



Mount Katahdin

The TIEMS USA 2017 Annual Conference
Emergency Management, Homeland Security, and Computing

University of Maine
June 12-16, 2017

Announcement & Call for
Presentations & Posters

George Markowsky
May 7, 2017

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1 Introduction

1.1 Welcome

Homeland security events often lead to emergency management situations. As with many other disciplines, computing is playing an ever more important role in emergency management. Different aspects of computing, such as cybersecurity, modeling, and virtual reality are important both for protecting critical assets, for preparing for disasters, and for training.

This year, the TIEMS USA Annual Conference is dedicated to the theme Emergency Management, Homeland Security, and Computing. Presentations from US and international leaders will provide unique insights on these important topics, and interactive sessions will create an exceptional opportunity to discuss local and international perspectives. Please join us and add your ideas to the discussion. Learn, network, and enjoy beautiful Maine in the summer!

1.2 Call for Presentations & Posters

Recognized international and USA speakers are invited to put focus on the very important topics of emergency management, homeland security and computing. However, we like to blend their presentations with presentations and posters from the emergency management, homeland security and computing community, and we invite for submitting abstracts for presentations and posters within these topics. The link for submitting abstracts is:

<https://easychair.org/conferences/?conf=tiemsusa17>

The deadlines are:

- Deadline for submitting an abstract: **25th May 2017**
- You will be notified of acceptance latest: **1st June 2017**
- Power point presentations and posters of accepted abstracts must be delivered latest: **10th June 2017**

Questions or need for more information, please, contact George Markowsky at: markov@maine.edu

1.3 Registration Fees

	Prior to June 1	June 1 or Later
Invited Speakers	\$0.00	\$0.00
Contributing Authors	\$200.00	\$250.00
NGO & Government Emergency Managers	\$200.00	\$250.00
TIEMS Members	\$300.00	\$350.00
Non-Members	\$400.00	\$450.00

1.4 Registration

Registration is available at <http://tiems.info/tiems-2017-usa-chapter-conference.html>. Housing information is available below, and the most up-to-date housing information will be available at <http://tiemsusa.org/>.

1.5 Conference Housing

There are two hotels in Orono, one of which is within walking distance of campus. We have reserved a block of rooms at each hotel. The conference rates are only good until May 22, 2017, so please reserve early. To get the special rate mention that you are with the University of Maine TIEMS USA Conference. If there are any problems, please contact us.

University Inn Academic Suites

5 College Avenue

Orono, ME (within walking distance from UMaine Campus)

207-866-4921

800-321-4921

\$99.00 + taxes, includes breakfast.

Black Bear Inn \& Conference Center

4 Godfrey Drive

Orono, ME (approx. 3 miles from UM Campus)

207-866-7120

\$92.00 + taxes, includes breakfast.

Also, the Bangor area has lots of other hotels, but they are further from campus. We will be adding hotels as we negotiate a conference rate.

2Sponsors and Sponsorship Levels

2.1 Sponsors

2.1.1 Platinum

University of Maine Cybersecurity Lab

2.1.2 Sliver

University of Maine System

2.2 Sponsorship Levels

The following sponsorship levels are available:

- Platinum
- Gold
- Silver
- Bronze
- Supporters

2.3 Platinum (\$10,000 or above)

- Includes 4 registrations to the conference
- Includes an invitation to speak at the conference

- Includes sponsorship of the conference dinner, of the Acadia Excursion, or of one of the three receptions – sponsor's supplied banner to be displayed during the event
- Includes a display table for literature at the meeting site
- The sponsor's logo will be displayed on the meeting website with a link to the sponsor's website

2.4 Gold (\$5,000)

- Includes 3 registrations to the conference
- Includes sponsorship of a conference lunch or one of Monday's tutorial sessions – sponsor's supplied banner to be displayed during the event
- Includes a display table for literature at the meeting site
- The sponsor's logo will be displayed on the meeting website with a link to the sponsor's website

2.5 Silver (\$2,500)

- Includes 2 registrations to the conference
- Includes sponsorship of a conference coffee break – sponsor's supplied banner to be displayed during the event
- Includes a display table for literature at the meeting site
- The sponsor's logo will be displayed on the meeting website with a link to the sponsor's website

2.6 Bronze (\$1,000)

- Includes 1 registration to the conference
- The sponsor's logo will be displayed on the meeting website with a link to the sponsor's website

2.7 Supporter (\$250 and up)

- The sponsor's logo will be displayed on the meeting website with a link to the sponsor's website

This information is also available at

<http://tiemsusa.org/a-homepage-section/2017-conference-sponsorships/>

3 Monday – June 12, 2017

3.1 Location: DPC – Business Building

The registration will be in the lobby of DPC. We will reserve one of the larger rooms for the two tutorials.

3.2 Schedule

8:30 AM - 9:00 AM Registration DPC Lobby

9:00 AM - 10:20 AM Cybersecurity Tutorial Part 1 by George Markowsky

(Gold Sponsorship Available)

10:20 AM - 10:40 AM Coffee Break (***Silver Sponsorship Available***)

10:40 AM - Noon Cybersecurity Tutorial Part 2

Noon - 1:30 PM Lunch (***Gold Sponsorship Available***)

1:30 PM - 2:50 PM Virtual Reality Tutorial Part 1 by Chuck Carter (***Gold Sponsorship Available***)

2:50 PM - 3:10 PM Coffee Break (***Silver Sponsorship Available***)

3:10 PM - 4:30 PM Virtual Reality Tutorial Part 2

4:30 PM - 6:00 PM Reception at the Hudson Museum (***Platinum Sponsorship Available***)

3.3 Cybersecurity Tutorial

This tutorial will be divided into three parts. The first part will deal with cyberwarfare and cybercrime, the second part will survey some of the tools and techniques used for cyberoffense and cyberdefense. The third part will show how to set up your own cybersecurity lab.

In the first part of this tutorial, we will show that cyberwarfare can be thought of as the latest embodiment of military intelligence. The ubiquity of computing devices has blurred the distinction between kinetic and nonkinetic forms of warfare. This tutorial will survey the precursors of cyberwarfare, the current state of cyberwarfare and some scenarios for how it might develop in the future. We will discuss how cyberwarfare relates to cybercrime, terrorism, hacktivism, and citizen action. We will also name the most active parties in the cyberwar space and what their strategies are. Cyber warfare is a real phenomenon and is a major force in the political landscape. Cyber warfare has the capability to engage the individual citizen.



Figure 1: Hudson Museum Entrance

We will discuss how people can avoid being collateral damage in the constant cyber warfare that is taking place on the Internet.

In the second part of the tutorial, we will discuss some key concepts necessary for understanding cybersecurity. These include some basic networking concepts such as IP addresses, protocols, scanning and packet captures. Exercises will include reading and understanding simple scanning results and packet captures.

The third part of the tutorial will discuss the building of a cybersecurity lab based on Kali Linux. From 2006 through 2012, a group called Offensive Security put out a series of collections of hacking tools that were called BackTrack. BackTrack Version 5 was released on August 13, 2012 and contained over 300 penetration testing (“hacking”) tools. Offensive Security decided to revise their entire approach and on March 13, 2013 the first version of their revised toolkit, Kali 1.0, was released. We will discuss the use of virtual machines in building a cybersecurity lab and experimenting with some of the material presented in the first two parts of the tutorial. All the tools discussed in this tutorial are open source and available free of charge. No prior cybersecurity experience is required to attend this tutorial.



Figure 2: Hudson Museum Interior

OBJECTIVES

To survey the cyberwarfare, cybercrime and cybersecurity landscape and to a better understanding of what is happening out in cyberspace. To provide basic knowledge of some key concepts in cybersecurity. To provide basic knowledge that can be used for protection in cyberspace. To provide instruction on how to set up a comprehensive, personal cybersecurity lab that can be used for further study.

INTENDED AUDIENCE

Anyone interested in cybersecurity who would like to gain some understanding of what is happening behind the scenes. The tutorial contains a lot of valuable information that is accessible to people who do not have a technical background, as well as technical information that can help people get started exploring this fascinating area on their own.

3.4 Virtual Reality Tutorial

(VR - What is it?) In this portion of the conference Chuck Carter from Eagre Games will discuss how new off the shelf game software can be used by literally anyone desiring to make VR products, games and experiences with little to no knowledge of programming or art. Software like Unreal Engine leads the way for the vast majority of immersive and real time gaming and VR movie making projects. The ease of use for early adopters looking to make VR based content is opening the door to virtually anyone who has a fast computer and one of the many commercial headsets readily available. Carter will show why this is important and just how easy it is to make your own VR projects.

3.5 Hudson Museum

(From Wikipedia) “The Hudson Museum is an anthropology museum that is operated by the University of Maine and is located in the Collins Center for the Arts in Orono, Maine. The museum’s collections include Maine Native American baskets and basket-making tools, Precolumbian ceramics, weapons and gold work, and baskets, jewelry, ceramics, textiles, clothing, tools, weapons and contemporary art from Native American peoples around the United States and the Arctic area.” For more information please go to <http://umaine.edu/hudsonmuseum/>.



Figure 3: Sample Virtual World

4 Tuesday – June 13, 2017

4.1 Schedule

8:00 AM - 8:30 AM Registration Neville Hall Lobby

8:30 AM - 9:25 AM Opening Session

- Welcome to the University of Maine–Provost Hecker
- U. S. Senator Susan Collins (Invited)
- Welcome by TIEMS President Harald Drager
- Welcome by TIEMS USA President Kay Goss
- Logistics, Overview of the Conference George Markowsky



Figure 4: Sample Virtual World

9:25 AM - 10:10 AM Harald Drager – “The International Emergency Management Society – Focus on more Resilient Societies Worldwide”

10:10 AM - 10:30 AM Coffee Break (***Silver Sponsors University of Maine System***)

10:30 AM - 11:15 AM Kay Goss – “The Future of Emergency Management: Technology, Training, Standards, Certifications, and Accreditation”

11:15 AM - Noon Vilma Schifano Milmoie – Title to TBD

Noon - 1:30 PM Lunch (***Gold Sponsorship Available***)

1:30 PM - 1:40 PM Introduction to Session 2

1:40 PM - 2:25 PM George Markowsky – “The TIEMS Academy”

2:25 PM - 3:10 PM Tony Enerva – “Terrorism, Active Shooter and Premises Liability Claims Resulting from Work Place Violence”

3:10 PM - 3:30 PM Coffee Break (Silver Sponsorship Available)



Figure 5: Sample Virtual World

3:30 PM - 5:00 PM Panel Discussion–Spatial Information and Emergency Management – Randall Berry, Matt Dube, Tony Enerva, Tora Johnson, Cathleen McAnney

5:00 PM - 6:30 PM Reception at the VEMI (Virtual Environment and Multimodal Interaction) Lab (***Platinum Sponsorship Available***)

4.2 Abstracts

4.3 The VEMI Lab

The Virtual Environment and Multimodal Interaction (VEMI) Laboratory, directed and operated by Dr. Nicholas Giudice and Dr. Richard Corey, is part of the School of Computing and Information Science at the University of Maine. The VEMI lab is an educational, research, and development facility based on a collaborative model where faculty, undergraduate, and graduate students across more than a dozen disciplines learn about scientific research, creative design, and technical skills using the latest virtual and augmented reality technologies. Its mission is to conduct world-class research and to provide students with the training they need to be leaders in today's IT-workforce or research-driven careers. For an overview of some of VEMI's projects, see <https://umaine.edu/vemi/projects/>.



Figure 6: Sample Virtual World

5 Wednesday – June 14, 2017

5.1 Schedule

8:00 AM - 8:30 AM Registration Neville Hall Lobby

8:30 AM - 8:40 AM Introduction to Session 3

8:40 AM - 9:25 AM Tom Robertson – “Communicating with the Public During Emergencies: Old and New Challenges in the Digital Age”

9:25 AM - 10:10 AM Marc Glasser – “Technology, Opportunity & Emergency Management”

10:10 AM - 10:30 AM Coffee Break (***Silver Sponsorship Available***)

10:30 AM - 11:15 AM Ray Soucy – “Cybersecurity Challenges in the Public Sector”

11:15 AM - Noon George Markowsky – “Overview of Crisis Management Software – Open Source and Commercial”



Figure 7: Hudson Museum Display Area



Figure 8: Hudson Museum Mammoth Exhibit



Figure 9: Entrance to the VEMI Lab

Noon - 1:30 PM Lunch (***Gold Sponsorship Available***)

1:30 PM - 1:40 PM Introduction to Session 4

1:40 PM - 3:10 PM TIEMS USA Annual Meeting

3:10 PM - 3:30 PM Coffee Break (***Silver Sponsorship Available***)

3:30 PM - 4:15 PM TBD

4:15 PM - 5:00 PM TBD

5:00 PM - 7:30 PM Reception and Lobster/Steak Dinner at the Wells Conference Center
(***Platinum Sponsorship Available***)

5.2 Abstracts

5.2.1 Cybersecurity Challenges in the Public Sector

Networks within the public sector represent a set of unique challenges in cybersecurity. The reality at the state and local levels is that many of the networks lack even basic controls necessary to protect against cyber threats.



Figure 10: Pictured above is the VEMI Lab Director of Operations Dr. Richard Corey demonstrating some of the Lab's virtual environments to Senator Angus King.



Figure 11: The Entrance to Wells Conference Center

In this talk, we'll focus on the current landscape, the conditions that got us here, and possible steps to improve cybersecurity in this space.

5.2.2 Overview of Crisis Management Software – Open Source and Commercial

There are many programs, both commercial and open source, that are available for crisis management. This talk surveys some of the most popular programs and gives a brief introduction to them. It addresses such factors as ease-of-use and comprehensiveness. This talk does not assume any prior experience with such programs.



Figure 12: Page Farm and Home Museum Barn

6 Thursday – June 15, 2017

6.1 Schedule

8:00 AM - 8:30 AM Registration Neville Hall Lobby

8:30 AM - 8:40 AM Introduction to Session 5

8:40 AM - 9:25 AM Bruce Fitzgerald – Title to be determined

9:25 AM - 10:10 AM Vince Quintana – Title to be determined

10:10 AM - 10:30 AM Coffee Break (***Silver Sponsorship Available***)

10:30 AM - 11:15 AM Troy Jordan – “Cyber Attacks on Power Plants”

11:15 AM - Noon George Markowsky – “The Metric at the End of the Rainbow”

Noon - 1:30 PM Lunch (***Gold Sponsorship Available***)

1:30 PM - 1:40 PM Introduction to Session 6

1:40 PM - 2:25 PM Contributed Papers

2:25 PM - 3:10 PM Wayne M. Maines – “Tabletop exercises should be interesting and realistic?”

3:10 PM - 3:30 PM Coffee Break (***Silver Sponsorship Available***)

3:30 PM - 4:15 PM Contributed Papers

4:15 PM - 5:00 PM Closing Session

5:00 PM - 6:30 PM Reception at the Page Farm and Home Museum Barn
(***Platinum Sponsorship Available***)

6.2 Abstracts

6.2.1 The Metric at the End of the Rainbow

It is common to see statements such as the following which come from <https://www.dhs.gov/science-and-technology/csd-elsmu>.

Defining effective information security metrics has proven difficult, even though there is general agreement that such metrics could allow measurement of progress in security measures and, at a minimum, rough comparisons of security between systems. ... However, general community agreement on meaningful metrics has been hard to achieve. This is due in part to the rapid evolution of IT, as well as the shifting focus of adversarial action.

However, this page neglects to state the real reason that agreement on meaningful metrics has been hard to achieve: it is not possible to construct a reasonable metric! This talk, which is based on results that have been known for a long time will demonstrate that under reasonable requirements for a reasonable metric, it is not possible to construct a metric that meets these

reasonable requirements. Hence searching for such a metric is like searching for a pot of gold at the end of the rainbow.

6.2.2 Tabletop exercises should be interesting and realistic?

As we all continue to expand our emergency management planning, training and response efforts we need to make it REAL. One of the most cost effective and practical tools that we utilize is the tabletop exercise. In today's climate both time and money are shrinking resources. It is essential that we use our limited resources wisely. This presentation will review a sample tabletop exercise and demonstrate some of training techniques that can be incorporated to make it real, fun and help engage the audience in an active participatory manner. Wayne will also discuss how to prepare a tabletop lesson plan and provide examples of support materials. Striving to include formal procedures and practical exercises to help bring both new and sometime reluctant partners, to the table. Using these simple techniques, you can create a foundation for building new and stronger partnerships in your community.

6.3 Page Farm and Home Museum

The mission of the Page Farm and Home Museum is to collect, document, preserve, interpret and disseminate knowledge of Maine history relating to farms and farming communities between 1865 and 1940, providing an educational and cultural experience for the public and a resource for researchers of this period.

Through its collections and programs, the Page Farm and Home Museum contributes to the educational mission of The University of Maine. Thousands of patrons come to the Page Farm and Home Museum each year to learn about the industry, agriculture, economy, and home-life of the late nineteenth and early twentieth centuries. The Maine Experiment Station barn, a post and beam structure, is the centerpiece of the Museum. The three story building, built in 1833, is the last original agricultural building on the University of Maine campus. The quiet and unassuming exterior belies the rich cultural heritage that it represents. A restored one-room schoolhouse from Holden, used by students from 1855 to 1950, was moved to the Museum grounds in 1994. The Winston E. Pullen Carriage House and the Blacksmith Shop were constructed in 2003. A quarter-acre Heritage Garden rounds out the Museum. Heirloom varieties of herbs, flowers, and vegetables that were grown from 1865 to 1940 are cultivated here.

The Museum has become home for the state's most important collection of farm technologies and artifacts of rural culture. The Museum assures that future generations will be able to gain valuable and practical insights into Maine's rural past. The Page Museum is about farming, and until recently, Maine was about farming. Some would claim that Maine's farming days are not yet over. Blueberries, potatoes, and aquaculture have all taken great strides in recent years. Agriculture promotes tourism both in the bucolic nature of the area and the tastes that become identified with Maine. In this part of Maine, with its often-shaky economy, the future of farming matters. However, there are many different ideas on what direction it should take. The Page Museum is more than a window to the past: In our exploration of conditions and philosophies of the past, we offer suggestions and ideas for the future.



Figure 13: Page Farm and Home Museum Exhibits

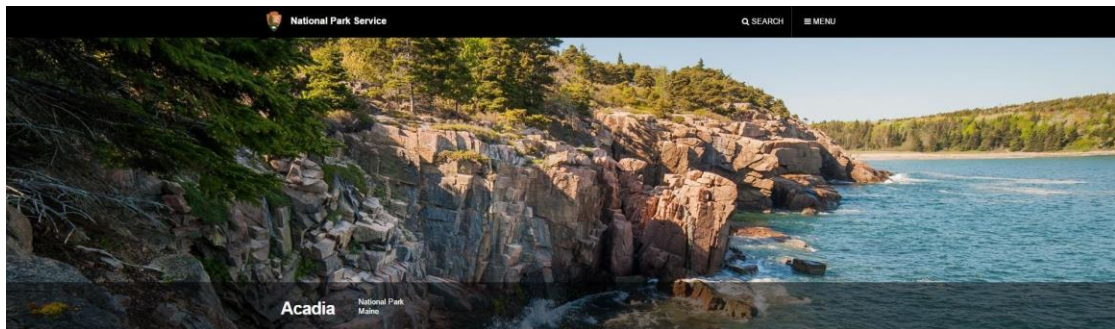


Figure 14: A View of Acadia National Park

7 Friday - June 16, 2017

All Day Excursion to the Coast of Maine and Acadia National Park.

7.1 Schedule

Platinum Sponsor – University of Maine Cybersecurity Lab

8:30 AM - 10:00 AM Bus Travel to Bar Harbor, Maine

10:00 AM - 1:00 PM Shopping and Lunch on your own in Bar Harbor

1:00 PM - 4:00 PM Tour of Acadia National Park with Tea and Popovers at Jordan Pond House

4:00 PM - 5:30 PM Return to Orono, Maine

5:30 PM Conference Ends



Figure 15: Another View of Acadia National Park

8 Speaker Bios

8.1 Randall Berry

Assistant Planning, Training, and Operations Officer with Androscoggin Unified EMA.

8.2 Charles Carter



Charles Carter

Once upon a time Carter helped create Myst and 26 other video games including the Command and Conquer and Red Alert franchises, Marvel Ultimate Alliance 2, Nox, Pacman World Rally, Kyrandia and many others – Carter worked on TV shows like Babylon5 (as a digital Matte Painter) as well as having contributed work on Star Trek the Experience and Disney's Mission to Mars motion rides. His illustration and animation work has been seen on the BBC, National Geographic, US Dept. of Defense, Homeland Security, Scientific American, NASA, Caltech and JPL as well dozens of additional publications and organizations.

Currently Carter is the founder of Eagre Games.

8.3 K. Harald Drager



K. Harald Drager

K. Harald Drager, Oslo, Norway, is the founding member of the worldwide acting society TIEMS (The International Emergency Management Society - www.tiems.org), which he took the initiative to establish in 1993. He was the International Vice President of TIEMS since its inauguration until 2002, when he took over as TIEMS President, a position he was re-elected to for the 5th time in 2013. He has brought in new ideas and new people in TIEMS and succeeded the organization to span worldwide. TIEMS has under his leadership become a well recognized organization with growing activities in Asia, Europe and America and now TIEMS activity in Africa and Oceania is

emerging. TIEMS has developed to a global well known organization with local chapters in many regions/countries, and TIEMS arranges each year workshops and conferences all over the world with focus on disaster risk reduction. TIEMS has also initiated development of a global education, training and certification network program, GENERATE as the fundament of TIEMS Academy, and TIEMS participates in research and development activities to improve systems, methods and equipment in emergency management for achieving better societal resilience. He has extensive experience from industry and research activity, especially in emergency and risk management, and he acts as the Managing Director of QUASAR Invest AS in Norway, a consultancy in global safety, emergency and disaster management. He has a Master's degree in control engineering from the Norwegian Technical University in 1966 and a Master's degree from Purdue University in USA in industrial engineering in 1973.

His specializations are international organizational development, emergency, disaster and risk management and project management. He has done consultancy work for numerous clients internationally amongst others the World Bank/International Finance Corporation, NATO and the European Commission, and he has been project manager of several international research and development projects for methods and software development in risk, emergency and disaster management. He was employed by Det norske Veritas, <http://www.dnv.com/> in 1967, and was a member of the Board of Directors of the company for 5 years until he left the company in 1983 and founded his own consultancy, AS QUASAR Consultants and later QUASAR Invest AS. He took the initiative to establish Safeware Quasar

Ltd, <http://www.safeware-int.com/>, in 1994, a 50 % owned company of AS QUASAR Consultants until 2009, providing bespoke chemical compliance software and training solutions. He has published numerous papers internationally on emergency, risk and disaster management.

He was TIEMS representative in the EU funded NARTUS (2006 – 2009) project with the responsibility for consensus building and establishing the

PSC Europe Forum, <http://www.psc-europe.eu/>, an all-stakeholder forum for public safety communication. PSC Europe Forum is today a self-governed sustainable organization and is a leading global advocate for standardization and research initiatives in public safety communication. He is leading TIEMS R&D teams in the EU funded projects; ASSET (2014 -2017), [http:// www.asset-scienceinsociety.eu/](http://www.asset-scienceinsociety.eu/), which are dealing with pandemics and epidemics, and in HERACLES (2016 – 2019), <http://www.heracles-project.eu/>, which is about Cultural Heritage Resilience Against Climate Change. He has been a member of the advisory boards of several EU projects, ACRIMAS, OPTI-ALERT, CRISMA, ARCHIMEDES, EDEN, TAWARA-RTM, PHAROS, DRIVER and TARGET.

He was a European Commission appointed evaluator for the EU Security Calls for FP7 2013 and the Horizon 2020 Call for Secure Societies in 2014. He was appointed Professor Chair for 4 years in 2014 at King Abdul Aziz University in Jeddah, Saudi Arabia. He was also appointed Visiting Professor at North Western University in Xian in China in 2016 for 2 years.

8.4 Matthew P. Dube

Assistant Professor of Computer Information Systems

B.A. University of Maine, Mathematics and Statistics, 2007

M.S. University of Maine, Spatial Information Science and Engineering, 2009

Ph.D. University of Maine, Spatial Information Science and Engineering, 2016

8.5 Tony Enerva



Tony Enerva

Tony Enerva has been Program Director and Associate Professor of Rural Public Safety Administration & Criminal Justice at the University of Maine at Fort Kent since 2005. He holds a Juris Doctorate from the University of Minnesota, a Master of Science in Criminal Justice Administration and a Bachelor of Arts in Public Administration from San Diego State University. Tony's academic interests and teaching responsibilities include law, public safety, criminal justice, emergency management, homeland security and conservation law enforcement. He has been teaching in higher education for thirty years. Tony has served seven years as a part-time police officer with the Fort Kent Police Department, trained 125 part-time police officers on campus through the Maine Criminal Justice Academy and serves as chair of the University of Maine Ad Hoc committee to develop a system-wide, online bachelor's degree in homeland security/emergency management. Tony was invited to participate in the first cohort of faculty to attend the annual higher education conference on homeland security at the Naval Post Graduate School in Monterey, CA.

8.6 Marc Glasser

Marc Glasser, MS, CPP, CORE, FABCHS, CHS-V, CDEP (or Marc Glasser, MS, CPP)

Marc Glasser's career spans over three decades of public and private sector service including law enforcement, homeland security, emergency management, academics, research and training. Marc has worked in over 90 countries. Marc is most excited about technology and innovation. He is the founder and CEO of the recent start up Esilient™. Esilient™ is a subsidiary of the State of Washington company Alpha Green LLC. Esilient™ promotes Technology Empowered Resilience™ through innovative technology application. It is the mission of Esilient™ to advance cutting-edge technology from early stage development to industry-wide adaptation resulting in "resilience best practices". Esilient™ evaluates possible technical initiative advantages and disadvantages in terms of both micro (single industry-specific) and macro (multiple-industries) in addition to innovation (new applications, combinations and relationships) perspectives.

Marc was the CEO of RM (Resilience Management) LLC. RM LLC is a security, crisis management and business continuity services company. Marc's US Government service included serving as a Special Agent with the US Department of State and US Department of Transportation. He managed the critical infrastructure branch and staff protecting the US National Air Space (NAS) for an eight state region with approximately 200 staffed and 1,100 unstaffed facilities. He managed a Federal Continuity of Operations (COOP) program involving 12 western states and the South Pacific. He served as a Federal Emergency Response Official (FERO) and Regional Emergency Transportation Representative team member in support of the National Response Framework

(NRF) Emergency Support Function #1 involving Federal responses to incidents of national significance. He has supervised or conducted over 600 threat and vulnerability assessments addressing natural disasters, technical disruptions and terrorist risks. He conducted Federal criminal and civil investigations and presidential appointee-level suitability investigations. He has served in a Fusion Center and as a FBI Joint Terrorism Task Force (JTTF) and FBI Organized Crime Task Force member. He served on three US Secretary of State's Protective Details. He served as a US Department of State Diplomatic Courier ensuring the integrity of Top Secret materials. He is a graduate of the Federal Law Enforcement Training Center (FLETC), Glynco, Georgia. During college Marc served as a Texas Department of Corrections Correctional Officer and a Maximum Security correctional facility.

He has presented at national and international conferences. He participates on multiple professional associations, academic and editorial boards. His publications include industry practitioner and academic peer-reviewed journal articles. He has been a professor at six universities, teaching and developing curriculum, in over 50 different course subjects. He holds a Master of Science in Crisis and Emergency Management from the University of Nevada, Las Vegas and a Bachelor of Science in Law Enforcement and Police Science from Sam Houston State University. His professional accreditations include CPP, CORE, FABCHS, CHS-V, CDEP as well as FEMA HSEEP and COOP certified.

Marc has traveled to 100 countries and has lived in 17 cities in three countries and currently lives in the Seattle area. Marc enjoys spending time with family and friends, reading, researching, writing, culture, traveling, nature and the outdoors and supporting sustainability practices. For more information please see Marc's LinkedIn profile at www.linkedin.com/in/marcglasser or contact him at marcglasser.me.

8.7 Kay Goss



Kay Goss

Kay C. Goss, CEM[®] is a founder and the President of the Council on Accreditation of Emergency Management Education, former Associate FEMA Director in charge of National Preparedness, Training, and Exercises, as well as serving in EM leadership positions at the state, private and nonprofit sectors. Ms. Goss is on the part-time Faculty at UNLV's Executive Master's Program in Crisis and Emergency Management. Ms. Goss is also a Fellow at the National Academy of Public Administration and President of the TIEMS USA Board.

8.8 Tora Johnson

University of Maine at Machias Tora Johnson has been awarded a Lifetime Achievement Award for her work with GIS – by the National Geospatial Technology Center of Excellence.

“The University is very proud of Tora’s lifetime achievement recognition for her GIS research and community engagement,” UMM President Joyce Hedlund said. “We are particularly pleased that Tora has been able to collaborate and partner with many Washington County communities and other communities throughout the state of Maine, providing them invaluable services while enabling her UMM students to have real-life experiences.”

Johnson holds a B. S. in Biology from University of Oregon and an M.Phil. in Human Ecology from College of the Atlantic, and is currently pursuing a PhD in Natural Resource Policy at the University of Maine. Since 1996, she has taught marine, environmental, and geographic information systems (GIS) at the college level. She teaches GIS and environmental studies at UMM and serves as the director of the GIS Laboratory and Service Center.

Before her son was born in 1996, Tora made a career of teaching and crewing aboard several of the large sailing vessels that ply the coast of New England, as well as commercial fishing in Alaska. Her current human ecological research focuses on political conflicts over marine and coastal resources and the uses of maps in decision-making. Using in-service projects through the UMM GIS Services Center, Tora and her students work with local towns, organizations, and businesses to conserve Downeast Maine’s natural resources, and plan for a prosperous and sustainable future.

Johnson was the Principal Investigator for a statewide GIS education initiative in GIS education involving nine colleges and universities. She also served on the original National Visiting Committee for the GeoTech Center. A writer, Johnson’s award-winning book, *Entanglements: The Intertwined Fates of Whales and Fisherman*, was released in 2005.

8.9 Troy Jordan

Network Systems Security Analyst, Network Maine

8.10 Cathleen McAnneny

She is currently a Professor of Geography at the University of Maine, Farmington. Her degrees are B. S. and M.A. from Ohio State University and a Ph.D. from Michigan State University. Cathleen McAnneny’s research interests have focused on the effects of the physical and social environments on health. As of late the issue of access to health care in rural areas is a focus and in particular access to oral health care. Recently she has established a partnership with the Maine Dental Access Coalition and is a member of the Rural Health Care Round Table. Dr. McAnneny has also looked at the impacts of paper mills on their local communities. Along with her interests in health and health care, Cathleen has worked with the Six Campus GIS Curriculum Consortium on pedagogical challenges in teaching GIS including the role of misconceptions in students’ struggle with the material. The results of these efforts have been 22 presentations at the annual meeting of the Association of American Geographers and the International Geographic Union and the International Medical Geography Symposium.

8.11 Wayne M. Maines

Dr. Maines is currently the Executive Director of Safety, Health Services, Transportation and Security for the University of Maine System. He also spent 10 years as the Corporate EHS Manager for a global chemical company and 4 years as the Director of The Institute for Safety and Health Training at West Virginia University. He is a nationally known speaker in the fields of emergency management, safety and civil rights. This past year Wayne helped teach Incident Command by reenacting the Battle of Little Round Top at Gettysburg National Park using modern day Incident Command. Working with forty Law Enforcement Officers and civil war experts they explored the "Fog of War." Wayne has a BS degree from Cornell University and a master and doctorate from West Virginia University. Wayne has over 800 hours of Emergency Management and Safety Training. For many years he was an instructor and responder performing; High Angle Rescues, Hazardous Materials Response, Industrial Firefighting, and Confined Space Rescue activities. He continued to conduct training at the national, regional and state level.

8.12 George Markowsky

Dr. George Markowsky is Professor of Computer Science and Director of the Cybersecurity Lab in the School of Computing and Information Science at the University of Maine. He teaches cybersecurity at the University of Maine and coaches the Cyber Defense Team. In 2013-2014 he was a Visiting Scholar in the Department of Computing Security at the Rochester Institute of Technology.

8.13 Vilma Schifano Milmo

Since April 2014, Ms. Milmo has been a Senior and confidential advisor to the Superintendent and Deputy Superintendent of EMI, and officials of FEMA and DHS, and other federal departments and agencies. In her position she coordinates GAO, OIG, and other engagements, and responds to Congressional inquiries and other major actions. Ms. Milmo also builds and leads teams on major projects and initiatives. She serves as the executive officer over major actions across EMI, NTED, and NPD, and serves on the NTED Economies and Efficiencies Working Group. Ms. Milmo serves on DHS and FEMA wide working groups such as the Presidential Transition Working Groups, and represents the Superintendent and other senior officials as required. She develops briefings and reports for senior leadership meetings and working groups such as the FEMA Training Council, Human Capital Governance Board and FEMA Stats. Also serves as 2nd Vice President of the international network of Women in emergency Management (inWEM). Honoree of inWEM 2015 Hall of Fame. She has been working in the emergency management field since 1996. She is a graduate of the Emergency Management Executive Academy and holds a Masters in Public Administration from Marywood University.

8.14 W. Vince Quintana

Vince Quintana is currently the principal human factors test engineer at Bath Iron Works working on the US Navy's next generation DDG 1000 Destroyer. His US Navy background includes over twenty years of experience conducting operational ASW (anti-submarine warfare) in all of the world's major oceans on six different US Surface Navy tactical ASW platforms, using active and passive sonar systems in conjunction with non-acoustic sensors. As an ASW specialist and developer of training and training path systems, he was instrumental in the creation of multi-level, multi-sensor ASW training systems which encompassed every aspect of the global ASW problem across all ASW platform domains including sub-surface, surface, air and theatre level ASW surveillance systems.

He has received US Navy decorations for his work on US Navy special ASW operations, and for the development of advanced operational training methods and training evaluation methods. He has also received several patents and awards for the development of next generation mobile digital computer systems and devices at both the human computer and network level. Most recently he has been working on team dynamics to determine what permits teams to function well in difficult environments, and for determining training, training evaluation, and usability testing methods for advanced computer based command and control systems. Vince Quintana is also a Research Associate of the UMaine Cybersecurity Lab.

8.15 Thomas Robertson

Thomas Vincent Robertson, Ph.D. is Director, North American Operations for TIEMS. Dr. Robertson established the TIEMS USA Local Chapter; organized TIEMS USA Conferences in 2014, 2015, and 2016; is Technical Manager for TIEMS in the ASSET Program (Action plan in Science in Society in Epidemics and Total Pandemics), a four-year European Union funded program, and HERACLES, a three-year EU program to develop technologies to protect cultural heritage sites from the effects of climate change. He has presented papers on risk communication, communities of practice, and virtual simulation in emergency management in the US, France, Italy, China, Japan, Belgium, and Saudi Arabia. Previously he was Associate Technical Group Director of The BAE Systems Advanced Computing and Decision Systems and Senior member of the management team leading business units performing contract R&D in resilient computing, advanced compilers, adaptive system engineering, cognitive collaboration, and C2 systems. He was also Vice President and General Manager of Atlantic Aerospace Electronics Corporation where he managed the development and delivery of algorithms, hardware, software, and systems for signal and image processing, and highspeed communications. He earned BS, MS, and Ph.D. degrees in Electrical Engineering from Purdue University. His Master's Thesis - "Modeling a Cockroach Stretch Receptor" - developed an analog computer model simulating nerve impulse generation. His Ph.D. Thesis - "Multispectral Image Partitioning" - developed techniques and software for automatic recognition of objects and land use in digital ERTS/LANDSAT satellite imagery.

8.16 Ray Soucy

Ray is a Senior Cyber Security Engineer with Networkmaine, the University of Maine System's business unit responsible for providing connectivity to Maine's research and education community. Through its Maine School and Library Network and MaineREN efforts, Networkmaine provides connectivity to nearly 1,000 public and private institutions throughout the state of Maine, ranging from elementary schools, to universities, to cutting-edge research institutions.