

Overview of NIST Climate-Related Programs

Anna Sberegaeva, Ph.D.
Program Coordination Office

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THE BIDEN-HARRIS ADMINISTRATION IMMEDIATE PRIORITIES

CLIMATE

President Biden will take swift action to tackle the climate crisis. To meet the demands of science, the President is mobilizing a whole-of-government effort to reduce climate pollution in every sector of the economy and increase resilience to climate impacts. The Biden Administration will create good-paying, union jobs to build a modern and sustainable infrastructure, deliver an equitable clean energy future, and put the United States on a path to achieve net-zero emissions, economy-wide, by no later than 2050.

<https://www.whitehouse.gov/priorities/>

- January 20, 2021. EO 13990, Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis
- January 27, 2021. EO 14008, Tackling the Climate Crisis at Home and Abroad
- April 2021, President Biden set a target for the U.S. to achieve a [50-52% reduction](#) from 2005 levels in economy-wide net greenhouse gas pollution by 2030
- May 20, 2021, EO on Climate-Related Financial Risk

Laboratory Programs:

Measurement Science, Standards, and Technology

I. Climate Monitoring
Measurements

II. Resilience

NIST

III. Energy Efficient
Infrastructure

IV. Advanced
Technologies

Innovation and Industry Services:



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Sustainability and Energy:

- Energy Assessments
- Environmental Management Systems
- Health and Safety Services

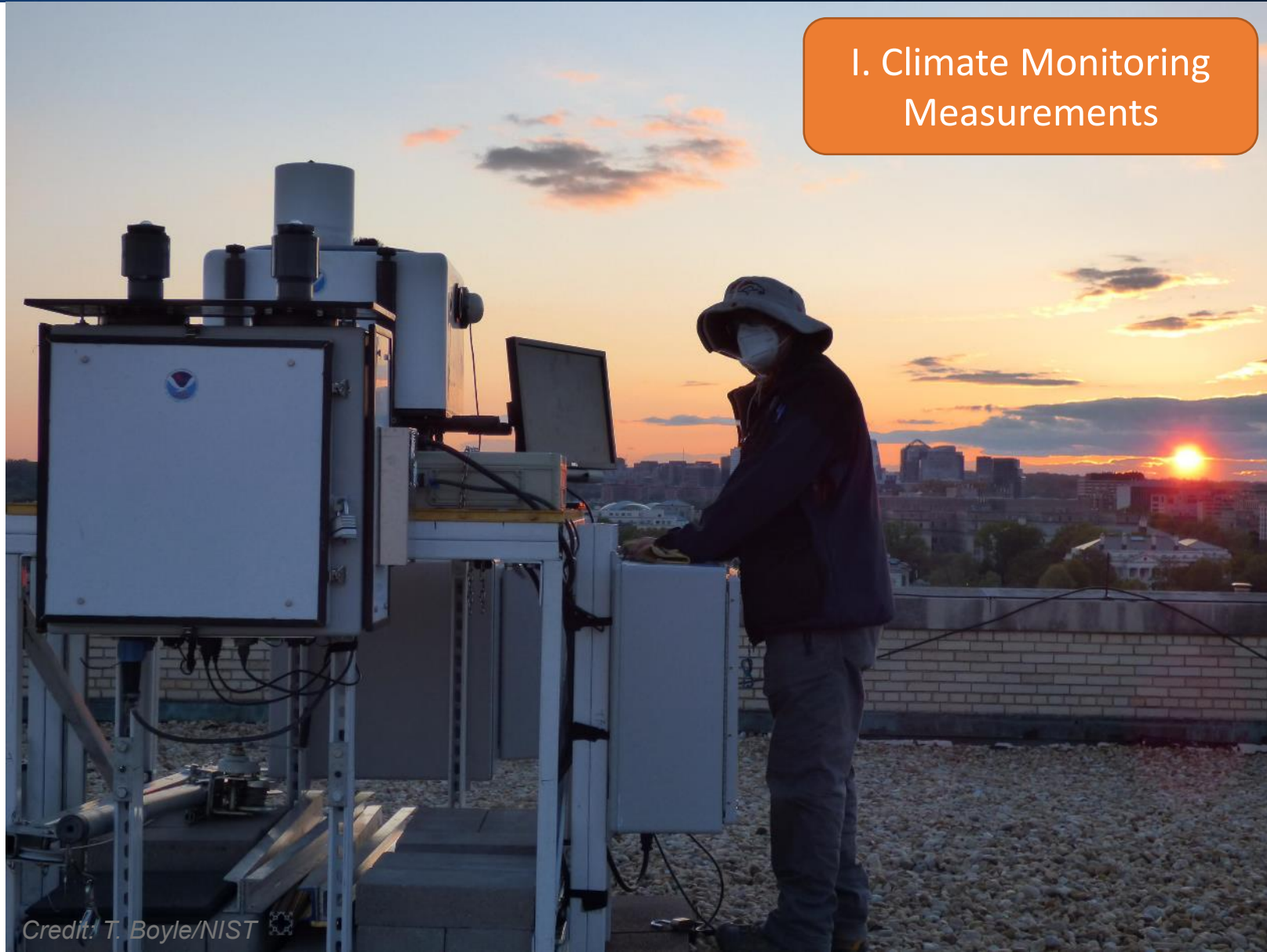
Climate & Energy Research at NIST



- International measurement leadership
- Calibrations of earth observing sensors and satellites
- Greenhouse gas emissions measurements
- Urban Dome Testbed Program

I. Climate Monitoring Measurements

During a Washington, D.C., sunset on April 16, 2021, NOAA's Scott Sandberg stands next to a newly installed NOAA-NIST lidar system for measuring greenhouse gases atop a weather station on the Department of Commerce's Herbert Clark Hoover Building.



Credit: T. Boyle/NIST

Climate & Energy Research at NIST

NIST

- Disaster Resilience Programs
- Community Resilience
- Wildland-Urban Interface Fires
- Public Safety Communications

II. Resilience



The site of the Champlain Towers South partial collapse in Surfside, Florida. Credit: NIST

III. Energy Efficient Infrastructure

- Smart Grid
- Building Efficiency
- Water

The Net-Zero Energy Residential Test Facility sits on the campus of the National Institute of Standards and Technology (NIST) in Gaithersburg, Md. The laboratory was designed to demonstrate that a net-zero energy house—one that produces as much energy as it consumes over the course of a year—can fit into any neighborhood. The facility allows researchers to test various high-efficiency and alternative energy systems, materials, and designs.

Credit: Beamie Young/NIST



IV. Advanced Technologies

- Energy Technologies (solar, hydrogen, batteries, lighting)
- Direct Air Capture/Carbon Capture and Sequestration
- Circular Economy
- Advanced Materials



MEP NATIONAL NETWORK

Sustainability and Energy

MEP assists the Centers with:

- Energy Assessments
- Environmental Management Systems
- Health and Safety Services

Questions?

Anna Sbergaeva

anna.sbergaeva@nist.gov