National Aeronautics and Space Administration

Astrophysics




NASA Feedback on 2016 AAAC Report

Astronomy and Astrophysics Advisory Committee
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2016 AAAC Report

FINDING: Some unique information in the high quality data that will be obtained in several future surveys — particularly LSST, Euclid, and WFIRST — will be significantly enhanced by combining their analysis at an early "pixel" stage, rather than a more highly reduced catalog stage.

RECOMMENDATION: Where it can improve overall science productivity and efficiency, cooperation in database design and data sharing is encouraged among US agencies, international agencies, and scientific collaborations.

RESPONSE

- NASA, NSF, and DOE have formed a Tri-Agency Group to discuss the possible implementation – and cost – of joint pixel analysis for data from LSST, Euclid, and WFIRST.
- Tri-Agency group meets regularly, both within the agencies and with the U.S. leadership of the three projects.

2016 AAAC Report

RECOMMENDATION: The AAAC encourages NASA to continue working toward a plan to develop a space-based gravitational wave observatory as envisioned by NWNH, through participation in the ESA L3 gravitational wave effort.

RESPONSE

- NASA has begun discussions with ESA about a larger role for the U.S. in the L3 mission. ESA is open to a larger role for the U.S., subject to their established constraints on international partnerships (international contributions limited to 20%, all international contributions require a European backup).
- NASA has begun discussions within the Administration on committing to a larger role for the U.S. in the L3 mission. Any changes in out-year planning are subject to the limitations of the out-year planning budget, i.e., no new money.
- NASA is reviewing options for L3-relevant technology investments through the SAT and other programs.
- NASA is reviewing options for reduced funding of exoplanet technology development beyond the WFIRST coronagraph.

2016 AAAC Report

RECOMMENDATION: The agencies should continue to pursue international partnerships in order to further accomplish the goals of NWNH. The AAAC's "Principles for Access to Large Federally Funded Astrophysics Projects and Facilities" should guide the process.

RESPONSE

All of NASA's international partnerships are guided by the AAAC's "Principles for Access to Large Federally Funded Astrophysics Projects and Facilities."

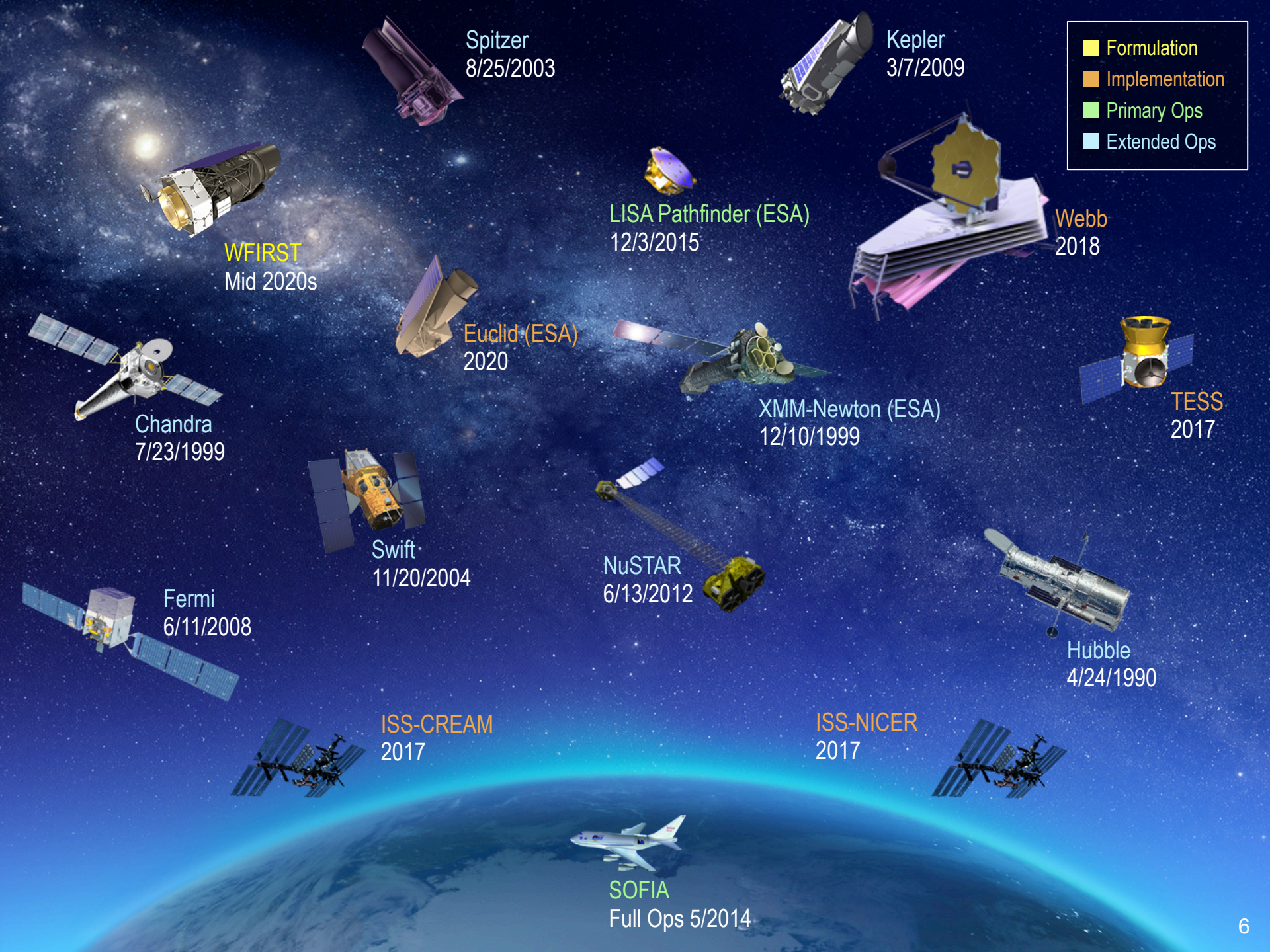
2016 AAAC Report

FINDING: A very low proposal success rate impacts both researchers and the agencies. Researchers spend more time resubmitting meritorious but unfunded proposals and serving on review panels. Some researchers may elect to leave the field or decide not to pursue original and potentially transformative research. Agencies must manage the increased workload, staffing problems, and increased costs associated with reviewing more proposals.

RESPONSE

NASA has discussed several mitigations with the Astrophysics Subcommittee, including

- Alternate year solicitations for the Astrophysics Theory Program
- Rebalancing the funding levels between postdoctoral programs (Hubble, Einstein, Sagan) and core R&A (APRA, ATP, ADAP).


Formulation
Implementation
Primary Ops
Extended Ops
Spitzer
8/25/2003
Kepler
3/7/2009
WFIRST
Mid 2020s
LISA Pathfinder (ESA)
12/3/2015
Webb
2018
Euclid (ESA)
2020
Chandra
7/23/1999
XMM-Newton (ESA)
12/10/1999
TESS
2017
Swift
11/20/2004
NuSTAR
6/13/2012
Fermi
6/11/2008
Hubble
4/24/1990
ISS-CREAM
2017
ISS-NICER
2017
SOFIA
Full Ops 5/2014