

Re: Mount Wilson Observatory centennial noted by BBC

Source: <http://sci.tech-archive.net/Archive/sci.astro.amateur/2004-12/3870.html>

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Date: 12/22/04

Date: Tue, 21 Dec 2004 16:49:30 -0800

The solution for not having laser interferometry is lots and lots of time. Especially when you're inventing the procedures as you go. There were actually significant difficulties in testing the 100" mirror because it had to be tipped up on its side and tested horizontally like smaller mirrors. With the larger diameter, though, the vertical temperature gradient of the air in the hall (even using fans to mix the air) made the test results uncertain. It wasn't until the first star tests that they could be certain of their work. There's more in the articles I mentioned.

I haven't seen either Jupiter or Saturn in the 100" but I have seen Neptune (poor seeing, nothing special except that Triton was as bright as Neptune in a smaller scope even at f/30) and Mars last year on the night of its closest approach. Seeing for the latter night was good but not great but everyone went home happy. I'm more used to observing with the 60" which is used exclusively for that purpose right now (yours for only \$900/night or \$450/half-night). Jupiter is unbelievable when the seeing is good. There's so much detail in the belts you'd need an hour to look at it all and by then it's rotated noticeably. Saturn is appropriately awesome as well; not as much detail on the planet but there's more than enough to look at just in the rings when it's really steady. I haven't tried the usual filters on Saturn but that would probably help a lot. Part of the difference between a smaller scope and a really big one is something unexpected — the planets look truly 3-dimensional. There's just an effect I can't describe that's more like looking at a globe in space than a picture. The Moon can be equally extraordinary — scanning the scope across it is like being in orbit. Think of the difference between seeing a picture and then seeing the object in a scope — similar idea (though not necessarily a similar effect size).

Very experienced amateur observers who have had a chance to observe with the 60" are certainly impressed with it. For example, during Mars' close opposition last year I apologized for poor seeing one night only to have a serious observer with 30 years experience say it's the best he's ever seen the planet.

Comparing the 60" and 100" on objects I've seen in both the differences

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are about what would be expected. Given good conditions (and it doesn't have to be perfect) the 100" is noticeably better. Aperture really does matter, eve