BBSAG Bulletin 3

1972 July 5

36th List of Minima of Eclipsing Binaries

The following table lists all the remaining minima obtained by BBSAG observers until the end of June 1972 plus an addendum to the previous lists of results obtained in 1971 by members of the British BSS, who are publishing in their own place since 1972, 202 minima totally. The observers are:

PC P. R. Clayton, Shipley GB

RD Roger Diethelm, Winterthur
RG Robert Germann, Wald
KL Kurt Locher, Grüt - Wetzikon
HP Hermann Peter, Otelfingen

current no.	star	minimum order	JD hel 244...	O-C	n	observer
3435	AB And	II	1443.580	+0.012	6	KL
3436		II	1446.568	+0.013	7	KL
3437		I	1481.579	+0.010	6	KL
3438		I	1487.568	+0.025	11	KL
3439		II	1490.390	+0.026	7	KL
3440		I	1493.544	+0.026	13	KL
3441		II	1494.378	+0.031	10	KL
3442	OO Aql	II	1459.590	-0.033	6	KL
3443		I	1472.527	-0.019	7	KL
3444		II	1483.414	-0.028	8	RG
3445		II	1487.473	-0.024	9	HP
3446		II	1490.519	-0.018	8	KL
3447	V 346 Aql	I	1471.413	-0.008	8	RD
3448		I	1472.528	+0.001	8	KL
3449		I	1482.478	-0.007	15	HP
3450		I	1482.480	-0.005	11	KL
3451		I	1493.535:	-0.013:	14	KL
3452	TY Boo	II	1460.382	+0.028	6	RD
3453	TZ Boo	II	1449.398	+0.031	12	HP
3454	UW Boo	I	1487.398	-0.006	14	HP
3455		I	1487.412	+0.008	8	KL
3456		I	1490.422	+0.004	9	RD
3457		I	1490.437	+0.019	6	KL
3458		I	1494.451	+0.014	12	HP
3459	AD Boo	I	1402.385	+0.041	13	HP
3460		I	1433.423	+0.047	5	KL
3461		I	1434.442	+0.032	12	KL
3462		I	1434.446	+0.035	11	HP
3463		I	1494.440	+0.034	13	HP
3464	SV Cam	I	1401.356	-0.007	11	HP
3465		I	1411.441	-0.004	10	HP
3466		I	1446.440	+0.004	11	HP
3467		I	1449.396	-0.005	10	HP
3468	WW Cam	II	1483.456	+0.425	9	HP
3469	TX Cnc	I	1411.376	+0.009	10	RD
3470	VZ CVn	I	1443.369:	-0.002:	7	RD
3471	TY Cap	I	1472.546	-0.066	11	KL
3472	RZ Cas	I	1401.459	0.000	10	HP
3473		I	1407.432	-0.003	17	HP
3474		I	1481.541	0.000	10	KL
3475		I	1487.518	+0.001	11	HP
3476	TV Cas	I	1401.417	+0.002	13	HP
3477		I	1477.531	-0.014	7	KL
3478	AD Cas	I	1410.465	+0.006	10	HP
3479	VW Cep	I	1434.379	-0.075	11	KL
3480	XX Cep	I	1490.414	-0.008	9	HP
3481	EG Cep	I	1416.351	-0.004	12	HP
3482		I	1434.351	+0.023	13	HP
3483		I	1490.431	+0.008	10	RD
3484	EK Cep	I	1411.441	+0.001	13	HP
3485		I	1473.432	+0.003	9	HP
3486		I	1473.434	+0.006	10	RD
3487	GK Cep	II	1434.442	+0.030	12	HP
3488		I	1471.389	-0.002	7	RD
3489	RW Com	II	1436.404	-0.035	10	HP
3490		I	1439.367	-0.039	6	KL
3491		I	1439.372	-0.034	12	HP
3492		II	1440.424	-0.050	6	KL
3493		I	1471.406	-0.042	7	RD
3494	UX Com	I	1482.471	-0.013	11	KL
3495	CC Com	I	1411.409	+0.060	11	KL
3496		I	1434.355	+0.056	10	KL
3497		II	1440.413	+0.045	6	KL
3498		I	1443.402	+0.054	8	RD
3499		II	1446.385	+0.058	6	KL
3500		I	1471.430	+0.056	8	HP
3501		I	1471.431	+0.057	10	RD
3502		II	1472.432	+0.065	9	HP
3503		I	1473.422	+0.062	8	RD
3504		I	1490.416	+0.063	10	KL
3505		I	1494.390	+0.065	11	KL
3506	W Crv	II	1411.401	-0.002	9	KL
3507	RV Crv	II	1440.423	-0.014	7	KL
3508		II	1446.382	-0.034	7	KL
3509	V Crt	I	1411.380	+0.035	12	KL
3510	UW Cyg	I	1481.532	-0.032	6	KL
3511	KR Cyg	I	1490.417	-0.012	8	RD
3512		I	1490.423	-0.005	7	KL
3513	V 456 Cyg	II	1482.471	-0.006	13	HP
3514		I	1487.391	+0.013	11	KL
3515	V 548 Cyg	I	1416.499	-0.023	11	HP
3516		I	1472.429	-0.056	11	HP
3517		I	1490.494	-0.043	8	KL
3518	V 687 Cyg	I	1459.555	+0.011	10	KL
3519	V 728 Cyg	I	1487.516	+0.043	12	HP
3520	FZ Del	I	1490.427	-0.001	11	KL

current no.	star	minimum order	JD hel 244...	O - C	n	ob-ser-ver
3521		I	1493.560	0.000	9	KL
3522	RR Dra	I	1411.406	+0.073	17	HP
3523	RZ Dra	I	1490.421	+0.020	7	RD
3524	TW Dra	I	1402.417	-0.025	17	HP
3525	TZ Dra	I	1460.404:	-0.035:	7	RD
3526		I	1473.428	-0.002	11	RD
3527	UZ Dra	I	1410.475	-0.003	15	HP
3528	AI Dra	I	1433.454	-0.007	7	KL
3529		I	1439.452:	-0.003:	8	KL
3530		I	1487.404	-0.003	9	HP
3531	YY Gem	II	1401.392	+0.010	11	HP
3532		II	1410.340	-0.005	10	HP
3533		I	1416.458	+0.006	10	HP
3534		I	1434.366	0.000	7	RD
3535		II	1436.388	-0.014	11	HP
3536	AF Gem	I	1410.349	-0.012	13	HP
3537	AL Gem	I	1434.384	+0.002	10	RD
3538	SZ Her	I	1436.440	+0.021	11	HP
3539		I	1449.525	+0.017	7	KL
3540		I	1472.441	+0.025	11	HP
3541		I	1490.434	+0.021	6	KL
3542		I	1490.436	+0.023	6	RD
3543		I	1490.439	+0.025	10	HP
3544	TT Her	I	1473.410	-0.072	8	HP
3545		I	1494.443	-0.018	10	HP
3546	TX Her	II	1490.395	-0.007	10	HP
3547		II	1490.407	+0.005	9	RD
3548	CC Her	I	1473.441	+0.035	18	HP
3549		I	1473.443	+0.038	10	RD
3550	PW Her	I	1443.519	-0.032	11	KL
3551	V 338 Her	I	1416.510	+0.070	16	HP
3552	V 450 Her	II	1434.429	+0.006	7	RD
3553		I	1471.394	+0.007	9	RD
3554	EU Hya	I	1410.368	-0.014	14	HP
3555	SW Lac	II	1477.563	-0.035	5	KL
3556		I	1481.573	-0.034	9	KL
3557		II	1490.396	-0.030	7	KL
3558		II	1490.405	-0.022	11	HP
3559		I	1494.401	-0.034	13	HP
3560		I	1494.404	-0.031	10	KL
3561	Y Leo	I	1472.412:	+0.051:	7	RG
3562	UV Leo	II	1396.442	-0.007	9	HP
3563		II	1402.450	+0.001	9	HP
3564	AM Leo	I	1460.387	-0.016	6	RD
3565		I	1471.366:	-0.011:	5	RD
3566	T LMi	I	1450.373	-0.084	12	HP
3567	TY Lib	I	1471.500	-0.031	5	KL
3568	EI Lib	I	1471.408:	-0.054:	7	KL
3569		I	1473.382	-0.067	11	KL
3570	TZ Lyr	I	1473.424	+0.016	11	RD
3571	EW Lyr	I	1450.429	+0.039	14	HP
3572		I	1487.453	+0.038	15	HP
3573	U Oph	II	1473.476	-0.004	12	HP
3574		I	1494.443	-0.005	m14	HP
3575		I	1494.451	+0.004	8	KL
3576	V 508 Oph	I	1459.463	+0.001	10	RG
3577		II	1472.406	+0.015	9	HP
3578		II	1473.427	+0.001	10	RD
3579		II	1473.442	+0.016	8	KL
3580		I	1477.396	+0.005	6	RG
3581		II	1477.554	-0.009	5	KL
3582		I	1481.535	+0.007	10	KL
3583		II	1482.404	+0.014	6	KL
3584		I	1483.426	0.000	8	RG
3585		I	1483.430	+0.006	10	HP
3586		I	1487.389	0.000	10	KL
3587		II	1487.566	+0.004	6	KL
3588	V 1010 Oph	I	1446.575	-0.029	10	KL
3589		I	1460.457	-0.038	6	KL
3590		I	1493.539:	-0.028:	7	KL
3591	RT Per	I	1394.397	-0.047	10	HP
3592		I	1400.345	-0.046	11	HP
3593	XZ Per	I	1410.353	+0.008	10	HP
3594	V 505 Sgr	I	1472.476	-0.029	6	KL
3595	V 701 Sco	II	1459.536	-0.013	5	KL
3596	U Sct	I	1482.421:	+0.018:	8	KL
3597	AK Ser	I	1487.479	-0.010	9	KL
3598	AO Ser	I	1487.438	-0.008	11	HP
3599	XZ UMa	I	1401.423	-0.048	9	HP
3600		I	1434.407	-0.067	13	HP
3601		I	1434.409	-0.065	10	RD
3602	ZZ UMa	I	1490.394	-0.007	8	RG
3603		I	1490.397	-0.004	12	HP
3604		I	1490.400	-0.001	7	RD
3605	RU UMi	I	1460.386	-0.004	8	RD
3606		I	1471.403	-0.010	10	RD
3607	AH Vir	II	1416.571	+0.017	6	KL
3608		I	1422.469	+0.006	5	KL
3609		I	1438.368	+0.011	6	KL
3610		II	1439.384	+0.009	7	KL
3611		I	1440.410	+0.016	8	KL
3612		II	1443.459	+0.008	7	RD
3613		II	1443.470	+0.020	10	KL
3614		I	1460.365	+0.002	5	RD
3615		I	1460.369	+0.007	5	KL
3616		I	1473.409	+0.006	7	KL
3617		I	1473.410	+0.007	8	RD
3618		I	1482.382	+0.014	8	KL
3619		II	1494.397	+0.007	7	KL
3620	AZ Vir	I	1439.380	+0.053	10	KL
3621		II	1440.420	+0.052	6	KL
3622		I	1450.384	+0.050	11	HP
3623		I	1472.419	+0.071	11	HP
3624		II	1473.420	+0.030	7	RD
3625		I	1483.430	+0.074	12	HP
3626		I	1494.441	+0.077	12	KL
3627	BF Vir	I	1439.368	+0.011	10	KL
3628		I	1446.405	+0.001	7	KL
3629		I	1471.390	+0.004	7	RD
3630		I	1471.392	+0.006	7	KL
3631	BH Vir	I	1438.387:	-0.003:	4	KL
3632		I	1487.408	+0.006	7	KL
3633	BE Vul	I	1472.525	+0.013	8	KL
3634	BO Vul	I	1490.401:	-0.054:	8	RD
3635	BU Vul	I	1490.486	+0.009	11	HP
3636	CD Vul	I	1490.412:	-0.011:	8	RD

New Period Determination for V 505 Sagittarii

From 41 visually observed minima of the bright eclipsing binary V 505 Sgr from 1966 to 1971 by members of the BBSAG I have deduced the following light elements:

$$\text{Min hel JD} = 2433515.384 + 1.182858 \times E$$

All observations wereweighted equally, and the standard method of least squares was applied.

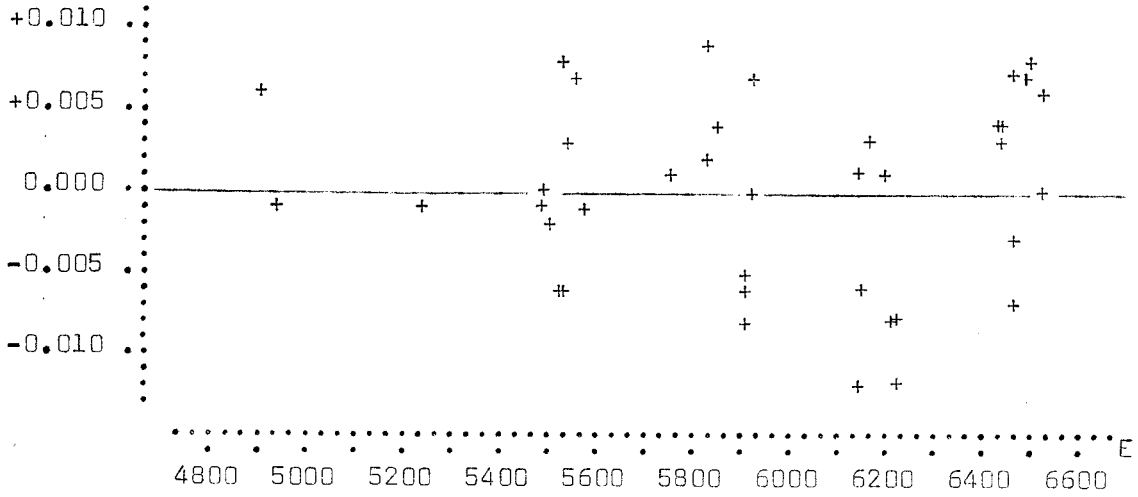
Table 5 lists all observations along with the new O - C values, while figure 4 shows the same values plotted against time.

R. Diethelm

Table 5

2439350.429 +0.006 KL	2440417.370 +0.009 KL	2440857.376 -0.008 KL
376.444 -0.002 KL	418.545 +0.002 RG	876.297 -0.012 HP
725.388 -0.001 KL	443.387 +0.004 HP	876.302 -0.008 KL
40010.456 -0.001 RG	443.387 +0.004 KL	41136.542 +0.004 RD
010.457 0.000 KL	507.250 -0.008 KL	142.456 +0.003 KL
030.564 -0.002 KL	507.252 -0.006 RG	148.371 +0.004 KL
062.497 -0.006 KL	507.253 -0.005 HP	155.471 +0.007 KL
068.411 -0.006 RG	520.269 0.000 KL	162.554 -0.007 KL
068.425 +0.008 HP	520.276 +0.007 HP	162.558 -0.003 RG
081.432 +0.003 KL	780.486 -0.012 RG	181.494 +0.007 KL
094.447 +0.007 HP	780.499 +0.001 KL	200.421 +0.008 HP
107.451 -0.001 KL	786.406 -0.006 KL	232.350 0.000 KL
315.636 +0.001 KL	805.341 +0.003 RG	232.350 0.000 HP
	844.373 +0.001 KL	238.270 +0.006 HP

Figure 4



Note on the O - C of TY Hydrae

In the evening of 1972 March 18 (JD 2441395) I was able to observe the descending branch of the lightcurve of this eclipsing binary down to minimum, which began at UT 22^h45^m. Therefore the O - C amounts to at least $+0^d.08$, the duration of totality, probably present, being unknown.

H. Peter

Note on the Period of V 983 Ophiuchi

I observed this eclipsing binary of amplitude $0^m.7$ and unknown period (GCVS 1969) visually during 29 nights from March to July 1972, always finding it at maximum or at possibly unreal fadings less than $0^m.15$. From these results I conclude that any period less than about 8 days is very improbable except for values lying very close to a multiple of the sidereal day. In the latter case minima should be observable this summer from the longitude of America or the Far East.

K. Locher

Errata

BBSAG Bulletin 2, pages 1/2, 1972:

SV Cam	minima no. 3265 & 3266: The observers' names must be interchanged.
V 1010 Oph	minimum no. 3384: The date should read 2441401.

BBSAG Prediction Book 1972:

XZ Aql	The minimum of June 8/9 must be cancelled.