6/15/15

Dear CBAers,

Just back from a good AAVSO meeting. And in central Indiana. I plan to lobby for the next summer meeting at a beach location, though. I hadn't been to a full AAVSO meeting in a long time, and meeting the CBAers there was really great - so I'll be a regular for the near future. They even (mostly) laugh at my jokes.

HS1813+61 is done for the year. The coverage was plenty good, but the analysis will be tricky because the periodic signals appearing this year were weak, and at unfamiliar frequencies (other than the orbital). Better to work more on analysis than invest more scope time.

Other program stars, especially the DQ Her guys which are very plentiful now in the midnight and morning skies, are still viable targets. Starting now, I'll parse some of the target comments by sector of the sky.

EQUATORIAL (not to be forsaken, because these are the stars we could approach 24-hour coverage on).

V442 OPH. Could someone check on its brightness? It went into a low state a few years ago, and there have been no recent observations. If it's still faint (V>16 say), it's a very interesting target.

LS IV -08o3. A new, very bright (11.5?) novalike variable in Ophiuchus. See Stark et al. 2008 (attached paper). At 1656-08, it's very seasonal and available to both hemispheres, and plenty bright. Probably a nearby UX Uma star, but anything's possible, since this star was just recently discovered. See what you can get. The *spectroscopic* period is ~4.7 hours, so plan for your runs to go at least that long, longer if you can. V filter would be nice for such a bright star.

IGR 1955+00 remains a totally fascinating star. Big variations on short and long timescales. This star will definitely intrigue you! Don't be discouraged by its faintness when you set up on it, or by rapid variability that just *has* to indicate an error in telescope or software. The CV iitself s a wack job, nature still unknown. Since the actual light curve is so wacky, pay a little extra attention to data quality (since the light curve will provide no clues about this).

AO Psc and FO Aqr are back in the morning sky. Definitely good for an occasional 3-hour time series.

SOUTHERN

There are MANY new DQ Her stars in the southern sky these days. The (Retha) Pretorius et al. paper I'm attaching discusses 5 of them – all interesting, but perhaps IGR J15094-6649 is the best one for us, since it appears to be plenty bright (14-15). J1650-33 is pretty good too.

J1654-19 is not a "new" DQ Her, but it's one we're trying to nail down the Pdot, and need some (more) 2015 timings. And a "timing" generally means a 3-hour observation.

Berto has been observing up a storm lately, and I've not yet studied most of his data. So Berto, please feel free to jump in and offer your advice concerning which targets to promote.

We're done with T Pyx and IM Nor, having found the remarkable Pdot which seems to be a hallmark of all the WDs accreting at very high rates. What a pleasure this has been for me!! ("Supersoft" binaries, yadda yadda.)

NORTHERN

UX UMA. I'm of two minds about this. UMa, even western UMa, is getting pretty off-season, and data at high airmass could pollute the wonderful supply we've acquired so far. That's the down side. But I'm sure that our 2015 coverage will become the defining example of the negative superhump and retrograde-wobbling disk (if that's really what it is). So maybe it should be stretched out as far as the Sun and atmospheric extinction permit. I think it'll still offer us several-hour time series for another month. Sooo... if you have been one of our UX UMa observers, consider keeping the faith for another month - keeping your comparison star(s) constant as far as possible.

DQ HER. I had hoped that we could do something similar with DQ Her. Although the 71 s oscillation is always of high interest, the main interest here is the slow waves in the light curve, near Porb and 0.5 Porb. These waves have always been regarded as erratic, because no one has been able to study them over weeks and/or with round-the-clock runs. For us to do so, we need a campaign about like that of UX UMa. You know who you are out there. No need to fuss over the 71 s thing. Feel free to use a V filter, or something broader if you prefer (e.g. for time resolution during the eclipse). Remember there's a faint red intruder star 4 arc-sec away, so you have to decide whether to

cleanly include or cleanly exclude that star in the aperture (and to note this in the header/comments).

ES DRA. Very well placed in the evening sky. Good alternate to UX UMa at the beginning of the night. Still kind of a mystery star - let's at least make friends with it!

V1974 Cyg. Still bright enough for CBA work. We have a paper ready to go that just waits for 2015 timings (to verify the cycle count for sure). It's about 17th mag, and the orbital signal - the one we mostly care about - must be distinguished from the superhump, which is slightly stronger and nearby in frequency. So this one takes a little extra glass and preferably a STREAK of clear weather.

V SAGITTAE. We need a few eclipse timings for 2015. Porb is 12.5 hours, so some weeks are terrible for eclipses (they occur when the star's not well-placed), and some are excellent. The siutuation's better when it transits near mnidnight, of course (August).

Dwarf novae. I've not kept up with them. Tonny or Enrique, could you jump in and make suggestions?

Joe