

## **Kurt Preston, Ph.D., Esq.**

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Washington, D.C. 20004

**SYNOPSIS:** Federal research director, university leader, and former military officer with extensive research management experience, facilitation skill, and practice working in extraordinarily complex environments.

### **EDUCATION:**

#### *Post-secondary:*

Juris Doctor: **North Carolina Central University**, Durham, North Carolina  
and **American University**, Washington, D.C., Colleges of Law

Doctor of Philosophy: Civil Engineering-Environmental  
**Purdue University**, West Lafayette, Indiana

Master of Science: Civil Engineering-Environmental  
**Purdue University**, West Lafayette, Indiana

Bachelor of Science: Agriculture-Agronomy  
**University of Georgia**, Athens, Georgia

#### *Other:*

Executive Leadership and Planning  
**Command and General Staff College**, Leavenworth, Kansas

Operations in the International Setting  
**NATO Engineer Battalion Commander Course**, Munich, Germany

Effective Management, Public Speaking, and Briefings  
**Combined Armed Services Staff School**, Leavenworth, Kansas

Management, Leadership, and Administrative Procedures  
**Aviation Officer Advanced Course**, Dothan, Alabama

Flight Training and Applied Problem Solving  
**Officer, Initial Entry Rotary Wing Flight Training**, Dothan, Alabama

Equipment Maintenance, Management, and Record Keeping  
**Armor Officer Basic Course**, Fort Knox, Kentucky

## **PROFESSIONAL EXPERIENCE:**

### **Federal Research Program Manager, Strategic Environmental Research and Development Program (SERDP) and Environmental Security Technology Certification Program (ESTCP) - Alexandria, Virginia, 2017 to Present**

Lead U.S. Department of Defense (DoD) environmental research programs focused on the research and development of technologies to support the DoD's complex and highly decentralized global mission. Provide advice and consultation at highest federal level, for example, recently represented the DoD as a member of an interagency team led by the White House Office of Science and Technology Policy. Identify, develop, and oversee all aspects of program's research focus in resource conservation and resilience. Responsibilities include programmatic and project level activities from pre-award and post-award through to final reporting. I am the primary author of all of the program areas' calls for proposals and provide technical leadership of the proposal review and selection process, budget analysis and oversight at both the programmatic and project level, lead program in-progress project reviews (~70 projects), review all final reports, and document project success or failure at project conclusion.

### **Director of U.S. Army Laboratory Management (A) and U.S. Army Corps of Engineers, Engineering Research and Development Center Liaison to the Office of the Deputy Assistant Secretary of the Army for Research and Technology - Arlington, Virginia, 2015 – 2016**

Advised the Deputy Assistant Secretary of the Army for Research and Technology on issues related to the Army's laboratory research enterprise. Focused-on laboratory operations, systems, and management processes. Collaborated with key stakeholders to develop strategies on policy, program guidance, and oversight for Army Laboratory personnel. Met steady stream of critical high-pressure deadlines such as submission of the President's Budget, long-range investment planning, congressional testimony, Government Accountability Office queries, and others. Worked with stakeholders to develop the Army Research Enterprise laboratory recapitalization list. This collaborative effort developed an authoritative estimate of \$1.39 billion to recapitalize the U.S. Army laboratory infrastructure. This high-level strategic analysis was accepted and resulted in enterprise programmatic changes leading to a more effective and productive research enterprise. Strengthened relationships with laboratory personnel management leadership to focus efforts on workforce educational inclusivity, diversity, and equity within the research enterprise.

**Associate Vice Chancellor for Research and Professor of Biological Systems Engineering, University of Nebraska, Lincoln, Nebraska, 2012-2015**

Strengthened the university's research program by focusing on integrating research, education, and industry to transform science and engineering into an ever-improving vehicle to address societal needs. Led university and system faculty development efforts to improve research competitiveness through the identification of emerging opportunities. Collaborated with University of Nebraska system campus stakeholders to propose and implement research rules and regulations to allow faculty involvement in classified DoD Research. DoD funding at the university increased by 43% during the period. As the University of Nebraska - Lincoln export control empowered official, was trained in, cognizant of, and responsible for university compliance with International Traffic in Arms Regulations (ITAR) and Export Administrative Regulations (EAR) export controls. Appointed by the Secretary of Defense to a high-level, strategic U.S. Army Corps of Engineers advisory board. Led crisis team that turned around a troubled campus project to complete a high energy laser laboratory funded by both NSF and DoD. Separately led a collaborative effort with faculty to redevelop the remaining three floors of the laboratory building and successfully advocated for funding the \$10 million renovation to the University System's Board of Regents. Held tenured academic position at the Professor rank in the Department of Biological Systems Engineering.

**Environmental Sciences, Basic Research Division Chief, U.S. Army Research Office Research Triangle Park, North Carolina, 2005-2012.**

Directed the Army's Environmental Science Basic Research Program, a \$14 million basic research program that funded colleges and universities to investigate terrestrial, atmospheric, and other science of interest to the DoD. Managed the Army's University Research Initiative Program with an annual budget of \$75 million; this program included the Army's Multidisciplinary University Research Initiative (MURI), the Presidential Early Career Award for Scientists and Engineers (PECASE), and the Defense University Research Instrumentation Program (DURIP) programs. Technical expert and contract agent for DARPA's Materials with Novel Transport Properties (MANTRA) program, an \$ 11 million dollar program to develop advanced desalination membranes. Briefed House and Senate Armed Services majority staff on research program challenges. Vice president for finance and administration, board member, Construction Sciences Research Foundation (CSRF), an independent, nonprofit construction industry research organization dedicated to unifying and integrating design communications used in design and construction.

**Research Program Manager, US Army Research Office, Research Triangle Park, North Carolina, 2002- 2005.**

Led the Army's Defense Experimental Program to Stimulate Competitive Research (DEPSCOR) and Defense University Research Instrumentation Program (DURIP). Edited numerous Broad Agency Announcements in collaboration with the Office of Naval Research and the Air Force Office of Scientific Research. Chaired and edited the Army Science and Technology Master Plan, Chapter V for Basic Research. U.S. technical representative and co-organizer of the Baltic Sea Region Defense Environmental Co-Operation Conference with Latvia, Estonia, Lithuania, Poland, Germany, Sweden, and Russia. President of the Research Triangle Park Chapter of the Scientific Research Society of Sigma Xi, a Science Society

**Civilian, Action Officer on US Army Headquarters Staff, Pentagon, Washington, D.C.. Army Action Officer at the Office of the Director of Environmental Programs, Assistant Chief of Staff for Installation Management, 2000-2002**

Successfully advocated, planned, programmed, and managed budget for a \$122 million multi-disciplinary Environmental Technology Program. Represented the US Army in multiple inter-governmental working groups across DoD and federal government. Maintained close contacts with leading global environmental research and policy colleagues.

**Chief (A), US Army Environmental Programs in Europe, US Army Headquarters, Heidelberg, Germany, 1998-2000**

Responsible for all environmental programs supporting 65,000 soldiers in eight countries with a \$56 million annual environmental budget. Reduced the hazardous waste costs by 21% within one-year and fundamentally changed for the better Army business practices in Europe.

**Major, US Army, Operation Joint Endeavor, Environmental Engineer, Former Yugoslavia and Hungary, 1996-1997.**

Designed and led Operation Joint Endeavor's environmental program, which included compliance, conservation, restoration, and pollution prevention activities. Managed \$2 million dollar contract for program activities in four countries. Technical expert to both the US-DoD bilateral consultation with Hungary and the US-Croatian hazardous waste negotiations.

## **ACADEMIC AND TECHNICAL ACTIVITIES:**

2022

- Represent the DoD on the 5th National Climate Assessment, Federal Steering Committee (NCA5 FSC). In this capacity, responsible for leading development and coordination of DoD input to the NCA5, identifying stakeholders, reviewing draft documents, and representing the DoD in the interagency US Global Climate Research Program (USGCRP).
- Represent the DoD and work with the White House, Office of Science and Technology Policy (OSTP) working group on a Congressionally mandated national research plan.
- Member SERDP Technical Review Board (TRB). The TRB is the decision authority for all SERDP projects.
- Chair of the SERDP/ESTCP Resource Conservation and Resilience Technical Review Committee, a committee of 17 leading research engineers, scientists, and installation technical leaders.
- Chair of the CARSWG2, an interagency committee of 15 leading research engineers and scientist focused on issue of sea level rise and coastal inundation.
- Planned symposium activities that included three sessions and a short course, a total of 26 speakers. Session topics include installation resilience; threatened, endangered, and invasive species; and wildland fire management.
- Met program schedules on the drafting of statements of need, calls for proposals, review of pre-proposals, review of full proposals, presentation of proposals before the technical review board, award notification, award coordination with the contract office, kick-off meetings, project funding decisions, in-progress review, and project completion and assessment.
- Led the planning and execution of the ESTCP Climate Resilience Strategic Plan Meeting. Chaired by the Deputy Assistant Secretary of Defense (Environment & Energy Resilience) and attended by the leadership of the relevant Army, Navy, and Air Force laboratory leadership.
- At the request of United States Indo-Pacific Command (USINDOPACOM) and invitation of the Maldives National Defense Force (MNDF), participated as a member of the US Delegation to the Indo-Pacific Environmental Security Forum (IPESF). The international meeting was attended by over 23 countries.

## 2021

- Appointed by the Office of the Under Secretary of Defense (Research Engineering) to represent the DoD on the 5th National Climate Assessment, Federal Steering Committee (NCA5 FSC) and appointed to the Subcommittee on Global Climate Research (SGCR), U.S. Global Climate Change Research Program (USGCRP).
- Led an interagency team which wrote the Interagency Arctic Research Committee (IARPC), Priority Area 4: Risk Management and Hazard Mitigation section of the Federal Government's 2022-2026 Arctic Research Plan.
- Led the SERDP/ESTCP Resource Conservation and Resilience Technical Review Committee, a committee of 15 leading DoD research engineers, scientists, and installation technical leaders.
- Invited speaker at the 3rd Annual Marianas Terrestrial Conservation Conference & Workshop in Saipan.
- Organized three SERDP Technical Committee In-Progress Reviews that include the DoD research community and collaborating federal agencies.
- Convened the Second Coastal Assessment Regional Scenario Working Group (CARSWG2) to examine how the Defense Regional Sea Level (DRSL) database should evolve in the future.
- Represented Office of the Deputy Assistant Secretary of Defense Secretary of Defense (Environment) at the inter-agency Brown Tree Snake (BTS) Research Committee and spoke at the 3rd Annual Marianas Terrestrial Conservation Conference & Workshop in Saipan.
- Volunteer mentor and small group leader for the US Naval Academy's Offshore Training Squadron which provides an "Outward Bound" type of experiential leadership experience for undergraduates.

## 2020

- Led SERDP/ESTCP Symposium, Resource Conservation and Resilience activities. This is the nation's largest conference focusing on the Department of Defense's priority environmental and installation energy issues. The Symposium this year was held in a virtual format but, nonetheless, held 16 technical sessions and more than 450 technical poster presentations. There were more than 1200 registered attendees.

- Led the release of the DoD Regional Sea Level (DRSL) database, this release included a publicly available version of the database. Use of DRSL information is now incorporated into DoD's installation master planning criteria and civil engineering design criteria for coastal locations.
- Hosted five webinars. Topics included New Resource Conservation Paradigms, Adapting to Changes in the Hydrologic Cycle under Non-Stationary Climate Conditions Changes in Pathogen Exposure, Pathways Under Non-Stationary Conditions
- Polar Research Coordination Group Meeting - participated and spoke at the OSD(R&E) Polar Research Coordination Group Meeting. The emphasis of the presentation was to update the participants on arctic focused research activities.
- Led the summer and winter meetings of the Coastal Assessment Regional Scenario Working Group (CARSWG2) which provides technical information to the Strategic Environmental Research and Development Program's (SERDP) Resource Conservation and Resiliency (RCR) research and development activities. The goal of the CARSWG2 is to advance products and methods that improve Department of Defense (DoD) coastal installation resilience, provide technical information related to climate assessment, improve sea level change evaluation, and mature tools for use by DoD managers and planners that improve installation resilience.
- Worked with colleagues to draft a key policy letter signed on February 20, 2020 by the Honorable Ellen Lord, the Under Secretary of Defense titled, "Improving Defense Installation Resilience to Rising Sea Levels." It directs that the DoD Defense Regional Sea Level Database (DRSL) must be incorporated into the Unified Facilities Criteria (UFC). The importance of this effort cannot be overstated. The UFC is the standard that all DoD built infrastructure must meet; it is essentially the "building code" for billions of dollars in infrastructure. As the actions directed by this memo mature, DoD's infrastructure will consider future, scenario driven sea level rise using the authoritative data found in the database.

2019

- DoD's representative to the Fourth National Climate Assessment (NCA4) Federal Steering Committee.
- Authored the NASA-DOD SERDP Resilient Aviation Infrastructure Workshop report which examined the extent to which changes in the climate may impact the national civilian and military aviation infrastructure.
- Technical Representative to the Pacific Environmental Security Forum in Wellington, NZ.

- Planned program symposium activities including three sessions, two short courses, and two sidebar meetings. Topics for the sidebar meetings include next steps for engineering resilience activities and COCOM environmental research needs.
- Keynote speaker at Cold Regions Science & Engineering Mini-Research & Development Workshop. Informed the participants, especially new ERDC researchers, of SERDP and ESTCP funding opportunities, highlighting an ESTCP Arctic call for proposals which I authored.
- Speaker at the 104th Annual Meeting of the Ecological Society of America and at the National Council for Science, the Environment (NCSE) 2019 Conference on Sustainable Infrastructure and Resilience, and the National Military Fish and Wildlife conferences.
- Represented SERDP/ESTCP at the American Geophysical Union (AGU) Meeting.
- Planned and executed RCR SERDP/ESTCP Pacific Basins research coordination activity that included meetings with NOAA and the University of Hawaii – Manoa to discuss advancing best practices for the analysis of the vulnerability of military Installations in the Pacific Basin to Coastal Flooding
- Briefed the Pacific Outreach, “All Hazards” officer in charge and the All Hazards Working Group (AHWG)
- Visited the Habitat Management Unit and Marine Corps Activity Guam Forest Enhancement Site; and, participated in the Brown Tree Snake (BTS) Technical Working Group Meeting with USFWS, Pacific Islands Fish and Wildlife, Invasive Species Team.
- Technical advisor to the Deputy Assistant Secretary of Defense for Environment respond to House of Representatives and Senate Questions for the Record (QFRs) and other public inquires.

2018

- DoD’s representative to the National Climate Assessment NCA4 Steering Committee and co-author of the National Climate Assessment (NCA4) chapter on Climate Change Effects on U.S. International Interests. My authorship focused on the national security implications of climate change. The overall chapter addresses international interests for the first time in a National Climate Assessment and provides a brief overview on how some U.S. international and border interests are being affected by climate variability and change as well as efforts to manage those effects.

- Co-authored the SERDP report Nonstationary Weather Patterns and Extreme Events, Informing Design and Planning for Long-Lived Infrastructure (ESTCP RC-201591) which explores SERDP/ESTCP research needs for planning resilient infrastructure and installations.
- Provided expert technical review to over 128 SERDP pre-proposals, 32 SERDP full proposals, 29 SERDP Supplemental proposals, 91 ESTCP Pre- proposals, and seven ESTCP Full proposals.
- Authored information paper on SERDP and ESTCP Permafrost Research. Paper highlighted the risk that permafrost damage holds to impact soil, vegetation, buildings, roads, and airfields.
- Presented briefings of SERDP and ESTCP, Resource Conservation and Resilience goals and objectives to both the Air Force Weather Climate Working Group and the Corps of Engineers (USACE), Invasive Species Leadership Team. Service and component engagement activities of this type are key to maintaining research program relevance.
- Authored an official response to an article in the Washington Post reporting on the SERDP report on the “Impact of Sea-Level Rise and Climate Change on Department of Defense Installations on Atolls in the Pacific Ocean (RC2334).”
- Represented SERDP/ESTCP at the DoD 2018 Arctic Science & Technology Synchronization Workshop.
- Represented DoD at the Ecological Society of America Conference.

## 2017

- Led the culminating review of the Defense Coastal/Estuarine Research Program (DCERP), a ten-year study in which proved that Camp Lejeune resource conservation and management practices protect the ecosystem processes of the New River Estuary.
- Led SERDP Resource Conservation and Resiliency Program in conjunction with the Institute for Natural Resources at Oregon State University and the Nicholas Institute for Environmental Policy Solutions at Duke University to kick off a research effort to examine ecosystem services valuations within the context of military training and testing lands.
- Represented SERDP/ESTCP at the Sustaining Military Readiness (SMR) Conference.

- Met with key NOAA scientific leaders to discuss collaborative opportunities between SERDP, ESTCP, and NOAA regarding the time scales and hazard outlooks for the US generally and DoD infrastructure specifically.
- At the request of a NOAA senior scientist, participated in the American Meteorological Society committee meeting on environmental topics related to science research and infrastructure.

## 2016

- Developed the Army Laboratory MILCON recapitalization list with an authoritative valuation of \$1,393,239,000.
- Assisted in the preparation of numerous reports to Congress to include a report on Defense Laboratory Infrastructure for the Deputy Assistant Secretary of Defense for Research's report to Congress, preparation of support materials for Congressional testimony, and in-person support of testimony to the House Sub-committee on Emerging Threats.
- Participated in the "Developing and Assessing Resilient Systems in Support of National Security Missions," a Military Operational Research Society (MORS) workshop.

## 2015

- Authored the essay "Acquiring the Unknown" which won the 2015 Major General Harold J. "Harry" Greene Awards for Acquisition Writing competition in the category of innovation.
- Served as the Army's representative to the Strategic Environmental Research and Development (SERDP) Council and as a member of the DoD High Performance Computing Advisory Panel (HPCAP).
- Responded to the GAO request for information on Army Arctic activities and was subsequently identified as the Army Staff point of contact for arctic issues.

## 2014

- Tenured professor in the Department of Biological Systems Engineering, University of Nebraska.
- Worked with faculty and researchers to support the development of a winning proposal package for a 5-year and \$15 million cooperative research agreement to provide

technical assistance and research to Kansas City District, U.S. Army Corps of Engineers for environmental, natural, and cultural resource projects.

- Developed and implemented a 24-month operational plan with metrics for improving faculty success, optimizing physical research infrastructure, and branding “Nebraska” as an intellectual center for defense research. By including specific activities such as establishing a university “quad” chart portfolio, the operational plan resulted in the university winning approximately 40 dollars for every 100 dollars proposed to competitive DoD research programs.

## 2013

- Led crisis team that turned around a troubled project to complete a high energy laser laboratory.
- Led a collaborative effort with faculty to redevelop the remaining three floors of the building housing the laser laboratory and then represented the Vice Chancellor before the Board of Regents in a successful \$10 million dollar request for redevelopment funds.
- Led activities to establish procedures to pay University of Nebraska system employees conducting classified research for the National Strategic Research Institute.
- Appointed by the Secretary of Defense to the congressionally mandated civilian advisory board to the Chief of the U.S. Army Corps of Engineers.

## 2012

- Invited keynote speaker at the Society of Petroleum Engineers Workshop, Well Construction Automation – Preparing for the Big Jump Forward. Vail, Colorado.
- Review panel member for the US Army Corps of Engineers, Basic Research Portfolio Management Review.
- Invited speaker at the DoD-HBCU/MI Workshop. Washington, D.C..
- Participated in the University of Kansas, Environmental Security Conference examining water-security.
- Led the Army’s Basic Research Environmental Sciences Coordinating Group meeting consisting of 30 key army environmental science research leaders to discuss strategy, directions, and future activities.
- Reviewer for 22 geoscience applications and 33 civil engineering applications to the National Defense Science and Engineering Graduate (NDSEG) fellowship.

- Technical lead and contracting officer technical representative to Phase II of the Defense Advanced Research Projects Agency (DARPA), Novel Transport Properties (MANTRA) program.
- Technical reviewer for Tank and Automotive Research and Development Center BAA to develop a new, deployable wastewater treatment system.
- Supervised program planning and execution of the University Research Initiatives (URI) Programs, which will execute \$75.4 million in FY12 and resource the Army Multidisciplinary University Research Initiative (MURI), the Defense University Research Instrumentation Program (DURIP), and the Presidential Early Career Awards for Scientists and Engineers (PECASE).
- Supervised MURI topic development and selection process to include convening senior panels and developing a 46-page document to explain the budget position, topic selection process, and topics selected.
- Session presenter at the National Defense Industrial Association's Environment, Energy, and Sustainability Symposium and Exhibition (NDIA E2S2)
- Requested speaker at the Defense Advanced Research Projects Agency (DARPA) Technologies Symposium on Combatant Command Humanitarian Operations Workshop

## 2011

- Technical speaker and session chair for NATO- Russia Council on Logistics, US European Command, Engineering Aspects of Water Handling and Distribution Workshop. Stuttgart, Germany.
- Invited technical speaker at the Army's Combined Transient Training Facilities Working Group and Facility Design Team meeting. Arlington, VA.
- Represented Army Research Office with US Agency for International Development to discuss transition opportunity for Global Military Operating Environments: Linking Natural Environments, International Security, and Military Operations.
- Represented Army Research Office in technical discussions at the Developing Standardized Design and Testing Procedures for Benchmarking Bio-electrochemical System Advancements Workshop. Penn State University.
- Technical leader and contract officer representative on collaborative effort to development of a Compact, Field-deployable Flow Cytometer for Rapid Bacterial Identification and Quantitation in Water at the Palo Alto Research Center (PARC).
- Technical and contract representative for Defense Advanced Research Projects Agency, Materials with Novel Transport Properties (MANTRA) program. Port Hueneme.

- Invited reviewer at the Defense Advanced Research Projects Agency, Low-Cost Lightweight Portable Photovoltaics (PoP) Review. National Renewable Energy Laboratory (NREL). Denver, Colorado.
- Technical reviewer at the Office of Naval Research, Microbial Fuel Cells Program Review. Washington, D.C.
- Technical lead and grant officer for Whole-Cell Modeling and Integrated Experimentation of Bioelectrochemical Systems effort at Penn State University.
- Technical reviewer at the Office of Naval Research, Alternative Energy Systems and High Efficiency Water Purification Systems for Expeditionary Operations Program Review.

2010

- Invited speaker at the National Institutes of Health Principal Investigators Workshop. Washington D.C.
- Presenter before the Army Basic Sciences Research Review. Washington, D.C.
- Presenter at the National Defense Industrial Association (NDIA) Environment, Energy Security and Sustainability (E2S2) Symposium. Denver.
- Invited participant in the Defense Advanced Research Projects Agency sponsored workshop on 'Geothermal Power for Military Operations. McLean, VA.
- Led Army's Environmental Sciences Basic Research Coordinating Group (ESCOG). Hannover, NH.
- Invited speaker to the Defense Advanced Research Projects Agency Technologies Symposium on Humanitarian Operations.
- Authored "Atmospheric Science Decision Paper" to objectively examine whether a basic research atmospheric science program should continue at the Army Research Office, and, if so, how the program might be better aligned with organizational goals and measurable standards of performance.
- Authored paper internal to US Army titled, "Sustainable Base Camp System: Required Capability, 2025 and Beyond," which received a letter of appreciation from Director of Army Capabilities Integration Center (ARCIC), Training and Doctrine Command.
- Coordinated the review of the entire US Army Corps of Engineers basic research portfolio and led the Environmental Science review of the Civil Works, Environmental Quality and Installations, Geospatial Research and Engineering, and Military Engineering and the Environmental Science portions thereof.

2009

- Technical reviewer at the Air Force Office of Scientific Research (AFOSR) Annual Bio-energy Review. Arlington, VA.
- Invited technical speaker and US delegation representative to the US-Jordanian Bi-lateral Environmental Considerations in Military Operations Seminar. Amman, Jordan.
- Technical advisor to the Deputy Under Secretary of Defense, Director, Environmental Readiness, Safety & International Environmental Programs in discussions with U.S. - Chile Defense Consultative Commission and provided out brief of commission meetings to the Chilean Ambassador and Minister of Defense. Washington, D.C.
- Participant in the US Army Engineer Research Development Center, Construction Engineering Research Laboratory Net-Zero Energy Workshop. Champaign, IL.
- Managed a broad, interdisciplinary division program consisting of a diversified portfolio of more than 65 projects consisting of basic research funded from Office of the Secretary of Defense and advanced research work funded from other DOD sources.

2008

- Technical reviewer of the George Mason University Environmental Security Research Project. Arlington, VA.
- Technical advisor to the Deputy Under Secretary of Defense, Director, Environmental Readiness, Safety, and International Environmental Programs in discussions with Army, Air Force, and Navy regarding a range of issues to include European implementation of REACH standards, ozone depleting substance issues, and overseas baseline surveys.
- Co-organized the First Army Installation Waste to Energy Workshop, August 2008, and received the US Army Research, Development and Team Award for the effort.
- Aggressively pursued diversity initiatives in numerous ways to include performing as representative to National Science Foundation diversity workshop and led outreach efforts at Historically Black Colleges and Universities.

2007

- Invited speaker at the Strategic Environmental Research and Development Program (SERDP) / Environmental Security Technology Certification Program (ESTCP) 'Partners in Technology' Symposium. SERDP/ESTCP.

- Speaker at the US Army Corps of Engineers, Sustainable Contingency Operations meeting. Washington, D.C.
- Presented the Environmental Science program to the Army Basic Research Review, panel, which recognized the effort as “a premier program” in the Army adding value to the Army’s Basic Research Program.
- Recognized by Director, Environmental Readiness and Safety, Office of the Deputy Under Secretary of Defense for exceptional technical competence while serving as an invited, expert member of U.S. delegation to develop the program of instruction (POI) for use in the African Contingency Operations and Training Assistance (ACOTA) program on Environmental Considerations during Contingency Operations in Pretoria, South Africa. Pretoria, South Africa.
- Recognized as one of the Army’s premier technical experts in environmental science and engineering as an invited member of highly selective, Army Environmental Policy Institute’s Foresight Consultative Team, a group whose purpose is to provide the Army organizational vision on key environmental, safety and health issues.
- Led and acted as moderator for an exceptionally successful and innovative public science communication activity called the North Carolina Science Café, sponsored jointly with Sigma Xi and the North Carolina Museum of Natural Sciences to provide topical discussions with leaders in the fields of science and technology.

## 2006

- Topic author and contracting officer representative to Phase II Small Business Innovation Research (SBIR) kick-off meeting with Infoscitex Corporation and colleagues from Natick Soldier System Center. Boston, MA.
- Member of review panel for the Engineer Research and Development Center (ERDC) 2006, Environmental Quality and Installations Basic Research in Progress Review. Vicksburg, MS.
- Selected by the Deputy Director, Environmental Readiness and Safety, Office of the Deputy Under Secretary of Defense as technical expert to be a member of US delegation and present at the NATO Committee on the Challenges of Modern Society Meeting on Military Compounds. Vienna, Austria.
- Led SBIR Small Business Innovation Research (SBIR) through Phase I and into Phase II on topic of “Low Parasitic Loss Solid Waste Preprocessor for Forward Waste to Energy Conversion.”
- Completed a Juris Doctorate in law with a special emphasis on the examination of technology transfer issues.

- Chaired the Army Science and Technology Master Plan, Chapter V for Basic Research.

2005

- Envisioned and led the Defense Sustainability and Base Camp Workshop (attendance was limited to 25 and included Admiral Richard Truly), Boston, MA.
- Participated in the MIT Institute for Soldier Nanotechnologies one-day research update symposium. Boston, MA.
- Participated in the 3rd Base Camp Workshop, “Base Camp Leadership and Best Practices.” West Point, NY.
- Army Research Office Technical representative to the Defense Advanced Research Projects Agency Workshop - 2035 Vision: A Petroleum-Free Military. Annapolis, MD.
- Chaired and edited the Army Science and Technology Master Plan, Chapter V for Basic Research.
- Hosted the Army Sustainable Technology Workshop at Army Research Office.
- Invited to participate in Defense Advanced Research Projects Agency/Defense Sciences Office Mobile Integrated Sustainable Energy Recovery (MISER) kick-off meeting.
- Spoke at Montana State, Bozeman, MT, and University of Rhode Island, Kingston, RI, as the Army’s Defense Experimental Program to Stimulate Competitive Research program manager.
- Topic reviewer for the FY2005 Small Business Technology Transfer (STTR) Programs.
- Reviewer for the Army Research Office, Engineering Sciences Directorate, Small Business Innovation Research (SBIR) review board.
- Reviewer for the Army Research Office, Engineering Sciences Directorate, Multidisciplinary University Research Initiative (MURI) review board.
- Prepared and coordinated the DoD Broad Agency Announcement, Defense Experimental Program to Stimulate Competitive Research (DEPSCOR) 2005.

2004

- Acted as US technical representative to the Baltic Sea Region Defense Environmental Co-Operation Conference. Vilnius, Lithuania.

- Participated in 12-week national security law seminar culminating with attendance at the American Bar Association National Security Law Seminar, Washington, D.C.
- Led the Army Environmental Sciences Coordinating Strategy Planning Workshop.
- Authored immediate formal written response to Speaker of the US House of Representatives' question regarding the Defense University Research Instrumentation Program.
- Provided data analysis of research efforts to the Office of the Secretary of Defense in response to question from the US Senate on Defense Experimental Program to Stimulate Competitive Research.
- Organized four workshops in Kansas, Puerto Rico, West Virginia and South Dakota to educate university researchers about Army Research Office activities and the overall approach of the Army to technology transfer.

## 2003

- Acted as Army Chapter Chair for Chapter V: 2003 Basic Research in the Army Science and Technology Master Plan. Edited all chapter input and re-wrote Chapter V: Basic Research in the 2003 Army Science and Technology Master Plan.
- Acted as North Carolina eCybermission Ambassador. Established contacts with the NC Governor's Office and Department of Education, which resulted in all school administrators in the state being notified of the program via email from the governor's education director.
- Prepared and presented at the following State Experimental Program to Stimulate Competitive Research meetings: South Carolina, Kentucky, North Dakota, Vermont, Delaware, West Virginia, Montana, and Idaho.

## 2002

- Technical leader, Headquarters, US Army, Office of Environmental Programs, Pentagon, for the Environmental Quality Technology program.
- Co-chaired Environmental Quality Technology Program Coordinating Committee, which identified, prioritized, resourced and tracked program execution of Army environmentally quality related research and development projects.
- Represented the Army at the Federal Remediation Technology Round Table, a federal forum to discuss remediation-related technology issues.

## **PAPERS AND PUBLICATIONS:**

Preston, K.T, 2021. The Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) Resource Conservation and Resiliency (RCR) Program Area Research Plan 2021–2025. U.S. Department of Defense, Strategic Environmental Research and Development Program. 23 pp.

Preston, K.T. and S.I. Higuchi, 2019. Resilient Aviation Infrastructure Workshop: Assessing climate risks to land-based aviation infrastructure and ground support facilities. U.S. Department of Defense, Strategic Environmental Research and Development Program. 17 pp.

Meredith, M., J. Smith, A. Alpert, J. Buzier, J. Cook, A Dave, J. Furlow, K. Preston, P. Schultz, and L. Vaughan, Ch. 16: Climate Effects on U.S. International Interests. 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, D.C., USA, 1515 pp. doi: 10.7930/NCA4.2018.

Preston, K.T. (2015). Acquiring the Unknown. Army Acquisition Logistics and Technology Magazine. (Winner of the 2015 Major General Harold J. “Harry” Greene Award).

Preston, K. (2014). Department of Defense Research Funding: Opportunities, Idiosyncrasies, and Risk Analysis. University of Kansas Merrill Series on the Research Mission of Public Universities, MASC Report No. 118.

Vuran, M, X. Dong, and K. Preston (2013). Wireless Underground Sensor Networks: System in Support of Future Agriculture. ASME Journal of Nanotechnology in Engineering and Medicine, Vol. 4, No.2.

Preston, K. and William Goran (2008). Habitation Science: The Science of Sustainment. Habitation: International Journal for Human Support Research, Vol. 11, No. 4.

Preston, K. (2006). Brief Introduction: Federal Technology Transfer and Intellectual Property Management in the Context of the U.S. Army Research Office, Technology Transfer Law Seminar, North Carolina Central University, School of Law.

Preston, K., Editor and Committee Chairperson for Chapter V: Basic Research (2005). The U.S. Army Science and Technology Master Plan, Deputy Assistant Secretary of the Army for Research and Technology.

Preston, K. (2003). Environmental Law: Considerations for Operational Planning and Operations, National Security Law Seminar, North Carolina Central University, School of Law.

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## **AWARDS AND RECOGNITION:**

### *Civilian*

Federal Environmental Engineer of the Year  
Superior Civilian Service Award  
Commander's Award for Civilian Service  
Numerous other official commendations  
Purdue David Ross Fellow

### *Military*

Armed Forces Expeditionary Medal	National Defense Service Medal
Meritorious Service Medal	Army Achievement Medal
NATO Medal	Army Service Ribbon
Armed Forces Service Medal	Army Aviator Badge
Armed Forces Reserve Medal, M Device	Past Army Selectee to NASA Mission Specialist Program
Army Reserve Commendation Medal (2)	

## **PROFESSIONAL AFFILIATIONS:**

- Member of the North Carolina 11th District Bar
- American Association for the Advancement of Science
- The Army and Navy Club, Washington, D.C.
- Society of American Military Engineers
- Smithsonian Associates Member
- Tau Beta Phi, Phi Kappa Phi, AGHON Honor Societies
- Former Board Member, Construction Sciences Research Foundation
- Former President Research Triangle Park Chapter, Sigma Xi Scientific Society

**OTHER NOTABLE EXPERIENCE:**

- Secret Clearance
- Trained Contracting Officer Representative
- Trained Mediator for North Carolina Superior Court
- Modestly Proficient (DLAT +1/2) German Language
- Lieutenant Colonel, U.S. Army (retired)
- Former Military Pilot with Commercial and Instrument Rating
- Former staff member office of US Senator Sam Nunn, Georgia
- OSHA, 40-Hour Hazardous Site Worker Trained
- Former Volunteer Fire Fighter
- Former Assistant County Agent, Coweta County, Georgia

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