25 Meter Millimeter Wave Telescope
Memo #72

Comments on the 25 m Antenna

1) I agree with Mark that wet clouds are a more important criteria than precipitable water vapor at least for $\lambda \gtrsim 2$ mm. This was one of the conclusions of the 65-meter study.

2) Wade points out that the existing statistics for Tucson may underestimate the real time lost to weather. This is certainly true in my experience. For example, I recently lost an entire 2½-day run due to weather (at 9 mm).

3) How important is the range 1.3 to 2 mm? In my limited experience of trying to do ~~the~~ 1.3 mm continuum observations, I had no useful nights in about 5 tries. If we expect to do good 1.3 mm work on Kitt Peak ~~work~~, we would probably have to adopt some sort of contingency scheduling. We might have to be competing with a good Caltech 10 m dish on White Mountain. While Caltech will not service the community in the same way as NRAO, it would look bad for us if they did better science with an instrument of ~2% of the cost. Note that for $\lambda \lesssim 2$ mm a good resurfaced 36-ft antenna would be more sensitive for extended sources than the proposed 25 m telescope.

4) How important is the southern hemisphere? Can we afford to risk a state-of-the-art 25 mega$ project in far-off South America? Would a good 10 m antenna in Chile satisfy most of the southern hemisphere problems?

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