Hi everyone-

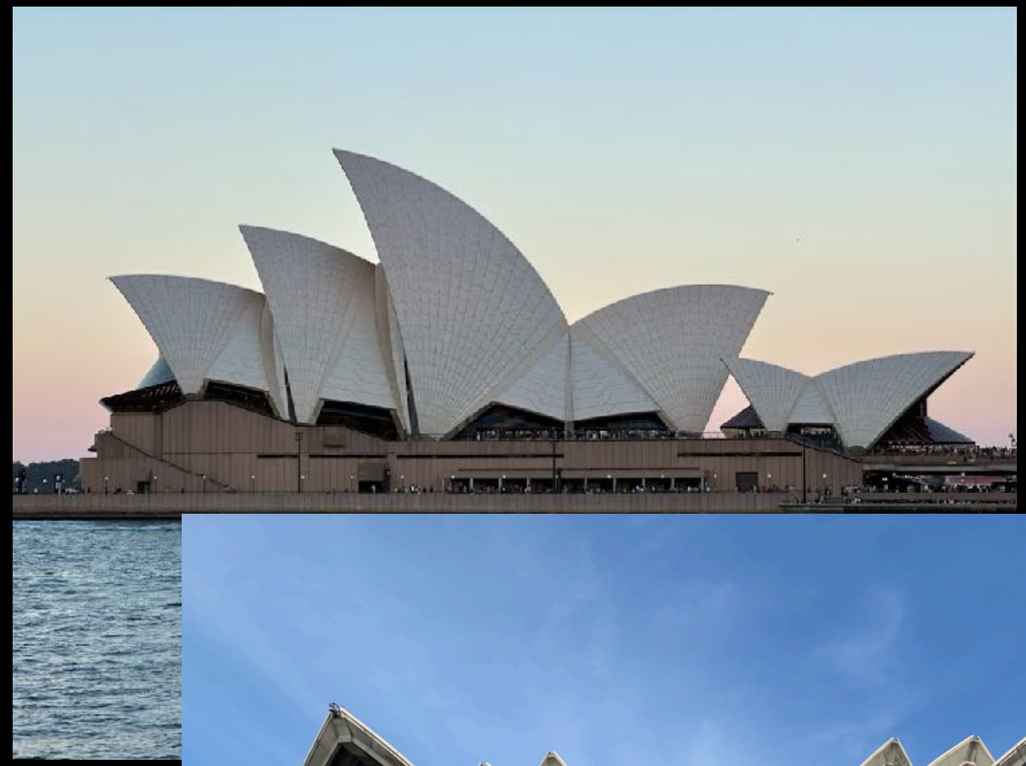
Greetings from Adelaide, Australia! Well, I'm afraid our romp through the southern hemisphere is slowly winding down. We've been here in Adelaide for about a month, and are leaving in about 3 1/2 weeks. Should be back in SLO by the end of June. Upon leaving NZ, we flew from Wellington, NZ to Syndney, Aus and spent 3 days there. Wow is Sydney an exciting city (near the harbor area). It was one of those "We can't believe we're here" kind of trips. Imagine London and NYC all in one spot, and all on an awesome harbor with water taxis. We then drove from Sydney to Adelaide and saw a lot of rural Australia. They have a road on the way called "The Great Ocean Road" which is like Highway 1 between SLO and SF. Beautiful drive. Canberra was a nice small capitol town (went to the Parliament House) and Melbourne was kind of meh (very big crowded city). Adelaide is in between and the locals all like it the most out of "all of the Australian cities.'

I (Tom) am having a wonderful visit with the IPAS group here at U of Adelaide (IPAS=Institute for Photonics and Advanced Sensing). The group is focused on pushing new limits with atomic clocks. I am learning a ton and have definitely honed my skills with lock-in amplifiers. If anyone has a very small signal to find, lmk! I gave a seminar about my Rb atomic clock and it went well and I got a lot of new ideas. Turns out they like to talk about "fractional frequency" error here or $\Delta f/f$ to assess a clock. Mine is at 10^{-11}, which is actually horrible (but typical of Rb clocks) since the ones here are at 10^{-12},10^{-14}, and they're going for10^{-15}. More power to them; I'm happy to be the low person on the scale. They also have this *really cool* method for getting vapor cells to glow, made from copper pipe and a twist of wire. "Coaxial resonators" (I need to build one for the light source for my clock). No more high voltage discharge or clunky LRC circuits! Also, oscilloscopes sweep from right to left here for some strange reason?!??!

Sonia is having a ball. Adelaide has a huge botanic garden to explore and she loves these flying foxes (bats that have the face of a fox) that fly around at dawn and dusk. She's doing a lot of reading and planning excursions. We don't have a car so walk everywhere together. Adelaide's core (near the university) has beautiful tree-lined streets, museums, cafes, and huge tracts of green space on the N, E, S and W that bound the city center, with all kinds of birds (the Ibis and Magpies are our favorites, but of course there's the cockatoos as well). The thrift stores or ("op shops" op=opportunity?) are fun to poke around in too.

Scroll down for a few pics. See you all soon.

Tom and Sonia



Manly beach and the opera house in Sydney.

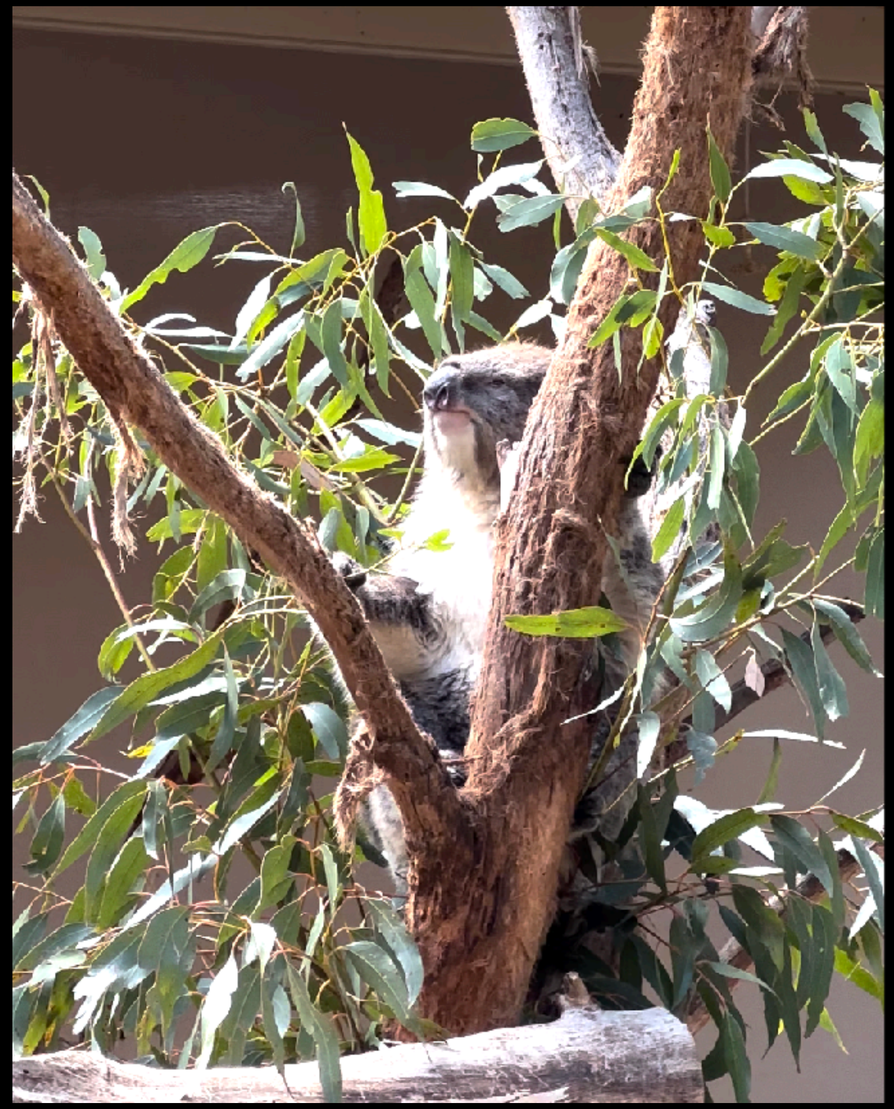
Opera house. Sydney was exciting.

Harbor Bridge in Sydney. Unbelievable structure. You can walk along the topmost curve. (No we didn’t do it; too scared.)

Hike along the Great Ocean Road.

Tom’s walk to work

In Adelaide: Flying foxes (bat with the face of a fox). They hang in the trees all day, then fly around at dawn and dusk looking for food (fruit). Click for video: bats



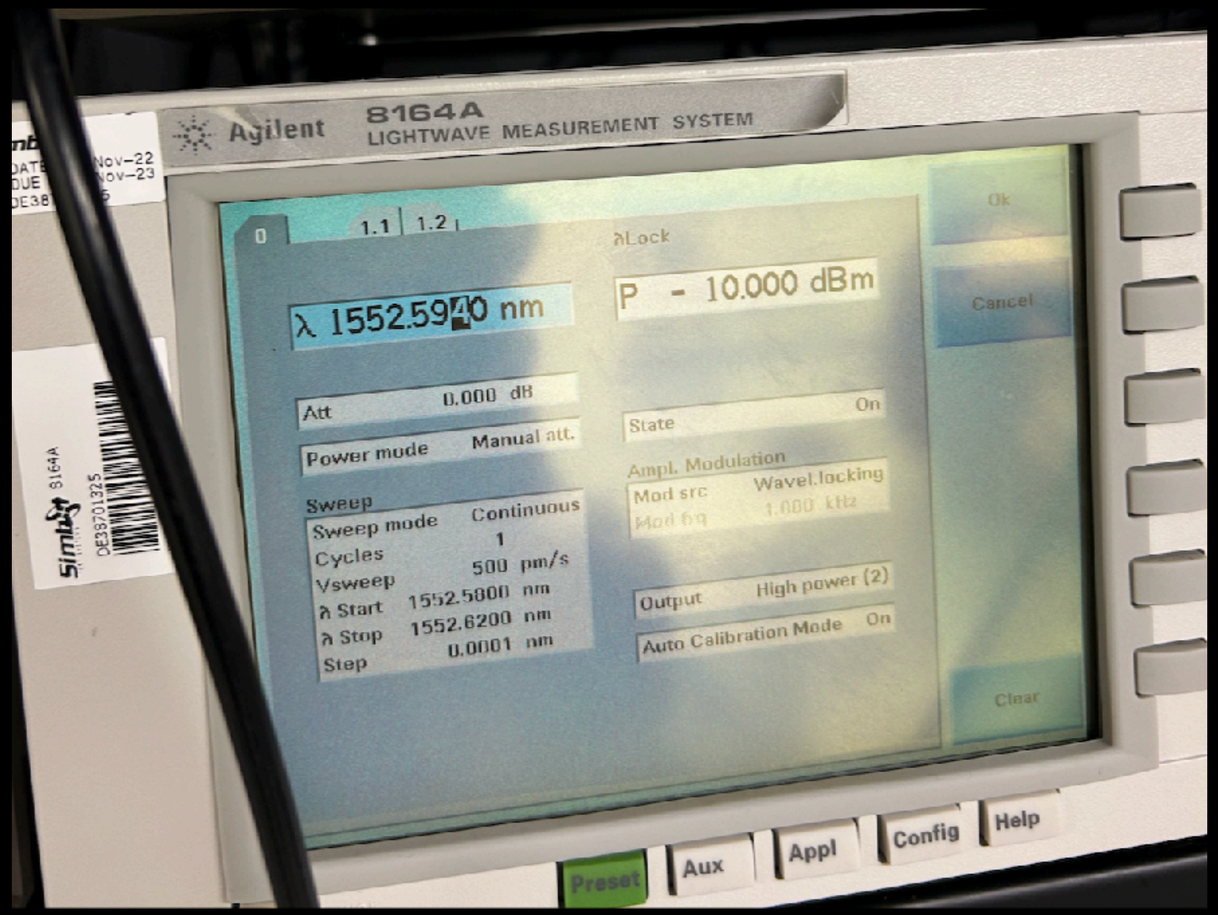
Saw these at a local wildlife park. Grey kangaroo and wombat. Click to see kangaroo in action: kargaroo and another of an “Echidna” (like a porcupine): echidna. Koala video: click

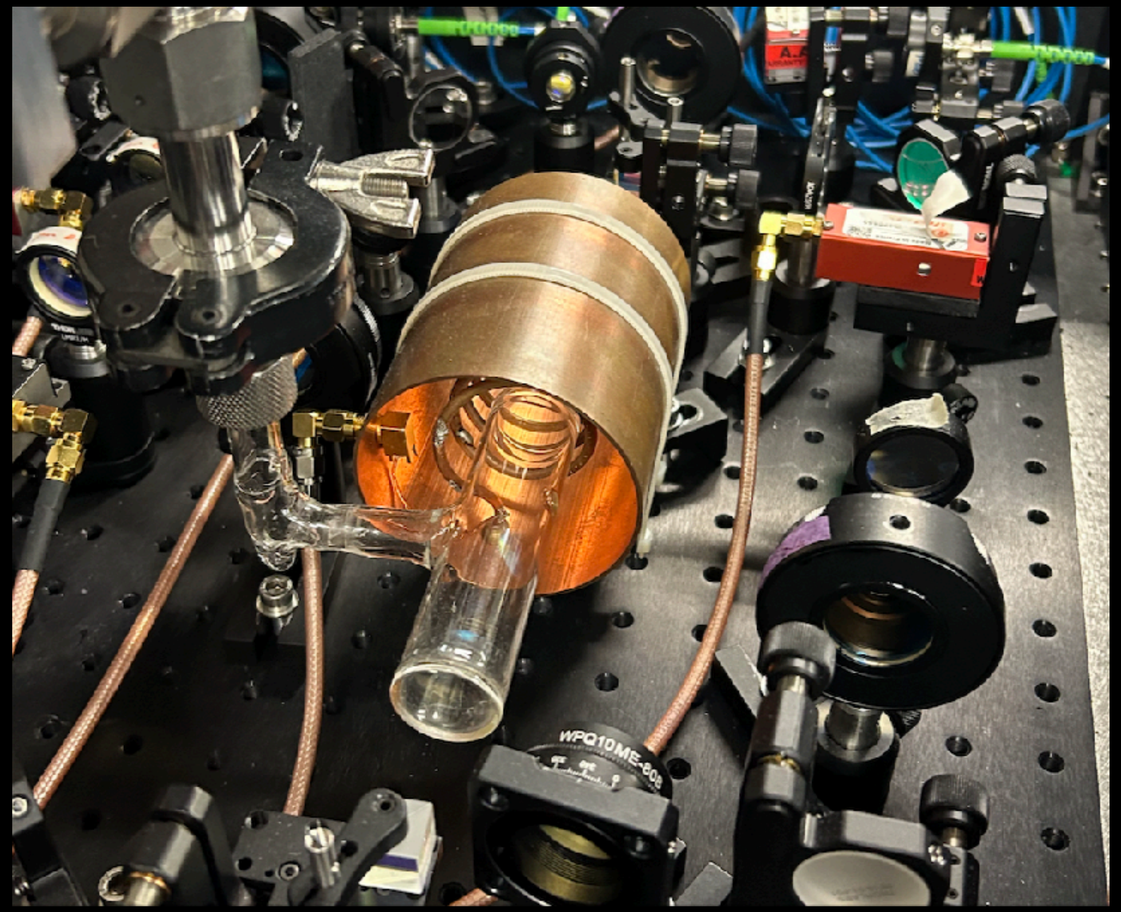
Cockatoos all over the campus footie field (L) and Ibis birds in park near home (R).

At Cleland Wildlife Park (In Mt. Lofty that borders Adelaide.)

The building Tom works in. It's called "The Braggs" as in "Bragg diffraction." Apparently father in son Bragg worked in Adelaide back in the late 1800s. The whole building was made to look like a diffraction grating. I mean, it could do some serious diffraction for $\lambda = 3$ meters!

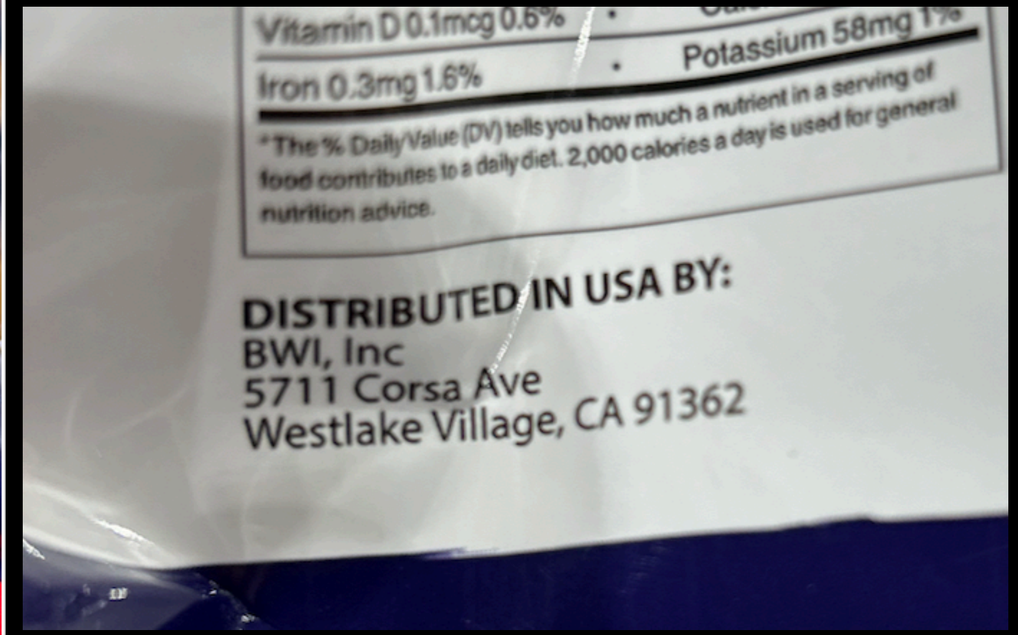
Gaza protest camp at U Adelaide. UCLA mentioned in the sign.





Diode laser wavelength selector (trying to LabView it) and look at that vapor cell glow! Inside a copper pipe with some turns of wire. Send in 1W @ 100 MHZ and it glows!

Rundle Street outdoor walking mall in Adelaide and tree-lined street cutting through campus.



ANZAC (Australia New Zealand Army Corps) biscuits. Historically made by families at home and sent to troops overseas during WWI/II due to high butter content for energy. Highly protected name (just this company can use it for the name). Curiously the are distributed out of Westlake, CA?????

Sorry (in Adelaide).

Typical signs in Australia.

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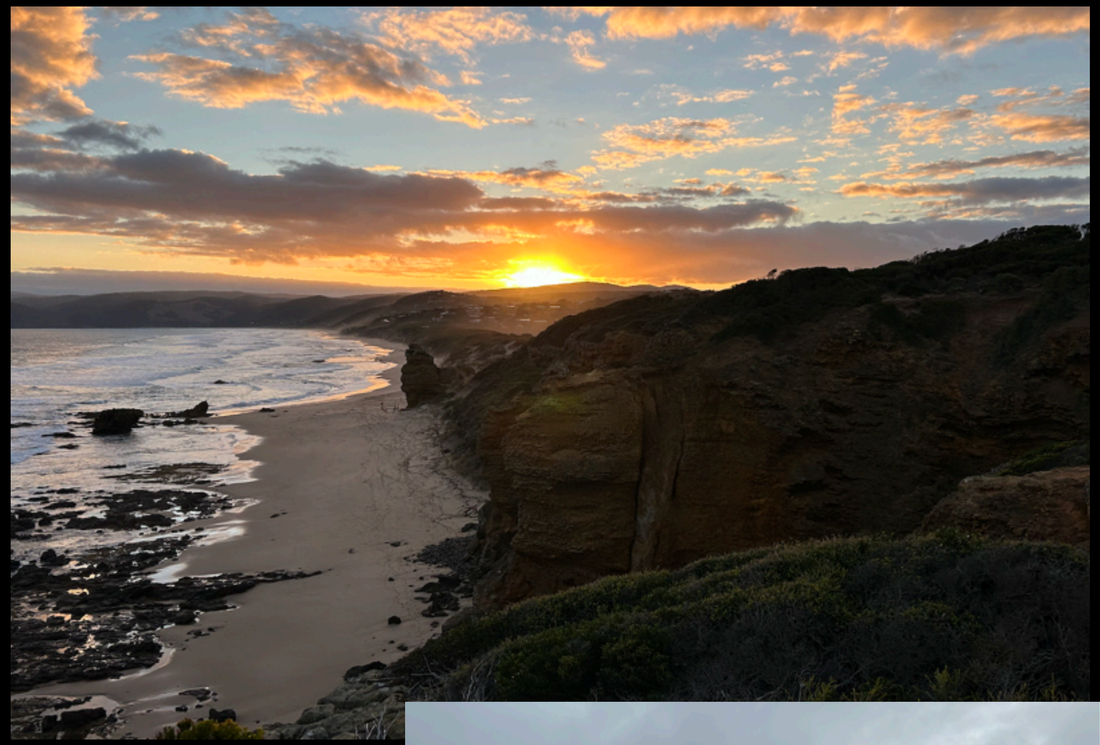

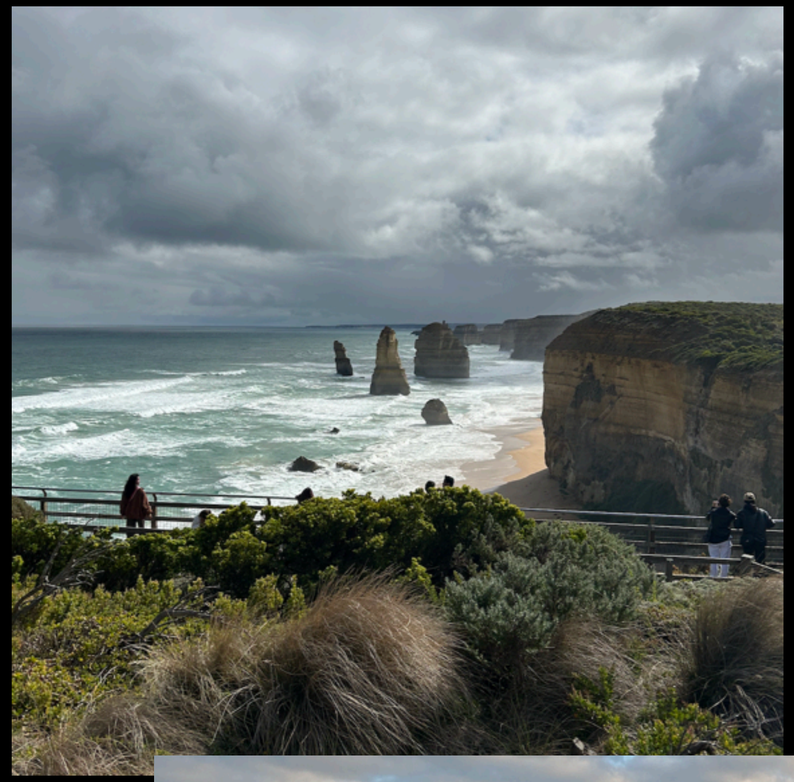

The South Australia Coast