Paul,

I had a chance to talk to Leo Bronfman at the ALMA Science Advisory Committee meeting in Berkeley. He was anxious to talk to me and, after hearing the report of his meeting with Eduardo last week I wanted to see first-hand what was on his mind.

He brought up two issues, each of which have texts and subtexts: (1) The planning for the approach to be made to Chile by the ACC is wrong; and (2) the timing of that approach is very unfortunate for ALMA.

(1) The approach to Chile: Leo argues that the ACC should seek negotiations with Chile for ALMA through CONICYT and do so in the company of Chilean astronomers. He appeals to the analogy of the way AUI came to Chile. The UChile astronomers served to introduce us to all the necessary officials, and in doing so the astronomers felt themselves as part of the project (MMA at that time). Same should now be done for ALMA. Why use CONICYT as the entry point? Because CONICYT is the contact for academic science, using CONICYT to take us, as needed, up the Chilean bureaucracy again reinforces the idea that ALMA is more than a foreign observatory, it is an enterprise in which the Chilean science community is involved. But what is wrong with an ALMA approach through the Foreign Ministry? Chilean scientists don't deal with the Foreign Ministry. They get cut out of the deal. It then becomes an issue of State being imposed from on high on the Chilean scientists perhaps, Leo worries, to the detriment of Chilean science. All this is exacerbated if the ALMA approach is led by ESO which has always dealt in an imperial way with the Chilean scientists, always dealing exclusively with the Foreign Ministry ("and now we see history repeating itself with ALMA").

Leo allows as how the ALMA approach through the Foreign Ministry can "work", that is a deal can be negotiated for ALMA. But, he says, that deal will come at a high price, higher than it would be were the ALMA approach to be made through CONICYT. The Chilean scientists are going to get support for Chilean astronomy from ALMA. That can be done from an ESO-led approach through the Foreign Ministry where the support for Chilean astronomy will be one of the "conditions" of the negotiation, or it can be done from an (AUI-led?) approach through CONICYT where the involvement of Chilean astronomers in ALMA will be seen as partial payment of that same "support".

The ideas Leo mentioned were not new to me but I couldn't understand the strong emphasis he was giving them. It wasn't until he mentioned the "timing issue" that I could put it in context.

(2) Timing of the approach to Chile. "It's too soon for the ACC to approach Chile for ALMA. Can't you wait 6 months or so?" This remark I didn't understand at all since Leo is aware that we would like access to the site in 18 months or so. Here's the deal: Leo is one of small group of astronomers advising Eric Goles at CONICYT. Leo is the radio astronomy representative; the group is Chaired by Maria Teresa. Leo is promoting the plan that the Chilean 5% share in Gemini be sold. The goal would be to recover the \$9M capital cost the Chileans have already put into Gemini, and to relieve Chile of the

commitment to \$1M in annual operating cost (at the same time they retain 10% of Gemini time in Chile by virtue of their being the host country). When he advises us to delay the ALMA approach to Chile what he is saying is that we should wait until that "Gemini sale" is consummated. It is his view that Bob Eisenstein understands the situation in Chile, and he credits Bob with calling off the visit of Wayne van Citters and Bob Dickman that was previously scheduled for the end of August at which, he expected, Wayne would have wanted to insist on Chilean payment of arrears funds. This Gemini delay gives the Chileans time to promote the sale of their Gemini share. At least this is how Leo sees it.

How does the Gemini sale affect the timing of the ALMA approach to Chile? If we come before the Gemini sale is done, Leo says, the Chileans will be motivated to "recover" the Gemini funds from ALMA—that is, to include in the ALMA negotiated agreement payment of sufficient funds to cover the Gemini annual operating commitment. If we approach Chile after the Gemini sale is complete then the Chileans have \$9M in their pockets for astronomy and the "conditions" they will ask of ALMA will be less onerous. This brings Leo back full circle to point (1) above, the "proper" approach ALMA should make to Chile. An ESO-led ALMA approach to Chile will open the door for settlement of many issues the Chileans have with ESO (labor laws etc) as everyone is aware. But if that ALMA approach is done through the Foreign Ministry there are also issues with the US that the Chilean Astronomers wish to settle. Those being what Leo sees as the way Chile was talked into becoming a paying partner in Gemini. A deal that was, as is, detrimental to Chilean astronomy. And a deal that was done wholly by the Foreign Ministry without involvement of the Chilean science community. He doesn't want to see anything like that happen with ALMA.

-Bob