

March 23, 2004

Dr. Andrew Christensen, Chair
Space Science Advisory Committee
NASA Office of Space Science

Dear Dr. Christensen:

The Origins Subcommittee met at the University of Maryland on February 24 and 25. In a separate letter, I have already sent on two topics for discussion at the SScAC; the SM4 cancellation and a discussion of technology development. This letter describes the presentations at our meeting and contains recommendations that are specific to the Astronomical Search for Origins program.

As part of this meeting a joint session of OS & SEUS was addressed by Astronomy & Physics Director Anne Kinney and by Associate Administrator Ed Weiler. The President's FY05 proposed budget, described by Kinney and Weiler, shows strong support for Origins Science. However, there were several delays and reductions in the budget that will have a significant impact on astrophysics: a cut in the Explorer program, delays in Constellation X, LISA and no funds to start the Beyond Einstein Initiative.

Philippe Crane reported on the status of the Astronomical Search for Origins program. SOFIA continues to make good technical progress; however, the first science flight has now been delayed until April 2005. SIM continues to meet technical milestones and appears to be on-track for meeting its science goals. Other missions are discussed below and aspects of his report are discussed below.

Origins Probes

The ROSS-04 supplement was released on Feb. 18, 2004. NASA plans to fund roughly 10 studies of future missions in the \$650 – 700 M range for launch after 2010. These reports will provide an important input to the next Origins Roadmap. *The road mapping team will likely invite the selected study teams to make presentation of their mission study results in early 2005.*

JWST

John Mather reported on on-going progress in the JWST program. With Goddard Space Flight Center taking on the responsibilities for the Lunar Initiative, the committee is concerned that top engineering talent will be redirected from JWST towards the Lunar Initiative.

NASA Astrobiology Institute

Bruce Runnegar, the new director of the NAI, outlined the NAI program in astrobiology. *The Origins Committee was pleased to learn of continuing efforts to strengthen the involvement of the astronomy community in this program and of the selection of several new centers with strong astronomical involvement.*

TPF

President Bush has recognized the Terrestrial Planet Finder as an important part of NASA's long-term vision. This challenging mission is one of the primary goals of the Origins Roadmap.

The TPF project has redefined its science goals. Rather than require that the mission study the nearest Earth-like planets, the mission goal is to study the nearest (< 10-15 parsec) planetary systems. This is a better-defined science goal, as it does not require a precise knowledge of the frequency of Earth-sized planets. The CAA has been asked to review this new emphasis for the TPF project

HST Operations

Preston Burch reported on the HST projects efforts to maintain HST operations as long as possible without SM4. There are two significant threats to HST's continued operations: battery failure and loss of gyros. HST is making progress in its plans to develop a 2-gyro mode.

Steve Beckwith reported on plans to maximize the science return from Hubble during its final years of operation. STScI is organizing a major conference and is making significant efforts to involve the community in efforts to define HST's science program. *The Origins Committee endorses these plans.*

Sounding Rocket Program

Philip Eberspacher described the status of the sounding rocket program. While the sounding rocket program plays an important role both in developing technology and in training the next generation of instrumentalists, it is challenging to identify important science questions that can be addressed with short duration rocket flights. *The Origins Subcommittee has asked the APWG for a more detailed report on the Sounding Rocket program and on its science selection.*

Spitzer

Tom Soifer reported on the on-going success of the Spitzer telescope. The Origins Committee was excited to learn some of the new results from Spitzer and congratulates the Spitzer science team and members of the Spitzer Science Center on its successes.

Sincerely,

David Spergel, Chair, for the Origins Subcommittee