

NASA Science Mission Directorate Astrophysics Division

National Aeronautics and
Space Administration



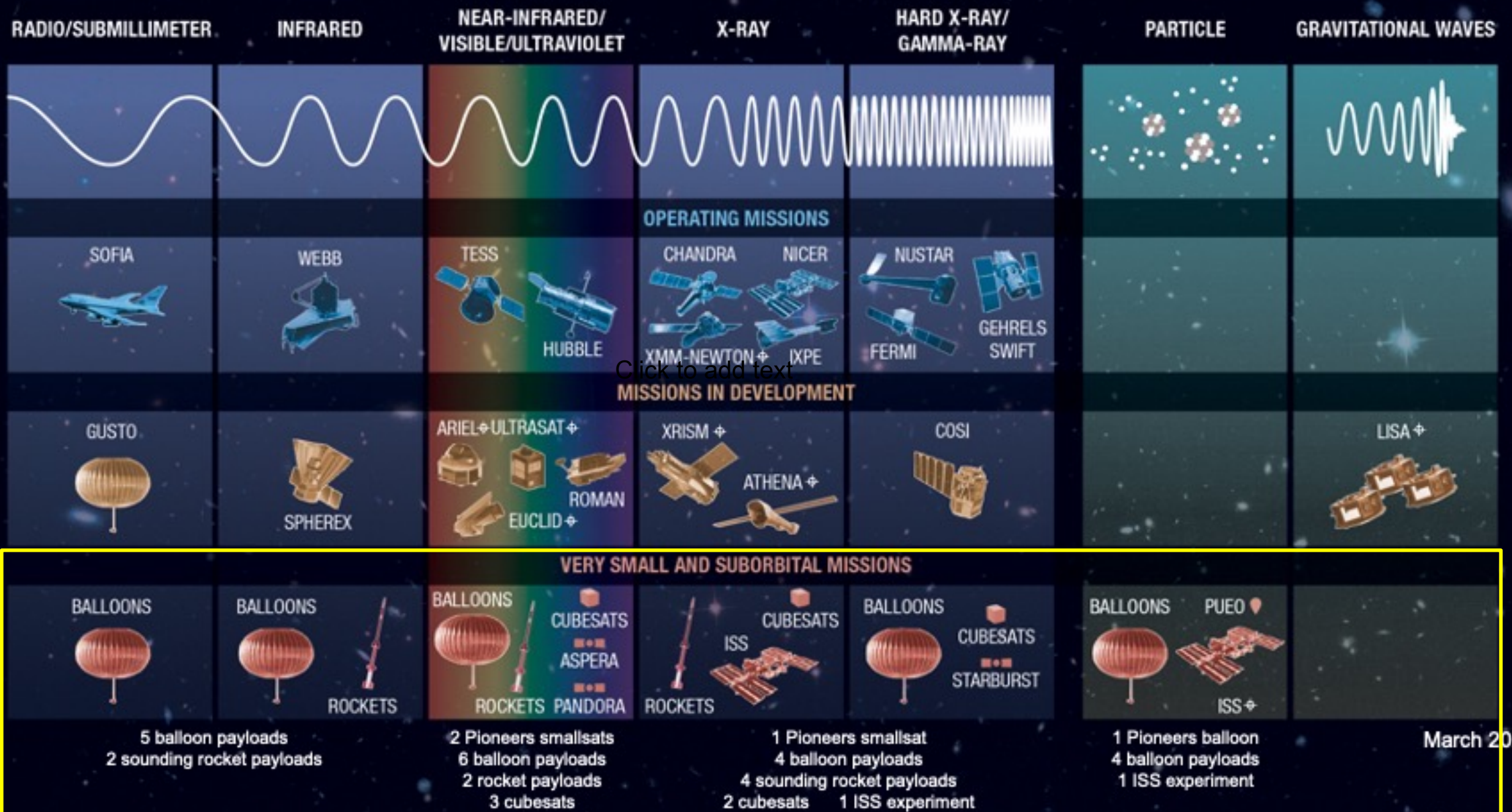
In the Science Mission Directorate (SMD), the Astrophysics Division (APD) studies the universe with the goal of seeking to understand the universe and our place in it.

In support of these goals APD seeks to discover how the universe works, explore how it began and is evolving, and search for life on planets around other stars.

The recently launched JWST will see the first stars and the first galaxies formed after the Big Bang, revealing the full history of the universe.

<https://science.nasa.gov/astrophysics>

ELECTROMAGNETIC SPECTRUM



March 2022



Astrophysics Pioneers

The Pioneers Program is a new program started in 2020 which is intended to do compelling astrophysics science at a lower cost cap than missions in the Explorers Program and larger.

Missions will include SmallSats, major Balloon payloads, (cis)-lunar payloads, and modest payloads attached to the International Space Station with a \$20M cost cap (excluding launch).

Current Pioneers Missions

Four concepts chosen for further study in January 2021, and after passing a gate review all four were approved for development to flight and operations.

- ASPERA
- Pandora
- PUEO
- StarBurst

Latest selection: **TIGERISS!**



Astrophysics CubeSats

Astrophysics CubeSats are solicited annually via ROSES/APRA (D.3).

CubeSats are reviewed along with other sub-orbital proposals, including balloons, sounding rockets, and ISS attached payloads.

Current CubeSat Missions

- **CUTE** – in operation
- **BurstCube** – in development
- **SPRITE** – in development
- **SPARCS** – In development
- **BlackCat** – in development
- **CANDELS** – in development