

AURA COORDINATING COUNCIL OF OBSERVATORY RESEARCH DIRECTORS

August 28, 2007

ACCORD MEMBERS

AURA
DR. WILLIAM S. SMITH, JR.

Tony F. Chan
Assistant Director for
Mathematical and Physical Sciences
National Science Foundation
4201 Wilson Blvd
Arlington, VA 22230

CALIFORNIA INSTITUTE OF TECHNOLOGY
DR. SHRI KULKARNI, CHAIR

Dear Dr. Chan:

HARVARD-SMITHSONIAN CENTER FOR
ASTROPHYSICS
DR. CHARLES ALCOCK

As Members of the AURA Coordinating Committee for Observatory Research Directors (ACCORD) we represent the nation's largest public and independent optical/infrared ground-based observatories. The combination of NSF funding and substantial long term and continuing investments made by the private sector has created a unique system of ground-based O/IR observatories with unprecedented scientific capability. Research funded by the NSF has been critical for much of the early planet/dark energy discoveries on both public and private telescopes. This system and its future development will be the key to maintaining the US world leadership in optical and infrared astronomy.

MCDONALD OBSERVATORY
DR. DAVID LAMBERT

NATIONAL OPTICAL ASTRONOMY
OBSERVATORY
DR. TODD BOROSON

As we are sure you can appreciate, we have a vital interest in maintaining a robust funding environment for ground-based astronomy in this country. With prospective results ranging from the direct detection and spectral analysis of planets around nearby stars to understanding the nature of dark matter and dark energy, we view the future of optical/infrared astronomy to be especially exciting. This view is shared by many scientists in fields other than astronomy who are directing their research efforts to these new and exciting areas of astrophysics. Success in these endeavors will depend on optimum use of existing observing facilities and the advent of new capabilities such as a Large Survey Telescope and a Giant Segmented Mirror Telescope – and hence of appropriate funding.

OBSERVATORIES OF THE CARNEGIE
INSTITUTION OF WASHINGTON
DR. WENDY FREEDMAN

Over the past year, we, along with many others in the astronomy community, have participated in the NSF's precedent-setting Senior Review process, recognizing from the outset that implementing the new generation of cutting edge facilities will pose major challenges to the system. In order to meet these challenges, we believe there must be:

UNIVERSITY OF ARIZONA
DR. PETER STRITTMATTER

UNIVERSITY OF CALIFORNIA
DR. MICHAEL BOLTE

- Significant continued partnering between the public and private sectors;
- A rebalancing of Federal investments, as astronomy transitions towards the new era; and,
- A planned increase in the NSF Astronomy Division budget that can realistically accommodate the operating costs of future facilities.

UNIVERSITY OF HAWAII
DR. ROLF-PETER KUDRITZKI

UNIVERSITY OF WASHINGTON
DR. SUZANNE HAWLEY, VICE CHAIR

We strongly endorse the finding of the Senior Review Committee that, "*The scientific promise of the proposed new facilities is so compelling and of such broad interest and importance that there is a strong case for increasing the overall AST budget to execute as much of the science as possible.*"

WIYN OBSERVATORY
DR. GEORGE JACOBY

ACCORD and its member institutions have, in recent years, devoted a considerable amount of effort to structuring the system of US telescopes and setting the stage for the level of public/private partnerships that will be necessary for the future. Programs such as the NSF's Telescope System Instrumentation Program (TSIP) have already proven highly successful both in enhancing the instrumentation at major US observatories and making these private facilities more accessible to the US community.

The US system has strengths, namely diverse funding and diverse opportunities. TSIP is an excellent way for giving diverse users a chance at premier facilities. In our view more needs to be undertaken to exploit the potential of public/private partnerships in astronomy and in particular the enormous leverage of NSF funds afforded by the private investment in major astronomical research facilities. In the future we will find it increasingly important to ensure that we can sensibly utilize a broad range of US facilities for follow-up studies and also fully exploit wide field and dedicated spectroscopic facilities.

Even with continued major private investment, however, the present funding level for the NSF Astronomy Division is inadequate to support the planned new generation of ground-based telescopes and the research programs that would be enabled. Indeed the report of the Senior Review Committee made it abundantly clear that it is impossible to envision freeing up the necessary resources solely through redistributing the Astronomy Division's present budget portfolio even though the committee provided a valuable template for cutting back wherever possible. We, in ACCORD, are committed to working with the Astronomy Division and the Math and Physical Science Directorate to realize the aspirations of the community. We believe that these can and should be supported through the re-distribution and the growth in the NSF budget recommended by the Senior Review Committee.

We would very much appreciate the opportunity to meet with you to discuss these issues in greater depth. In particular, we would like to hear your views on how public/private partnerships can be most effective in advancing the US program of astronomical research. We would also like to discuss how ACCORD can help NSF/MPS ensure a leadership position for that program in the face of rapidly increasing international investment in the field. To this end we would like to invite you to attend our next meeting which we are now planning before the end of this year.

Sincerely,

Dr. Charles Alcock

Dr. Rolf-Peter Kudritzki

Dr. Michael Bolte

Dr. Shri Kulkarni, Chair

Dr. Todd Boroson

Dr. David Lambert

Dr. Wendy Freedman

Dr. William S. Smith, Jr.

Dr. Suzanne Hawley, Vice Chair

Dr. Peter Strittmatter

Dr. George Jacoby

Observatories Represented by ACCORD

Apache Point Observatory—ARC 3.5 m
Carnegie Institution Observatories—Clay 6.5 m, Baade 6.5 m
Center for Astrophysics (Harvard—Smithsonian)—MMT 6 m, Clay, Baade
Institute for Astronomy (University of Hawaii)—Keck I, Keck II 10 m, Subaru, CFHT
National Optical Astronomy Observatory
Steward Observatory—MMT 6 m, Clay, Baade, LBT 2x8.4 m
University of California—Keck I, Keck II 10 m
University of Texas—HET 9.2 m
WIYN Observatory 3.5 m