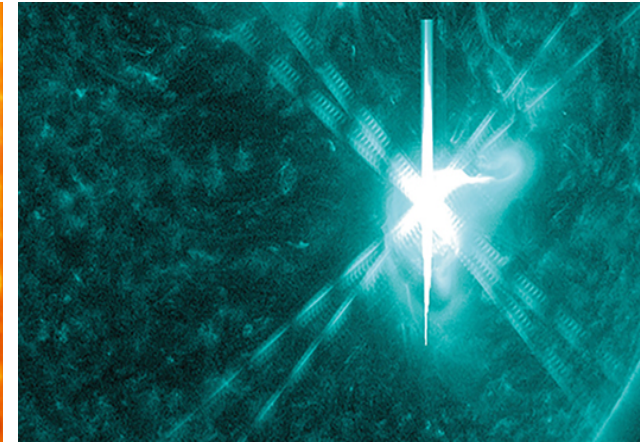
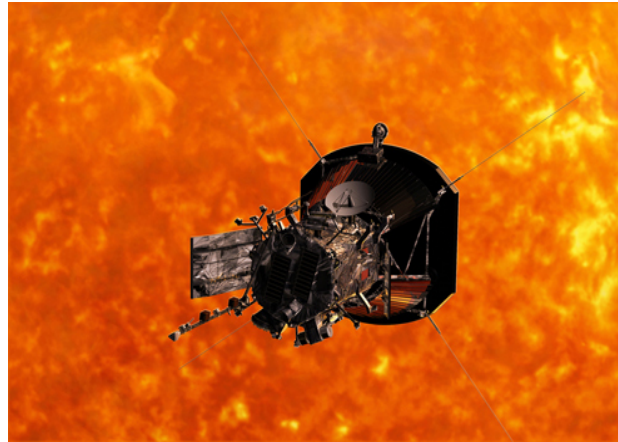
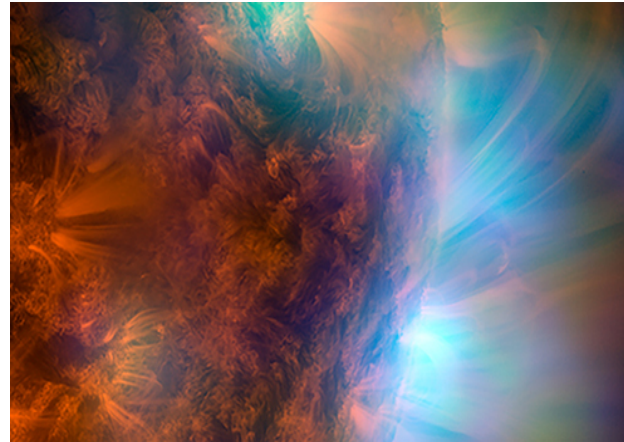
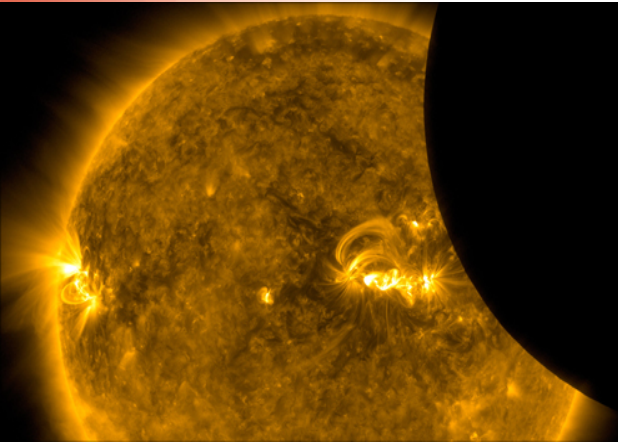


National Aeronautics and
Space Administration



SCIENCE



High End Computing
Heliophysics Advisory Committee

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High End Computing (HEC)



- Current HPD HEC resources oversubscribed:
 - Over the last 4 years there has been tremendous growth in requests for NASA HEC resources.
 - Overall NASA resources have also increased in response, which grows HPD allocation, but not at same rates.
 - HPD is currently capped at 13% of the SMD total capacity: looking into acquiring extra through purchase.
 - In FY17 HPD had 44.6M SBUs – FY18 similar numbers.
 - Purchasing 12M SBU is ~ \$3.5M and must be renewed every 3 years to keep up with technology.

High End Computing (HEC)

- Numbers:

- In FY17 (last complete year) HPD had 88 projects with an average allocation of 500k SBUs within a total HPD allocation 44.6M SBUs, but only 23.4M SBUs were used.
- FY18 (to Feb) shows 96 projects with an average size of 454k SBUs for a current HPD (YTD) allocation of 39M SBUs, but only 14.9M SBUs used.
- 11 users with allocations have not used any of 2.8M SBUs (half-way through the FY), and some are repeat offenders.



NAS Facility



High End Computing (HEC)



- Other means of managing HEC:
 - Require better estimates of needs vs. desires up-front in each ROSES submission.
 - Enforcement mechanism needed: if resource isn't used, then time is "wasted" and SBUs are lost.
 - As some missions are also requesting HEC: will need to capture such needs in AOs and SRs.
- Need to start treating HEC allocations like any other limited resource.
 - Have started monthly reporting on usage statistics and identifying earlier under- / non-users.
 - Considering annual process for review and allocation

BACKUP