

2014 Astronomy and Astrophysics Advisory Committee recommendations on Principles for Access to Large Federally Funded Astrophysics Projects and Facilities¹

In its 2013 annual report², the Astronomy and Astrophysics Advisory Committee (AAAC) recommended that “Negotiations towards the coordination of projects or the development of partnerships should proceed on the basis of the principles of reciprocal participation and mutually agreed sharing of costs and responsibilities.” In the current environment of complex partnerships there is a need to articulate the principles that enable the best science within constrained resources in order to realize large astrophysics projects and facilities for the benefit of the global astrophysics community.

The AAAC recommends that the Office of Science and Technology Policy (OSTP) Division of Science, the NASA Astrophysics Division, NSF Division of Astronomical Sciences, and DOE Office of High Energy Physics, in regards to large astrophysics projects and facilities:

- apply the following principles to all projects and facilities that are funded by these organizations,
- apply these principles to international collaborations, to collaborations among Federal agencies, and to collaborations with other public and private entities within and outside the United States,
- assess all proposed projects and facilities against these principles before deciding to undertake them, and
- discuss these principles with their partners in current and future projects and facilities.

These organizations should attempt to reach a common understanding with their partners on application of these principles to all large partnership projects and facilities in astrophysics. Deviations from these principles should be justified and any rationale for deviation should be publicly articulated.

PRINCIPLES FOR ACCESS TO LARGE ASTROPHYSICS PROJECTS AND FACILITIES

1. **THE PRIMARY GOAL OF THE ASTROPHYSICS COMMUNITY IS TO PRODUCE THE BEST UNDERSTANDING OF OUR UNIVERSE:** Implementation of large astrophysics projects and facilities should be organized so as to enable the best use of their resources. A balance must be struck between preserving the opportunity for the implementing consortium and the funding partners to reap the benefits of the resulting data, and participation by the wider community, to ensure the best science possible.
2. **GLOBAL COORDINATION:** Nations and funding partners will achieve greater advances in astrophysics when community-wide coordination and collaboration allow resources to be used efficiently, effectively, and without unnecessary duplication. Coordination could

¹ These principles are presented in the 2014 AAAC report. The full report can be found at: http://www.nsf.gov/mps/ast/aaac/reports/annual/aaac_2014_report.pdf

² http://www.nsf.gov/mps/ast/aaac/reports/annual/aaac_2013_130308finalreport.pdf

mean jointly developing an astrophysics project as a partnership or choosing unique astrophysics projects that are complementary.

3. **OPEN DATA:** The best science occurs when an open data policy enables the global astrophysics community, the broader science community, and the public to extend the science outcomes of the project. A period of limited access to data for the implementing consortium or the funding partners to reap the benefits of their investment is reasonable. However, policies and funding should ensure that large projects make standard data products and analysis tools publicly available in a timely and useable manner.
4. **OPEN ACCESS:** The best science relies upon selecting the most compelling astrophysics investigations. Access to a large astrophysics project or facility (typically observing time) should be allocated through an open, merit-based process, recognizing that some level of preferred access may be reasonable for the implementing consortium and the funding partners to reap the benefits of their telescope investments. Calls for proposals extending beyond the implementing consortium should be open to the global astrophysics community.
5. **OPPORTUNITY TO CONTRIBUTE:** The best science is fostered by including the most-qualified scientists in the implementing consortium. Opportunities to participate in the implementing consortium of an astrophysics project or facility should be based upon openly advertised criteria and processes that are equally applied, regardless of institutional or national affiliation. The criteria and processes should be based on merit and/or consortium sponsorship.
6. **RECIPROCITY:** The best science occurs when nations and other funding partners of large astrophysics projects and facilities practice reciprocity with the wider scientific community. Nations and funding partners whose scientists expect access to external resources (for example, funding, data, access, observing time, or consortium membership) should offer access to their own resources

The AAAC believes that addressing these principles will lead to the most productive scientific use of the current and coming generations of large astrophysics projects and facilities. We understand that there may be grounds for justifiable deviations from these principles, such as treaty obligations or statutory restrictions. However, by formulating these principles, and recommending that any rationale for deviation must be explicitly articulated, we hope to create a climate in which the best possible science can be achieved.