National Aeronautics and Space Administration

PUNCH4 – NASA Heliophysics Connections

Peg Luce

Acting Director, Heliophysics Division, NASA

NASA Heliophysics Division Leadership

Nicole (Nicki) Rayl, Associate Director for Flight

Peg Luce, Acting Division Director

Therese Moretto-Jorgensen
Acting Deputy Division Director

HPD STAFFING UPDATES

Welcome and Congratulations!

Genene Fisher

Kelly Korreck

Janet Kozyra

Reiner Friedel

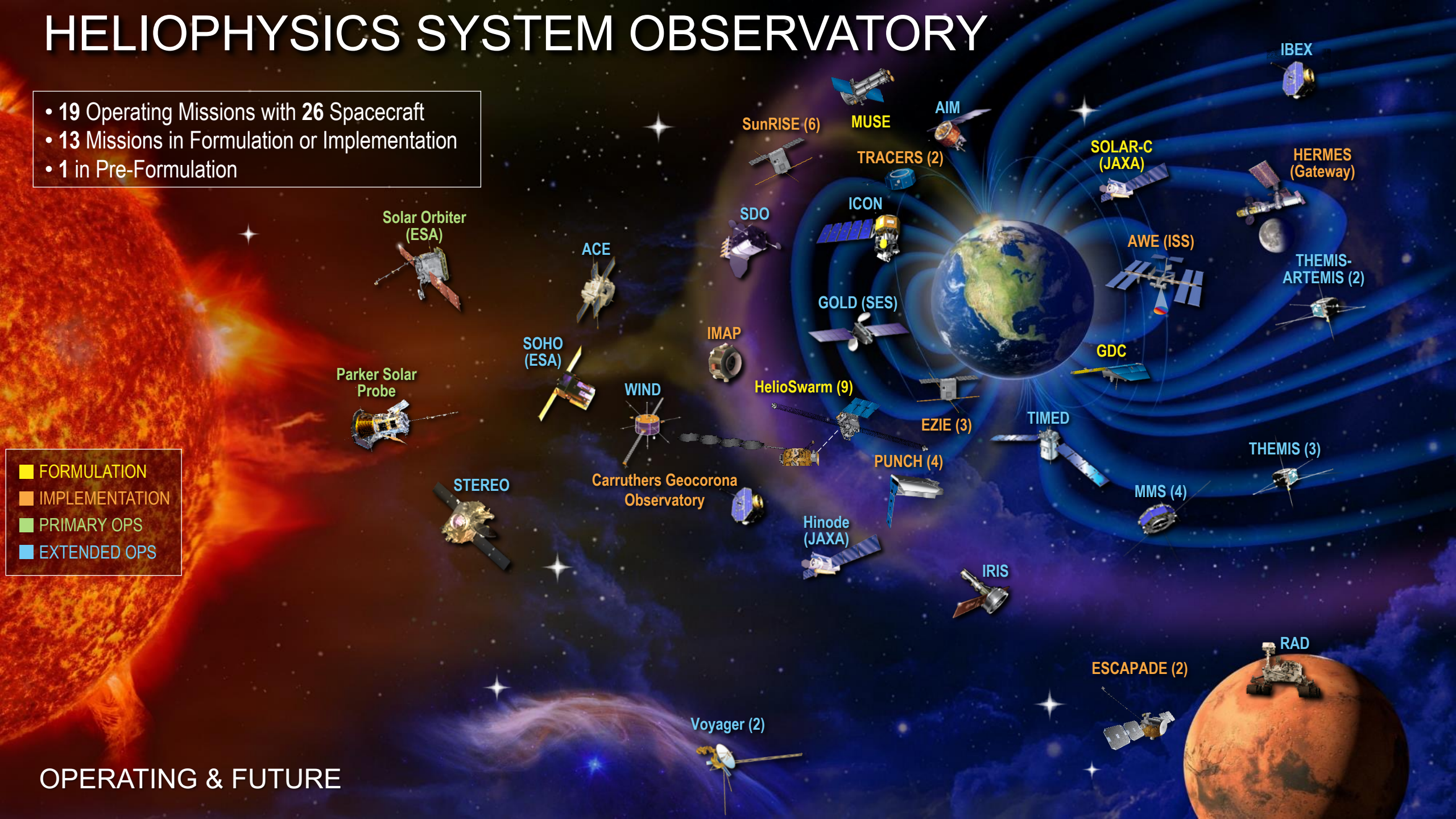
Elizabeth Esther

Hiring for new Program Scientists is underway!

HELIOPHYSICS
BIG YEAR

HELIOPHYSICS SYSTEM OBSERVATORY

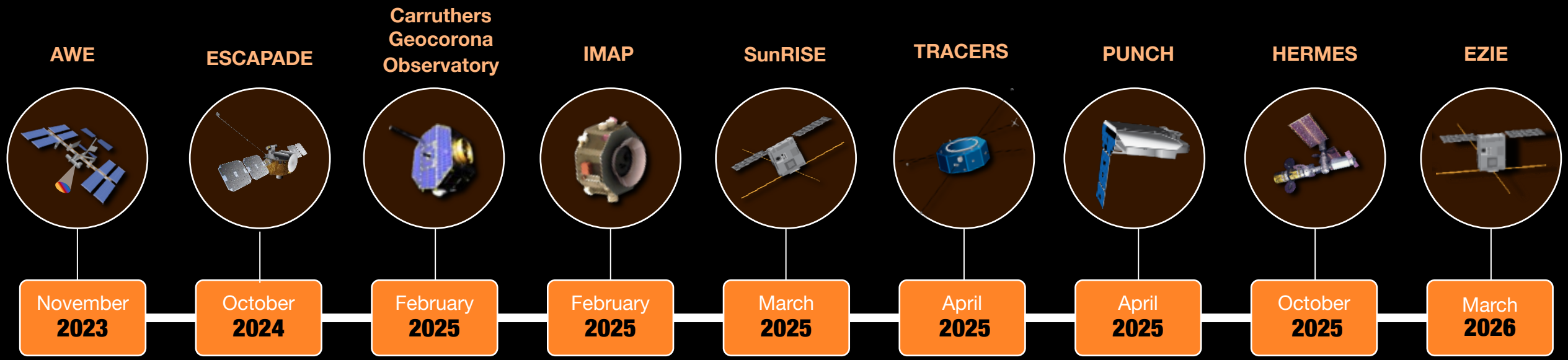
- **19** Operating Missions with **26** Spacecraft
- **13** Missions in Formulation or Implementation
- **1** in Pre-Formulation



- FORMULATION
- IMPLEMENTATION
- PRIMARY OPS
- EXTENDED OPS

OPERATING & FUTURE

HELIO MISSION FLEET TIMELINE



Two solar eclipses

Annular on October 14, 2023, and total on April 8, 2024, across North America

Parker Solar Probe

Parker will make its closest approach to the Sun in December 2024

Solar Cycle 25

Solar maximum will present more opportunities to experience space weather

For additional information, please visit
Eclipses Home | Eclipses – NASA Solar System Exploration


eclipse
THROUGH THE EYES OF NASA
NASA
The 2023 & 2024
Solar Eclipses
through the eyes of NASA
Lunar topography data from NASA's Lunar Reconnaissance Orbiter and the Japan Aerospace Exploration Agency's SELENE lunar orbiter were used to precisely calculate the location of the Moon's shadow for the 2023 and 2024 solar eclipses. The planetary positions are from NASA's Jet Propulsion Laboratory Development Ephemeris 421. Earth imagery from NASA's Blue Marble: Next Generation series were used to create the terrain and Earth at night imagery from NASA's Black Marble were used under the eclipse paths.
2023 Annular Solar Eclipse
Saturday October 14, 2023
2024 Total Solar Eclipse
Monday April 8, 2024
Credit: Michala Garrison and the Scientific Visualization Studio (SVS), in collaboration with the NASA Heliophysics Activation Team (NASA HEAT), part of NASA's Science Activation portfolio
Eclipse calculations by Ernie Wright, NASA Goddard Space Flight Center
2023 Annular Solar Eclipse
2024 Total Solar Eclipse
9:15 AM PDT
9:20 PDT
9:25 PDT
10:30 MDT
10:35 MDT
10:40 MDT
11:45 CDT
11:50 CDT
12:00 CDT
12:05 PM CDT
2:20 PM CST
2:25 CST
2:30 CST
1:30 CDT
1:35 CDT
1:40 CDT
1:45 CDT
1:50 CDT
1:55 CDT
2:00 CDT
2:05 CDT
3:05 EDT
3:10 EDT
3:15 EDT
3:20 EDT
3:25 EDT
3:30 EDT
4:35 PM ADT
2023 Path of Annularity Sat. October 14, 2023
Along a path about 125 miles wide, the Sun will appear as a "ring of fire" in the sky. Annularity lasts up to 5 minutes depending on the viewer's location within this path.
2024 Path of Totality Mon. April 8, 2024
Along a path about 115 miles wide, the Moon will completely block the Sun in the sky. Totality lasts up to about 4 minutes and 28 seconds depending on the viewer's location within this path.
Outside of these paths, viewers within the 48 contiguous U.S. states and many other areas will see a partial solar eclipse (in the shaded areas below).
Find More: http://solarsystem.nasa.gov/eclipses
NP-2022-11-909-GSFC
2023 Maximum Partial Obscuration (%)
2024 Maximum Partial Obscuration (%)
Pacific Ocean
Atlantic Ocean
Gulf of Mexico
CANADA
UNITED STATES
MEXICO
Seattle
Portland
Salt Lake City
Denver
Kansas City
Minneapolis
Chicago
Detroit
Cleveland
Buffalo
Pittsburgh
Indianapolis
Cincinnati
Columbus
Louisville
St. Louis
Nashville
Memphis
Atlanta
Birmingham
New Orleans
Houston
Dallas
Ft. Worth
Austin
San Antonio
El Paso
Albuquerque
Las Vegas
Phoenix
Los Angeles
San Francisco
Sacramento
Oakland
San Jose
San Diego
Long Beach
Irvine
San Bernardino
Boston
New York
Philadelphia
Baltimore
Washington D.C.
Richmond
Virginia Beach
Norfolk
Raleigh
Charlotte
Jacksonville
Orlando
Tampa
Miami
Fort Lauderdale
West Palm Beach

Get Involved and Stay Informed!

Stay in touch and help us find new ways to highlight your work and keep you in the loop!

Sign up for the NASA Eclipse Newsletter to receive updates on eclipse activities!

- https://tinyurl.com/ym9epkjy

Let us know what you've been working on:

- https://bit.ly/SubmitHelioScience

Learn more about the next solar eclipse:

- https://solarsystem.nasa.gov/eclipses/home/

Join us for our next Community Town Hall:

- https://science.nasa.gov/researchers/virtual-townhall

For additional details on Eclipse information and events:

- Events | News – NASA Solar System Exploration

NASA.gov/sunearth blogs.nasa.gov/sunspot @NASASun facebook.com/NASASunScience