



*SMD/APD solicits CubeSat & SmallSat investigations primarily via two ROSES appendices:*

- **Astrophysics Research and Analysis (APRA) Program**

- Primarily Science investigations with modest technology development, peer reviewed alongside balloons and sounding rockets with similar science
- Typically, 6U (one 12U)
- ROSES released annually Feb 14
- Approximately \$5M per CubeSat
- Access to space is via CSLI or SMD Rideshare
- Eligibility per ROSES rules
- **Current Mission Status**
  - HaloSat mission complete 2/2021 with 2 years of great data
  - CUTE to launch 9/16/2021 CSLI with Landsat 9
  - Most recent selection (APRA-2020) SPARCS-2

- **Pioneers**

- Primarily Science investigations with modest technology development, SmallSats, major Balloons (ULDB), ISS payloads, early career 25% of total score
- Typically, >12U to ~ ESPA class
- ROSES released annually Feb 14
- PI cost cap \$20M excluding launch
- Access to space is via CSLI or SMD Rideshare, or 'bring your own ride' at PI cost
- Eligibility per ROSES rules

**NEW Program with ROSES-2019**, 4 missions selected and undergoing Concept Study Report (CSR) evaluation. Missions that pass Systems Requirements Review (SRR)/cost gate will continue.



## Current Small Spacecraft Activities/Future Plans

### CubeSats

Will continue to solicit CubeSats via APRA  
*1 new selection per year*

Will continue annual solicitation for Pioneers  
*selection rate dependent in part on success rate of previous selections (if all 4 current mission pass, we will select << 4 in ROSES-2020)*

### SmallSats

SmallSats are also included in the Explorers MO/SMEX, but at up to ~10x high price point

## Point(s) of Contact

- **NSPIRES.NASA.GOV:**  
<https://nspires.nasaprs.com/external/>
- **NASA Astrophysics:**  
<https://science.nasa.gov/astrophysics>
- **APRA Point of Contact:**  
Dominic Bedford - [Dominic.I.Benford@nasa.gov](mailto:Dominic.I.Benford@nasa.gov)
- **CubeSats Points of Contact:**  
Michael Garcia - [Michael.R.Garcia@nasa.gov](mailto:Michael.R.Garcia@nasa.gov)  
Heather Watson - [Heather.Watson@nasa.gov](mailto:Heather.Watson@nasa.gov)
- **Pioneers Points of Contact:**  
Michael Garcia - [Michael.R.Garcia@nasa.gov](mailto:Michael.R.Garcia@nasa.gov)  
Rachele Cocks - [Rachele.B.Cocks@nasa.gov](mailto:Rachele.B.Cocks@nasa.gov)