

2023 NASA SCIENCE

Dr. Nicola Fox

Associate Administrator Science Mission Directorate

Space Studies Board Meeting

November 14, 2023





AGENDA

RECENT SCIENCE HIGHLIGHTS

SMD UPDATES

LOOKING AHEAD

SMD AA PERSPECTIVE

SCIENCE UPDATES





Euclid Launch | Saturday, July 1, 2023, 11:12 a.m. EDT



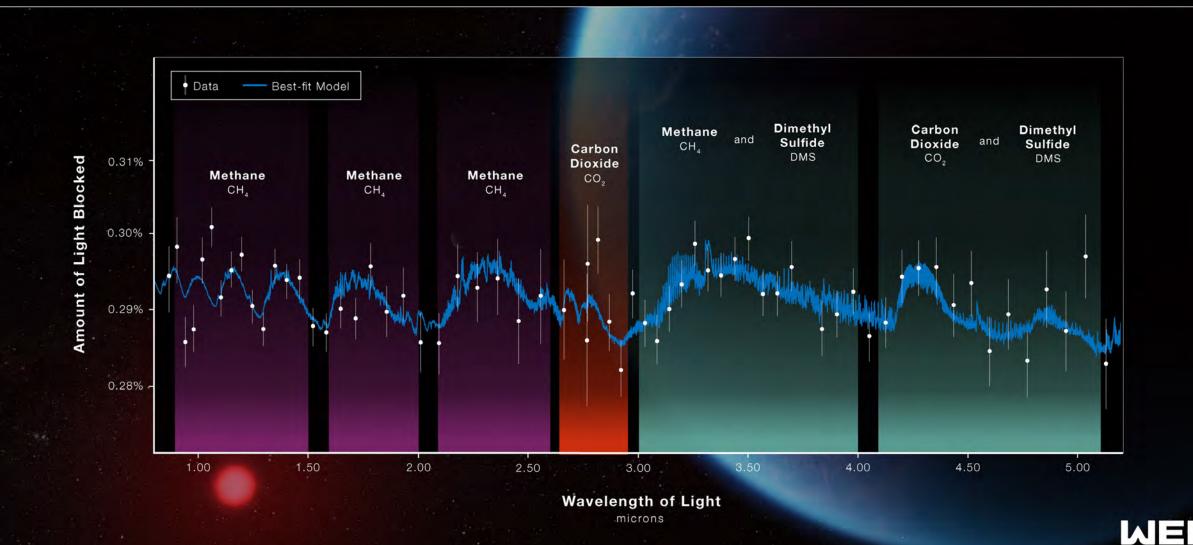
XRISM Launch | Thursday, September 7, 2023, 8:42:11 a.m. JST

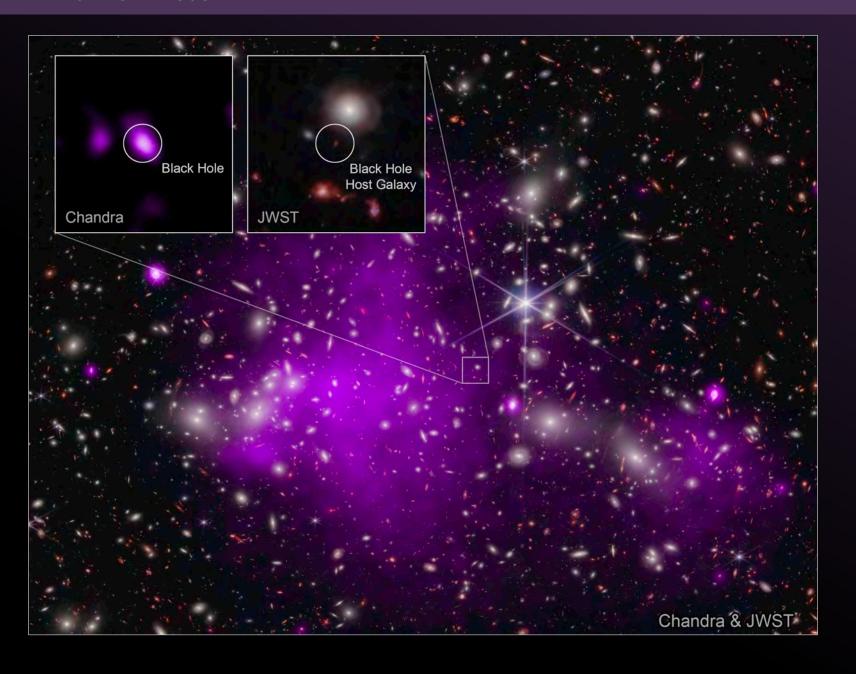


Euclid First Images

ATMOSPHERE COMPOSITION

NIRISS and NIRSpec (G395H)







OSIRIS-REx sample return shortly after touching down on Sept. 24, 2023, at the Department of Defense's Utah Test and Training Range



A view of the outside of the OSIRIS-REx sample collector containing sample material from asteroid Bennu.



The OSIRIS-REx Bennu sample display case now on view at the Smithsonian's National Museum of Natural History in Washington, D.C.

PSYCHE LAUNCH



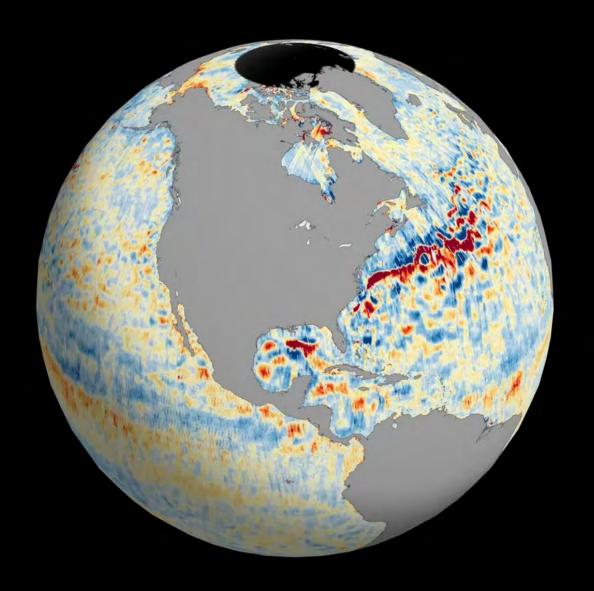


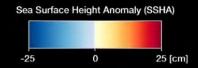


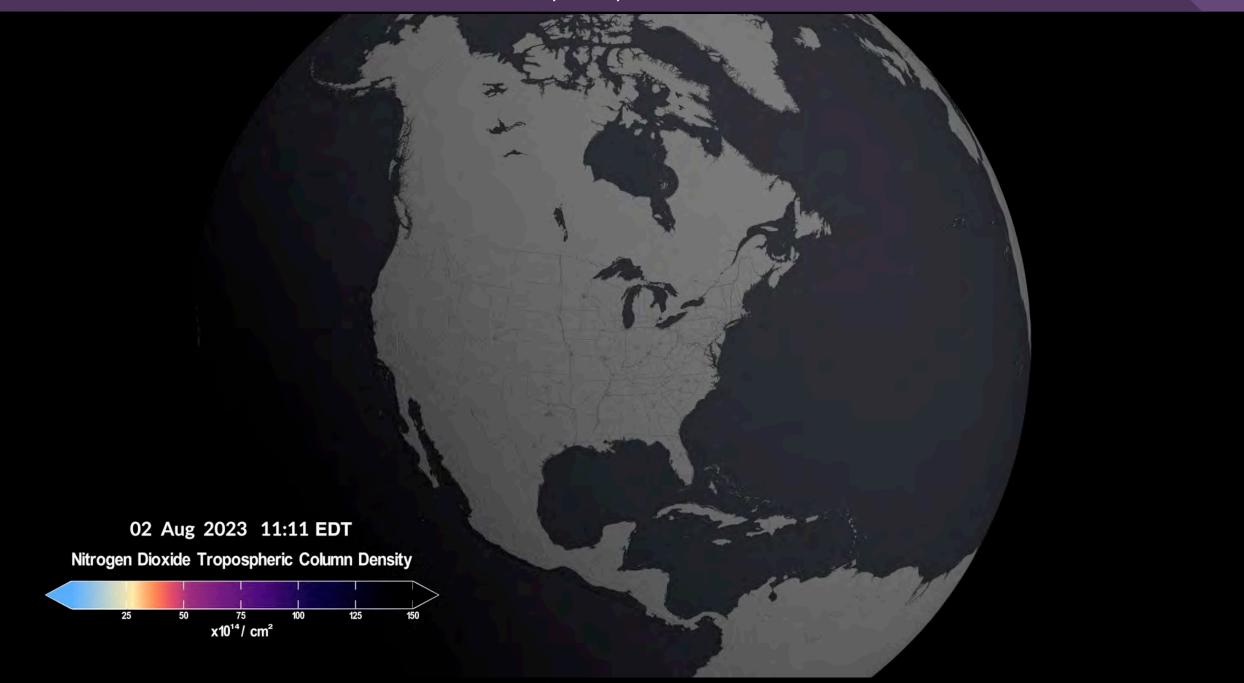
LUCY FLYBY

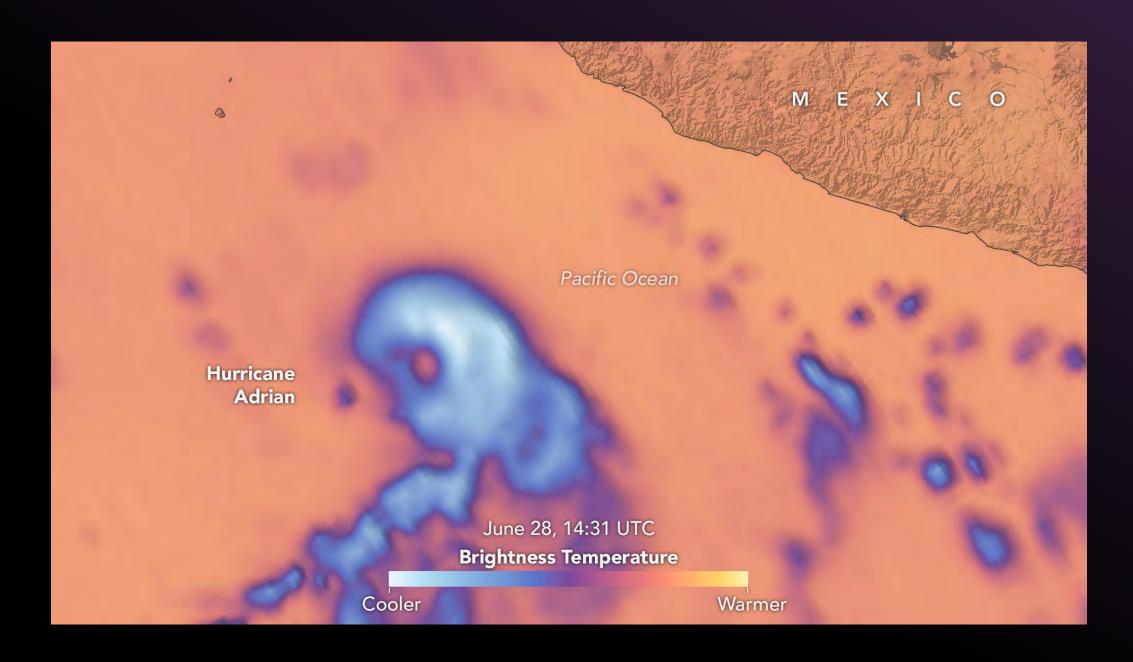


Asteroid Dinkinesh as seen by the Lucy Long-Range Reconnaissance Imager (L'LORRI)

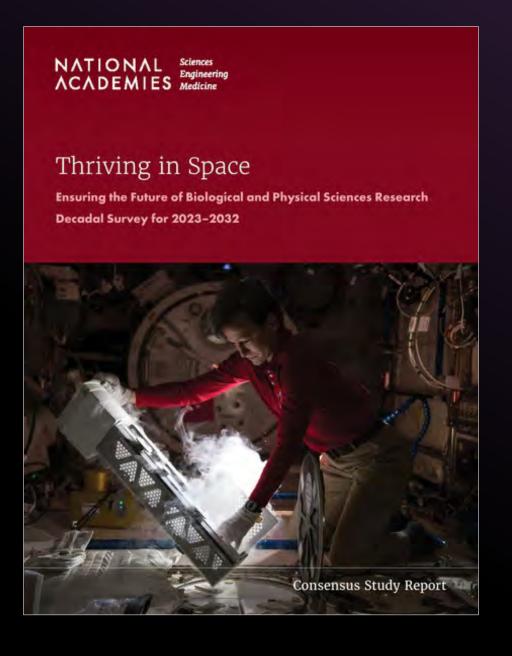








BPS DECADAL RELEASE 13



Biological and Physical Sciences Payloads:

- Bacterial Adhesion and Corrosion (BAC)
- Combustion Integrated Rack Input-Output Processor (CIR IOP)
- Plant Water Management –5 and –6 (PWM-5, -6)
- Plant Habitat 06 (PH-06)
- Rodent Research-20 (RR-20)



Astronaut Christina Koch working at the Combustion Integrated Rack

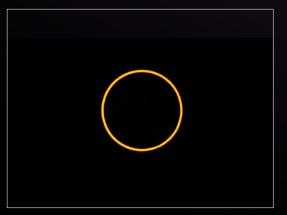


CRS-29 launch from Cape Canaveral on November 9, 2023





ANNULAR SOLAR ECLIPSE





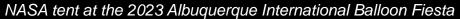




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Annular solar eclipse photographed on October 14, 2023







NASA eclipse event at the 2023 Kerrville River Festival

PROGRAMMATIC UPDATES



NASA SCIENCE MISSION DIRECTORATE

SCIENCE ENGAGEMENT & PARTNERSHIPS DIVISION (DO000)



DIRECTOR Kristen Erickson

RESOURCE MANAGEMENT DIVISION (DL000)



DIRECTOR Holly Dean



DEPUTY Kate Wolf

ADMINISTRATION BRANCH (DA030)



CHIEF Thomas Reyna





CHIEF

OFFICE OF THE ASSOCIATE **ADMINISTRATOR** (DA000)



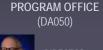
ASSOCIATE ADMINISTRATOR Nicola Fox



DEPUTY ASSOCIATE ADMINISTRATOR Sandra Connelly



SPACE TRAFFIC COORDINATION PROGRAM OFFICER Travis Blake



MARS SAMPLE RETURN



DIRECTOR Jeff Gramling



DEPUTY-**BUSINESS** Rich Ryan

MANAGEMENT



DEPUTY ASSOCIATE **ADMINISTRATOR**

SENIOR

ADVISOR

Paul Hertz



ASSISTANT DEPUTY **ASSOCIATE** ADMINISTRATOR Dan Woods

EXPLORATION



DEPUTY ASSOCIATE ADMINISTRATOR Joel Kearns



ASSISTANT DEPUTY ASSOCIATE **ADMINISTRATOR Brad Bailey**

RESEARCH



DEPUTY **ASSOCIATE ADMINISTRATOR** Michael New



ASSISTANT DEPUTY ASSOCIATE ADMINISTRATOR

PROGRAMS



DEPUTY **ASSOCIATE ADMINISTRATOR** Wanda Peters



ASSISTANT DEPUTY ASSOCIATE ADMINISTRATOR Shannon Fitzpatrick



CHIEF **TECHNOLOGIST** Carolyn Mercer



PLANETARY SCIENCE DIVISION

CONJUNCTION **ASSESSMENT** PROGRAM OFFICER Laurie Newman

EARTH SCIENCE DIVISION (DK000)



DIRECTOR Karen St.

ASSOCIATE

DIRECTOR

Schwinger

ASSOCIATE

DIRECTOR

Tom Wagner

(Acting)



Robinson

DEPUTY



ASSOCIATE DIRECTOR Jack Kaye





DIRECTOR Lisa Carnell



DEPUTY DeVon Griffin (Acting)

HELIOPHYSICS DIVISION (DJ000)



DIRECTOR Peg Luce



DEPUTY Therese (Acting)



ASSOCIATE DIRECTOR Nicki Rayl

JOINT AGENCY SATELLITE **DIVISION** (DN000)



DIRECTOR



DIRECTOR Mark Clampin



DEPUTY Sandra Cauffman



ASTROPHYSICS DIVISION

(DH000)

ASSOCIATE DIRECTOR Tahani Amer (Acting)

ASSOCIATE

DIRECTOR

Eric Smith





DEPUTY Eric lanson

CHIEF MARS



DIRECTOR Charles Webb









Dr. Lisa Carnell

Division Director Biological & Physical Sciences Division

- Recently served as BPS's Program Scientist for Translational Research
- Led strategic partnership initiatives with other government agencies, including NIH, BARDA, FDA, DARPA, NSF, and the USDA
- Holds a PhD from Duke University
- Formerly served as the Space Radiation Medical Countermeasure Lead for NASA's Human Research Program
- Extensive background in understanding and mitigating radiation-induced health effects on humans

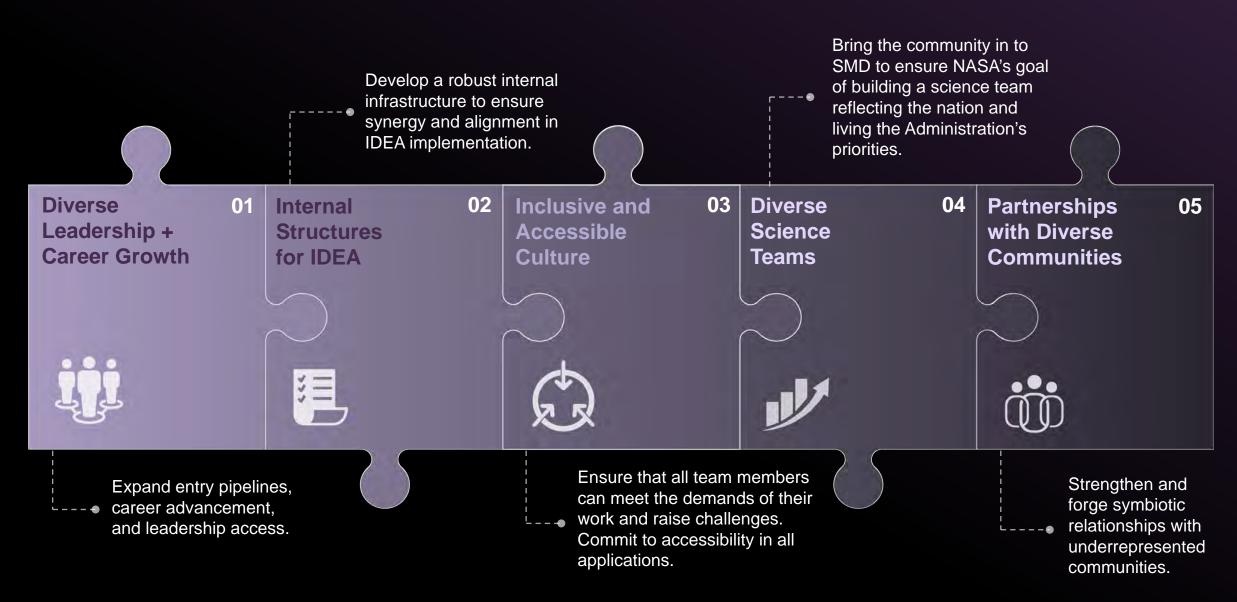


Dr. David Grinspoon

Senior Scientist Astrobiology Strategy (SSAS)

- Dr. Grinspoon's papers have been published in Nature,
 Science, and numerous other journals
- Frequently gives talks to all levels of audiences around the world
- Received awards for innovative ways of teaching astrobiology to both undergraduates and graduates at multiple universities
- Participated in numerous NASA-related strategic planning and advisory roles
- Currently serving on the Unidentified Anomalous Phenomena Independent Study Team

Inclusion, Diversity, Equity, Accessibility (IDEA) Strategic Priorities



MSR IRB-2 Members

Orlando Figueroa, Chair

Steve Battel

Jon Bryson

Anders Elfving

Vicky Hamilton

Michele King*

Gentry Lee

Daniel Limonadi

Jonathan Lunine

Todd May*

Heather MacDonald

Adm. Mike Mullen

Keith Parrish*

Lisa Pratt*

Gary Rawitscher

Janet Vertesi

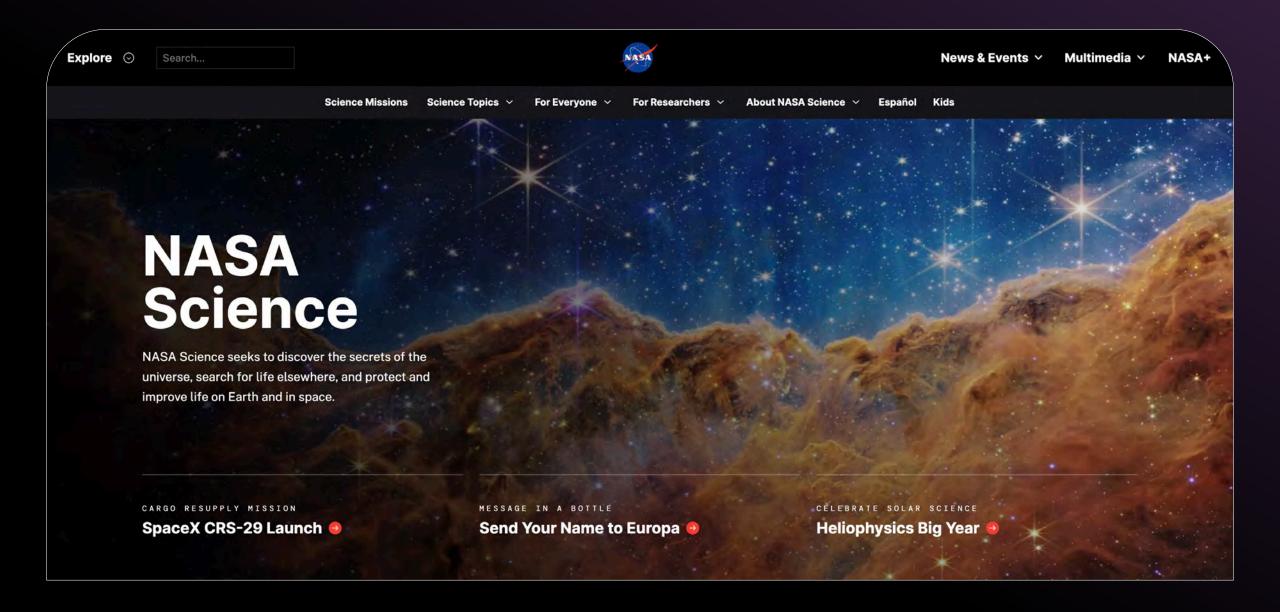
PROGRAMMATIC CONSULTANTS

Louis Fussel

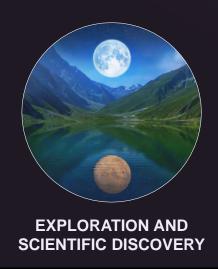
Mark Jacobs

Andy Prince

Jahi Wartts



SCIENCE LEADERSHIP PRIORITIES









INSPIRATION

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I am pleased to welcome you to this new blog series – what my team affectionally calls, "Nicky Notes." Through this platform, I hope to regularly share updates about all of the exciting work we do in the Science Mission Directorate, while offering some more candid reflections.





LOOKING AHEAD



27 **UPCOMING LAUNCHES**



COMMERCIAL LUNAR PAYLOAD SERVICES (CLPS)

Various Providers



NASA-ISRO SYNTHETIC APERTURE RADAR (NISAR) NASA/ISRO



PLANKTON, AEROSOL, CLOUD OCEAN ECOSYSTEM (PACE) NASA



GEOSTATIONARY OPERATIONAL ENVIRONMENTAL SATELLITE-R SERIES (GOES U)

NOAA/NASA

TOTAL SOLAR ECLIPSE



ONGOING PRIORITIES 29



SMD BRIDGE PROGRAM





ROSES-24

CLOSING THOUGHTS

