April 25, 2016.

Dear CBAers,

Some great coverage on ASASSN-16eg, the dwarf nova of the year. We're done with it now, unless it does something unexpected. Likewise for RZ LMi; it appears to have once again refused to surrender its precise orbital period, although I haven't yet finished analysis of it.

V803 Cen is a harder case. The coverage during the sustained superoutburst phase was excellent, and we've tracked it through most of its fast up-and-down excursions ("echo outbursts"). But the latter is a lot less interesting, since the superhumps themselves are gone or very muted. A second full (super)outburst would be great - and isn't too much to hope for, since it's due in a couple of weeks and only lasts 4-5 days. Let's keep our eyes peeled, though full time series are not important now.

I was going to call for a full campaign on NR TrA, but then Gordon sent in 7 long nights on it - which fully define the orbital light curve (and therefore entirely takes NR TrA off the list). That was easy.

A word about this project - the long-term "old nova project". We'd like to track the evolution of nova orbital light curves, over the first few decades after outburst. The most interesting interval is the first few years, so even very recent novae (say 1-3 years) are eligible. Most novae flash orbital light curves, and most show a very characteristic light curve, suggesting heating of the secondary - a double-sinusoid with an apparent eclipse. In theory, the evolution of the "eclipse" and the double wave allows deduction of the changing pattern of heating in the binary... and that might even allow us to track the cooling of the white dwarf, decades after eruption. (We've done a few stars since the 1990s, so have a lot of data on this.)

Now that Sgr-Sco is wheeling back in the morning sky, it should be a great time of year. But unfortunately, field crowding and sometimes plain old lack of effort have resulted in many Sgr-Sco novae being not securely identified at quiescence. You australites might have your own favorite one to go after; my two southern suggestions are U Sco (18th mag – approach with caution) and V4743 Sgr (also a DQ Her star). Need long time series, because we're going after the orbital light curves.

The equatorial/northern stars in this category are V1494 Aql, V1974 Cyg, and V476 Cyg. The first is especially tempting, since it has a true eclipse and can be observed north and south.

More seasonal eclipsers, not novae but hot CVs with similar light curves: WX Cen and V617 Sgr. In these cases we just want to time the eclipses (tracking Pdot).

Two northern novalikes appear to be in low states: MV Lyr and LN Uma. These don't happen often, and none have been targets of time-series

photometry. Great choices if they're not too faint!

And two southern DQs are good for coverage now: RX1654-19 and V1223 Sgr.
And marginally also AO Psc and FO Aqr.

Whew, that's a lot... and Enrique, who keeps up a much sharper eye on these things than me, may want to add/clarify. Happy observing!

joe p

p.s. Oops. Another equatorial star, very much in season, is V406 Vir (SDSS1238-03).
Very strange 8-hour quasiperiod in this star, of unknown origin. It would be great to have some understanding of this signal. Sitting astride the equator, it offers us the opportunity to acquire really long runs.