

YAITZA LUNA CRUZ, PH.D.

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Senior Atmospheric Physicist & Meteorologist • *Operations & Research*

Subject Matter Expert in atmospheric physics and meteorology with experience in field observations (airborne & ground), remote and satellite sensors, numerical weather prediction models, atmospheric transport and dispersion models, CBRNE models, operational forecast, climate analysis, and STEM education/outreach. Highly competitive, motivated, detail-oriented, well-organized, able to communicate effectively both orally and written, able to develop innovative approaches to solve complex problems. ***Experienced in DoD operations, research and development, data analysis, natural hazards analysis and support, first response and decision support.***

Demonstrated success record in:

- **Leading** Meteorological team (operations & research and development),
- **Using meteorological expertise** to enhance quality of CBRNE modeling and decision support,
- **Collaborating** with other programs (intern-agency, academia and national labs) in order to foster overall mission success,
- **Providing 24/7/365 Reachback support** to the Warfighter, which includes modeling CBRNE events as well as natural hazards,
- **Determining** the best weather (prognostic, observational, or climatological) to use for specific CBRNE events,
- **Developing** activities to improve existing meteorological data processing and determining methods for integrating new and improved sources of weather information, and
- **Creating** training materials involving weather practices for operational use and teaching CBRNE courses.

CORE SKILLS

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|--------------------------------------|----------------------------|---------------------------|
| • Active TS/SCI | • Data Analyst | • Planning and Mitigation |
| • Bilingual (English and Spanish) | • DoD WMD-CBRNE SME | • Natural Hazard SME |
| • Research & Operational Meteorology | • Team Lead and Instructor | • Computers Proficiency |

PROFESSIONAL EXPERIENCE (Last 10 years • Past Experience Available upon Request)

Jupiter Intelligence, New York, NY

2018- Current

Product Manager

- Job Description: Predicting risk in a changing climate. Bridge between science, business, technology, and design, combining strategy, marketing, leadership, and other skills with the end goal of launching high quality products to help customers make informed decisions that safeguard trillions of dollars in at-risk infrastructure from flood, fire, heat, cold and wind events.

Defense Threat Reduction Agency (DTRA) Technical Reachback, Fort Belvoir, VA

2015 -2018

Shift Lead – Senior Atmospheric Physicist/ Meteorologist

- Applied Research Associates (ARA).
- Job Description: (1) Shift Lead, Meteorology SME and R&D Lead. Technical Reachback: ****Provide 24/7/365 operational/decision support, research and development support, training support, and subject matter expert advice capability for planning, operations, and post event analysis to DTRA CBRNE mission for local, state, national and international customers. Provide meteorological modeling and decision support for the Departments of Defense, Homeland Security, and Health and Human Services****
(2) Certified Instructor CBRNE Decision Support Training Program. Residential and Mobile Training.

Defense Threat Reduction Agency (DTRA) Technical Reachback, Fort Belvoir, VA

2014 -2015

Analyst – Atmospheric Physicist/ Meteorologist

- Engility Corporation
- Job Description: 24/7/365 Technical Reachback** Analyst.

NOAA Center for Atmospheric Sciences, Howard University, Washington, DC
Doctoral Fellow

2008-2013

- Job Description: Researcher in atmospheric physics. Field experiments with NASA, NCAR, NSF & NOAA, and educational outreach activities. NCAR ASP – Graduate Visitor Program, MMM Division (2009-2012).
- Research Topic: Aerosols-cloud-microphysics interactions in tropical cyclones using aircraft measurements and WRF simulations.

EDUCATION

Ph.D. in Atmospheric Sciences with concentration in Atmospheric Physics — 2008 to 2013

“Aerosols-Cloud-Microphysics Interactions in Tropical Cyclone Earl”

Howard University, Washington, D.C.

Master in Science – Physics — 2003 to 2008

“Optical and Radiative Properties of Aerosols over Puerto Rico using the Multifilter Rotating Shadow-band Radiometer”

University of Puerto Rico-Mayagüez, Mayagüez, P.R.

B.S. in Theoretical Physics

University of Puerto Rico-Mayagüez, Mayagüez, P.R.

HIGHLIGHTED FIELD PROJECTS

- DHS Chemical Security Analysis Center (CSAC) Jack Rabbit II project – Utah, 2015
- MFRSR Network SAL Dust Characterization, Senegal and Cape Verde, Africa, 2012
- NCAR Ice in Clouds Experiment – Tropical (ICE-T) – St. Croix, Puerto Rico and Atlantic Ocean, 2011
- NASA Genesis and Rapid Intensification Processes (GRIP) – California, Florida, St. Croix, Gulf of Mexico and Atlantic Ocean, 2010
- NSF Transatlantic Ozone Field Experiment – Barbados, 2010
- NASA Student Airborne Research Program (SARP) –California, 2009

AFFILIATIONS

- American Meteorological Society - Member since 2006 (UPRM Student Chapter – Founder and First President, GSAAS-HU Student Chapter and DC-AMS Professional Chapter)
- AMS Board of Women and Minorities (BWM) – Member since 2016
- AMS Commission on the Weather, Water, and Climate Enterprise (CWWCE) – Board on Global Strategies (BGS) – Committee on Environmental Security, Member since 2016
- AMS Committee on Meteorological Aspects of Air Pollution (CMAAP), Member since 2017
- AMS Washington Forum Volunteer
- American Geophysical Union - Member since 2010
- Golden Key International Honour Society - Member since 2011
- Latino Student Fund Professional Group - Member since 2012
- CienciaPR – Member since 2013

COMPUTER SKILLS

HPAC, HPAC Analyst, GIS, ArcMap, PYTHON, HAZUS, IMEA, VAPO, MATLAB, LATEX, UNIX/LINUX, FORTRAN, NETCDF, Vi, WRF-ARW, GRADS, NCL, RIP4, Windows Microsoft (Excel, Word, PowerPoint), and JIRA.