

**The North American ALMA Technical Advisory Committee  
(ANATAC): Recent Activities**

**April 23 2004**

**Meetings:**

The ANATAC now holds regular teleconferences, approximately once per month, with continuous email correspondence between members, and occasional special presentations from key NA ALMA technical staff on engineering topics of concern.

**Membership:** Darrel Emerson (chair), Barry Clark, Larry D'Addario, Peter Napier, John Payne, Dick Sramek, and Dick Thompson.  
Former ANATAC member Lee King has retired from NRAO, and a replacement with similar mechanical expertise is being sought.

**Minutes:** Minutes and other material from the ANATAC's activities will become available at <http://www.tuc.nrao.edu/~demerson/anatac.html> .

**Charge:** The NRAO Director's instructions for the immediate attention of ANATAC:

*"The most urgent matter is to have a current budget review of the NA ALMA project, since in some sense we still do not have a budget estimate that is current and reliable. Also importantly, it is important to review the NA ALMA R+D and construction activities from a pro-active point of view, providing (suggesting) corrective or recovery plans whenever there are issues of technical, budgetary or schedule difficulties."*

**Recent Activities:**

- The ANATAC had already begun a detailed examination of current ALMA Construction budget estimates, but this is not finished. Marc Rafal has also been asked to perform a Programmatic Audit, with high urgency; the ANATAC will present to Marc all the material gathered so far, with a summary, for the benefit of a new committee formed by Marc. This new committee will have frequent contact with (and include representation from) ANATAC. A draft document on this topic was given to ANATAC by Marc, and can be found in the minutes of the meeting of 2004-04-16, available at the above URL.
- ANATAC is concerned that certain key technical areas within ALMA do not cause delay in the project. One particular area being looked at is the photonic LO distribution, including round trip delay compensation. The ANATAC looked into this last year, when a serious problem in the delay compensation system had appeared. This particular problem (polarization dispersion in the LO fiber) has since been solved, but the ANATAC continues to be concerned. At ANATAC's request, a presentation was given (April 23) by to the committee by Bill Shillue, outlining the current problems, solutions, and risk areas. ANATAC will be making some recommendations, and working together, with the NA ALMA Project Manager to ensure a safe completion of this part of the project.