



HELIOPHYSICS **BIG YEAR**



<http://go.nasa.gov/HelioBigYear/>

HELIOPHYSICS BIG YEAR MILESTONES



**ANNULAR
SOLAR ECLIPSE**

OCT. 14, 2023



**TOTAL
SOLAR ECLIPSE**

APR. 8, 2024



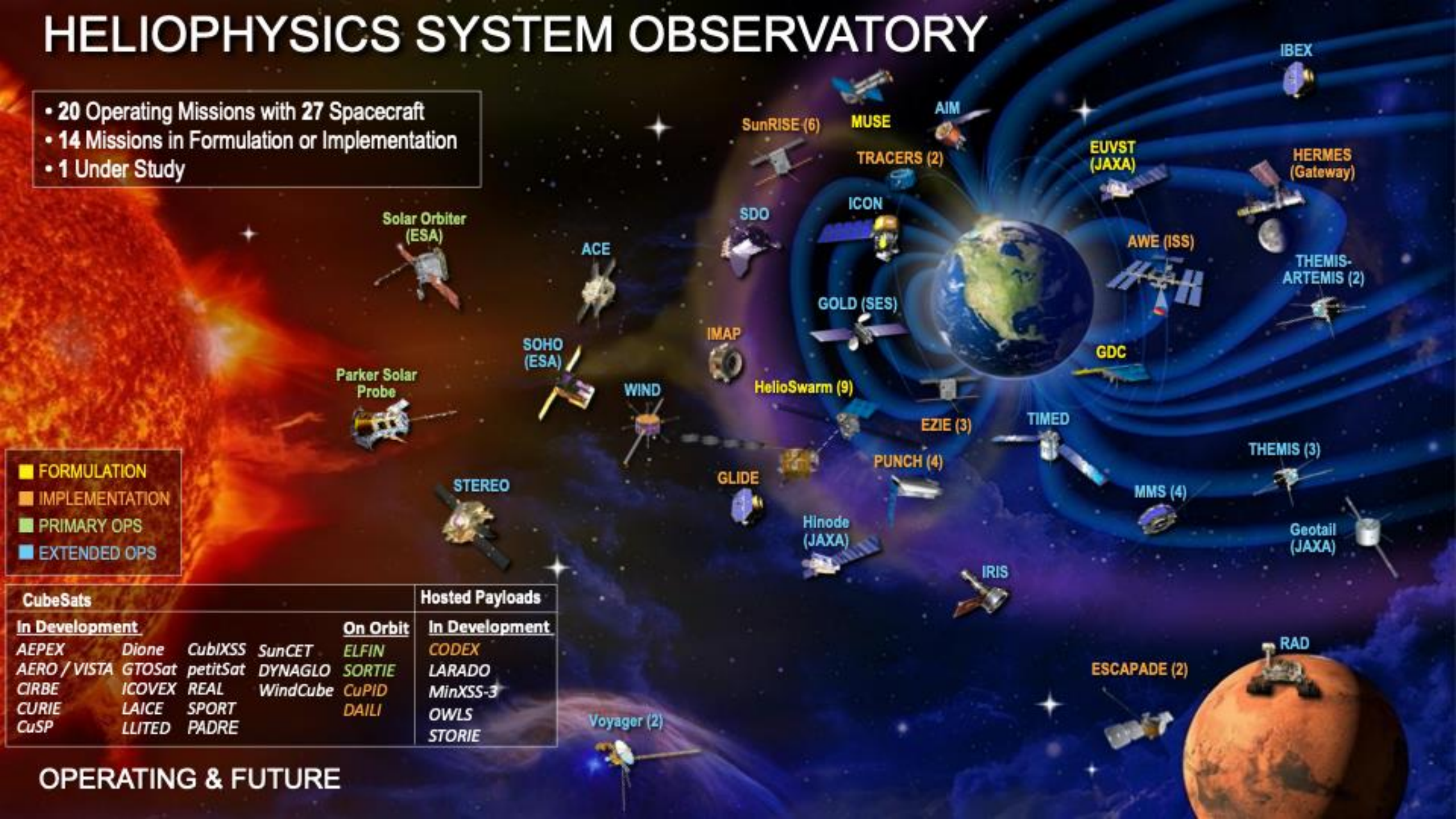
Parker Solar Probe

**CLOSEST
APPROACH TO SUN**

DEC. 24, 2024

HELIOPHYSICS SYSTEM OBSERVATORY

- 20 Operating Missions with 27 Spacecraft
- 14 Missions in Formulation or Implementation
- 1 Under Study



■ FORMULATION
■ IMPLEMENTATION
■ PRIMARY OPS
■ EXTENDED OPS

CubeSats				Hosted Payloads	
In Development				On Orbit	In Development
AEPEX	Dione	CubIXSS	SunCET	ELFIN	CODEX
AERO / VISTA	GTOsat	petitSat	DYNAGLO	SORTIE	LARADO
CIRBE	ICOVEX	REAL	WindCube	CuPID	MinXSS-3
CURIE	LAICE	SPORT		DAILI	OWLS
CuSP	LLITED	PADRE			STORIE

OPERATING & FUTURE



Research

Highlights the newest mission data, utilizes the latest advances in modeling and machine learning, and develops the most innovative technological solutions.

Solar Terrestrial Probes (STP)

Addresses fundamental science questions about the very nature of space itself, and the flow of material and energy throughout the solar system— from the Sun to Earth to other planets to the interstellar boundary.

Explorers

Provides frequent flight opportunities for world-class scientific investigations from space utilizing innovative, streamlined and efficient management approaches within the heliophysics and astrophysics science areas.

Living With a Star (LWS)

Targets specific aspects of the Sun-Earth system that affect life and society: provides a predictive understanding of the Sun-Earth system, linkages among the interconnected systems, and, specifically, space weather conditions at Earth and the interplanetary medium.

Space Weather

Advances the science of space weather to empower a technological society safely thriving on Earth and expanding into space.

Technology

The Heliophysics Technology Program Office (HESTO) enables more focused, impactful, and innovative technology investments.

NASA Science Mission Directorate, Heliophysics Division

ROSES-2024 <https://nspires.nasaprs.com/>

National Aeronautics and
Space Administration



Status	Solicitation	Release Date	Due Date
Due in <30 days	B.5 Living with a Star Science	2/14/24	8/13/24
Due in <30 days	B.10 Heliophysics Flight Opportunities Studies	2/14/24	8/28/24
Open	B.11 Heliophysics Flight Opportunities for Research and Technology	2/14/24	9/20/24
Open	B.13 Heliophysics U.S. Participating Investigator	2/14/24	4/9/25
Open	B.14 Heliophysics Early Career Investigator Program	2/14/24	12/3/24
Open	B.15 Heliophysics Innovation in Technology and Science	2/14/24	3/28/25
Open	B.16 Heliophysics Artificial Intelligence/Machine Learning-Ready Data	2/14/24	4/3/25
Open	B.17 Interdisciplinary Science for Eclipse: Not Solicited in ROSES-2024	2/14/24	NA
Open	B.18 Living With a Star Tools and Methods: Not Solicited in ROSES-2024	2/14/24	NA
Open	B.19 Heliophysics Living with a Star Infrastructure: Not Solicited in ROSES-2024	2/14/24	NA
Open	B.20 Heliophysics Tools and Methods	2/14/24	2/27/25
Open	B.21 Heliophysics Citizen Science Investigations: Due Dates TBD	2/14/24	TBD
Due in <30 days	B.22 Artificial Intelligence Applications in Heliophysics	2/14/24	8/20/24
Open	B.3 Heliophysics Theory, Modeling and Simulations: Not Solicited in ROSES-2024	2/14/24	NA
Open	B.6 Living with a Star Strategic Capabilities: Not Solicited in ROSES-2024	2/14/24	NA
Open	B.7 Space Weather Science Application Research-to-Operations-to-Research: Not Solicited in ROSES-2024	2/14/24	NA
Due in <30 days	B.8 Heliophysics Technology and Instrument Development for Science	2/14/24	8/29/24
Open	B.9 Heliophysics Low Cost Access to Space	2/14/24	9/23/24
Open	F.17 Multidomain Reusable Artificial Intelligence Tools: Not Solicited in ROSES-2024	2/14/24	NA