



UNIVERSITY OF CALIFORNIA OBSERVATORIES/LICK OBSERVATORY
DEPARTMENT OF ASTRONOMY AND ASTROPHYSICS

SANTA CRUZ, CALIFORNIA 95064

June 30, 2006

Mr. Rick Howard, Acting Director
Astrophysics Division, Science Mission Directorate, NASA

Dr. Robin Staffin, Associate Director
Office of High Energy Physics, Office of Science, DOE

Dr. Judith Sunley, Acting Assistant Director
Mathematical and Physical Sciences, NSF

Dear Mr. Howard, Dr. Staffin and Dr. Sunley:

The AAAC discussed the report from the Dark Energy Task Force (DETF) at its May 2006 meeting with the DETF Chair, Rocky Kolb, and other members of the DETF. Following some further changes to the report in response to that discussion, the AAAC subsequently approved the report and voted to transmit it to the agencies for their consideration.

The AAAC is very impressed with the quality and depth of the report. It clearly reflects a very substantial and thoughtful effort by the DETF. We are particularly impressed by the large number (50) of "white papers" that the DETF received from the community in response to the committee's solicitation for input, and by the effort that the DETF put into developing and utilizing a quantitative metric for their recommendations on how to move forward scientifically. We have sent a letter to the DETF chair and the task force members that thanks the task force for their report and for their considerable investment of time and intellectual effort on its content. We would also like to thank NSF staff member Dana Lehr for her excellent support of the Task Force as its Executive Secretary.

The report recommendations fall into two broad areas: (1) near-term activities (Stage III) which have the goal of improving the constraints on our measurements of dark energy by a factor of three, as well as reducing the systematic errors; and (2) longer-term activities (Stage IV) for the major programs of the Joint Dark Energy Mission (JDEM), the Large Survey Telescope (LST), and the Square Kilometer Array (SKA), where the goal is to improve the constraints on dark energy by at least a factor of ten. Both elements are viewed by the DETF and the AAAC as key aspects of a program on dark energy.

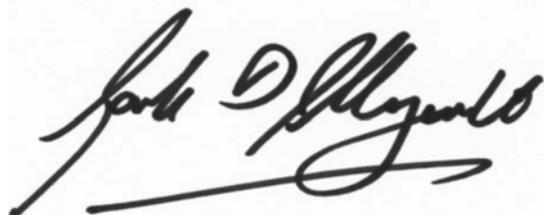
The AAAC recommends that the agencies use the report to provide guidance on their deliberations on dark energy issues and opportunities, for both the near-term and long-term programs. In addition, the AAAC specifically notes the value of utilizing the report recommendations as guidance for establishing a framework for funding opportunities, and as guidance for peer-review committees when evaluating proposals for studying dark energy.

The AAAC would appreciate a discussion at its next meeting on possible ways in which the agencies plan to move forward on both the near-term and the longer-term activities.

Of particular interest will be implementation plans, schedules, likely levels of support and the approach used to coordinate the near-term program activities. Given the pressure to move ahead on JDEM, the AAAC would also appreciate some feedback on how the agencies plan to respond.

As noted in the letter to Professor Kolb, the DETF has, along with the Task Force on CMB Research (TFCR), demonstrated the great value that accrues from having interagency task forces chartered under the auspices of the AAAC with your support. The AAAC appreciates the substantial investment of effort by the agencies in these studies, and welcomes their interest in responding in a coordinated way to the reports. We look forward to further discussion of future efforts on dark energy research.

Sincerely yours, on behalf of the Committee,

A handwritten signature in black ink, appearing to read "Garth D. Illingworth". The signature is fluid and cursive, with a long horizontal stroke at the end.

Garth D. Illingworth,
Chair, Astronomy and Astrophysics Advisory Committee

Cc:

NSF: Wayne Van Citters, Eileen Friel, Dana Lehr, Nigel Sharp

NASA: Mary Cleave, Colleen Hartman, Paul Hertz,
Michael Salamon, Ron Hellings

DOE: Kathy Turner

OMB: Amy Kaminski, Joel Parriott, John Sloan, David Trinkle

OSTP: Rob Dimeo, Jon Morse

NAS: David Spergel

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Neta Bahcall, Princeton
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Catherine Pilachowski, Indiana
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