based in Yardley, PA.

John holds a Commercial Pilot Certificate with Instrument rating rotary wing, a Private Pilot Rating with Instrument rating, single engine land airplane, and a UAS Remote Pilot Certificate.

### **Steven Pansky**

*Federal Aviation Administration – UAS Integration Team*

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### **Kris Kokotaylo, Deputy City Attorney**

*Union City/San Leandro*

Kristopher Kokotaylo serves as Deputy City Attorney for the City of Union City, Assistant City Attorney for the City of San Leandro, General Counsel for the West Contra Costa Transportation Advisory Committee, and Assistant General Counsel for the Stege Sanitary District. Kris focuses his practice on public law matters related to land use, real estate, construction, constitutional law, code enforcement, the Public Records Act, and the Brown Act.

Kris advises on novel issues facing municipalities and special districts and assists his clients with updating their policies and procedures in response to changes in the law. For example, Kris has worked with public entities to craft and revise local laws and regulations related to tobacco retailers, second-hand smoke, massage businesses, and many other issues. He has significant experience in elections and conflict of interest laws, and has prepared several ballot measures for local taxes. Kris has authored numerous publications and is frequently requested to speak on topics including public records, ethics, open meeting laws, and the regulatory and privacy issues regarding drones.

Kris has handled numerous unique legal and regulatory challenges faced by a wide range of special district clients, such as water, fire protection, transit, sanitation, and parks and recreation.



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Kris serves on the Board of Directors for Spectrum Community Services, a non-profit organization that assists low-income and disadvantaged individuals, families and seniors in their efforts to live independently.

Before joining Meyers Nave, Kris worked on policy issues for Alameda County Supervisor Nate Miley. He also served as a graduate law clerk and External Bridge Fellowship Attorney for the Alameda County Office of the County Counsel. These experiences have given Kris the background to undertake a range of matters, from routine to highly complex, in a concise and reliable manner.

### **Saurab Anand, Senior University Counsel**

*Stanford University*

Saurabh Anand is Senior University Counsel at the Office of General Counsel at Stanford University, and primarily advises SLAC National Accelerator Laboratory, a Department of Energy national laboratory operated by the University. Saurabh also serves on the University's Unmanned Flying Vehicle committee and authored Stanford's policy on the subject. His interest in UAS regulation stems from his applied research while studying mechanical and aerospace engineering, and from work on policy and position papers on the topic.

### **Ryan Tong, Managing Director**

*DJI*

Ryan Tong is the managing director of the San Francisco Bay Area office at DJI, the world's largest manufacturer of civilian unmanned aerial vehicles (drones). Prior to joining DJI, Ryan served as a key member of the business development team at Shutterfly, a market leader in digital photo storage and printing; was an early employee at social media start-up, Meebo (acquired by Google); and managed strategic partnerships for the interactive divisions of AT&T and CBS. Lifelong passions for both business and technology continue to fuel his interest in products and services presenting opportunities for expansion of creative possibilities, massive user adoption, and positive societal impact.

### **Dr. Kenneth Lee**

*Exponent*

Kenny Lee is a subject matter expert in thermal reliability of consumer products and electronics. He is part of Exponent's Thermal Sciences group specializing in the investigation of thermal failures, such as overheating events and fires caused by batteries, motors, electronics, and other product components.

### **Dr. Christian Page**

*Exponent*

Chris Page is a subject matter expert in rapid prototyping technologies and advanced manufacturing. He is part of Exponent's Technology Development group specializing in rapid integration and ruggedization of emerging technologies, both in hardware and software.

### **Kirk McKinzie, Captain**

*Cosumnes Fire Department*

Captain Kirk McKinzie is the Cosumnes SMART Fire Department concept designer and brings 29 years as an emergency responder and nearly a decade in 360/3D technology to the idealistic platform construction. His work is focused on saving lives through SMART fire and life safety systems. His vision is to use Virtual, Mixed and Augmented Reality (VR, MRX and AR) to provide public education, fire prevention awareness, first responder training and situational awareness during emergency response. He is involved with collaborative development of 3D remote sensed point clouds, UAV, BIM, computational fluid dynamics, gaming platform applications, haptic touch, bio-telemetry, computer vision, coupled with relevant and actionable multi-sensor fusion; for a cyber physical HUD enabled "Iron First Responder



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### **Bahar Wadia, Co-Founder**

#### *Qwake Technologies*

Mr. Bahar Wadia is a technologist and a successful tech entrepreneur, having scaled and exited multiple companies. He is currently scaling Visionox North America, a multi-billion-dollar mostly unknown OLED display company. He is also co-founder of Qwake Technologies, a company developing Augmented Reality for firefighters and first responders. He is on the Public Safety & Emergency Response committee of the AR/VR Association, which is developing best practices, guidelines, and call-to-actions for the advancement of AR/VR in commercial applications. He holds the distinct honor for being recognized as 40-under-40 by Chicago Crain's and was nominated in 2013 as Technologist of the Year by the Illinois Technology Association. He holds numerous patents. Mr. Wadia attended The University of Massachusetts, DeVry University and DePaul University for his technical degrees and holds a MBA from the University of Chicago's Booth School of Business.

### **Bert Van der Zaag**

#### *Motorola Solutions*

Bert Van Der Zaag comes to us from Motorola Solutions with over 20 years of experience in User Experience Design with 16 years in Public Safety. He is part of their Chief Technology Office where he drives innovation through envisioning and demonstrating future user experiences. By starting with designing the optimal user experience, his goal is to let you gain a better understanding of the situation and allow you to make better decisions quicker, saving time and lives

### **Paul Doherty, Board President**

#### *The Digit Group*

Paul is the President and CEO of TDG (the digit group [www.thedigitgroupinc.com](http://www.thedigitgroupinc.com)) and is one of the global industry's most sought after thought leaders, strategists and integrators of process, technology and business. A Senior Fellow of the Design Futures Council, Paul is an award-winning architect, author, educator, analyst and advisor to Fortune 500 organizations, global government agencies, prominent institutions and the most prestigious architectural, engineering and contracting firms in the world.

A pioneer in Building Information Modeling (BIM) and a former Fortune 500 corporate officer, Paul is a prominent and highly rated speaker at numerous industry events around the world each year and has been appointed as a guest lecturer at leading universities throughout the world. His past successful ventures include Revit Technologies (Sold to Autodesk 2002), Buzzsaw (Sold to Autodesk 2001) and TRIRIGA (Sold to IBM 2011). Paul's current work is focused on Smart City real estate developments that include financing, Executive Project Management Office and Delivery, Central BIM Office services and implementing innovative technology solutions within TDG projects around the world. TDG's Smart Cities real estate development projects are operating in Japan, China, New Zealand, Australia, Malaysia, India, Kingdom of Saudi Arabia, United Arab Emirates, Ireland and the USA. Concurrently, Paul is the co-founder and producer of the critically acclaimed and popular AEC Hackathon ([www.aechackathon.com](http://www.aechackathon.com)) that launched at Facebook Headquarters in Silicon Valley.

### **Chris Dennebaum, Captain**

#### *Menlo Park Fire Protection District*

Chris's career with the Menlo Park Fire District started in 2005 as a Cadet. He was hired as a Firefighter the following year and most recently promoted to Captain. Chris started flying drones in 2013 at home as a hobby. That hobby became useful at work over the last few years as he helped to attain one of the first COAs for a Northern California Fire Department in 2016. Chris has direct oversight of all aspects of the Menlo Park UAV program including training, product testing and establishing and maintaining FAA authorization and compliance. Most recently he was awarded a 2017 Lion's club service award in part due to his work incorporating drones into public safety operations.



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### **Jeff Kleven, Battalion Chief**

*Fremont Fire Department*

UAS coordinator. Fremont Fire Department 16 years.

CalFire 8 years.

### **Matt Sloane, CEO & Founder**

*Skyfire Consulting*

Matt Sloane is the CEO and founder of Skyfire Consulting, a public safety focused UAV consultancy; and it's parent company, Atlanta Drone Group.

Skyfire specializes in helping police, fire and emergency management agencies complete the FAA Certificate of Authorization (COA) process, provides all of the necessary training, and helps departments select the most appropriate UAV equipment.

Before he founded Atlanta Drone Group in 2014, Matt spent 14 years in various roles at CNN in Atlanta, including 12 as a medical news producer and special projects manager for Dr. Sanjay Gupta.

In addition to his work there, he worked as a certified Emergency Medical Technician for Emory EMS, working his way up to Chief of Resources and Planning for the department.

Matt is an inaugural member of the National Fire Protection Association (NFPA) technical committee on drones, and an FAA-certified pilot. He lives in Decatur, Georgia with his wife Amanda, two year old son Brendan, and his Australian Shepherd, Kylie.

### **Barry Morris, CEO**

*Drone University USA*

Mr. Morris brings more than 26 years of business and corporate management experience to DUU. He has more than 5,200 hours of fixed wing aircraft flight time including over 2,000 hours of flight instruction given, 31 years of accident/incident free flight operations and experience in over 35 different aircraft makes and models. Barry is currently flying as a FAA certified flight instructor in both single and multi-engine aircraft. He is an FAA Advanced Ground Instructor and was awarded the Aircraft Owners and Pilots Association (AOPA) Flight Instructor Excellence Honor Roll recognition in 2013, 2014 and again for 2015. As a chief flight instructor he has worked closely with the FAA in developing training curriculum for FAA Part 141 flight schools in addition to operating his own flight academy and is our chief instructor at DUU. He is absolutely passionate about aviation and is directly involved in the day-to-day operations of the company.

### **Tom Calvert, Battalion Chief**

*Menlo Park Fire Protection District*

27 year veteran Firefighter, born and raised in Menlo Park, Tom began his fire service career with the Menlo Park Fire Protection District in 1990 and has served in the capacities of firefighter, fire engineer, firefighter paramedic, fire captain and Battalion Chief. A member of the Fire District sponsored FEMA - National Urban Search & Rescue System - California Task Force 3, California Office of Emergency Services (CAL OES) Water Rescue Team.

Tom also serves as the Menlo Fire UAS Program manager and has been key to building many public-private partnerships within the district.



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## **Ben Hansen, Business Development Executive**

*Matternet*

Mr. Hansen serves as a Business Development Executive for Matternet, which is an industry leading developer of autonomous drone logistics systems. In his role, Mr. Hansen works directly with the CEO and Head of Global Business Development to spearhead market development and strategic partnerships for Matternet.

## **Bobby Halton, Editor-in-Chief**

*Fire Engineering Magazine*

Chief Bobby Halton ret. is currently editor in chief of Fire Engineering magazine and education director of the Fire Department Instructors Conference (FDIC). Chief Halton is a native New Yorker. He began his career in structural firefighting with the Albuquerque (NM) Fire Department and rose through the ranks to include chief of training. Bobby was chief of operations until his retirement from Albuquerque in 2004. He then became chief of the Coppel (TX) Fire Department, Bobby left Coppel to assume the duties as editor in chief of Fire Engineering Magazine.

Chief Halton is a graduate of the University of New Mexico, left a member in good standing with the International Association of Fire Fighters, is a member of the International Association of Fire Chiefs, and has served on several of the National Fire Protection Association technical committees. He is active with the National Fallen Firefighters Life Safety Initiatives. He has done extensive speaking and training for the fire service in the United States, Canada and internationally.