

ASTRONOMY

Scientists compete for time to use observatory telescope

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BY TOM STATLER

Want to use one of the nation's largest telescopes? You'll have to propose!

No, I don't mean marry an observatory director. I mean write a proposal that explains exactly what you intend to do with the telescope.

The Time Allocation Committees meet the first weeks of May and November to review the "observing proposals" for the National Optical Astronomy Observatory.

The proposal, about 10 pages long, describes which objects you want to observe, which scientific instruments you'll use, how you'll analyze the data, and, most important, why your project is significant.

Seem tough? A telescope is a large and expensive piece of precision equipment. Just keeping it running might cost tens of thousands of dollars per night. You don't let somebody into a facility like that without a very clear plan of what should, and shouldn't, be done with it.

The committees are rotating groups of astronomers whose job is to give out nights of telescope time to the authors of the best submissions.

Their meeting is a long, intense, sometimes tedious, and occasionally funny process. Demand far outweighs supply, and the competition can be grueling. For the big telescopes, maybe only one project in eight will get time. Even to lose in this game, you have to be playing at the highest level.

The winners know how fortunate they are and how precious every minute on "big glass" is. When I observe on a large telescope, I script out everything I'm going to do for the entire night. I don't want to waste any time to indecision or sleepiness.

One good night at the telescope can make for months of hard work in data analysis. But the payoff -- being able to see one small part of the universe in a way that no one has ever seen it before -- is worth all the pain and sleeplessness.

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