

Seeing Statistics and Progress on OS Modernization

Nils Turner

16 March 2026 / CHARA Winter Meeting, Socorro



Seeing Statistics

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 - ▶ isopistonc angle: the angle on the sky over which the atmospheric piston can be considered constant (reducing visibility no more than 80%)

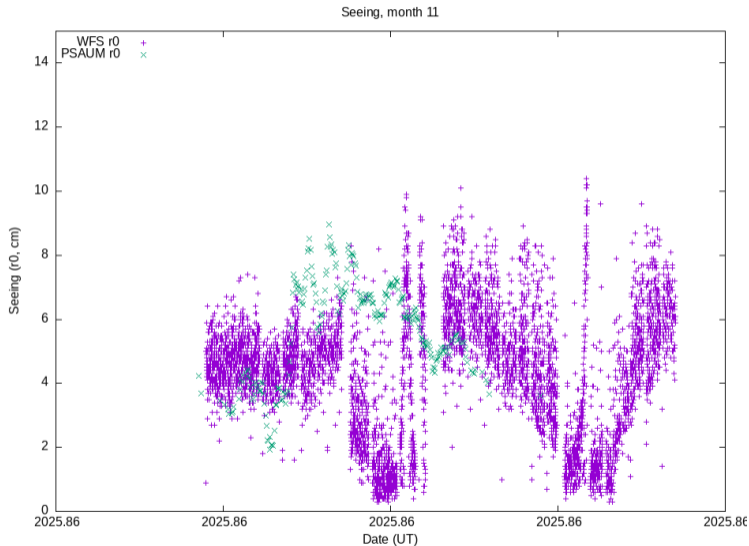
Seeing Statistics – Mount Wilson PSAUM



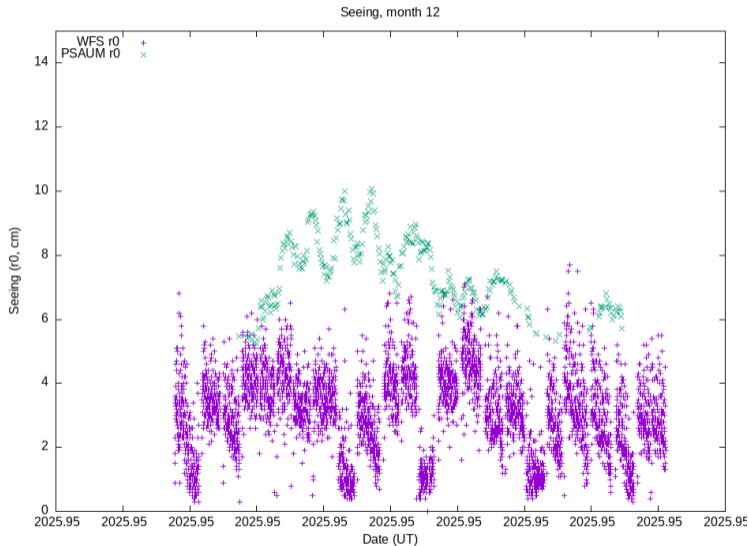
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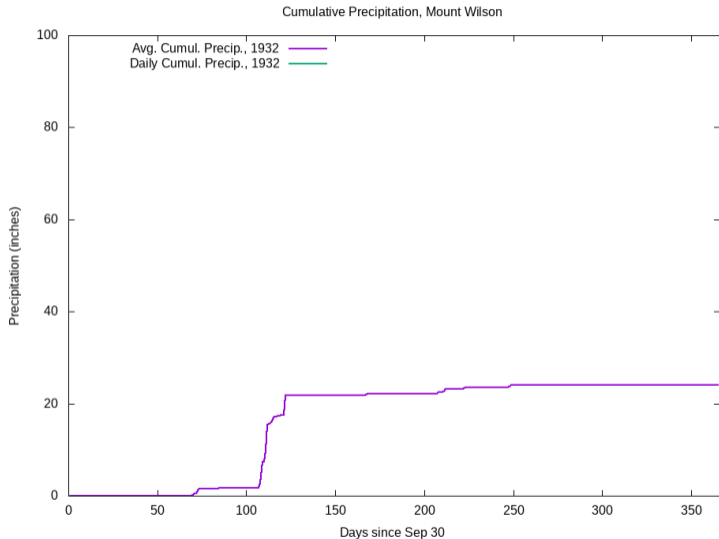


Seeing Statistics

- ▶ Need more comparison data with W1
- ▶ Need to understand the effect of WFS camera gain settings on seeing calculations

And now for something completely different ...

Mount Wilson Precipitation



Progress on OS Modernization



Progress on OS Modernization

► Current OS Mix



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NEW MEXICOTECH
SCIENCE - ENGINEERING - RESEARCH UNIVERSITY

Progress on OS Modernization

- ▶ Current OS Mix
- ▶ Hardware Considerations

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- ▶ Updated Ubuntu OS



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- ▶ Numerous (and increasing) network-connected, non-OS devices



Hardware Considerations

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 - ▶ New Focus picomotor controllers
 - ▶ Two varieties: 8732 and 875x



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 - ▶ Custom Hardware
 - ▶ HuT, M10 target, PoP controller, Iris, NIRO filter wheel



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 - ▶ PEX 292144 (ALPAO DM control)



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- ▶ Last kernel without the Spectre/Meltdown patch ... which broke the PEX 292144



Updated Ubuntu OS

- ▶ Xubuntu 24.04 (with Ubuntu Studio overlay)



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HEISING-SIMONS FOUNDATION



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- ▶ UEI PD2-DIO-128 DIO/Timer card
 - ◆ Not tested yet
- ▶ PEX 292144 (ALPAO DM control card)
 - ✓ Interface to ALPAO DM control to be converted to private TCP/IP network

Thank You

