



**Solar Data Analysis Center**  
NASA Goddard Space Flight Center  
Code 682.3  
Building 26, Room G20  
Greenbelt, Maryland 20771 U.S.A.

2002 December 29

Prof. Philip R. Goode  
Director, Big Bear Solar Observatory  
New Jersey Institute of Technology  
40386 North Shore Lane  
Big Bear City CA 92314

Dear Phil –

I have read with great interest your plan to construct a new, 1.6-meter, off-axis, new solar telescope (NST) at Big Bear. I believe a facility of this size and type is critical for testing principal features of the Advanced Technology Solar Telescope (ATST), particularly the formulation, execution, and operation of an open telescope of off-axis design; the extension of adaptive optics (AO) in the visible and near IR to larger telescopes; and access to far-infrared wavelengths currently poorly supported by most solar telescopes. As you know, it is only in the IR that we can hope to make direct measurements of coronal magnetic fields – the key to understanding the origins of space weather.

I congratulate you on obtaining private and/or matching funds for more than half the estimated cost of the project, and support your application to the National Science Foundation for Major Research Initiative. It is important for the Foundation to realize that your proposal is a significant step in itself, but also one that will provide tests of key enabling technologies for the ATST. Recent and well-publicized developments at the Swedish Solar Telescope on La Palma have shown that we can confidently take the next step up in aperture for AO systems, and the public response to the early La Palma results have shown the deep interest the taxpaying public shows in the kind of science the NST will make possible.

With best wishes for the success of your effort,

(Dr.) Joseph B. Gurman  
US Project Scientist for SOHO