NASA ADVISORY COUNCIL

ASTROPHYSICS SUBCOMMITTEE

September 20, 2013

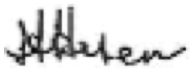
Teleconference

MEETING MINUTES

10/25/2013

_____

Brad Peterson, Chair



10/25/13

_____

Hashima Hasan, Acting Executive Secretary

Table of Contents

Welcome and Introductions	3
Presentation on NuSTAR Data Policy	3
Committee Discussion	3
Public Comment Period	4
Committee Discussion continued	4
Adjourn	6

Appendix A- Attendees
Appendix B-Membership roster
Appendix C-Presentations
Appendix D-Agenda

Prepared by Elizabeth Sheley
Zantech IT

Friday, September 20, 2013

Welcome and Introductions

Dr. Hashima Hasan, sitting in for Astrophysics Subcommittee (APS) Executive Secretary Joan Centrella, opened the teleconference by reviewing the basic rules for Federal Advisory Committee Act (FACA) meetings.

Dr. Bradley Peterson, APS Chair, did a roll call of Subcommittee members, then explained that the teleconference had been called so that APS could discuss Nuclear Spectroscopic Telescope Array (NuSTAR) data rights issues.

Presentation on NuSTAR Data Policy

Dr. Fiona Harrison of CalTech, who is an APS member and also the Principal Investigator (PI) for NuSTAR, explained that NuSTAR is an Explorer mission. Following a 7.5 month calibration phase (originally to have been 6 months), the mission team has a limited period of 2 months for validating and posting data for public access. The NuSTAR team expects to be caught up soon. However, the opportunity has arisen to do joint observations with the XMM and Chandra missions; the observations would require data sets from both NuSTAR and at least one of the other two missions. Unlike NuSTAR, XMM and Chandra have limited use periods of 1 year. For the joint observations, the NuSTAR team would like to have the same 1-year limited use period for its Guest Observer (GO) program.

The team feels that all of the data from the joint observations should be available in the archive at the same time so that proposers can analyze and interpret the data together. Dr. Harrison emphasized that the team is not proposing a deviation from its proprietary data agreement beyond this specific situation. The mission's planned science formally ends in August, 2014, and part of the problem is that the GO would be unable to start until December, 2014, or January, 2015.

Committee Discussion

Dr. John Nousek did not find compelling the argument that NuSTAR should get a deviation from its agreement because XMM has an agreement for 1 year of proprietary data. Dr. Harrison gave an example in which she, as a scientist, might use two data sets simultaneously, but one set goes into the archives significantly before the other. This could lead to a situation in which a paper could be limited and not include both observations. She was not suggesting a change except for the data within the joint program.

Dr. Kenneth Sembach asked if there were a precedent. He thought that all the reciprocal agreements have data priority set by the primary mission, which would be the mission granting the time. He gave the example of the Hubble Space Telescope (HST) and XMM, noting that the data are proprietary 1 year from when HST or XMM takes them. Dr. Harrison said that the difference is that the agreement for limited use applies to the baseline mission, which did not have a GO program. When proposing a GO program to the senior review, the NuSTAR team would explain that it would be limited. The team would like to do this earlier than originally planned.

Dr. Paul Ray noted that it can take an observer time to understand the mission and its data and get up to speed. Dr. Sembach explained that he was sympathetic to starting the GO program early with some NuSTAR data, but was not sure why the time would need to be reset. Dr. Harrison said that most missions have 1 year of proprietary data. Dr. Peterson added that limited use periods make it possible to engage students in the process, and it takes them longer to get up to speed. It is important for these missions to have an impact on graduate education and training, which is only possible through an limited use period. He thought the request was reasonable.

Dr. Nousek said that the Swift mission has a non-proprietary period and is also observing NuSTAR targets. He knew of no situations in which a party "scoops" the other investigation. Dr. Harrison replied that the snapshots with Swift are much shorter. The situation she described involved scientists writing a proposal on XMM and putting together a science case that would require significant time at the observatories. NuSTAR must make its general data available within 2 months, and she felt strongly that the community should have some time with the data to come up to speed. Having a similar limited use period would be the best way to do that.

Dr. Nousek thought it was inconsistent to go from a stance of 2 months being reasonable, or at least acceptable, to one where it was not. Students usually are not involved in just one data set. The incentive of getting the work done is a powerful learning tool, which is an argument in favor of a shorter period. Dr. Harrison explained that the NuSTAR team was not allowed to propose a longer limited use period, but had been told that they could propose for a GO program.

Dr. Karl Stapelfeldt asked about the amount of data being discussed and whether the XMM or Chandra teams would fall under this proposal. Dr. Harrison replied that the observing time would come to about 2 weeks, and the change was being sought for every proposal within the joint call. Dr. Sembach said that he sees value in having the longer period of the other missions, with time to match up the data sets, rather than each having their own very different proprietary period. Dr. Harrison confirmed the point raised by Dr. Gabriela Gonzalez, that part of the purpose is to ensure that the NuSTAR analyses are not published significantly before the other work.

Public Comment Period

Dr. Peterson asked if any members of the public wished to speak. Dr. Neill Reid, of the Space Telescope Science Institute, said that he did not see the argument for a 1-year proprietary period, as the data will be released at different times. He wondered if some period of time, such as 6 to 8 months, might be more appropriate for actually getting the science out. Dr. Harrison replied that 1 year was picked to match the XMM standard in the community and have data simultaneously released. That would be the simplest thing to do, with the data in the archives for the same time period.

Committee Discussion continued

Dr. Peterson thought it seemed important to couple the proprietary time period to the missions that would make the award, allowing for consistency. Dr. Terry Oswalt asked what the science community might think about changing the rules midstream, whether they would feel a loss of something they had counted on. Dr. Ray said that many scientists feel that the 1-year proprietary period is incredibly useful and allows science teams to get good data analysis out rather than being surpassed in publication by someone intent on working quickly and maybe not so carefully.

Dr. Joel Bregman thought it seemed unfair for the data to go public right away without giving the science team the chance to execute their ideas. Dr. Gary Bernstein pointed out that the reason for granting joint time still remains in the hands of the proposer. Dr. Harrison noted that there is always overlap in the science. One could do less compelling analysis with one data set, but it would reduce the impact.

Dr. Nousek acknowledged the value of proprietary data, but also saw value in publishing results soon. Scientists have an obligation to publish results in a timely way, and shorter proprietary periods are of value. He felt there was a degree of self-interest among scientists who hold and want to extend the proprietary data rights. NASA has to decide its own values between the urgency of publication and the accuracy of publication. He also observed that any recommendation from APS on that issue would carry a conflict of interest.

Dr. Julianne Dalcanton asked about the precedent with HST or Chandra, and whether longer periods can be proposed. Dr. Sembach explained that the clock starts ticking when the HST and Chandra data enter the archive for the GO to retrieve.. Longer periods can be proposed, but shorter periods are encouraged. This is handled on a case-by-case basis. Those asking for a nonstandard time period must provide background to support their proposed period.

Dr. Harrison added that the NuSTAR team has not had the opportunity to propose what they consider an optimal period of time for a GO program; they are starting it early and proposing that they would follow the period of the other mission with which the GO would work. Dr. Peterson said that this issue comes up in discussing missions with short lifetimes. One year has been established as a useful period that the community is willing to work with, but that is an issue with shorter missions, and it could become a larger problem in the James Webb Space Telescope (JWST) era. Right now, however, APS must deal specifically with NuSTAR. The proposal is to default to the proposal time for XMM or Chandra, and the Subcommittee should consider it in that light.

Dr. Stapelfeldt restated the key issue as not being coordination with XMM or Chandra so much as being that the outside community is being offered an opportunity to work on the NuSTAR mission, and 2 months is a short time to come up to speed. Dr. Peterson explained that the motion was to align the NuSTAR proprietary time with that of XMM or Chandra on observations involving the GO.

There was disagreement as to whether the Subcommittee was ready to vote, as some members disagreed with the way the motion was stated. Dr. Peterson said that for purely NuSTAR work, the proprietary period is 2 months. They were being asked to approve longer periods when there were joint observations involving a guest observer. Specifically, they were being asked to approve that, when a GO is involved, release of NuSTAR data taken with XMM and Chandra be done according to the release time for the latter two missions, which would be 1 year. The 1-year period is similar to other GO programs and everyone else's coordinated time. That is more consistent with general policies now. NuSTAR wants to start the GO program sooner than the Senior Review would occur, in late 2014 or early 2015. Dr. Harrison verified that that was the case, and reiterated that this would be the only time with the limited exclusive use period.

Dr. Peterson confirmed that this vote was the only way APS can affect policy prior to the Senior Review. Dr. Paul Hertz, APD Division Director, stated the motion subject to the vote as follows:

> *"The NuSTAR PI requests that all NuSTAR observation data competitively selected as part of a GO program during the baseline mission be given a 1-year period of limited use starting with the delivery of the data to the proposer."*

Dr. Peterson took the vote via roll call. The APS member votes were called out as follows:

- Dr. James Bock: abstain
- Dr. Joel Bregman: aye
- Dr. Edna DeVore: absent
- Dr. Fiona Harrison: abstain
- Dr. Gabriela Gonzalez: aye
- Dr. Gary Bernstein: nay
- Dr. Gary Melnick: absent
- Dr. Giovanni Fazio: aye
- Dr. John Nousek: nay
- Dr. Julianne Dalcanton: aye
- Dr. Kenneth Sembach: aye
- Dr. Chryssa Kouveliotou: absent

- Dr. Paul Ray: aye
- Dr. Scott Gaudi: aye
- Dr. Karl Stapelfeldt: aye
- Dr. Terry Oswalt: aye

With the majority of the Subcommittee voting in favor, the motion passed. Dr. Peterson said that he would draft a letter and circulate it to the APS members for comment.

Adjourn

The meeting was adjourned at 3:01 p.m.

Appendix A

Attendees

Subcommittee members (via WebEx)
Bradley Peterson, Ohio State University, *Chair Astrophysics Subcommittee*
Hashima Hasan, NASA, *Acting Executive Secretary*
Gary Bernstein, University of Pennsylvania
James Bock, CalTech
Joel Bregman, University of Michigan
Julianne Dalcanton, University of Washington
Giovanni Fazio, Harvard Smithsonian Center for Astrophysics
B. Scott Gaudi, Ohio State University
Gabriela Gonzalez, Louisiana State University
Fiona Harrison, CalTech
John Nousek, Pennsylvania State University
Terry Oswalt, Embry-Riddle Aeronautical University
Paul Ray, Naval Research Laboratory
Kenneth Sembach, Space Telescope Science Institute
Karl Stapelfeldt, Goddard Space Flight Center

NASA attendees
Paul Hertz, NASA HQ, *Director, Astrophysics Division*
Hashima Hasan, NASA HQ

Webex
Dom Conte, Millennium Space Systems
Jeffrey Hayes, NASA
Lewis Kaluzienski, NASA
Rachel Ostin, Space Telescope Science Institute
Mario Perez, NASA HQ
Neill Reid, Space Telescope Science Institute
Rita Sambruna, NASA HQ
Wilton Sanders, NASA
Elizabeth Sheley, Zantech
Linda Sparke, NASA
Jim Ulvestad, NSF

Appendix B
NAC Astrophysics Subcommittee Members

Bradley Peterson, Chair
Department of Astronomy
Ohio State University

Joan Centrella, Executive Secretary
Astrophysics Division
Science Mission Directorate
NASA Headquarters

Gary M. Bernstein
Professor of Physics and Astronomy
University of Pennsylvania

James J. Bock
CalTech

Joel Bregman
Department of Astronomy
University of Michigan

Julianne Dalcanton
Professor of Astronomy
University of Washington

Edna DeVore
Director of Education and Outreach; Deputy CEO
SETI Institute

Giovanni Fazio
Harvard Smithsonian Center for Astrophysics

B. Scott Gaudi
Department of Astronomy
Ohio State University

Gabriela Gonzalez
Professor, Physics and Astronomy
Louisiana State University

Fiona Harrison
Professor, Physics and Astronomy
CalTech

Chryssa Kouveliotou
Marshall Space Flight Center

Gary Melnick
Senior Astronomer
Harvard Smithsonian Center for Astrophysics

John A. Nousek
Professor of Astronomy & Astrophysics
Pennsylvania State University

Terry Oswalt
Chair, Department of Physical Sciences
Embry-Riddle Aeronautical University

Paul S. Ray
Naval Research Laboratory

Kenneth Sembach
Space Telescope Science Institute

Karl Stapelfeldt
Goddard Space Flight Center

Appendix C
Presentations

None

Appendix D
Agenda

Astrophysics Subcommittee teleconference
September 20, 2013

AGENDA

2:00 pm	Welcome and Introductions	B. Peterson
2:05 pm	Presentation on NuSTAR Data Policy	F. Harrison
2:20 pm	Committee Discussion	B. Peterson
2:55 pm	Public Comment Period	B. Peterson
3:00	Adjourn	B. Peterson