



PennState

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December 11, 2019
Tyrone Naquin
Fuel Facility Licensing Branch
Division of Fuel Management
Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Mail Stop T-4A60
11545 Rockville Pike
Rockville, MD 20852

Re: License Number SNM-95; Docket Number 070-0113

Subject: NRC request for additional information to the submittal dated October 25, 2019, requesting replacement of the senior university official responsible for the use of radioactive material at the Pennsylvania State University

Dear Mr. Naquin,

As requested by your letter dated November 27, 2019, this letter transmits the requested additional information regarding the Pennsylvania State University submittal dated October 25, 2019, requesting replacement of the senior university official responsible for the use of radioactive material at the University. The requested information includes 1) Documentation in support of the appointment of Dr. Lora Weiss as the senior university official, such as a curriculum vitae (CV) or a letter of appointment; and 2) a chart identifying the organization relationship of the senior university official for the use of radioactive material to university management and to the office of Radiation Safety Officer.

The requested information is attached to this letter as follows:

Attachment 1 – The CV of Dr. Lora Weiss, Senior Vice President for Research and Senior university official for the referenced license

Attachment 2 – The Pennsylvania State University organization chart applicable to the referenced license

Thank you for your prompt attention to this request. Please contact me if you have any question or need additional information.

Sincerely,

Yuanqing Guo, Ph.D., CHP
Radiation Safety Officer
Environmental Health and Safety
The Pennsylvania State University
228 Academic Projects Building
University Park, PA 16802
814-863-3939
yxg14@psu.edu

Lora G. Weiss, Ph.D.

Senior Vice President for Research
The Pennsylvania State University
Lora.Weiss@psu.edu
US Citizen

EDUCATIONAL BACKGROUND

B.S., magna cum laude	Mathematics	1985	Boston University
M.S.	Mathematics	1988	Univ. of California, Los Angeles
Ph.D.	Acoustics	1993	The Pennsylvania State University

EMPLOYMENT HISTORY

2019 – Present	The Pennsylvania State University, University Park, PA
2019-Present	Senior Vice President for Research
2006 – 2019	Georgia Institute of Technology, Georgia Tech Research Institute (GTRI)
2018 – 2019	Senior Vice President (interim), Georgia Tech
2018 – 2019	Director (interim), Georgia Tech Research Institute
2017 – 2019	Chief Technology Officer and Deputy Director for Research, GTRI
2014 – 2019	Regents Researcher, University System of Georgia
2007 – 2019	GTRI Fellow
2006 – 2019	Principal Research Engineer
2013 – 2017	GTRI Chief Scientist
2012 – 2014	Technical Director for Autonomous Systems
2011 – 2014	Robotics Strategic Initiative Lead
2007 – 2013	Lab Chief Scientist
2006 – 2007	Faculty Leader
1990 – 2006	The Pennsylvania State University / Applied Research Laboratory (ARL/PSU)
2001 – 2006	Head, Autonomous Control and Intelligent Systems Division (100+ people)
1998 – 2006	Associate Professor of Acoustics
1998 – 2006	Senior Research Associate
1998 – 1999	Office of Naval Research, Undersea Weaponry (on assignment from Penn State)
1993 – 1997	Assistant Professor of Acoustics
1993 – 1997	Research Associate
1990 – 1993	Research Assistant (research engineering position, not student)

1989 – 1990 **Technology Service Corporation, Signal Processing Engineer**
Santa Monica, CA

1987 – 1988 **R Company, Numerical Analysis Software Developer**
Santa Monica, CA

FIELDS OF RESEARCH INTEREST

Robotics and Unmanned Systems
Autonomous Control & Intelligent Systems
Digital Signal Processing
Acoustical Signal Processing

Advanced Perception & Machine Learning
Behavior-based Systems
Multi-Modal Sensor Processing & Fusion
Bio-inspired Robotics

SPECIAL COURSES TAUGHT / DEVELOPED

Spring	2014	Unmanned Systems Autonomy for the Navy (course development)
Spring	2013	Unmanned Systems Autonomy for the Navy
Fall	2012	Unmanned Systems Autonomy for the Navy
Spring	2012	Graduate Autonomous Robotics (CS 7630), Guest Lecturer, Georgia Tech
Summer	2009	Unmanned Systems Tutorial for DoD Test & Evaluation Community
Spring	2009	Unmanned Systems Tutorial for DoD Test & Evaluation Community
Summer	2000	Wavelet Transforms for Acoustical Signal Processing, Penn State
Fall	1995	Digital Image Processing, (EE455), Penn State, 2 week invited lecturer
Summer	1986	Introduction to Probability, University of Maryland
Spring	1986	Introduction to Probability, University of Maryland

STUDENTS MENTORED AND ADVISED

Graduate Students Co-Advised / Funded (*Georgia Tech*)

- Novitsky, Misha, College of Computing, committee member, funded, and mentored, Ph.D., 2015
- Mac Dermid, Liam, College of Computing, funded and mentored, Ph.D., 2013
- Pippin, Charles, College of Computing, funded and mentored, Ph.D., 2013
- Irani, Arya, College of Computing, funded and mentored, Ph.D., 2009

Graduate Student Advising (*as a member of the graduate faculty at Penn State*)

- Nadel, Rebecca, M.S., Acoustics. Title: The Effects of Mother Wavelet, Target Aspect Angle and Signal to Noise Ratio on Wavelet Denoising of Actual Target Echoes, 2001
- Schwenke, Roger, Ph.D., Acoustics. Title: Sensitivity Analysis of an Estimator-Correlator for Detection of Spread Targets with Multiple Discrete Highlights, 2000
- Grove, Debbie, Ph.D., Acoustics. Title: Sensitivity of Scattering Function Estimates to Physical Parameter Measurement Errors with Applications to the Wavelet Transform Domain Estimator-Correlator, 1998

Graduate Student Committee Memberships

- Anderson, Shaun, Ph.D., Georgia Tech, Mechanical Engineering. Title: Space-Time-Frequency Processing from the Analysis of Bistatic Scattering for Underwater Targets, 2012
- Gramann, Mark, Ph.D., Penn State, Acoustics. Title: Blind Deconvolution of a Dynamic Noisy Channel Using Model-Based Signal Processing Techniques, 2005
- Boeker, Eric, M.S., Penn State, Acoustics. Title: Sub-Band Modulation in Active Sonar, 2001
- Salerno, Marc, M.S., Penn State, Acoustics. Title: An Independent Component Analysis Blind Beamformer, 2000
- Deliman, Linda, Ph.D., Penn State, Acoustics. Title: Investigation of Mechanisms that Cause Changes to Bottom Reverberation Fluctuation Statics, 1997
- Slater, Michael, M.S., Penn State, Acoustics. Title: Time-Frequency Processing Methods for Short Term Acoustic Transients, 1995
- Underbrink, James, M.S., Penn State, Acoustics. Title: Practical Considerations in Focused Array Design for Passive Broad-Band Source Mapping Applications, 1995
- Dixon, Teresa, Ph.D, Penn State, Electrical Engineering. Title: Wideband Imaging of Distributed Objects using Wavelet Transforms and Generalized Inverse Theory, 1994

Undergraduate Capstone Projects Funded / Supervised at Georgia Tech

Manta Ray-inspired UUV (~10 students, 2 teams)	2012–2013
UAV Outer Control (~10 students, 2 teams)	2011–2012
Flying Android (~10 students, 2 teams)	2009–2010

Undergraduate Students Mentored and Funded

Sumpter, Jonathan, Mechanical Engineering, Tuskegee Univ.	2013
Schulter, Carlie, Electrical Engineering, Kennesaw State	2013
Meister, Matt, Mechanical Engineering, Georgia Tech	2012-2013
Dinh, Thuy, Mechanical Engineering, Georgia Tech	2011
Flowers, Caitlin, Electrical and Computer Engineering, Georgia Tech	2011
Davis, Justin, Mechanical Engineering, Georgia Tech	2009
Stephens, Curtis, College of Computing, Georgia Tech	2007

High School Students Mentored and Funded at Georgia Tech

Agnew, William, High School Senior	2013
Falis, Alyx, High School Senior	2013
Bick, Jason, High School Sophomore-Junior	2012-2013
Evans, Ryan, High School Junior	2008
Buckner, Michelle, High School Junior	2007

REFEREED PUBLICATIONS – JOURNALS

A considerable amount of my research during the past 30 years has been supported by the US Department of Defense and has been subject to publication restrictions. As such, nearly all related research results and publications have been prohibited from appearing in the open literature. Below are refereed journal publications that have been approved for public release.

* denotes student

1. **L. G. Weiss**, Modeling interactions of large numbers of manned and unmanned systems, submitted to Journal of Intelligent and Robotic Systems, July 2017 (*accepted with edits*)
2. **L. G. Weiss**, E. Briscoe, E. Whitaker, E. Trehwhitt, J. Horgan, "A Systems-Level Understanding of Adversarial Behavior," International Journal of Intelligent Defence Support Systems, 2013
3. **L. G. Weiss**, "Autonomous Robots Cut through the Fog of War," **cover story**, IEEE Spectrum, August 2011.
4. **L. Weiss**, E. Whitaker, E. Briscoe, and E. Trehwhitt, "A Model for Evaluating counter-IED Strategies," Defense and Security Analysis, 27(2), 135-147, 2011.
5. E. Briscoe, **L. Weiss**, E. Whitaker, E. Trehwhitt, "A Systems-level Understanding of Insurgent Involvement in IED Activities," Systems Research and Behavioral Science, 28(4), 391-400, 2011.
6. **L. G. Weiss**, R. Roberts, S. E. Cross, "The System Engineering and Test (TSET) Approach for Unprecedented Systems," ITEA Journal of Test and Evaluation, 30(3), Sept 2009.
7. A. S. Lewis and **L. G. Weiss**, "Intelligent Autonomy and Performance Metrics for Multiple, Coordinated UAVs", invited, Journ. of Integrated Computer-Aided Eng'g, 12 (2005) p. 251-262.
8. L. H. Sibul and **L. G. Weiss**, "A Wideband Wavelet Based Estimator Correlator and Its Properties", Multidimensional Systems and Signal Processing, vol. 13, No. 2, p157-186, Apr 2002.
9. L. H. Sibul and **L. G. Weiss**, "Large Time-Bandwidth Product Processing for High Frequency ASW", J. Underwater Acoustics, special issue on Undersea Signal Processing, vol. 52:381, Jan 2002.
10. **L. G. Weiss**, "Wavelet Processing for Wideband Spreading Function Estimation". Invited Paper for ASA's Acoustic Research Letters Online, ARLO 1(1), July 2000.
11. L. H. Sibul, **L. G. Weiss**, R. K. Young, "Weighted Time-Frequency and Time-Scale Transforms in Reproducing Kernel Hilbert Spaces", IEEE Sig. Proc. Letters, vol. 4, no. 1, p21-22, Jan 1997.
12. **L. G. Weiss**, T.L. Dixon*, "Wavelet Based Denoising of Underwater Acoustic Signals," J. Acous. Soc. Amer., vol. 101, no.1, Jan 1997, p 377-383.
13. **L. G. Weiss**, "Time-Varying System Characterization for Wideband Input Signals," Signal Processing, vol. 55, no.3, Dec 1996, p 295-304.
14. L. H. Sibul, **L. G. Weiss**, T. L. Dixon*, "Characterization of Stochastic Propagation and Scattering via Gabor and Wavelet Transforms," Journal of Computational Acoustics, vol. 2, no. 3, p345-369, Sept. 1994.
15. **L. G. Weiss**, "Wideband Processing of Acoustic Signals Using Wavelet Transforms, Part II: Efficient Implementation and Examples," Journal of the Acoustical Society of America, vol. 96, no. 2, p857-866, Aug. 1994.

16. **L. G. Weiss**, R. K. Young, and L. H. Sibul, "Wideband Processing of Acoustic Signals Using Wavelet Transforms, Part I: Theory," *Journal of the Acoustical Society of America*, vol. 96, no. 2, p850-856, Aug. 1994.
17. **L. G. Weiss**, "Wavelets and Wideband Correlation Processing," **cover story**, *IEEE Signal Proc Magazine*, p13-32, Jan. 1994.
18. R. K. Young, **L. G. Weiss**, and L. H. Sibul, "Multisensor Processing for Underwater Vehicles," *J. Underwater Acoustics*, vol. 43, no. 1, p167-178, Jan 1993.

REFERREED PUBLICATIONS – BOOKS, CHAPTERS, & TECHNICAL VIDEOS

1. **L. G. Weiss**, *Fundamentals of Unmanned Systems, The Robots, Drones, Swimmers, and Crawlers of Today and Tomorrow*, Wiley & Sons, publishing agreement to author this book.
2. **L. G. Weiss**, invited chapter editor, "UAV Modeling, Simulation, Estimation, and Identification," in *Handbook of Unmanned Aerial Vehicles*, Second Edition, Volume 1, edited by K. Valavanis and G. Vachtsevanos, Springer, in preparation.
3. Christos Cassandras, David Castanon, and **L. G. Weiss**, invited chapter editors, "UAV Autonomy," in *Handbook of Unmanned Aerial Vehicles*, Second Edition, Volume 1, edited by K. Valavanis and G. Vachtsevanos, Springer, in preparation.
4. **L. G. Weiss**, invited chapter editor, "UAV Modeling, Simulation, Estimation, and Identification," in *Handbook of Unmanned Aerial Vehicles*, Volume 1, edited by K. Valavanis and G. Vachtsevanos, Springer, 2015.
5. Christos Cassandras, David Castanon, and **L. G. Weiss**, invited chapter editors, "UAV Autonomy," in *Handbook of Unmanned Aerial Vehicles*, Volume 1, edited by K. Valavanis and G. Vachtsevanos, Springer, 2015.
6. B. Blalock, *Dare. Straight Talk on Confidence, Courage, and Career for Women in Charge*; Weiss authored supporting material and 'Q&A with **Lora G. Weiss**', Jossey-Bass Pubs, 2013.
7. **L. G. Weiss**, E. Briscoe, E. Whitaker, E. Trehwitt, J. Horgan, "Modeling and Assessing Multiple Cultural Perspectives," in *Advances in Cross-Cultural Decision Making*, D. Schmorrow, D. Nicholson (eds.), CRC Press, 2012.
8. **L. G. Weiss**, "Autonome Roboter im Nebel des Krieges," chapter in *Telepolis Kriegsmaschinen, Roboter im Militäreinsatz* (in German), Hans-Arthur Marsiske (ed), Heise Seitschriften Verlag GmbH & Co KG, Hannover, 2012. Translated.
9. E. Briscoe, C. Hutto, C. Blunt, E. Trehwitt, **L. Weiss**, E. Whitaker, D. Folds, "A Multi-Scale Model of Cultural Distinctions in Technology Adoption," in *Advances in Cross-Cultural Decision Making*, D. Schmorrow, D. Nicholson, (eds.), CRC Press, 2010.
10. **L. G. Weiss**, E. Whitaker, E. Briscoe, E. Trehwitt, R. Gonzalez, "Cultural Influences Associated with Adversarial Recruitment," in *Advances in Cross-Cultural Decision Making*, D. Schmorrow, D. Nicholson (eds.), CRC Press, 2010.
11. E. Briscoe, E. Trehwitt, E. Whitaker, **L. Weiss**, "Mitigating Issues Related to the Modeling of Insurgent Recruitment," in *Advances in Social Computing*, S. Chai, J. Salerno, P. Mabry (eds.), Springer, Berlin, pp. 375-381, 2010.

12. **L. G. Weiss**, "The Application of Wavelet Transforms to Blood Flow Velocimetry," chapter in Wavelets in Medicine and Biology, ed. A. Aldroubi and M. Unser, CRC Press, 1996
13. **L. G. Weiss**, technical editor, "Fundamentals of Wavelets and Applications," IEEE Video (peer reviewed), Nov. 1995

REFERREED PUBLICATIONS – CONFERENCE PROCEEDINGS

* denotes student

1. Michael Novitzky*, Michael R. Benjamin, Thomas R. Collins, Tucker R. Balch, Michael E. West, and **Lora Weiss**, "Behavior-based Communication for Cooperative Mine Clearing with an ASV." International Symposium on Distributed Autonomous Robotic Systems (DARS), Daejeon, South Korea, 2014.
2. Michael Novitzky*, Tucker R. Balch, and **Lora Weiss**, "Optimizing Robot Behavior for Improved Recognition by Teammates," International Symposium on Distributed Autonomous Robotic Systems (DARS), Daejeon, South Korea, 2014.
3. Senator, T. E., et al. (35 co-authors, including **L. Weiss**), "Detecting Insider Threats in a Real Corporate Database of Computer Usage Activity," The 19th ACM SIGKDD Conference on Knowledge, Discovery, and Data Mining, *KDD'13*, Chicago, IL, August 10-13, 2013.
4. **Weiss, L.**, Briscoe, E., Wright, W. Kline, K., Horgan, J., Cushenbery, L. & Hilland, C., "A Model Docking System for Understanding Radicalization." Proceedings of the IEEE Intelligence and Security Informatics Conference. Seattle, Washington. 4-7 June 2013.
5. C. Pippin, H. Christensen, **L. Weiss**, "Dynamic, cooperative multi-robot patrolling with a team of UAVs "Proc. SPIE. 8741, Unmanned Systems Technology XV 874103, May 2013.
6. **Weiss, L.**, Briscoe, E., Hayes, H., Kemenova, O., Harbert, S., Li, L., Lebanon, G., Stewart, C., Miller, D. Foy, D. A Comparative Study of Social Media and Traditional Polling in the Egyptian Uprising of 2011. Proceedings of the 2013 International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction. Washington, DC, 2-5 April 2013.
7. C. Pippin, H. Christensen, **L. Weiss**, "Performance Based Task Assignment in Multi-Robot Patrolling," Proceedings of the 28th Annual ACM Symposium on Applied Computing, ACM, pp. 70-76, 2013.
8. **L. Weiss**, E. Briscoe, E. Whitaker, E. Trewhitt, J. Horgan, "Modeling and Assessing Multiple Cultural Perspectives", 4th International Conference on Applied Human Factors and Ergonomics 2012, San Francisco, CA, July 21-25, 2012.
9. L. Mac Dermed*, K. S. Narayan, C. L. Isbell, **L. G. Weiss**, "Quick Polytope Approximation of All Correlated Equilibria in Stochastic Games," Amer. Assoc. for Artificial Intelligence, San Francisco, CA, 7-11 Aug 2011.
10. L. Mac Dermed*, C. L. Isbell, **L. G. Weiss**, "Markov Games of Incomplete Information for Multi-Agent Reinforcement Learning," AAAI Workshop Paper, American Assoc. for Artificial Intelligence, San Francisco, CA, 7-11 Aug 2011.

11. Trehwitt, E., Whitaker, E. Briscoe, E., & **Weiss, L.**, Model Docking Using Knowledge-Level Analysis. Social Computing, Behavioral-Cultural Modeling, & Prediction Conference, 2011.
12. **L. G. Weiss**, E. Whitaker, E. Briscoe, E. Trehwitt, R. Gonzalez, "Cultural Influences Associated with Adversarial Recruitment," 1st Int'l Conf. on Cross-Cultural Decision Making, Miami, FL, Jul 2010.
13. E. Briscoe, E. Trehwitt, C. Blunt, C. Hutto, D. Folds, **L. Weiss**, E. Whitaker, "A Multi-Scale Model of Cultural Distinctions in Technology Adoption," 1st International Conference on Cross-Cultural Decision Making, Miami, FL, 2010.
14. **L. G. Weiss**, E. Whitaker, E. Briscoe, E. Trehwitt, "Modeling Behavioral Activities Related IED Perpetration," BRIMS conference, Charleston, SC, 22-25 Mar 2010.
15. E. Briscoe, E. Trehwitt, E. Whitaker, **L. Weiss**, "Mitigating Issues Related to the Modeling of Insurgent Recruitment," 2010 International Conference on Social Computing, Behavioral Modeling, & Prediction, March 29, 2010.
16. **L. G. Weiss**, "Intelligent Collaborative Control for UAVs," InfoTech@Aerospace, AIAA Conference, Arlington, VA, 26-29 Sept 2005 (invited).
17. A. S. Lewis and **L. G. Weiss**, "Intelligent Autonomy and Performance Measuring for Multiple, Coordinated UAV's ", PerMIS'04, NIST, Gaithersburg, MD, 24-26 Aug 2004.
18. **L. G. Weiss** and A. S. Lewis, "Intelligent Autonomy for Multiple, Coordinated UAVs," American Helicopter Society 60th Annual Forum, Baltimore, MD, June 7-10, 2004.
19. **L. G. Weiss**, "Weapon-Platform Connectivity for Improved ASW Performance," Submarine Technology Symposium, Johns Hopkins University/APL, Columbia, MD, May 11, 2004.
20. **L. G. Weiss**, N. C. Nicholas, "An Intelligent Controller Architecture for Full Autonomy and HMI," 10th International Conference on Robotics and Remote Systems for Hazardous Environments, U of FL, 28-31 Mar 2004.
21. **L. G. Weiss**, "Wavelet Processing for Wideband Spreading Function Estimation", Acoustical Society of America, Columbus, OH, 4 Nov 1999.
22. **L. G. Weiss**, "Wavelet Transforms for Non-Stationary Signal Processing", SPIE Conference, Denver, CO; Invited publication in Conference Proceedings, 22 July 1999.
23. **L. G. Weiss**, "The Submarine as the Ultimate Asymmetric Threat", Submarine Technology Symposium, Johns Hopkins University/APL, Columbia, MD; Conference Proc., May 1999.
24. **L. G. Weiss**, "Shallow Water Torpedo G&C Results, Submarine Technology Symposium 98, Johns Hopkins University/APL, Columbia, MD, 12-15 May 1998.
25. L. H. Sibul, **L. G. Weiss**, and M. J. Roan, "Generalized Wavelet Transforms and Their Applications," SPIE International Symposium, Orlando, FL, 13-17 April 1998.
26. **L. G. Weiss**, L. H. Sibul, "Cascaded Scattering Functions for Sonar Signal Processing", EUSIPCO-98, 9th Annual Signal Proc. Conference, Rhodes, Greece, 8-11 Sep 1998.
27. **L. G. Weiss**, L. H. Sibul, "Weighted Time-Frequency and Time-Scale Transforms for Nonstationary Signal Detection," Proc. 1997 SPIE International Symposium, San Diego, CA, July-Aug 1997.
28. L. H. Sibul, **L. G. Weiss**, R. K. Young, "Estimator-Correlator for Wideband Radar and Sonar Signal Processing," Proc. 1997 Wideband RF Science and Technology Workshop, Sponsored by ONR, Orlando, FL, Apr 10-11, 1997.

29. L. H. Sibul, **L. G. Weiss**, and T.L. Dixon*, "Wavelet Transform Domain Implementation of the Estimator-Correlator For Detection of Distributed Objects in Stochastic Propagation Media", Proceedings of the 1997 Conference on Information Sciences and Systems, John Hopkins Univ., Mar 19-21, 1997.
30. **L. G. Weiss**, "Coherent Broadband Processing With Wavelet Transforms," Proc. Joint Math. Meeting, American Math. Society, San Diego, CA, Jan 8-11, 1997.
31. L. H. Sibul, S. T. Sidahmed, T. L. Dixon*, **L. G. Weiss**, "Wavelet Domain Implementation of the Estimator-Correlator and Weighted Wavelet Transforms," invited paper at the 13th Annual Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, CA, Nov 3-6, 1996
32. L. H. Sibul, **L. G. Weiss**, R. K. Young, "Group Theoretic Aspects of Signal Processing in Time-Frequency/ Time-Scale Domains," 30th Annual Conference on Information Sciences and Systems, Princeton, NJ, 20-22 Mar 1996.
33. **L. G. Weiss**, T. L. Dixon*, "Wavelet Based Signal Recovery and Denoising of Underwater Acoustic Signals," Proc. 1995 SPIE International Symposium, July 1995, San Diego, CA.
34. **L. G. Weiss**, "One Dimensional Blood Flow Measurement Methods: Narrowband vs. Wideband/Wavelet Transform Techniques," 129th Meeting of the Acoustical Society of America, Washington, DC, JASA, vol. 97, no. 5, pt. 2, May 1995.
35. R. K. Young, L. H. Sibul, and **L. G. Weiss**, "Wavelet Based Processing to Efficiently Achieve Broadband Multistatic and/or Passive Cross-Sensor Processing," Proc. of the Wideband and RF Science and Technology Workshop, San Diego, CA, Jan. 30- Feb. 2, 1995.
36. **L. G. Weiss**, "Bloodflow Velocimetry Using Wideband Signals and Wavelets," invited paper, Proc. of the 16th Annual International Conference of the IEEE EMBS: Workshop on Wavelets in Medicine and Biology, Balt., MD, Nov 3-6, 1994.
37. **L. G. Weiss**, S. C. A. Thomopoulos, "Target Detection and Localization from Bearing-Only and Bearing / Range Measurements," Proc. of the First Regional Conference on Aerospace Control Systems, Westlake Village, CA, May 25-27, 1993.
38. R. K. Young, **L. G. Weiss**, and L. H. Sibul, "Multisensor Processing for Underwater Vehicles," Proc. Fourth Navy R&D Information Exchange Conference, San Diego, CA, April 13-15, 1993.
39. **L. G. Weiss**, R. K. Young, "Wideband Spatial Processing with Wavelet Transforms," Proc. of IEEE Sixth SSAP Workshop on Statistical Signal and Array Processing, Victoria British Columbia, Canada, October 7- 10, 1992.
40. **L. G. Weiss**, R. K. Young, "Wideband, Nearfield Array Processing and Wavelet Transforms," Proc. of IEEE-SP International Symposium on Time - Frequency and Time - Scale Analysis, Victoria British Columbia, Canada, October 4-6, 1992.
41. **L. G. Weiss**, "Wideband, Nearfield Processing of Spatially Distributed Sources Using Multiple Wavelet Transforms," Proc. of IEEE Digital Signal Processing Workshop, Starved Rock State Park, Illinois, Sept. 13-16, 1992.

SELECTED NON- REFERREED PUBLICATIONS OF INTEREST

1. **L. Weiss**, “UUVs, Autonomy, Cross-Domain Collaborative Control, Swarms, and T&E” prepared for the National Academies, Naval Studies Board on Mainstreaming UUVs into Future US Naval Operations, 10 July 2015.
2. **L. Weiss**, Aviation Week and Space Technology, “Future Flight Paths, Unmanned Technology is Changing Both the Shape and Missions of Airborne Systems,” Innovation Issue, p. 78-79, Oct. 24-31, 2011.
3. **Weiss, L.**, Whitaker, E., Briscoe, E., Trehwhitt, E, “Modeling Behavioral Activities Related to Deploying IEDs in Iraq,” Technical Report #ATAS-D5757-2009-01, 28 Aug 2009.
4. **L. G. Weiss** and T. E. White, “Autonomy Standards for Unmanned Undersea Vehicles,” ASTM Standardization News, Featured Article, Nov 2005.
5. J. A. Stover, **L. G. Weiss**, “ARL/PSU’s Autonomous Intelligent Controller (AIC) For Unmanned Systems”, Naval Studies Board of the National Academies of Science, 5 May 2003.
6. L. H. Sibul, **L. G. Weiss**, and M. J. Roan, “Wideband Signal Processing”, ARL Review 2001.

PATENTS

1. U.S. Patent serial number 13/870,050, awarded 2015, “Skate Unmanned Underwater Vehicle: A Buoyance-Propelled, Autonomous Platform with Ray-like Mobility,” with A. Glezer and M. Allen.
2. U.S. Patent disclosure filed by Penn State University, 1994 “Fast Non-Orthogonal Wavelet Transform,” with S. D. Brown and R. K. Young.

INVITED TALKS, KEYNOTE ADDRESSES, & PANELS

1. Plenary Panel Chair, “The Anticipated Impact and Challenges in Fielding Cognitive, Distributed RF Systems,” Cognitive Radar & EW Workshop, Atlanta, GA, 13-14 Dec 2017
2. Session Chair, Cognitive Radar & EW Workshop, Atlanta, GA, 13-14 Dec 2017
3. Invited Panel Member, A2/AD Systems and Technology Workshop, MIT/Lincoln Laboratory, Boston, MA, 15 Nov 2016
4. Invited speaker, Autonomous Vehicles and Intelligent Autonomy, Intelligence and National Security Alliance, McLean, VA, 3 June 2016
5. Collaborative Control of Unmanned and Autonomous Systems, Naval Postgraduate School, Seminar Presentation, 16 Nov 2015
6. Collaborative Control of Unmanned and Autonomous Systems, School of Chemical and Biomolecular Engineering, Georgia Tech Seminar Presentation, 23 Sept 2015
7. Invited Panel Member, Presenter, and Participant, Innovation Summit for Federally Funded Laboratories, McLean, VA, 6 Jan 2015
8. Invited Keynote, “Robotics and Unmanned Systems,” 2nd Annual Impact of Export Controls on Higher Education & Scientific Institutions, Atlanta, GA, 6 May 2014

9. Invited Panel Member and Talk, "Collaborative Autonomy and Large-Scale Teaming," DARPA's SWARM Challenge Workshop, Arlington, VA, 6-7 Feb 2014
10. Invited Keynote, "Driverless Cars" Unmanned Systems Policy Symposium, Georgia Centers of Innovation and GTRI, Atlanta, GA, Nov 20, 2013
11. Invited Talk, "Unmanned Air Vehicles," Avionics Seminar, GTRI Technical Seminar Series, Atlanta, GA 13 Sept 2013
12. Invited Talk, "Current Research Initiatives in Collaborative Unmanned, and Autonomous Systems," Defense Strategies Institute, Wounded Warrior Project, Alexandria, VA, 26-27 Mar 2013
13. Invited Talk, "Driverless Cars," International Association for Lemon Law Administrators, Atlanta, GA, 8 Oct 2012
14. Invited Talk, "Military Robotics: Overview, Limitations, and the Future", Women in Defense and the Professional Associates Network, Aberdeen, MD, 28 Feb 2012
15. Invited Participant, "DARPA Cooperative Autonomy and Autonomous Systems with Military Applications," Reston, VA, 6-7 Oct 2011
16. Invited Talk, "Challenges with Quantifying the Qualitative," ONR Workshop on Human Interactions in Irregular Warfare as a Complex System, Atlanta, GA, 13-14 April 2011
17. Invited Talk, "Challenges with Testing Vehicle Autonomy," Joint AUVSI – ITEA Workshop on Developing and Testing Unmanned Vehicle Autonomy Atlanta, 13-14 Oct 2010
18. Invited Talk, "A Network-based Approach for Assessing Co-Operating Manned and Unmanned Systems," Performance Metrics for Intelligent Systems Workshop, PerMIS '10, Baltimore, MD, 29-30 Sept 2010
19. Invited Panelist, "Immersive Worlds" Invited Panel Member, Future Media Fest 2010, Atlanta, GA, 6 Oct 2010
20. Invited Participant, "DARPA Idea Summit: Mapping Edges in a World of Global Connectivity," Arlington, VA, 16 Apr 2010
21. Keynote Talk, "Unmanned Systems Leadership Summit" in conjunction with the Georgia Economic Development office, Atlanta, GA, 15 Dec 2009
22. Plenary Address, "Assessing Autonomous Systems As They Evolve," Performance Metrics for Intelligent Systems Workshop, PerMIS '09, NIST, MD, 21-23 Sept 2009
23. Invited Talk, "Multi-Agency Policy Evaluation," Human Social Culture Behavior Modeling Focus 2010 Conference, Chantilly, VA, 5-7 Aug 2009
24. Invited Talk, "Cultural and Behavioral Model Docking Research," Human Social Culture Behavior Modeling Focus 2010 Conference, Chantilly, VA, 5-7 Aug 2009
25. Invited Talk, "Linking UK Content Expertise with Computer-Based Analysis for Prediction of Individual and Group-Related Activities" Human Social Culture Behavior Modeling Focus 2010 Conference, Chantilly, VA, 5-7 Aug 2009
26. Invited Talk, "Linking UK Content Expertise with Computer-Based Analysis for Prediction of Individual and Group-Related Activities" ONR cIED Predict Tenant Lane Technical Workshop, DC, 17-18 June 2009

27. Invited Talk, "Navy Unmanned Systems Common Control (USCC)," Autonomous Unmanned Vehicle Symposium International (AUVSI), Washington, DC, 5 Feb 2009
28. Invited Talk, "Roadmap Development for T&E S&T of Unmanned Autonomous Systems," 2008 Southern Maryland ITEA Workshop, 15 Sept 2008
29. Invited Talk, "Navy Unmanned Systems Common Control (USCC)," 8th International Symposium on Technology and the Mine Problem, Monterey, CA, 7 May 2008
30. Invited Talk, "Test and Evaluation for Unmanned and Autonomous Systems – An Overarching Perspective," 2007 Annual ITEA Technology Review, 18 July 2007
31. Invited Talk, "Unmanned Systems Common Control for Naval Platforms," 3rd Annual Robotics and Unmanned Systems Conference, Washington, DC, 16 May 2007
32. Invited Talk, Unmanned Systems Common Control Study Team," Autonomous Unmanned Vehicle Symposium International (AUVSI), Washington, DC, 9 February 2007
33. Invited Talk, "Unmanned Systems C2 Study Team," Autonomous Unmanned Vehicle Symposium International (AUVSI), Orlando, FL, 29 Aug 2006
34. Invited Talk, "Unmanned Underwater Vehicle Standards-F41.01 Committee Update," Autonomous Unmanned Vehicle Symposium Int'l (AUVSI), Orlando, FL, 28 Aug 2006
35. Invited Talk, "Coordinated UAV and UUV Interactions," Autonomous Unmanned Vehicle Symposium International (AUVSI), Washington, DC, 8-10 Feb 2005
36. Invited Talk, "Intelligent Autonomy for Multiple Coordinated Unmanned Air Vehicles," The Institute for Computational Sciences, PSU, 31 Jan 2005
37. Invited Talk, "Intelligent Autonomy for Multiple, Coordinated UAVs," The Robotics Institute, Carnegie Mellon University, 27 Sept 2004
38. Invited Talk, "Weapon-Platform connectivity for Improved ASW Performance," Submarine Technology Symposium, JHU/APL, Laurel MD, 11-13 May 2004
39. Invited Panel Member, The MITRE Corporation, Panel "Threat 2015", 6-8 Mar 2000
40. Invited Panel Member, Acoustical Society of America, "Wavelets in Acoustics", Columbus, OH, 4 Nov 1999
41. Invited Talk, "Wavelet Processing for Wideband Spreading Function Estimation", Acoustical Society of America, Columbus, OH, 4 Nov 1999
42. Invited Talk, "Bloodflow Velocimetry Using Wideband Signals and Wavelets," 16th Annual International Conference of the IEEE EMBS: Workshop on Wavelets in Medicine and Biology, Baltimore, MD, Nov. 3-6, 1994

RESEARCH GRANTS & CONTRACTS

I arrived at Penn State in September 2019. All research grants and contracts were awarded prior to my arrival.

While at Georgia Tech, from August 2006 – August 2019, I was PI or Co-PI on awards with my portion totaling >**\$30M** as listed below.

Awards prior to arriving at Georgia Tech are not listed. However, during my 16 years at Penn State's Applied Research Lab, I was responsible for research awards in advanced signal processing, autonomous systems, intelligent control, and tactical processing for manned and unmanned systems. During my years there, I was PI or co-PI on programs with my portion totaling >\$20M, for a total of >**\$50M** in awards during my academic career.

Awards to Weiss while at Georgia Tech, Aug 2006 – Aug 2019				
PI / Co-PI	Title	Sponsor	Period of Performance	Total Award (Amount to Weiss)
PI: M. Heiges Co-PI: L. G. Weiss	Unmanned Systems Common Control	Navy PEO LMW / Penn State	Sept 2006 – Jun 2007	\$99,843 (90% to Weiss)
PI: L. G. Weiss	Unmanned Systems Common Control	Naval Surface Warfare Center, Panama City	Feb 2007 – Sept 2007	\$60,000 (100% to Weiss)
PI: L. G. Weiss	Unmanned Systems Common Control	Naval Surface Warfare Center, Indian Head	July 2007 – June 2008	\$72,816 (100% to Weiss)
PI: L. G. Weiss.	Unmanned Systems Common Control	Navy - PEO LMW	June 2008- Dec 2010	\$772,679 (100% to Weiss)
PI: L. G. Weiss	Unmanned and Autonomous Systems Roadmap Development and Technology Insertion Plan	Office of the Secretary of Defense Test Resource Management Center	Sept 2007- Dec 2009	\$478,265 (100% to Weiss)
PI: L. G. Weiss	Linking UK Content Expertise with Computer-Based Analysis for Prediction of Individual and Group-Related Activities	Office of Naval Research	Jan 2008 - Dec 2014	\$2,400,000 (\$1,650,000 to Weiss)
PI: L. G. Weiss	Development and Analysis of Disruptive and Emerging ISR Technologies	OSD Rapid Reaction Technology Office	Sept 2009-Sept 2012	\$3,458,632 (\$450,000 to Weiss)
PI: L. G. Weiss	Common Mission Package Software Development	Naval Surface Warfare Center, Panama City	Apr 2010 - Apr 2013	\$714,870 (\$417,000 to Weiss)
PI: L. G. Weiss	Common Mission Package Software Development	Naval Surface Warfare Center, Indian Head	Apr 2012 - Apr 2013	\$500,000 (100% to Weiss)

PI: L. G. Weiss	Cultural and Behavioral Model Docking	Office of Naval Research	Jan 2010 - Jan 2013	\$1,196,514 (\$550,207 to Weiss)
PI: L. G. Weiss	Identify and Assess Foreign Technologies in the Early Phases of Research Development	Navy	Aug 2010 -Dec 2011	\$120,948 (100% to Weiss)
PI: L. G. Weiss	Ground-Truthing Social Media Data	DARPA	July 2011- Jan 2012	\$620,000 (\$320,000 to Weiss)
PI: L. G. Weiss	ONR Workshop	Office of Naval Research	13-14 April 2011	\$50,000 (100% to Weiss)
PI: D. Bader Co- PI: L. Weiss (+ other co-PIs)	Proactive Detection of Insider Threats w/ Graph Analysis at Multiple Scales	DARPA / SAIC	Jun 2011 - Aug 2014	\$2,892,283 (\$750,000 to Weiss)
PI: L. G. Weiss	Autonomy & Artificial Intelligence	AMEWAS, Inc for Naval Air Systems Command	May 2012-Mar 2013	\$81,323 (100% to Weiss)
PI: E. Gilbert Co-PI: L. G. Weiss (+ other co-PIs)	Socint: Social Signals for Identifying and Using Influential Subnetworks	DARPA	Jan 2012 - Jan 2015	\$3,217,919 (\$599,934 to Weiss)
PI: L. G. Weiss	Informational, Computational, and Robotics Research	BMW Corporate Gift	December 2011	\$68,000 (100% to Weiss)
PI: L. G. Weiss	Unmanned Underwater Vehicles	SAIC Corporate Gift	Mar 2012	\$25,000 (100% to Weiss)
PI: L. G. Weiss	Autonomy Validation, Introspection, and Assessment	DARPA	August 2012- November 2016	\$3.2M (100% to Weiss)
PI: L. G. Weiss	Unmanned Underwater Vehicles	SAIC Corporate Gift	April 2013	\$25,000 (100% to Weiss)
PI: L. G. Weiss	Rapid Crisis and Disaster Response Info Discovery	Charles River Analytics	May 2012-May 2013	\$12,000 (100% to Weiss)
PI: L. G. Weiss	UAV Sense and Avoid Modeling	Air National Guard	Sept 2011 – Aug 2014	\$10,000 (100% to Weiss)
PI: S. Balakirsky Co- PI: L.G. Weiss	Common Software Architecture	Naval Surface Warfare Center, Indian Head	Sept 2013 – Aug 2014	\$193,000 (\$50,000 to Weiss)
PI: L. G. Weiss	SIREN: sensing with unmanned vehicles	Naval Surface Warfare Center, Indian Head	Sept 2013-Sept 2014	\$512,000 (100% to Weiss)
PI: L. G. Weiss	Near-surface Formation Control	Office of Naval Research	Oct 2013-Dec 2015	\$3.1M (100% to Weiss)
PI: L. G. Weiss	Low-Cost UAV Swarming Technology	Office of Naval Research	Oct 2013-Dec 2015	\$2.6M (100% to Weiss)
PI: L. G. Weiss	Autonomy & Artificial Intelligence	AMEWAS, Inc for Naval Air Systems Command	Feb 2014-Jun 2014	\$75,000 (100% to Weiss)

PI: D. Davis Co-PIs: J. Doss, L.G. Weiss	LDUUV Payload ICD Support	PMS 406, via subcontract through Johns Hopkins Applied Physics Lab	June 2014-Mar 2016	\$50,000 (10% to Weiss)
PI: L. G. Weiss	T&E Roadmap Development for Autonomous Systems	Test Resource Management Center	Feb 2015-Dec 2015	\$800,000 (100% to Weiss)
PI: L. G. Weiss	Swarm Seedling Development	DARPA, via subcontract through the Open Source Robotics Foundation	May 2015- Dec 2015	\$100,000 (100% to Weiss)
PI: L. G. Weiss	DURIP: Rotorcraft Enabled, Collaborative Unmanned Air Vehicle Maneuverability in Challenging Environments	Office of Naval Research	June 2015-June 2016	\$737K (100% to Weiss)
PI: D. Davis* Co-PIs: L. Weiss, M. Heiges	Nemesis, FY16-18	Office of Naval Research	June 2016 -June 2019	\$3.5M (100% to Weiss and team)
PI: L. G. Weiss	Novel Unmanned-systems Technologies Realized via Intelligent Autonomy	DARPA	Sept 2016-April 2018	\$850K (100% to Weiss)
PI: L. G. Weiss ⁺	AVIA for Sea Hunter Testing at Scale, Increment 1	Office of Naval Research	May 2017 – October 2018	\$300K (100% to Weiss)
PI: L. G. Weiss ⁺ Co-PI: Terence Haran	Concept Analysis and Assessment of Strategic Capabilities	Strategic Capabilities Office	21 July 2017 – 19 Apr 2019	\$1.6M (100% to Weiss and team)
PI: L. G. Weiss ⁺	AVIA for Sea Hunter Testing at Scale, Full Capability	Office of Naval Research	July 2018 – Jul 2020	\$4.3M (100% to Weiss and team)
PI: L. G. Weiss ⁺	DoD Technologies	DoD	Jan 2018 - June 2023	\$1.95M (100% to Weiss and team)
TOTAL to Weiss, since Aug 2006				\$30,782,172

⁺Upon assuming the interim position of Senior Vice President and GTRI Director, I transferred PI responsibilities to other researchers. Additional increments of funding were subsequently added to these awards, so that the total award values are actually larger. These values reflect those amounts during my leadership.

BOARDS, TESTIMONIALS, & NATIONAL LEADERSHIP

1. Chair, ASTM International Standards Committee 2005-present
 - F41.01, Unmanned Underwater Vehicle Autonomy & Control
2. National Academies of Sciences, Engineering, and Medicine 2018
 - Member, Naval Studies Board Planning Committee
 - Study: Multi-Domain Autonomous Systems for US Naval Forces
3. Member, Center for a New American Security, Future Foundry Task Force 2016
 - Forging New Industries for Defense
4. National Academies of Sciences, Engineering, and Medicine 2015-2016
 - Member, Naval Studies Board Study
 - Study: Mainstreaming Unmanned Undersea Vehicles into Future U.S. Naval Operations
5. Member, Steering committee DARPA’s Information Science and Technology (ISAT) 2014-2016 and 2019 -present
 - Information group for DARPA
6. Member, DARPA’s Information Science and Technology (ISAT) 2012-2014
7. Board Member, National Robotics Technology Consortium 2010-2012
 - Technical Advisory Board
8. Board of Directors, Association for Unmanned Vehicle Systems International 2008-2011
 - World’s Largest Unmanned Systems Non-Profit Organization
9. Executive Board Member, NDIA, Undersea Warfare Division 2001-2002
10. Acoustical Society of America, Central Pennsylvania Chapter 1994-1997
 - Vice President, President, & President Emeritus

Testimonials & Government Relations

1. “Technologies for Seapower,” presented to Mr. Dave Sienicki, House Armed Services Committee Staff, Seapower and Expeditionary Forces Subcommittee Lead, 20 Nov 2017
2. Meetings with Staffers from all 13 of Georgia’s Congressional Delegation to the Federal House of Representatives, Topic: Securing an FAA UAS Test Site in Georgia, 19 Mar 2013 and 8 May 2013.
3. “Advancing Our Capabilities Through Virtual Worlds,” testimony to the Science and Technology Committee of the House of Representatives, Georgia General Assembly, 21 Feb 2008

SERVICE TO THE UNIVERSITY (Georgia Tech)

1. Member, Georgia Tech’s President Cabinet 2018-2019
2. Advisory Council Member, Machine Learning @ Georgia Tech 2017-2019
3. Editor, GTRI IRAD Journal 2015-2019
4. Chief Technology Officer and Chief Scientist, GTRI 2013-2019
 - Responsible for GTRI’s > \$20M annual IRAD investment portfolio
5. Committee Chair, annual selection of GTRI Fellows 2013-2019
6. Committee Chair, annual selection of GTRI Best Paper Award 2013-2019
7. Member, GT Institute for Robotics and Intelligent Machines (IRIM & RIM) 2012-2019

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| 8. Participant, Associate Dean of Research monthly meetings, GTRI representative | 2015-2018 |
| 9. Judge, Three Minute Thesis, finals | 2018 |
| 10. Chair, Search Committee for GTRI ICSD Director | 2017-2018 |
| 11. Member, President's 2017 Regents Professor and Regents Researcher Review and Recommendation Committee | 2017 |
| 12. Session Lead, Executive Vice President for Research Offsite | 2017 |
| 13. Participant, Robotics and Intelligent Machines (RIM) Offsite | 2017 |
| 14. Keynote, Aerospace Engineering Honor Society, Sigma Gamma Tau, Senior Dinner | 2017 |
| 15. Faculty Council Member, Strategic Energy Institute | 2015-2017 |
| 16. Presenter, GTRI External Advisory Committee, annually | 2014-2017 |
| 17. Member, President's Nominating Committee for 2017 Defense Science Study Group | 2016 |
| 18. Co-Chair, GTRI Study on Increasing GTRI Interactions across GT | 2015-2016 |
| 19. Chair, Search Committee for GTRI Director | 2015 |
| 20. Member, GT Committee to bring FIRST Robotics World Competition to Atlanta | 2013 |
| 21. Lead, Strategic Research Initiative for Robotics (\$1.2M IRAD investment) | 2011-2014 |
| 22. Leadership role, State of Georgia's Autonomous Vehicle Strategy | 2009-2014 |
| – Coordinated and hosted 1st Unmanned Systems Leadership Summit, in conjunction with the Georgia Office of Economic Development | |
| – Planning and coordination with representatives across State of Georgia | |
| 23. Member, Proposal Committee for State of Georgia FAA UAV Test Site Proposal | 2012-2013 |
| 24. Member, Robotics IRI Strategic Plan Development Committee | 2012-2013 |
| 25. Participant, EVPR's Research Strategy Planning Workshop | 2011 |
| 26. Participant, Robotics and Intelligent Machines (RIM) Offsite | 2011 |
| 27. Mentor, GTRI Mentor-Protégé program | 2010 |
| 28. Member, Search Committee for GTRI ITTL Lab Director | 2008-2009 |
| 29. Member, Fellows Council Review of GTRI Internal R&D Investments | 2007-2008 |
| 30. Panelist, Georgia Tech's ADVANCE Program Workshop | 2007 |

SERVICE TO THE PROFESSION

Organizing Committees & Workshop Coordinator

1. Organizing Committee, Association for Unmanned Vehicle Systems International, Program Review Planning Committee, Washington, DC, October 2015
2. Organizing Committee, North America Conference for Association for Unmanned Vehicle Systems International, Orlando, FL, May 2014
3. Organizer and Host, DARPA ISAT Workshop on Economic Science, Atlanta, GA, 17 Jun 2013
4. Organizing Committee, North America Conference for Association for Unmanned Vehicle Systems International, Las Vegas, NV, 6-9 Aug 2012
5. Chair, Organizing Committee, Association for Unmanned Vehicle Systems International, Program Review, Washington, DC, 7-9 Feb 2012

6. Session Chair, Unmanned Maritime Systems Day, Association for Unmanned Vehicle Systems International, Program Review, Washington, DC, 9 Feb 2012
7. Organizer and Chair, "Human Interactions in Irregular Warfare as a Complex System," hosted for the Office of Naval Research, Atlanta, GA, 13-14 April 2011
8. Organizer and Chair, "Developing and Testing Unmanned Vehicle Autonomy," workshop sponsored by the local chapters of AUVSI and ITEA, Atlanta, GA, 13-14 October 2010
9. Session Chair, SPIE Conf. on Wavelet Applic'ns in Signal and Image Proc., San Diego, 4 Aug 2002
10. Session Chair, "The Submarine as the Ultimate Asymmetric Threat", Submarine Technology Symposium, Johns Hopkins University/APL, Columbia, MD, May 1999.

Senior Editor

IEEE Journal on Miniaturization for Air and Space Systems (J-MASS) 2018 – 2019**

**put on hold while I have assumed the interim role of Senior Vice President and GTRI Director

Membership in Professional Societies

- Autonomous Unmanned Vehicle Systems International (AUVSI)
- International Test & Evaluation Association (ITEA)
- Institute for Electrical and Electronics Engineers (IEEE), Regular Member
- Institute for Electrical and Electronics Engineers (IEEE), Signal Processing Society
- Institute for Electrical and Electronics Engineers (IEEE), Robotics and Automation Society
- Acoustical Society of America (ASA)
- Women in Science and Engineering (WISE)

Reviewer for

- IEEE Spectrum Magazine
- IEEE Trans. on Biomedical Engineering
- IEEE Trans. on Signal Processing
- IEEE Trans. on Circuits and Systems
- IEEE Signal Processing Letters
- Journal of the Acoustical Society of America
- NSF proposals in Circuits and Signal Processing Program
- IEEE Educational Video Series
- Books published by Addison Wesley Publishing, Co.
- 1st International Conference on Cross-Cultural Decision Making
- BRIMS 2010 Conference

Outreach to the Community

1. Judge for BEST Robotics: Judge at State Competition 2017 - 2019
2. Science Fair Judge, DeKalb County School District 2015 - 2019
3. Judge for FIRST Lego League Robotics Competitions 2010 - 2019
 - Judge at Regional, State, and World Competitions
4. Coach and founding mentor FIRST Tech Challenge (FTC) Robotics Team 2013-2016
 - DeKalb County School District's first and only FTC Robotics Team
5. Judge, Women in Technology, Women of the Year 2015

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| 6. Women in Engineering, Fall Mixer Panel Member | 2015 |
| 7. Parent-mentor for FIRST Robotics Competition (FRC) Team | 2010-2014 |
| – DeKalb County School District’s first and only FRC Team | |
| 8. Women in Technology (WIT) invited panel member | 2014 |
| – Startup EcoSystem, WIT on Campus, held at Atlanta Tech Village | |
| 9. Keynote Speaker at Southeast BEST Regional Robotics Championship | 2013 |
| – Auburn University, hosted by WISE | |
| 10. Host, Robotics Demo Day | 2012-2014 |
| – Demonstrations of GTRI robotics to the community | |
| – More than 400 individuals in attendance | |

Consulting

Engineering consulting provided through Weiss Technologies, LLC.	2010 - 2015
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HONORS, AWARDS, RECOGNITION, & CERTIFICATIONS

Awards & Recognition

1. Letter of Appreciation on Technical Execution, Office of Naval Research, Nemesis INP Program Manager, 6 Dec 2017
2. Letter of Commendation, Chief of Naval Operations Strategic Studies Group, 26 Feb 2016
3. GTRI Spot Award, Dec 2014
4. Letter of Commendation, Chief of Naval Operations Strategic Studies Group, 18 April 2013
5. Woman of the Year for Medium Business, from Women in Technology, Inc., November 2012
6. Woman of the Year Honoree, from Women in Technology, Inc., September 2012
7. Academic Champion Award, from the AUVSI Foundation, August 2012
8. Featured “Scientist in the Spotlight” in the Human Social Culture Behavior Modeling Program Newsletter, Fall 2009
9. GTRI Technical Fellow, 2007
10. Kenneth T. Simowitz Memorial Award, from The Pennsylvania State University, Graduate Program in Acoustics, April 1995
11. Outstanding Publication Award, from The Pennsylvania State University, Applied Research Laboratory, January 1995
12. Kenneth T. Simowitz Memorial Citation, from The Pennsylvania State University, Graduate Program in Acoustics, April 1993

Certifications / Training

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| 1. Institutional Review Board (IRB) Certification: Human Research Curriculum | 2008-2019 |
| 2. Project Director Core Training | 2015 |
| 3. Excellence in Industrial Contracting Certificate | 2008 |
| 4. Georgia Tech Compliance Training | Annually |
| 5. Security Training | Annually |
| – The Office of Program Security (OSEC) Annual Security Refresher Briefing | |
| – Annual SCI Refresher Training/ORCON Refresher | |

- Classification Management and the Intelligence Community (IC) Marking Systems
- Derivative Classification Training
- Unauthorized Disclosure of Classified Information
- Cyber Awareness Challenge
- Cyber Awareness Challenge: Intelligence Community

Media Spokesperson on Unmanned and Autonomous Systems: ‘What Does Georgia Tech Think’

I continuously conducted interviews as requested by Georgia Tech Institute Communications. A selection of media activities are listed below.

1. The AVIA release is posted on the Research Horizons home page:<http://www.rh.gatech.edu/news/573471/avia-provides-systematic-test-and-evaluation-autonomy-systems>, 7 Sept 2016
2. Daredevil Drone Flies through the Trees Like an Ace, MIT Technology in Review, <https://www.technologyreview.com/s/600925/daredevil-drone-flies-through-the-trees-like-an-ace/>, March 2016
3. Georgia Tech Horizons Magazine, “Co-Robots Team up with Humans”, Issue 3, 2014
4. Georgia Tech Horizons Magazine, “Flock Together”, Issue 3, 2014
5. Wall Street Journal, Interview, Dec 2014
6. AP Interview, 3 Dec 2013 <http://video.ap.org/Amazoncom-Sees-Delivery-Drones-As-Future-25408146?playlistId=10218#.Up3pKCqF8pl>
7. CBS National News interview about UAVs. <http://www.cbsnews.com/videos/how-soon-can-you-expect-drone-deliveries/>, 2 Dec 2013
8. The computer in the next lane. An interview with L. Weiss, CarInsurance.com, 8 Nov 2013
9. Business Radio: WIT’s Women Of The Year In Technology 2012 Awards- Radio Interview, <Http://Resultsmatterradio.Businessradiox.Com/2012/11/27/Wits-Women-Of-The-Year/>
10. Atlanta Journal Constitution, Front Page, “Georgia at Forefront of Drone Technology,” November 27, 2012
11. Atlanta Business Chronicle, Women of the Year, November 2-8, 2012
12. Discover Magazine, “Attack Of The Drones,” October 2012
13. Georgia Trend, “The Sky is the Limit,” August 2012
14. Aviation Week and Space Technology, “Future Flight Paths, Unmanned Technology is Changing Both the Shape and Missions of airborne systems,” Innovation Issue, p. 78-79, Oct 24-31, 2011.
15. The Atlanta Journal Constitution, “Tech challenges drones’ limits,” reposting of Washington Post story, 25 Sept 2011
16. The Fiscal Times, “U.S. Moves Towards Robotic Warfare,” reposting of Washington Post story, 20 Sept 2011
17. Drudge Report, “A future for drones: Automated killing,” reposting of Washington Post story, 20 Sept 2011
18. CBS News, “A future for drones: Automated killing,” research highlighted via Washington Post story, 20 Sept 2011
19. Washington Post, “A future for drones: Automated killing,” research highlight, 19 Sept 2011

20. Research highlighted in Georgia Tech Institute Address 2011, by President G. P. "Bud" Peterson, 30 Aug 2011
21. *Human, Social, Cultural, and Behavioral Modeling Newsletter*, research highlight, Spring 2011
22. Armed with Science, "[This Ain't No Rodeo: Robots on a Mission](#)", Feb 2011
23. ars technica, "A step closer to Skynet? Pentagon wants fighting robots to talk to each other," <http://arstechnica.com/gadgets/news/2011/02/a-step-closer-to-skynet-pentagon-wants-robots-to-talk-to-each-other.ars>, Feb, 2011
24. Unmanned Systems Magazine, AUVSI, "Serious Gaming: Entertainment Technology Yields Results for Research Ranging from Defense to K-12 Education," vol. 29, no. 2, February 2011
25. R&D Magazine, "Enabling autonomous collaboration among dissimilar robotic vehicles," <http://www.rdmag.com/News/2010/10/Manufacturing-Robotics-Enabling-Autonomous-Collaboration-Among-Dissimilar-Robotic-Vehicles/>, 13 Oct 2010
26. Engineering TV, 2010 Robotics Rodeo and Autonomy Workshop, Direct link: <http://www.engineeringtv.com/video/2010-Robotics-Rodeo-and-Autonom>, 16 Sept 2010
27. Engineering TV, Auction-Based Autonomy from Georgia Tech, Direct link: <http://www.engineeringtv.com/video/Auction-Based-Autonomy-from-Geo>, 15 Sept 2010
28. *Human, Social, Cultural, and Behavioral Modeling Newsletter*, featured scientist in the Spotlight, Fall 2009
29. Unmanned Systems Magazine, AUVSI, "We Need More Power, Autonomy, Commonality, Speakers Say," Mar 2009
30. Unmanned Systems Magazine, AUVSI, "Georgia Tech Crafting Testing Roadmap for DOD," October 2008
31. Defense Systems, "Georgia Tech Tests Unmanned Systems," Sept 8, 2008
32. The Whistle (GT's Newspaper), "GTRI wins contract to support test, evaluation of unmanned systems," August 18, 2008
33. Robotics Trends, "GTRI Wins Contract to Develop Technology Roadmap for Unmanned and Autonomous Systems," 13 Aug 2008
34. Test and Measurement World, "GTRI to Develop Test Program for US Unmanned Systems," August 12, 2008
35. Atlanta Business Chronicle, "GTRI to Develop Testing For Unmanned Military Technology," July 31, 2008

Attachment 2 - Penn State University organization chart applicable to the referenced license

