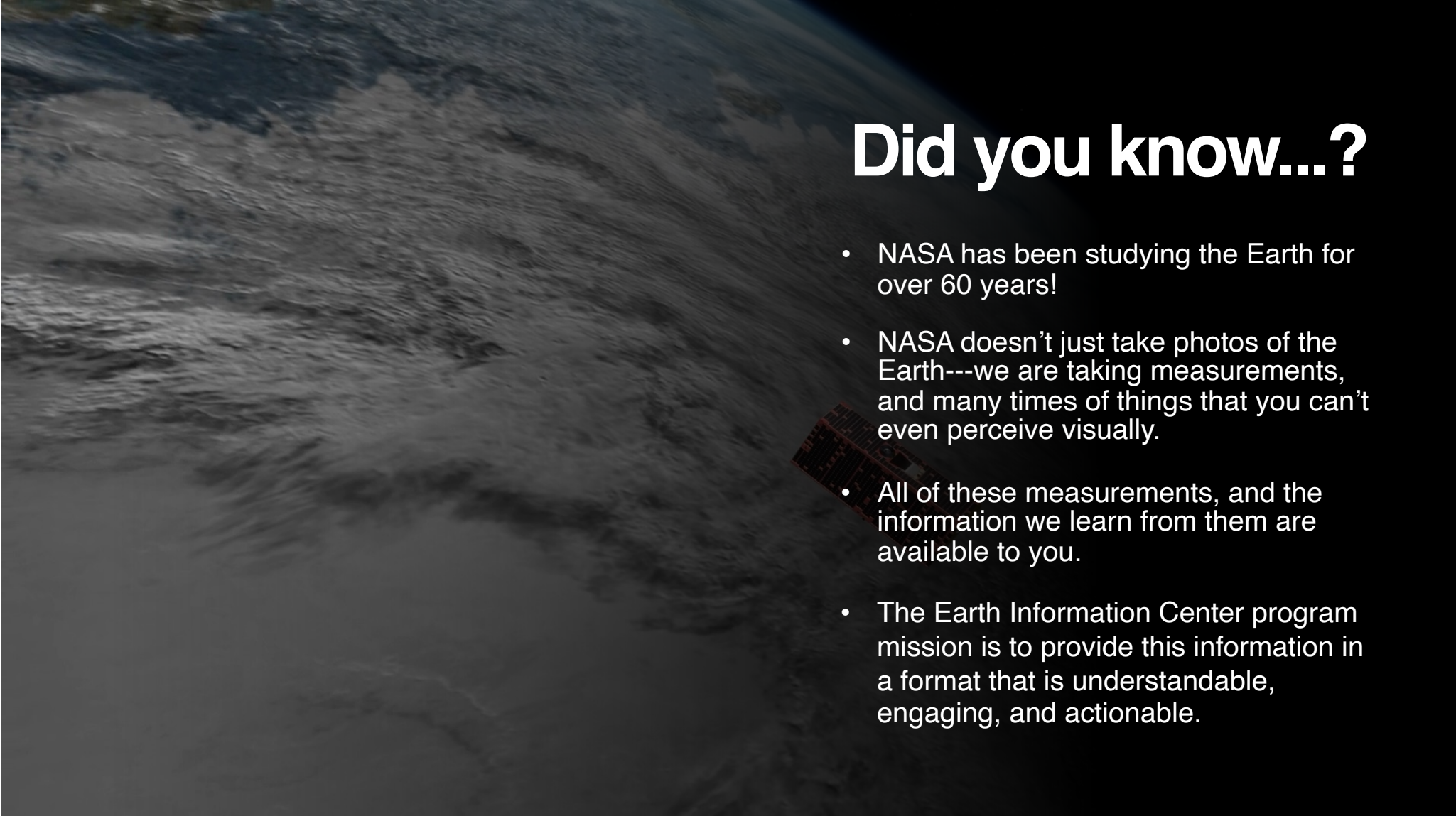


National Aeronautics and
Space Administration

NASA Earth Exhibits and Programming for Libraries

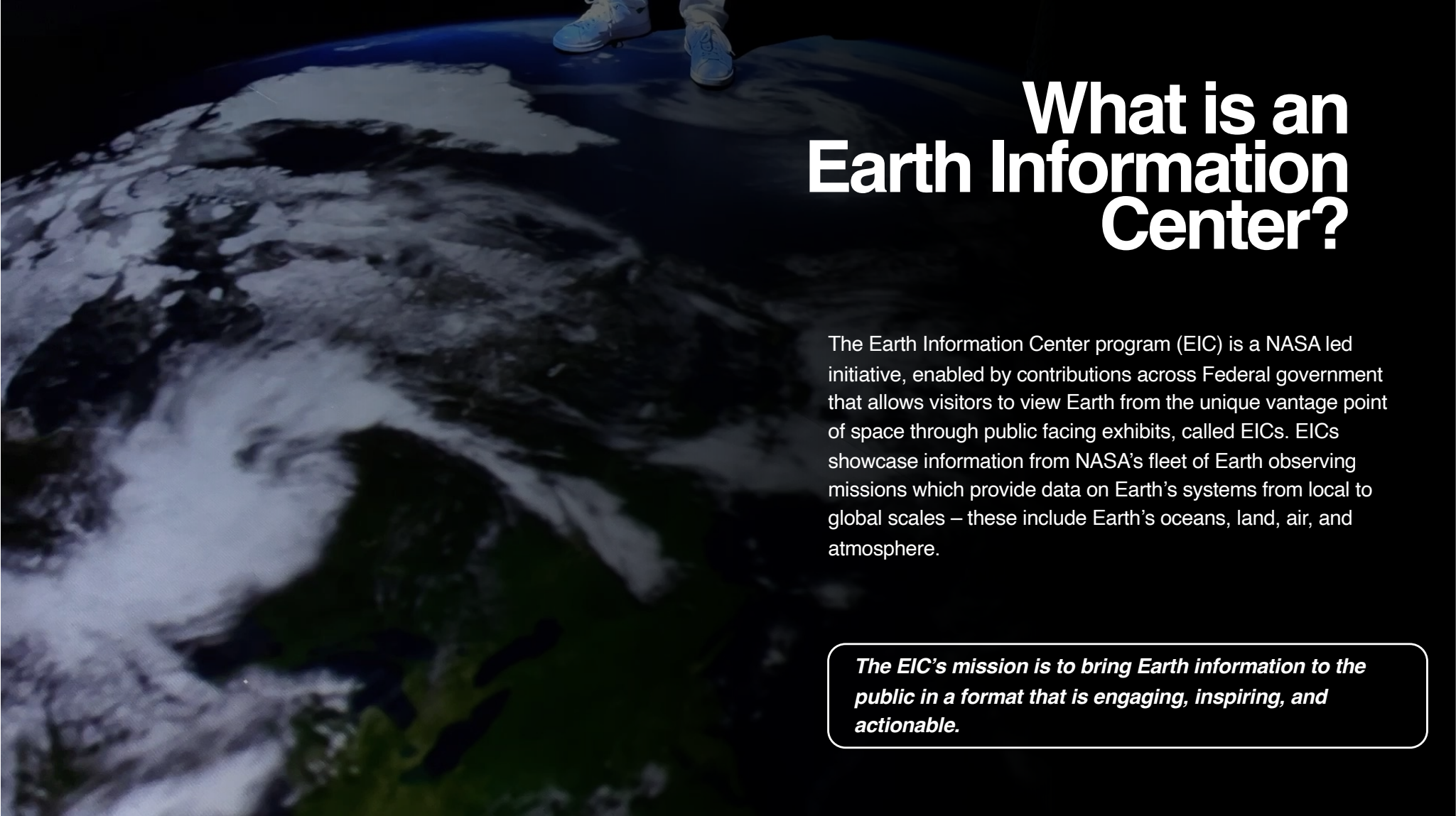
Eleanor Stokes
Earth Information Center Program Manager
Eleanor.stokes@nasa.gov

Updated August 2026

A satellite view of Earth from space, showing a vast expanse of blue oceans and white clouds. In the lower right foreground, a portion of a satellite is visible, featuring solar panels and various instruments. The background is the deep black of space.

Did you know...?

- NASA has been studying the Earth for over 60 years!
- NASA doesn't just take photos of the Earth---we are taking measurements, and many times of things that you can't even perceive visually.
- All of these measurements, and the information we learn from them are available to you.
- The Earth Information Center program mission is to provide this information in a format that is understandable, engaging, and actionable.



What is an Earth Information Center?

The Earth Information Center program (EIC) is a NASA led initiative, enabled by contributions across Federal government that allows visitors to view Earth from the unique vantage point of space through public facing exhibits, called EICs. EICs showcase information from NASA's fleet of Earth observing missions which provide data on Earth's systems from local to global scales – these include Earth's oceans, land, air, and atmosphere.

The EIC's mission is to bring Earth information to the public in a format that is engaging, inspiring, and actionable.

Where are there Earth Information Centers?

Flagship exhibits:

- NASA HQ
- Smithsonian Museum of Natural History
- Kennedy Space Center Visitor Complex

Build your own EICs:

- Phillip and Patricia Frost Museum of Science in Miami
- Museum of Science Boston
- University of California at San Francisco
- Fernbank Science Center in Atlanta, GA
- Bernard Zell Anshe Emet Day School
- Ecoexploratorio in San Juan, Puerto Rico

UNITED STATES

MEXICO

THE BAHAMAS

CUBA



Flagship EIC



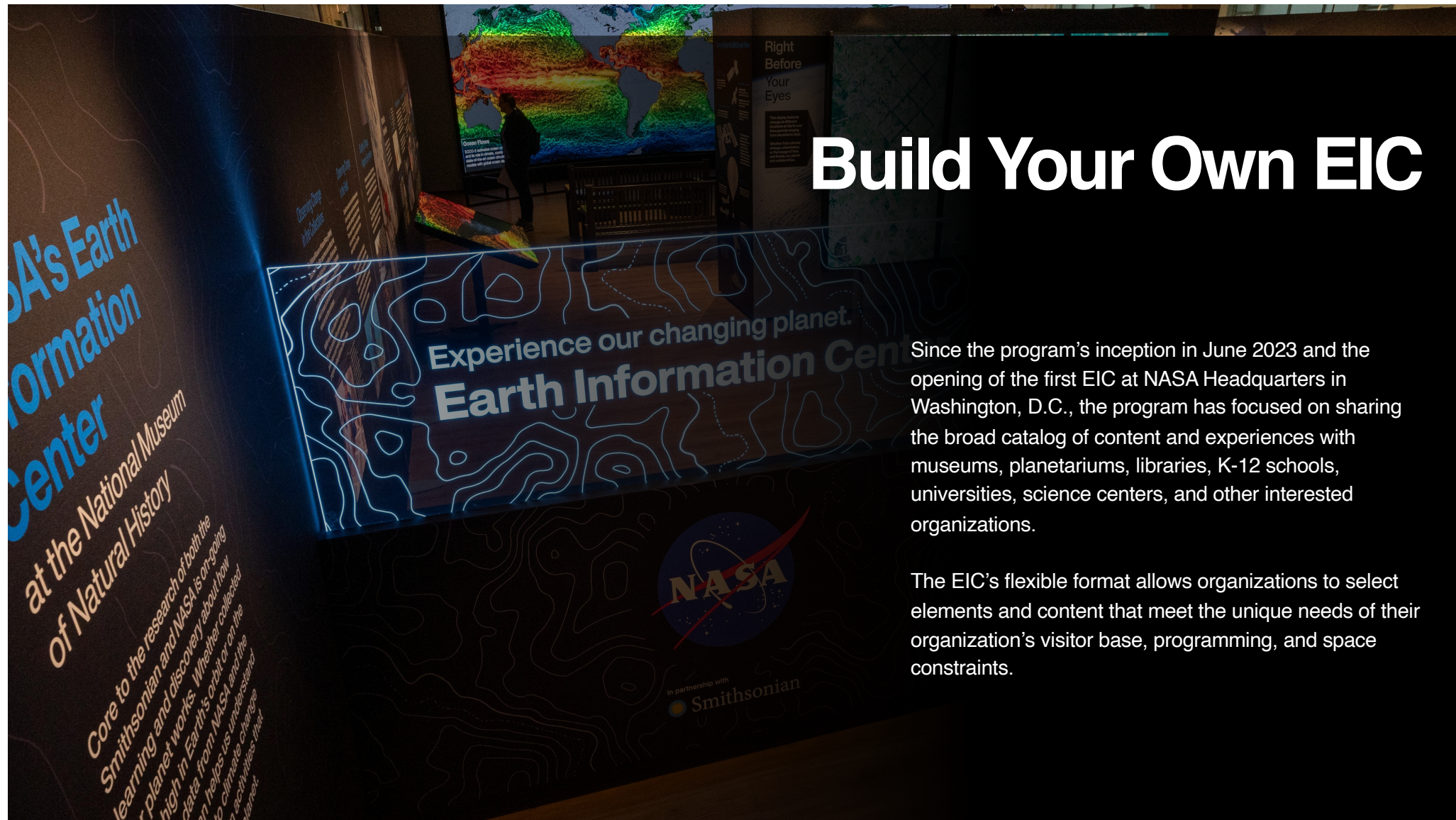
Build Your Own EIC

2

Build Your Own EIC

Since the program's inception in June 2023 and the opening of the first EIC at NASA Headquarters in Washington, D.C., the program has focused on sharing the broad catalog of content and experiences with museums, planetariums, libraries, K-12 schools, universities, science centers, and other interested organizations.

The EIC's flexible format allows organizations to select elements and content that meet the unique needs of their organization's visitor base, programming, and space constraints.



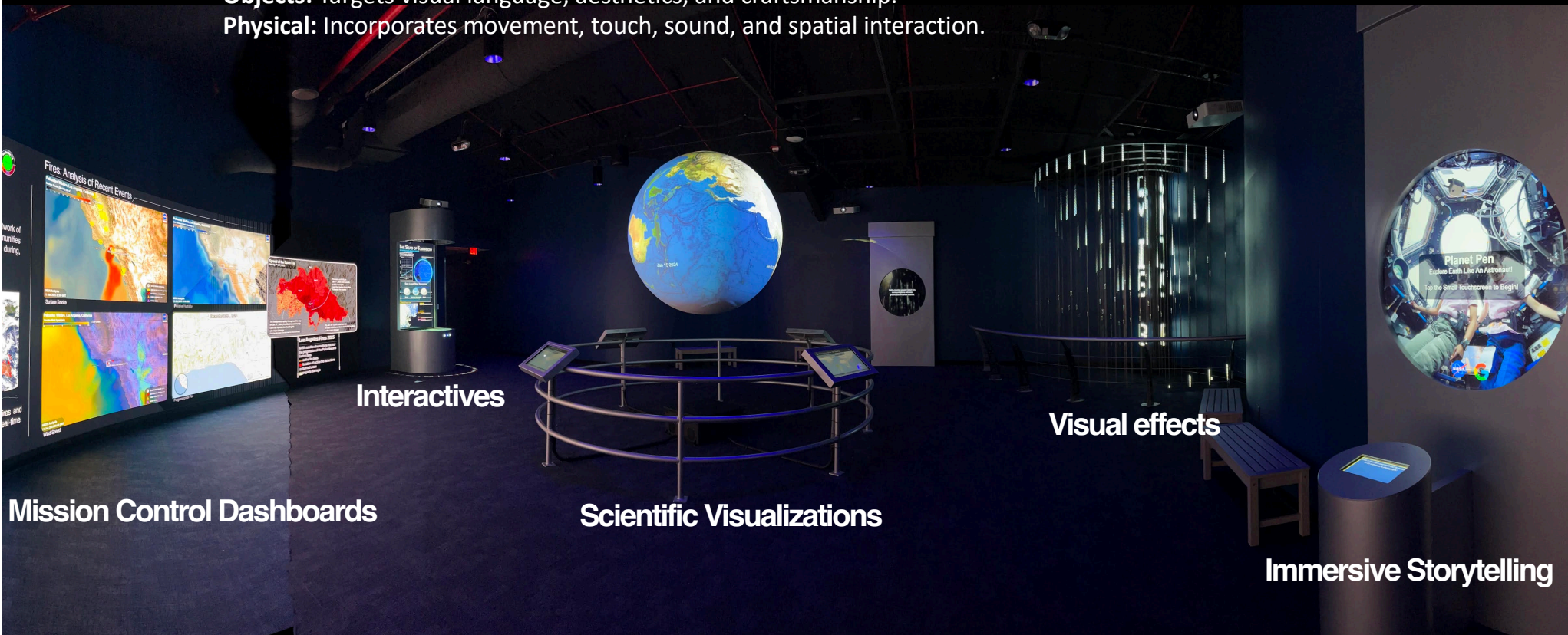
A Range of Experiences (IPOP)

Ideas: Focuses on concepts, linear thoughts, facts, and reasoning.

People: Emphasizes social interactions, human connection, and storytelling.

Objects: Targets visual language, aesthetics, and craftsmanship.

Physical: Incorporates movement, touch, sound, and spatial interaction.



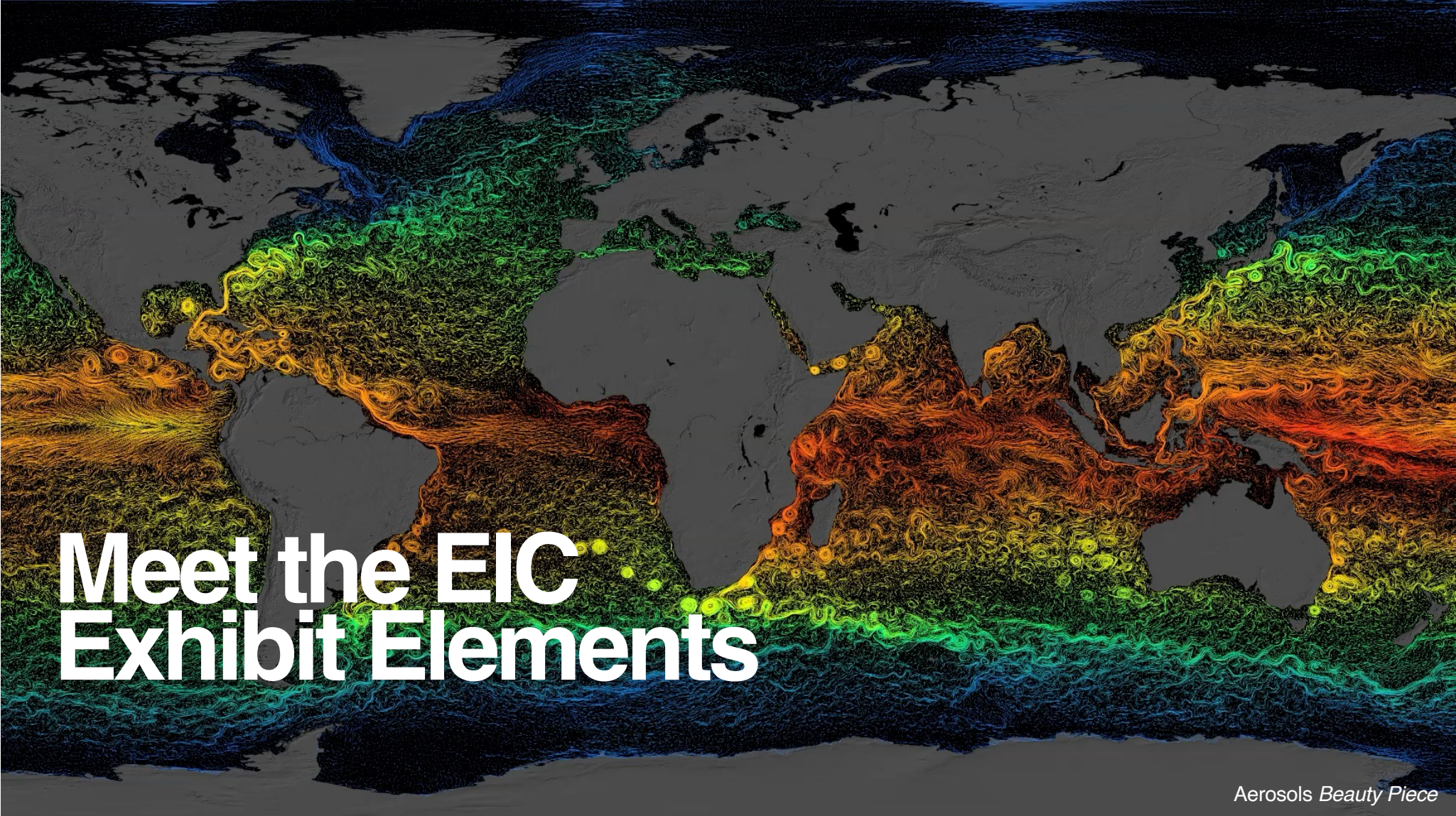
Interactives

Visual effects

Mission Control Dashboards

Scientific Visualizations

Immersive Storytelling



Meet the EIC Exhibit Elements

Aerosols Beauty Piece

Earth Pulse

The Earth Pulse responds to live communication with a selection of NASA's fleet of satellites that study the Earth.

Some of the Currently Supported Missions Through SCan Now that show up on the Earth Pulse:

- Aura, GPM, GRACE-FO, ICESat-2, ISS, Landsat 7, Landsat 8, Landsat 9, OCO-2, SMAP, Suomi NPP, Terra, Aqua, PACE, Tempo

Hyperwall package

A ~20 minute stream of content meant to be viewed on a large LED video wall. The stream includes:

- Mission control for Earth: Near real time data on how the Earth is changing and the latest insights from Earth observations.
- Stakeholder stories: how is Earth observation data used to improve lives and livelihoods.
- Awe-inspiring scientific visualizations highlighting our dynamic planet



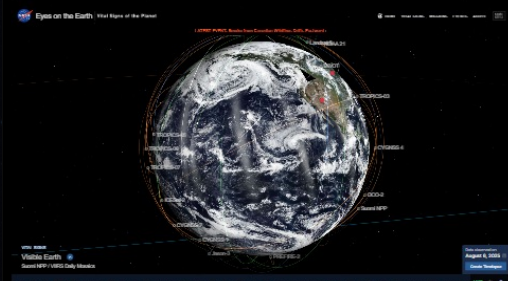
Mission Control Dashboards

Visually explore near real-time information, data visualizations, and the latest insights about Earth's systems. Featured dashboards include Earth Now, Wildland Fires, Disasters, and Air Quality.

Earth Now

NASA satellites provide data on Earth's land, ecosystems, water, air, temperature, and climate - and have done so for more than 50 years. Earth information from space supports decision makers, partners, and people in developing the tools they need to mitigate, adapt, and respond to our changing planet.

Earth Observing Fleet



Current Satellite Observations

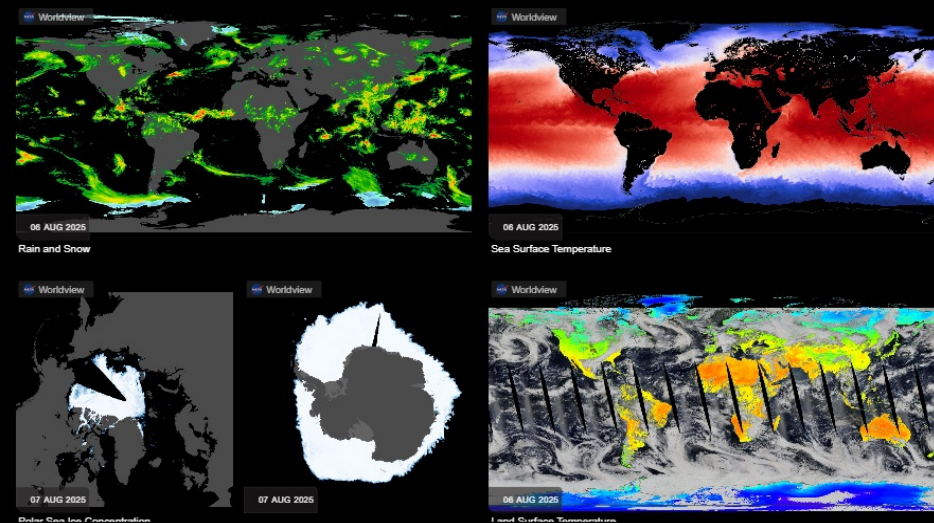
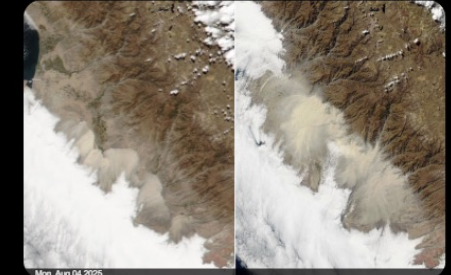


Image of the Day



Dust Engulfs Coastal Peru

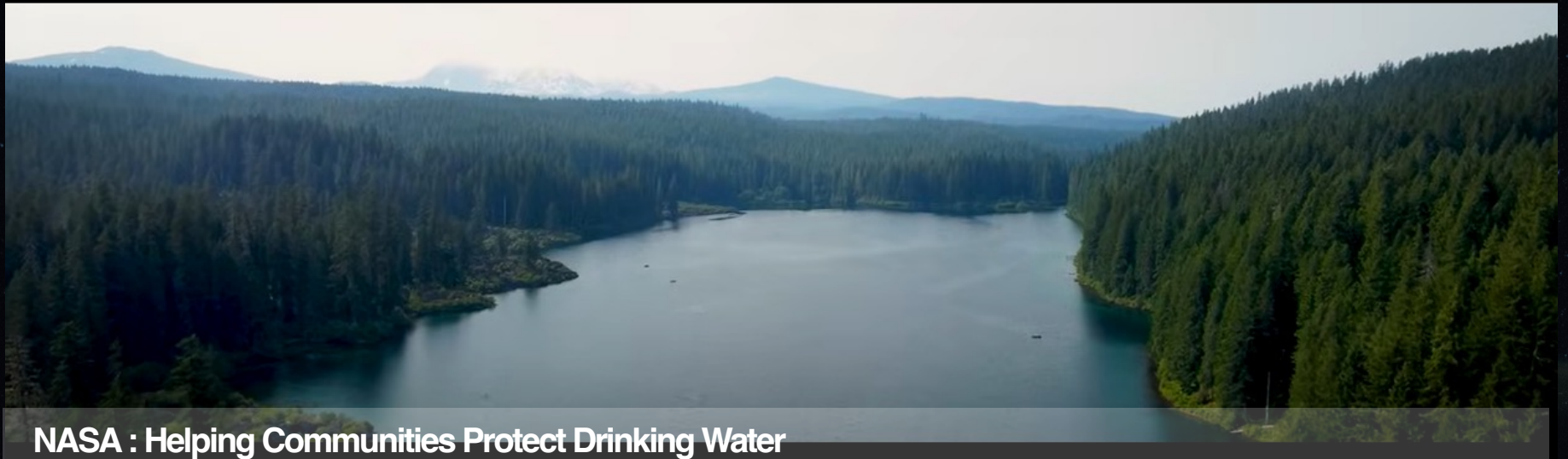
Skies turned orange across the city of Ica as winds, locally known as Paracas winds, lofted dust from the coastal desert region.

Vital Signs

Global Temperature ↑ 1.5°C since preindustrial	Sea Level ↑ 3.6" since January 1993	Minimum Extent of Arctic Sea Ice ↓ 12.2% per decade since 1979	
Carbon Dioxide ↑ 430 current parts per million	Methane ↑ 1935 current parts per billion	Ice Sheets ↓ 401 billion metric tons per year	Ocean Warming ↑ 372 milliquares since 1955

Stakeholder Stories

Learn how Earth data can be used by anyone, anywhere. Video stories highlight the applications of Earth observation data and how it is used to improve lives and livelihoods across the globe. Featured stories show how NASA data can be used protect drinking water, stabilize global markets, build coastal resilience or inform conservation measures, wildfire management, and agricultural practices.

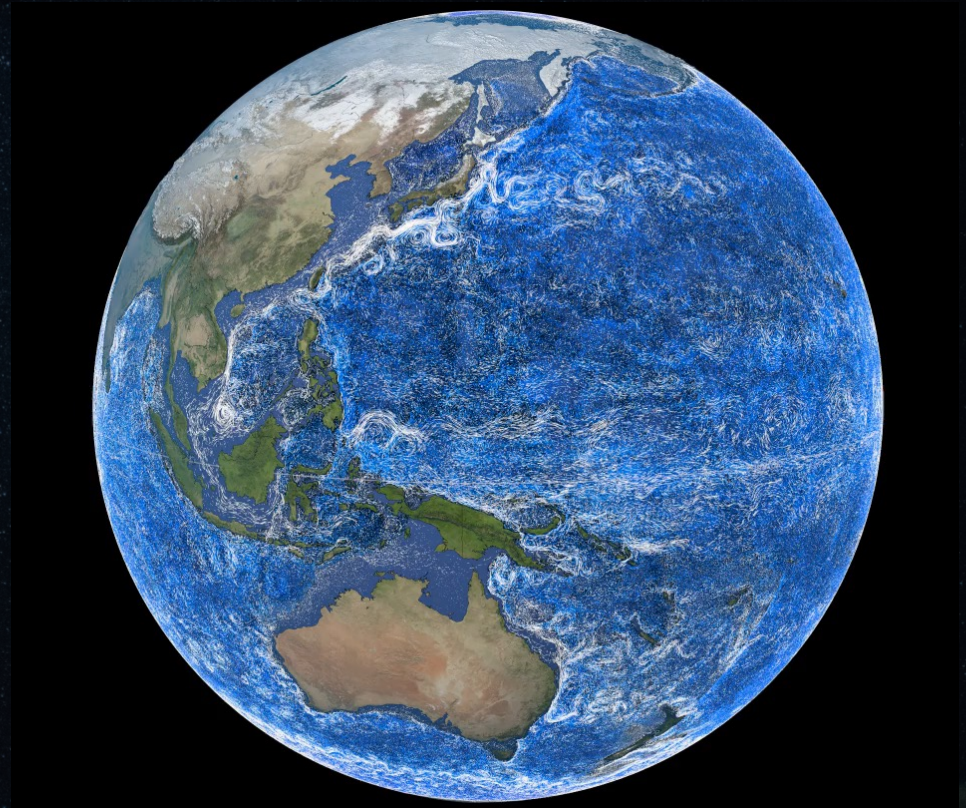
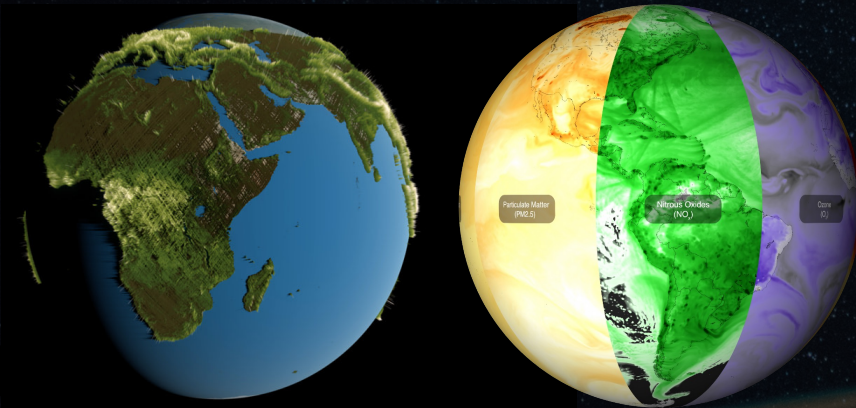


NASA : Helping Communities Protect Drinking Water

Scientific Visualizations

Dive into full screen visualizations about our dynamic planet.

Featured visualizations include Ocean Flows, Nighttime Lights, Atmospheric Rivers, Greenhouse Gases, Aerosols, Air Quality, and GEDI Forest Height visualizations.



Pictured here is the Ocean Flows visualization which uses the Estimating the Circulation and

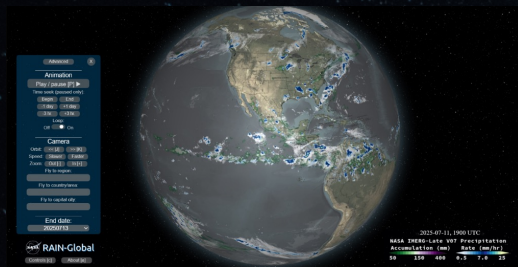
Climate of the Ocean (ECCO) model to visualize ocean currents around the world.

Interactives

Explore Earth observing missions and the publicly available data they collect through a variety of applications for all ages and multiple levels of scientific literacy.



Explore Earth observing missions and the publicly available data they collect through a variety of applications for all ages and multiple levels of scientific literacy. Featured applications include Planet Pen, Eyes on the Earth, GEOS Earth Now, RAIN-GLOBAL, Hometown Dashboard, Air Quality Orchestra, and Your Name in Landsat.



Immersive Experience

Step inside an immersive, spoken word narrative that explores the interconnected relationship between humans and planet Earth through the lens of Bruce McCandless' well known spacewalk.

The *Human Mirror* experience features Earth imagery, a compelling narrative, custom animations, and a custom soundtrack.



Interpretive Panels

Discover Earth as NASA Sees It

Downloadable signage that supports exhibitions and deepens visitors' understanding of why NASA studies Earth. Available in 5 sizes—from 8.5" x 11" to 48" x 72" for DIY printing.



Design Your Hyperwall

Select the setup that works for your organization and meets the requirements for displaying EIC dashboards, beauty pieces, and video stories. The hyperwall content stream is designed for an ultrawide (aspect ratio 32:9) display. The content is natively at 8K resolution (7680x2160), but 4K (3840x2160) displays are also supported. Below we list some display options:

Tier 1 (Large masked display)

- **Cost** \$6000+ USD
- **Setup** One 85" or larger Display behind a physical mask to create the ultrawide aspect ratio.
- **Aspect Ratio** 32:9
- **Supported Resolution** 3840x1080
- **Space Requirement** At least 74.1" W x 41.7" H
- **Installation** Self procurement and installation

Tier 2 (Tiled videowall)

- **Cost** \$25,000+ USD
- **Setup** Video wall, multiple low bezel displays (a 4x2 array of HD displays for example)
- **Aspect Ratio** 32:9
- **Supported Resolution** 7680x2160
- **Space Requirement** At least 16' W x 4.5' H
- **Installation** Self procurement and installation or vendor options available

Tier 3 (Direct view LED wall)

- **Cost** \$35,000 (4K), \$110,000 (8K) USD
- **Setup** Custom video wall
- **Aspect Ratio** 32:9
- **Supported Resolution** 3840x1080 – 7680x2160 with options in between
- **Space Requirement** 16'Wx4.5'H to 32' W x 9' H
- **Installation** Vendor procurement and installation

Minimum Hyperwall Requirements

Computer

- **Processor** with performance capabilities that compare to or exceed the AMD Ryzen 7 9700X 8 core Processor or Intel Core i7-1400K or Intel Core i9-14900K
- **GPU** Performance capabilities equal to or exceeding an NVIDIA GeForce RTX 5070 TI and capable of driving two 4k@60 Hz displays.
- **RAM** Minimum 32 GB
- **Storage** 1TB solid state storage
- **Operating System** Microsoft Windows 11 Pro or higher
- Additional
 - Mouse and keyboard
 - Wired ethernet interface capable of at least 1 Gb

Example Velocity Micro's Raptor Z55a computer system with a NVIDIA GeForce RTX 5070 TI GPU (meets the above specifications)

Displays

- One 85" display with recommended physical mask on unit
- 2 HDMI cables (long enough to reach computer from monitor but not too long that signal degrades, 5m max)

*Example Samsung Business QM55R 55 in 4k UHD
3840x2160 24/7 (meets the above specifications)*

Other requirements

- 24/7 Internet access with continuous and stable power
- Sufficient heating and cooling to maintain stable temperature
- Secure, accessible, and sufficient space for back-end system

Minimum Interactive Requirements

Computer

- **Processor** 1GHz or faster with 2 or more cores on a compatible 64-bit processor
- **RAM** 4 GB or more
- **Storage** 64 GB or larger storage device
- **System Firmware** UEFI, Secure Boot Capable
- **TPM** Trusted Platform Modular (TPM), Version 2.0
- **Graphics Card** DirectX 12 compatible graphics WDDM 2.x
- **Operating System** Microsoft Windows 11 Pro or higher

Displays

- 55" Touchscreen or touch capable displays
- Landscape orientation

Minimum Immersive Requirements

Computer

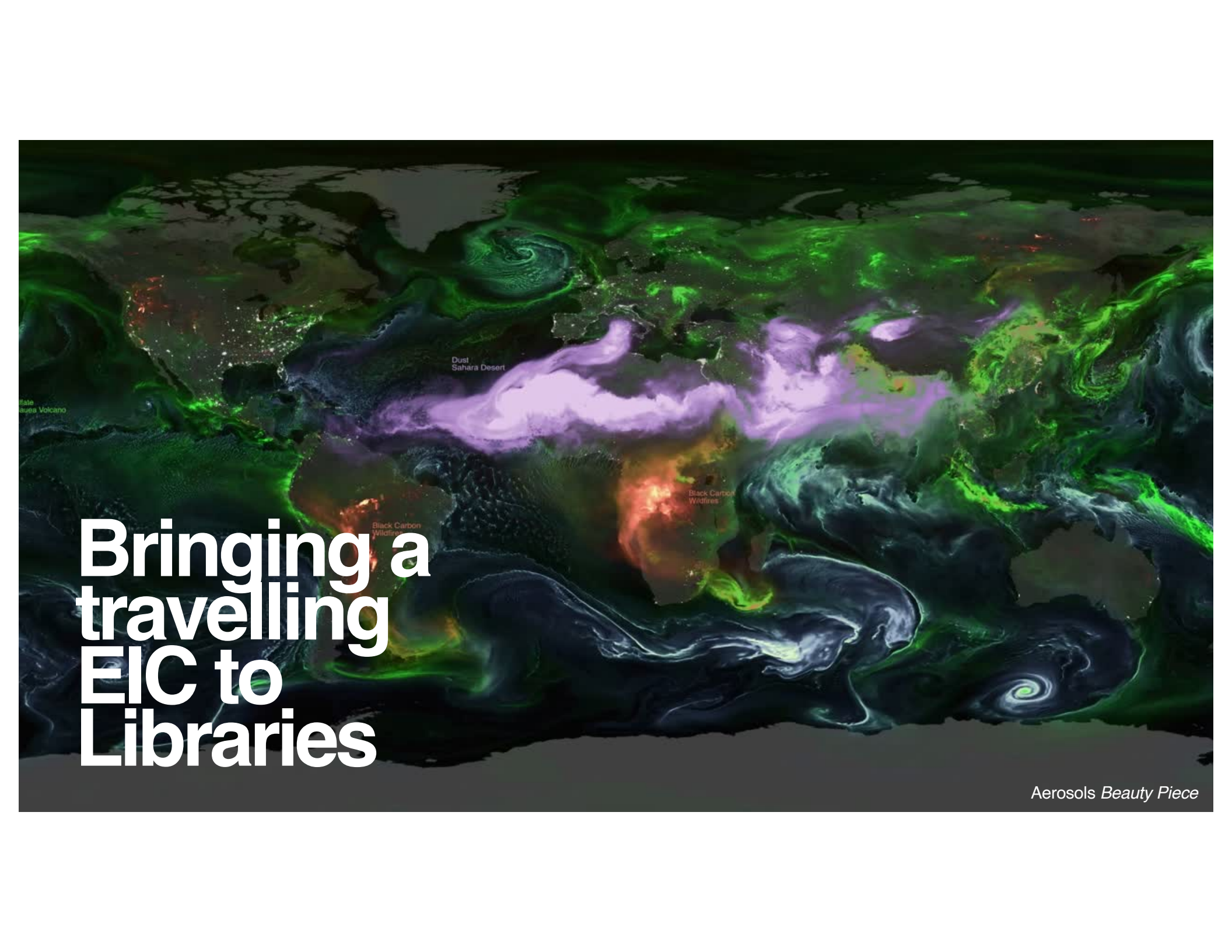
- **Processor** Multi-core comparable to or exceeding a recent Intel Core i7 or AMD Ryzen 7 (sufficient for multi-stream 4k playback)
- **RAM** 32 GB or more
- **Storage** 1 TB solid state storage
- **Operating System** Microsoft Windows 11Pro or higher
- **Additional Requirements** Operator control display, mouse, and keyboard

Displays

- **Display** System capable of outputting to 3-4 synchronized surfaces
- **Cable** 2x HDMI cables or DisplayPort cables per display

Audio

- **Playback** Capable of synchronized multi-channel playback
- **Supported Formats** Supported formats stereo, 5.1, or 7.1 surround
- **Cables** 2x HDMI cables or DisplayPort cables per display

An aerial view of Earth's atmosphere showing various aerosols. The image features swirling patterns of green, purple, and orange against a dark background. Labels include 'Hale Mauna Volcano' on the left, 'Dust Sahara Desert' in the center, and 'Black Carbon Wildfires' in two locations: one in the lower left and one in the center-right. The overall effect is a vibrant, artistic representation of atmospheric phenomena.

Bringing a travelling EIC to Libraries

Aerosols Beauty Piece

On the move

The Earth Information Center program is partnering with ALA to bring the Earth Information Center exhibit to 12 libraries over the next two years.

The exhibit will be redesigned with the following principles front and center:

- Portability
- Adaptability to different library layouts
- Durability and tamper-proof touchpoints
- Ease of setup and maintenance
- Approachability and resonance with library audiences
- Kid-friendliness



Modularity

The design thrust will be to create modules that can be clustered together to create an interactive and cohesive experience.



Programming

ALA will help facilitate the creation of programming that could supplement the exhibit—e.g. book lists, speaker engagements, story times, and other activities



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GLENN GODDARD HEADQUARTERS JOHNSON KENNEDY LANGLEY MARSHALL



Interested in the EIC?

To get started reach out to:

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Nicole Ramberg-Pihl, Project Manager: nicole.c.ramberg-pihl@nasa.gov