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The Elements of Stars in the Sonneberg Field 62 Aquilae

KLAUS HAEUSSLER

Bruno – H.- Bürgel – Sternwarte, D-04746 Hartha, info@sternwarte-hartha.de

Abstract: I have examined these stars on Sonneberg plates taken with the 40cm astrograph. First elements were given for most stars. Individual data are available upon request.
This research made use of the SIMBAD database, operated by CDS at Strasbourg, France.

I observed short period stars in the Sonneberger field 62 Aql. 277 plates taken with the 40 cm astrograph in the Period JD 2429110 until 2449270 are available. 117 additional plates, taken with smaller instruments between JD 2426928 and 243952 where used too. All variable stars was discovered by Hoffmeister, C., published in "Astronomische Nachrichten".
The brightness of the stars was estimated by the Argelander method, that scale was based on the B-values of the USNO A2.0 magnitudes. As the coordinates of many stars are inaccurate. I crossreferenced every stars to the USNO catalogue.
For some of the stars I used maxima from the GEOS RR-Lyr database (LeBorgne, Paschke, Vandenbroere et al., 2007)
For stars with variable periods I did not estimate the accuracy of the period value.
The list of journal abreviations from SIMBAD was used in the literature reference.
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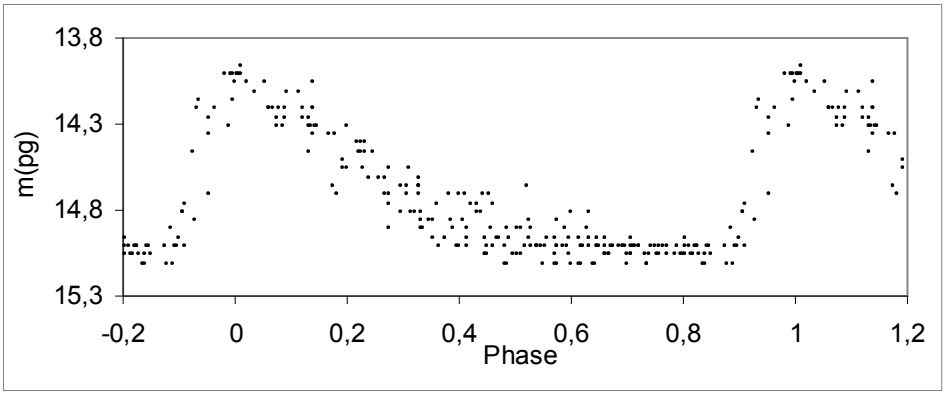
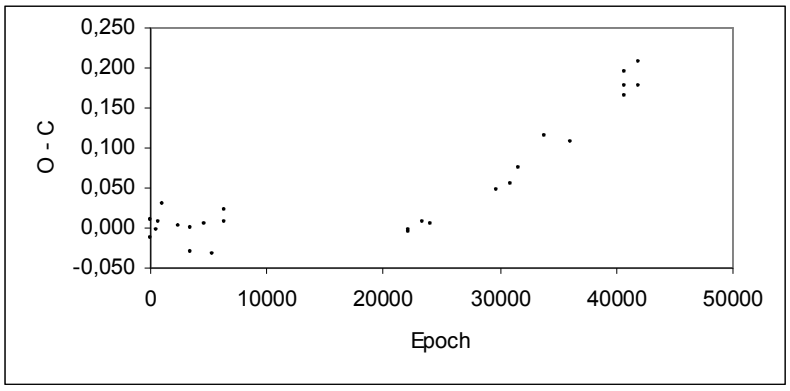
Star	Type	Eo 24…	Period	D,M-m	Max m(pg)	Min m(pg)
V 508 Aql	RRAB	45527,463	0,6251515var	0,11	14,0	15,0
V 518 Aql	RRAB	49270,401	0,6859555var	0,15	12,6	13,4
V 691 Aql	RRAB	47822,301	0,5521307var	0,1	14,2	15,1
V 739 Aql	RRAB	47822,258	0,4316564	0,15	14,5	15,7
V 751 Aql	RRAB	52568,562	0,558368var	0,11	13,4	15
V 762 Aql	EA	46976,492	2,1666109var	0,1	14,0	16,4
V 779 Aql	RRAB	49215,463	0,6267196	0,19	15,1	16,3
V 782 Aql	RRAB	48832,487	0,6434389	0,19	13,8	15,3
V 787 Aql	EB	48803,492	0,7023268var		14,3	15,3/14,6
V 831 Aql	RRAB	48894,278	0,5717189	0,14	15,1	16,3
V 897 Aql	EB	46982,494	3,094406var		15,1	16,9/15,4
V 900 Aql	RRAB	46650,456	0,4716434	0,11	14,1	15,6
V 1039 Aql	RRAB	48888,39	0,6257232	0,14	14,9	15,7
V 1069 Aql	RRAB	48888,354	0,4559752	0,12	13,9	15,2
V 1099 Aql	RRAB	49194,437	0,5054098	0,18	14,7	16
V 1100 Aql	RRAB	48894,34	0,540122	0,14	14,9	16,5
V 1102 Aql	RRAB	48103,433	0,5940388	0,15	13,8	15,4
V 1158 Aql	RRAB	47770,333	0,6618849	0,16	14,6	16
V 1164 Aql	EA	48175,339	3,2141117var	0,1	14,4	16,6
V 1167 Aql	RRAB	48103,459	0,4007874	0,3	14,9	16,4
V 1172 Aql	RRAB	48832,508	0,5463365	0,11	15,5	16,3
V 1173 Aql	RRAB	49270,306	0,5030319var	0,19	14,7	15,8
V 1174 Aql	RRAB	49270,322	0,4503039	0,16	14,7	16,5
V 1175 Aql	RRAB	29110,445	0,4299329	0,18	14,8	16
V 1176 Aql	RRAB	48179,322	0,5947584var	0,19	14,6	16,2
V 1178 Aql	RRAB	49270,342	0,6074741var	0,16	13,9	15,7
V 1179 Aql	RRAB	48894,302	0,5682566	0,16	14,6	15,5
NSV12468	RRAB	48894,346	0,5252108	0,18	14,1	15,4
NSV12769	EW	49194,423	0,4917416		14,0	14,9/14,9
NSV12826	RRAB	49215,439	0,6051914	0,17	15,0	16,8

.**V 508 Aql** = USNO 0825-17661537 (14,9) = AN 479.1936
.The elements of Ahnert (1) are valid only until JD 2446000 when a change of the period happened.

From JD 2426000 to 46000 : Max = JD 2426951,398 + 0,6251398 x E
Since JD 2446000 : Max = JD 2445527,463 + 0,6251515 x E (O – C 2)



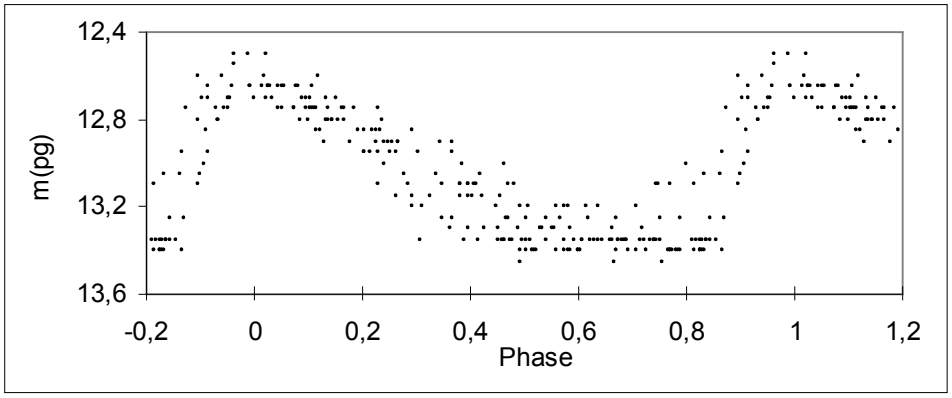
Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Epoch 2	O - C 2	Obs
26951,37	0	-0,013	Ahn	40779,474	22120	-0,001			Hau
27003,28	83	0,010	Ahn	41548,404	23350	0,007			Hau
27311,46	576	-0,004	Ahn	41987,251	24052	0,006			Hau
27395,24	710	0,008	Ahn	45527,46	29715	0,048	0	-0,003	Hau
27633,44	1091	0,029	Ahn	46264,507	30894	0,055	1179	-0,010	Hau
28422,34	2353	0,003	Ahn	46683,371	31564	0,075	1849	0,003	Hau
29102,46	3441	-0,029	Ahn	48097,476	33826	0,114	4111	0,015	Hau
29107,49	3449	0,000	Ahn	49529,6648	36117	0,108	6402	-0,018	Lay
29846,41	4631	0,005	Ahn	52382,8719	40681	0,177	10966	-0,002	Hau
30258,34	5290	-0,033	Ahn	52434,7771	40764	0,195	11049	0,015	Hau/ASAS
30930,42	6365	0,022	Ahn	52444,7481	40780	0,164	11065	-0,016	Hau/ASAS
30933,53	6370	0,006	Ahn	53109,911	41844	0,178	12129	-0,015	Hau/ASAS
40774,47	22112	-0,004	Hau	53156,8248	41919	0,206	12204	0,013	Hau/ASAS



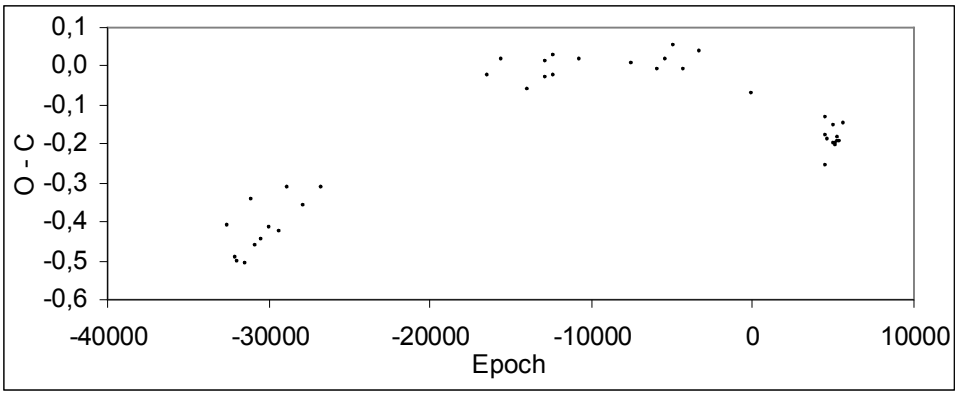
V 518 Aql = USNO 0900-18067513 (12,5) = AN 835.1933
Ahnert (1) statet the period as 0.4064188 days, ASAS gives a similar value, but based only on own Observations. My observations are at best described with the following elements:

From JD 2426000 until 38000 : Max = JD 2430932,437 + 0,6859841 x E
From JD 2438000 until 47000 : Max = JD 2449270,401 + 0,6859555 x E (O-C calculated)

Since JD 2447000 : Max = JD 2449270,401 + 0,6859331 x E



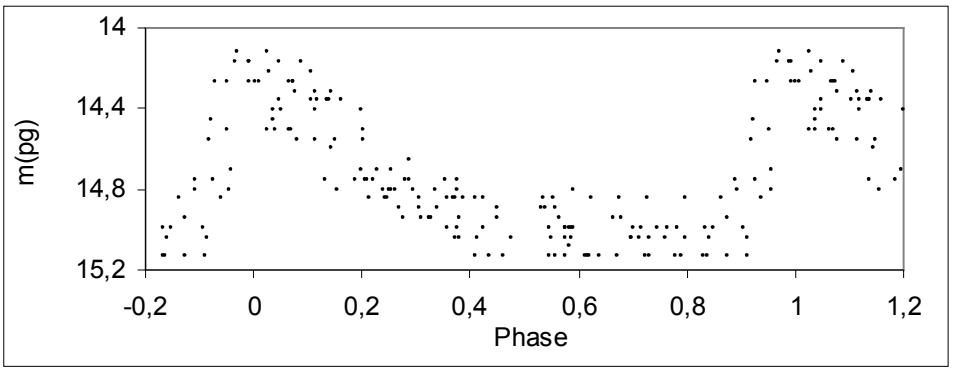
Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
26928,422	-32570	-0,408	Ahn	44157,3	-7454	0,009	Hau
27312,472	-32010	-0,493	Ahn	45203,36	-5929	-0,008	Hau
27332,355	-31981	-0,503	Ahn	45583,41	-5375	0,016	Hau
27688,36	-31462	-0,509	Ahn	45957,29	-4830	0,056	Hau
27996,519	-31013	-0,344	Ahn	46374,29	-4222	-0,006	Hau
28121,244	-30831	-0,463	Ahn	47038,34	-3254	0,036	Hau
28367,52	-30472	-0,445	Ahn	49270,33	0	-0,072	Hau
28756,486	-29905	-0,416	Ahn	52384,46	4540	-0,179	Hau/ASAS
29110,43	-29389	-0,425	Ahn	52383,8234	4539	-0,130	Hau/ASAS
29462,436	-28876	-0,314	Ahn	52415,94	4586	-0,257	Pas
30176,471	-27835	-0,359	Ahn	52464,7069	4657	-0,189	Hau/ASAS
30932,44	-26733	-0,313	Ahn	52730,8962	5045	-0,150	Hau/ASAS
37966,519	-16479	-0,021	Ahn	52756,9147	5083	-0,198	Hau/ASAS
38613,415	-15536	0,019	Hau	52802,8719	5150	-0,200	Hau/ASAS
39709,496	-13938	-0,057	Hau	52831,6789	5192	-0,203	Hau/ASAS
40443,499	-12868	-0,027	Hau	52855,705	5227	-0,185	Hau/ASAS
40472,348	-12826	0,012	Hau	52886,567	5272	-0,191	Hau/ASAS
40775,502	-12384	-0,026	Hau	52956,5312	5374	-0,195	Hau/ASAS
40828,376	-12307	0,029	Hau	53176,7701	5695	-0,147	Hau/ASAS
41918,349	-10718	0,019	Hau				



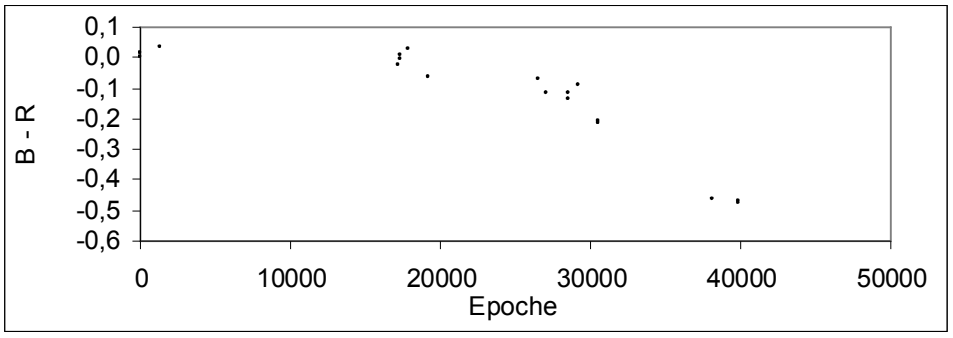
V 691 Aql = USNO 0825-17099072 (15,6) = AN 451.1936
The first elements of this star have been published by Busch and Haeussler (2). The star has a variable

Period. 3 segments have been used.

From JD 2429000 to 40000 : Max = JD 2430932,412 + 0,552162 x E (O – C calculated)
From JD 2440000 to 48000 : Max = JD 2447822,334 + 0,5521499 x E
Since JD 2445000 : Max = JD 2447822,301 + 0,5521307 x E

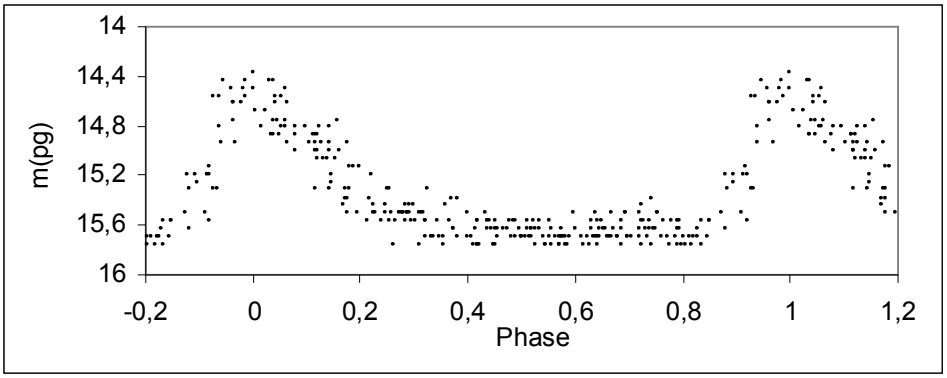


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30932,412	0	0,000	Bu/Hau	45907,484	27121	-0,114	Hau
30933,529	2	0,013	Bu/Hau	46679,387	28519	-0,133	Hau
31673,448	1342	0,035	Bu/Hau	46705,355	28566	-0,117	Hau
40444,483	17227	-0,024	Bu/Hau	47038,338	29169	-0,087	Hau
40469,349	17272	-0,005	Bu/Hau	47770,382	30495	-0,210	Hau
40470,468	17274	0,010	Bu/Hau	47822,284	30589	-0,211	Hau
40803,438	17877	0,026	Bu/Hau	51979,811	38119	-0,464	Pas/ASAS
41539,38	19210	-0,064	Hau	52945,539	39839	-0,475	Hau/ASAS
45583,406	26534	-0,073	Hau	52945,539	39868	-0,467	Hau/ASAS



V 739 Aql = USNO 0825-17428461 (15,8) = AN 468.1936
Ahnert (1) guessed a period of 0.43 days without any details.

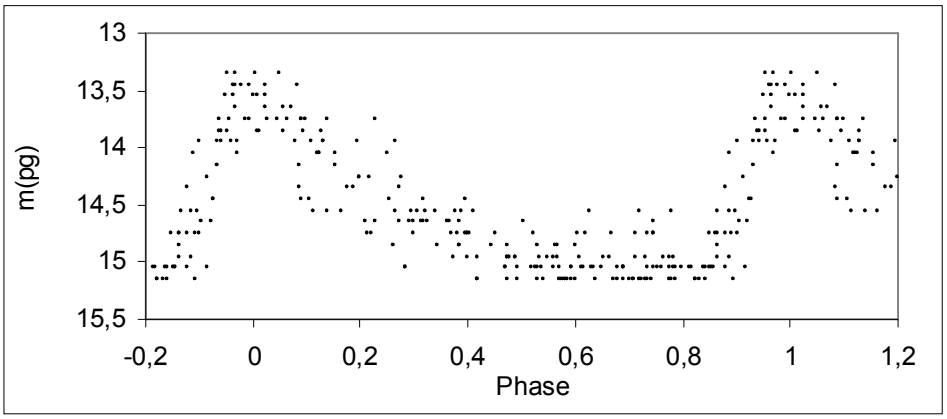
Max = JD 2447822,258(±0,011) + 0,4316564(±0,0000004) x E



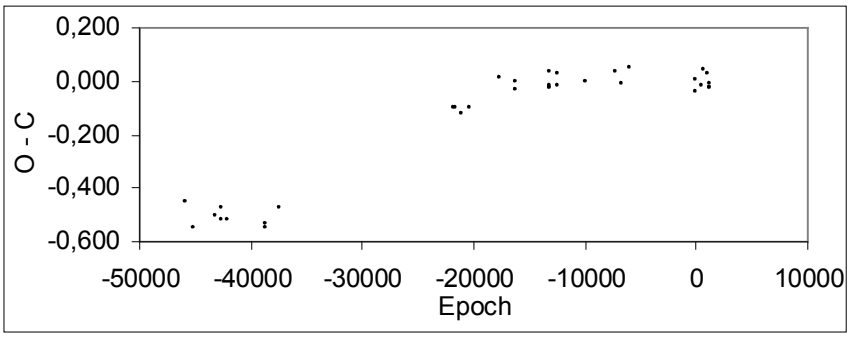
Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
27577,521	-46900	-0,052	Hau	45200,377	-6074	0,000	Hau
27660,477	-46708	0,026	Hau	45203,392	-6067	-0,007	Hau
29906,373	-41505	0,014	Hau	45907,422	-4436	-0,008	Hau
29923,261	-41466	0,067	Hau	45916,468	-4415	-0,027	Hau
31673,537	-37411	-0,023	Hau	46019,245	-4177	0,016	Hau
36025,489	-27329	-0,031	Hau	46296,371	-3535	0,018	Hau
36404,505	-26451	-0,010	Hau	46299,374	-3528	0,000	Hau
40469,405	-17034	-0,018	Hau	47822,284	0	0,026	Hau

V 751 Aql = USNO 0900-17374019 (14,5) = AN 471.1936
The period stated by Ahnert (1) was too short. The period is variable, has a jump close to epoch -16000
The lightcurve is composed from all observations

From JD 2429000 to 2442000 : Max = JD 2429110,386 + 0,5583908 x E
Since JD 2442000 : Max = JD 2452568,562 + 0,5583680 x E (O – C calculated)

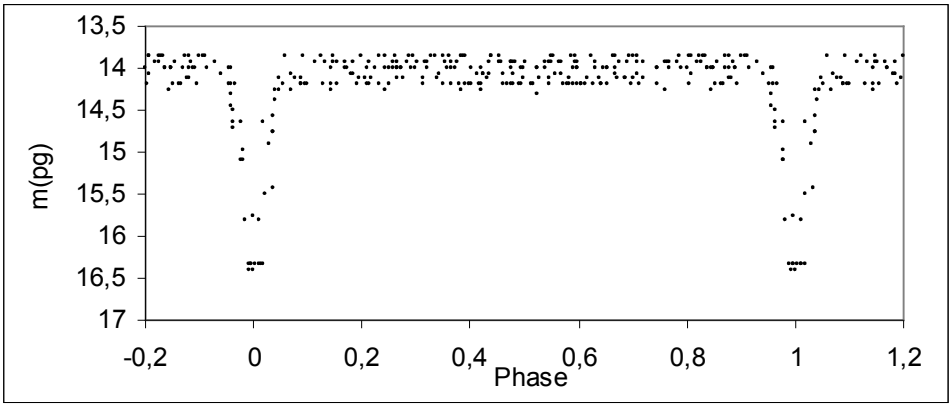


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
26980,337	-45826	-0,453	Ahn	45196,411	-13203	-0,018	Hau
27312,472	-45231	-0,547	Ahn	45200,377	-13196	0,039	Hau
28425,34	-43238	-0,506	Ahn	45229,347	-13144	-0,026	Hau
28756,486	-42645	-0,473	Ahn	45583,406	-12510	0,028	Hau
28803,343	-42561	-0,519	Ahn	45635,288	-12417	-0,019	Hau
29110,445	-42011	-0,519	Ahn	46976,502	-10015	-0,004	Hau
30933,5	-38746	-0,535	Ahn	48534,385	-7225	0,032	Hau
30937,4	-38739	-0,544	Ahn	48803,474	-6743	-0,013	Hau
31673,4	-37421	-0,473	Ahn	49270,329	-5907	0,047	Hau
40443,499	-21715	-0,102	Hau	52558,51716	-18	0,006	Hau/ASAS
40471,419	-21665	-0,100	Hau	52804,73309	423	-0,019	Hau/ASAS
40778,502	-21115	-0,120	Hau	52917,58814	625	0,046	Hau/ASAS
41240,29	-20288	-0,102	Hau	53130,86843	1007	0,030	Hau/ASAS
42712,264	-17652	0,014	Hau	53257,56303	1234	-0,025	Hau/ASAS
43477,214	-16282	0,000	Hau	53258,68047	1236	-0,024	Hau/ASAS
43482,211	-16273	-0,029	Hau	53238,59764	1200	-0,006	Hau/ASAS
45163,465	-13262	-0,021	Hau	52568,52183	0	-0,040	Hau/ASAS

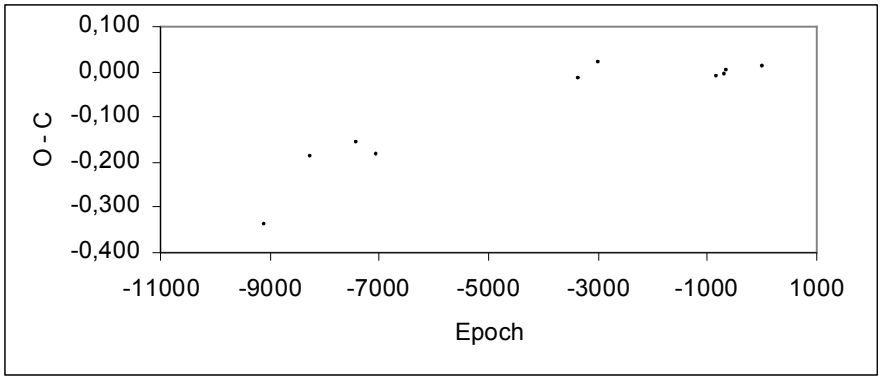


V 762 Aql = USNO 0900-17419239 (13,8) = AN 809.1933
Ahnert (1) guessed the period to be 2.1/N The new period is variable, with a jump near epoch -5000

From JD 2429000 to 41000 : Min = JD 2440472,346 + 2,1666105 x E
Since JD 2441000 : Min = JD 2446976,492 + 2,1666109 x E (O –C calculated)



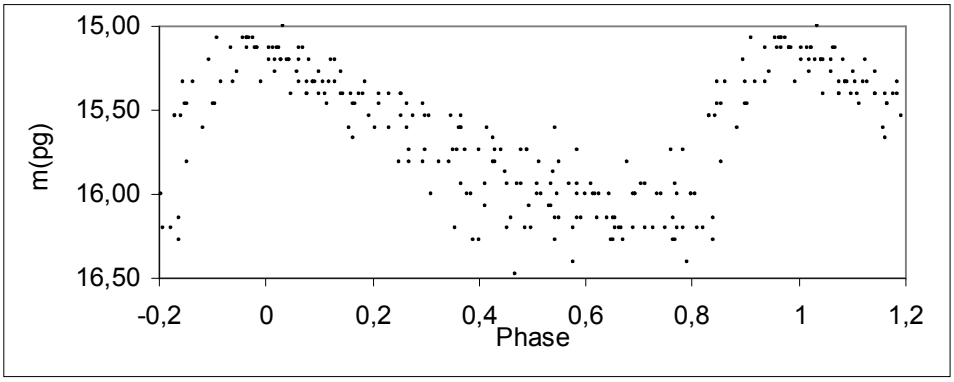
Minimum	Epoch	O - C	Obs	Minimum	Epoch	O - C	Obs
27279,493	-9091	-0,343	Hau	44114,41	-1321	0,006	Loc (2)
29110,43	-8246	-0,192	Hau	44454,56	-1164	0,003	Loc (3)
30930,415	-7406	-0,160	Ahn/Hau	44844,53	-984	-0,014	Loc (4)
31673,537	-7063	-0,185	Hau	45193,36	-823	-0,011	Hau
39681,497	-3367	-0,017	Hau	45494,52	-684	-0,007	Hau
40472,348	-3002	0,021	Hau	45583,36	-643	0,001	Hau
44090,578	-1332	0,011	Loc (2)	46976,5	0	0,010	Hau



V 779 Aql = USNO 0825-17704166 (16,2) = AN 481.1936
The elements published by Ahnert (1) are wrong, the new elements are

Max = JD 2449215,463(±0,011) + 0,6267196(±0,000001) x E

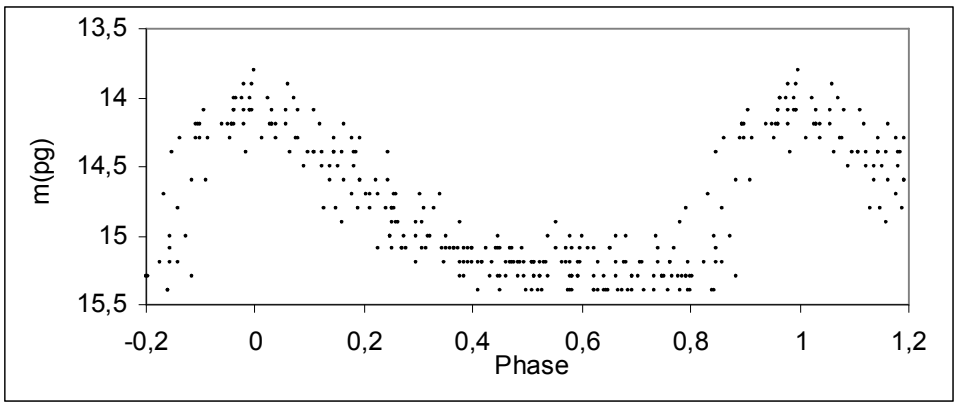
Because of the instable period I estimated the accuracy only between JD 2440000 and 2450000



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
27577,521	-34526	0,179	Ahn	41927,353	-11629	0,012	Hau
27656,411	-34400	0,102	Ahn	43482,211	-9148	-0,021	Hau
27688,36	-34349	0,089	Ahn	44484,384	-7549	0,027	Hau
28017,432	-33824	0,133	Ahn	45194,408	-6416	-0,022	Hau
28034,375	-33797	0,154	Ahn	45201,364	-6405	0,040	Hau
28425,34	-33173	0,046	Ahn	45228,316	-6362	0,043	Hau
29110,43	-32080	0,132	Ahn	45231,35	-6357	-0,057	Hau
29923,262	-30783	0,108	Ahn	45609,278	-5754	-0,040	Hau
30933,47	-29171	0,044	Ahn	45911,436	-5272	0,039	Hau
40444,526	-13995	0,004	Hau	46019,245	-5100	0,052	Hau
40471,474	-13952	0,003	Hau	46270,488	-4699	-0,020	Hau
40473,342	-13949	-0,009	Hau	46287,417	-4672	-0,012	Hau
40780,428	-13459	-0,016	Hau	46626,503	-4131	0,019	Hau
40827,437	-13384	-0,011	Hau	46982,47	-3563	0,009	Hau
41512,425	-12291	-0,027	Hau	47805,372	-2250	0,028	Hau
41539,38	-12248	-0,021	Hau	49215,437	0	-0,026	Hau
41549,444	-12232	0,015	Hau	49530,663	503	-0,040	Lay
41561,358	-12213	0,021	Hau				

V 782 Aql = USNO 0900-17740383 (15,1) = AN 822.1933
Ahnert (1) published a period of 0.385 days. That value is wrong. The new elements are

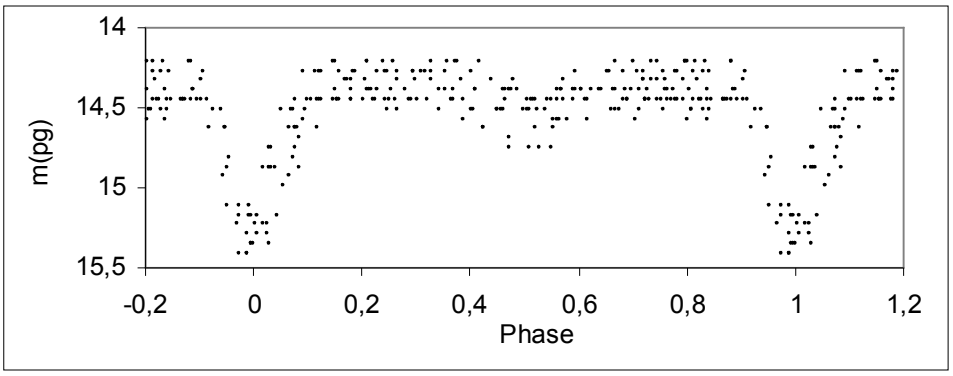
Max = JD 2448832,487(±0,010) + 0,6434389(±0,0000007) x E



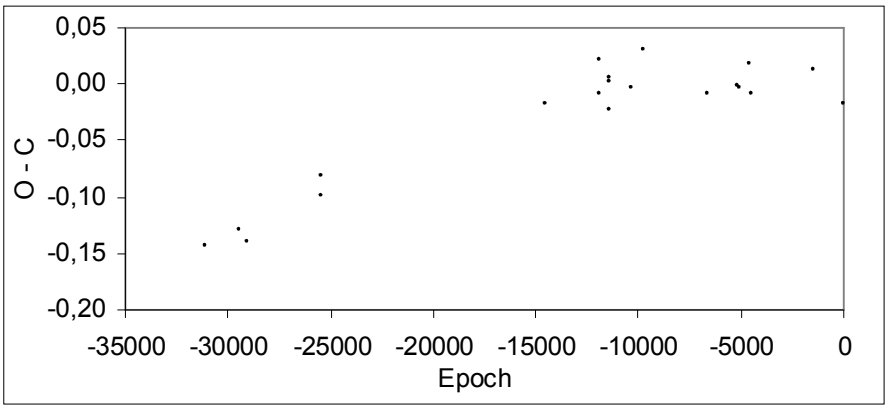
Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
29110,461	-30651	0,020	Hau	41901,381	-10772	0,018	Hau
29159,338	-30575	-0,005	Hau	42987,463	-9084	-0,025	Hau
30931,411	-27821	0,038	Hau	44128,32	-7311	0,015	Hau
30936,455	-27813	-0,066	Ahn	44157,298	-7266	0,038	Hau
38613,415	-15882	0,025	Hau	45165,474	-5699	-0,055	Hau
39681,497	-14222	-0,002	Hau	45196,388	-5651	-0,026	Hau
39708,51	-14180	-0,013	Hau	45203,485	-5640	-0,007	Hau
39712,408	-14174	0,024	Hau	45635,259	-4969	0,020	Hau
40470,35	-12996	-0,005	Hau	45916,468	-4532	0,046	Hau
40477,4	-12985	-0,033	Hau	46264,507	-3991	-0,015	Hau
40775,416	-12522	0,071	Hau	47822,284	-1570	-0,004	Hau
40780,47	-12514	-0,023	Hau	47862,218	-1508	0,037	Hau
40798,483	-12486	-0,026	Hau	48103,447	-1133	-0,024	Hau
41217,375	-11835	-0,013	Hau	48832,475	0	-0,012	Hau

V 787 Aql = USNO 0900-17793789 (14,3) = AN 824.1933
An EB star with a period change close to epoch -11000. The lightcurve was composed from all observations

From JD 2429110 to 2438600 : Min = JD 2438613,419 + 0,7023346 x E
Since JD 2438600 : Min = JD 2448803,492 + 0,7023268 x E (O – C calculated)



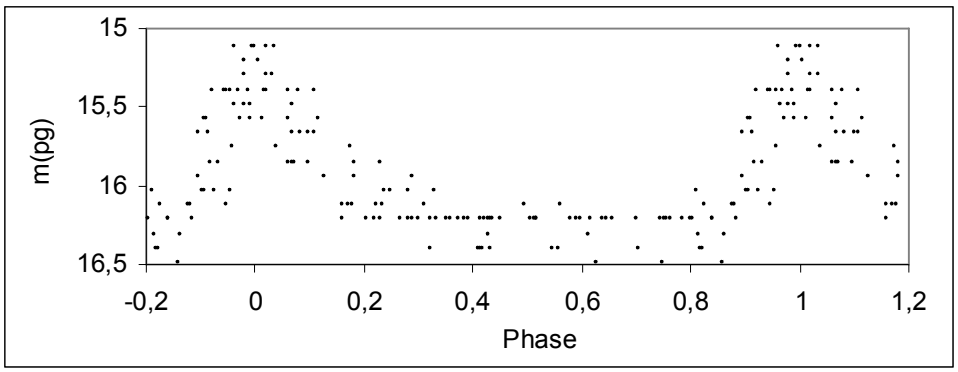
Minimum	Epoch	O - C	Obs	Minimum	Epoch	O - C	Obs
26931,488	-31142	-0,143	Ahn	40824,363	-11361	0,006	Hau
28121,244	-29448	-0,128	Ahn	41548,453	-10330	-0,003	Hau
28425,34	-29015	-0,140	Ahn	41952,324	-9755	0,030	Hau
30933,408	-25444	-0,081	Hau	44132,308	-6651	-0,008	Hau
30935,497	-25441	-0,099	Hau	45203,363	-5126	-0,002	Hau
38613,415	-14509	-0,017	Hau	45229,347	-5089	-0,004	Hau
40470,406	-11865	0,021	Hau	45583,341	-4585	0,017	Hau
40477,4	-11855	-0,008	Hau	45635,288	-4511	-0,008	Hau
40774,47	-11432	-0,022	Hau	47770,382	-1471	0,013	Hau
40781,518	-11422	0,003	Hau	48803,474	0	-0,018	Hau



V 831 Aql = USNO 0825-17114680 (16,4) = S 4445

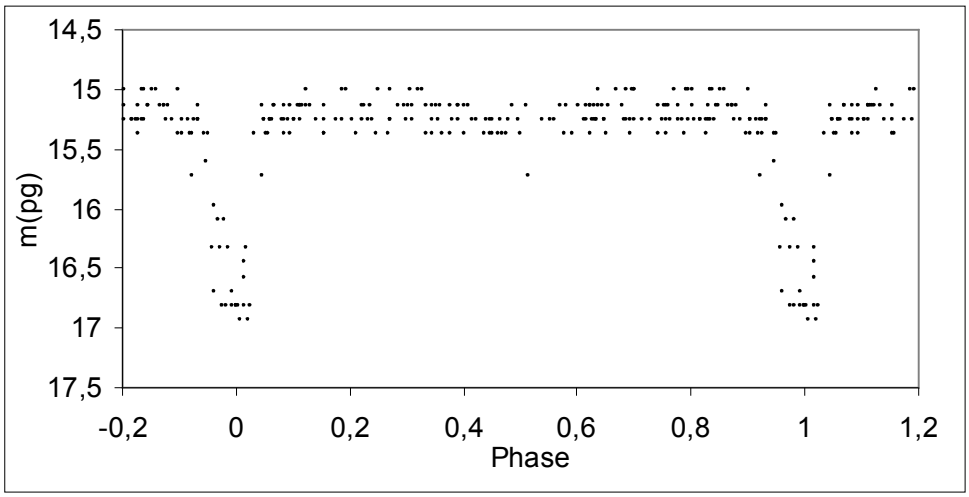
Max = JD 2448894,278(±0,009) + 0,5717189(±0,0000007) x E

Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30931,453	-31419	0,011	Hau	45204,392	-6454	-0,012	Hau
31673,537	-30121	0,004	Hau	45231,321	-6407	0,046	Hau
39708,51	-16067	0,040	Hau	45527,46	-5889	0,035	Hau
40473,4	-14729	-0,030	Hau	45902,473	-5233	0,000	Hau
40477,4	-14722	-0,032	Hau	46730,332	-3785	0,010	Hau
42712,264	-10813	-0,018	Hau	46982,47	-3344	0,020	Hau
43012,429	-10288	-0,005	Hau	47822,284	-1875	-0,021	Hau
44459,433	-7757	-0,021	Hau	48098,443	-1392	-0,002	Hau
44841,351	-7089	-0,012	Hau	48177,298	-1254	-0,044	Hau
45196,388	-6468	-0,012	Hau	48894,34	0	0,062	Hau
45200,377	-6461	-0,025	Hau				



V 897 Aql = USNO 0825-17392221 (17,6) = S 4453
The elements published by Huth (6) do not describe my observations. The period has changed close to epoch -1500. The lightcurve is composed from all observations, but mind, that the star is on the limit of the plates and the primary minimum may be deeper.

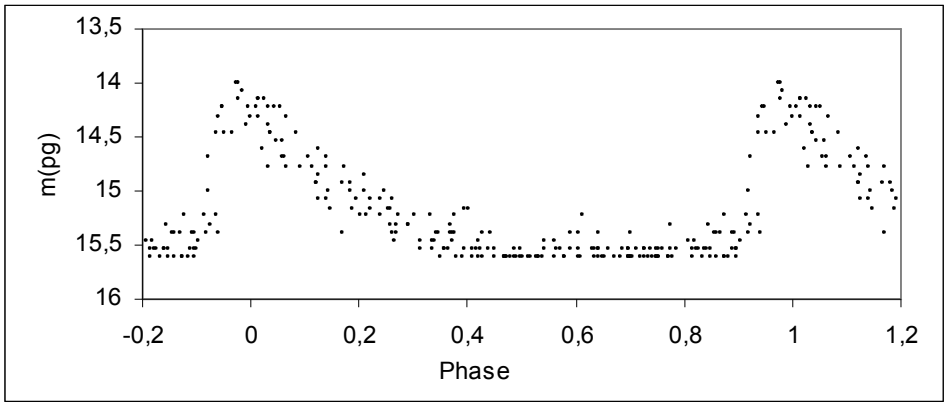
From JD 2429000 to 2432000 : Min = JD 2430903,535 + 3,0944966 x E
Since JD 2438000 : Min = JD 2446982,494 + 3,094406 x E (O – C calculated)



Minimum	Epoch	O - C	Obs	Minimum	Epoch	O - C	Obs
30903,468	-5196	-0,492	Hut	43012,429	-1283	0,058	Hau
30931,411	-5187	-0,399	Hut	44157,298	-913	-0,003	Hau
30937,536	-5185	-0,463	Hut	45902,473	-349	-0,073	Hau
41539,434	-1759	0,000	Hau	46289,42	-224	0,073	Hau
41901,4	-1642	-0,079	Hau	46982,47	0	-0,024	Hau
42712,264	-1380	0,050	Hau				

V 900 Aql = USNO 0825-17590108 (15,6) = S 4458
The period published by Huth (6) is wrong, V 900 Aql is not a longperiodic RR Lyrae star.

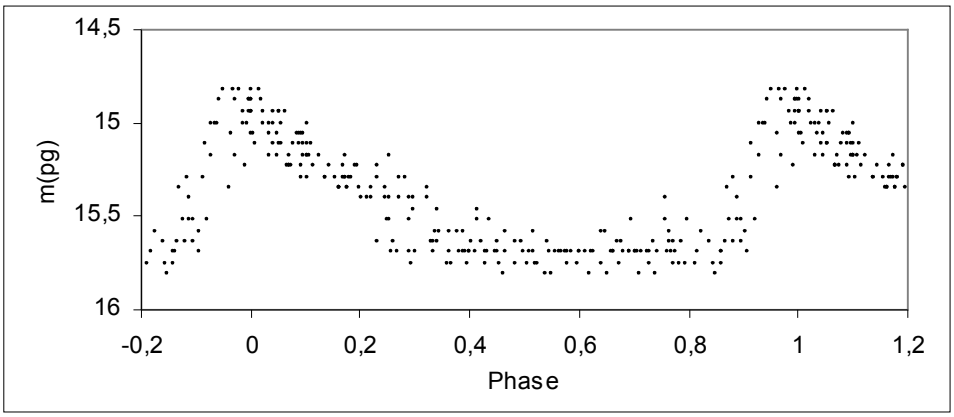
Max = JD 2446650,456(±0,006) + 0,4716434(±0,0000003) x E



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30930,459	-33343	0,007	Hau	43482,211	-6720	-0,011	Hau
30931,411	-33341	0,016	Hau	45163,465	-3154	0,005	Hau
30937,536	-33328	0,012	Hau	45231,35	-3010	-0,001	Hau
31673,453	-31767	-0,025	Hau	45907,422	-1576	-0,008	Hau
38613,415	-17047	-0,004	Hau	46001,258	-1377	0,007	Hau
40473,342	-13102	-0,001	Hau	46018,245	-1341	0,021	Hau
40827,437	-12351	0,025	Hau	46270,488	-806	0,032	Hau
41901,381	-10073	-0,024	Hau	46287,417	-770	-0,012	Hau
41918,349	-10037	-0,029	Hau	46650,446	0	-0,010	Hau

V 1039 Aql = USNO 0900-16737258 (15,7) = S 8250

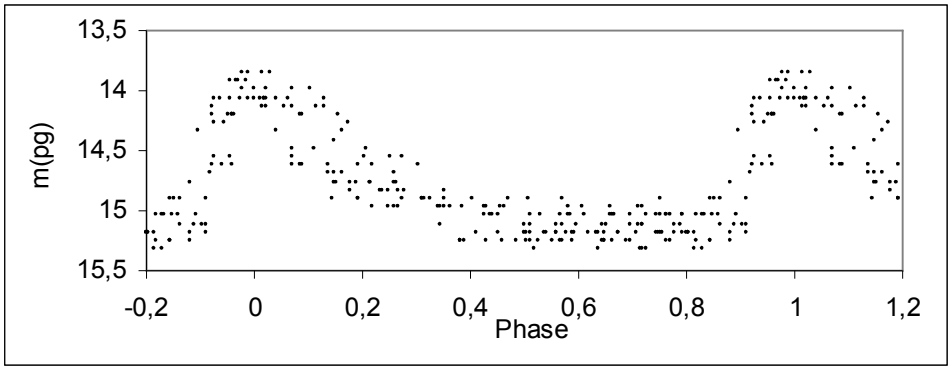
Max =JD 2448888,390(±0,008) + 0,6257232(±0,0000006) x E



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
29159,338	-31530	0,000	Hau	45494,494	-5424	0,027	Hau
31673,495	-27512	0,002	Hau	45556,383	-5325	-0,031	Hau
39681,497	-14714	-0,002	Hau	45561,406	-5317	-0,014	Hau
40477,4	-13442	-0,019	Hau	46327,317	-4093	0,012	Hau
40781,518	-12956	-0,002	Hau	46641,427	-3591	0,009	Hau
44132,308	-7601	0,040	Hau	46982,47	-3046	0,033	Hau
44157,298	-7561	0,001	Hau	48097,476	-1264	0,000	Hau
45200,377	-5894	0,000	Hau	48888,354	0	-0,036	Hau
45203,485	-5889	-0,021	Hau				

V 1069 Aql = USNO 0900-17200254 (14,5) = S 8256

Max = JD 2448888,354(±0,007) + 0,4559752(±0,0000003) x E

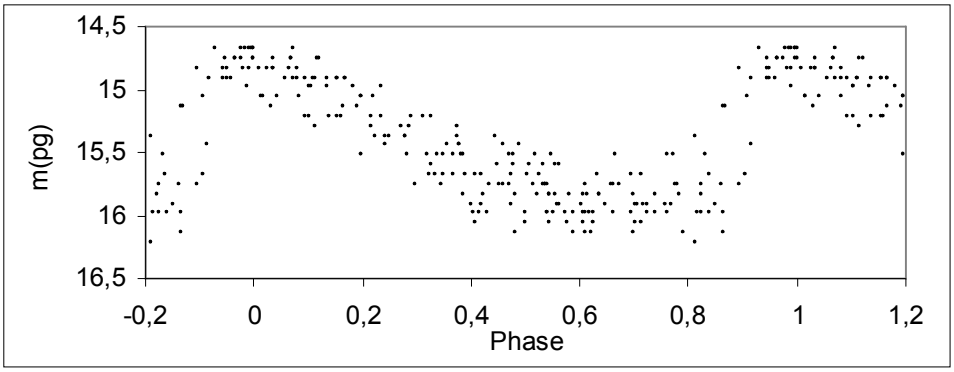


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
29110,461	-43375	0,031	Hau	44129,32	-10437	-0,021	Hau
30932,501	-39379	-0,006	Hau	44459,447	-9713	-0,020	Hau
30933,408	-39377	-0,011	Hau	45200,411	-8088	-0,016	Hau
30937,536	-39368	0,014	Hau	45494,523	-7443	-0,008	Hau
31673,453	-37754	-0,013	Hau	45583,451	-7248	0,005	Hau
40471,474	-18459	-0,034	Hau	46298,421	-5680	0,006	Hau
40472,41	-18457	-0,010	Hau	46299,374	-5678	0,047	Hau

40473,342	-18455	0,010	Hau	46650,446	-4908	0,018	Hau
41240,29	-16773	0,008	Hau	47822,284	-2338	0,000	Hau
41548,509	-16097	-0,012	Hau	48888,354	0	0,000	Hau
42301,344	-14446	0,008	Hau				

V 1099 Aql = USNO 0825-17885203 (15,3) = S 8268

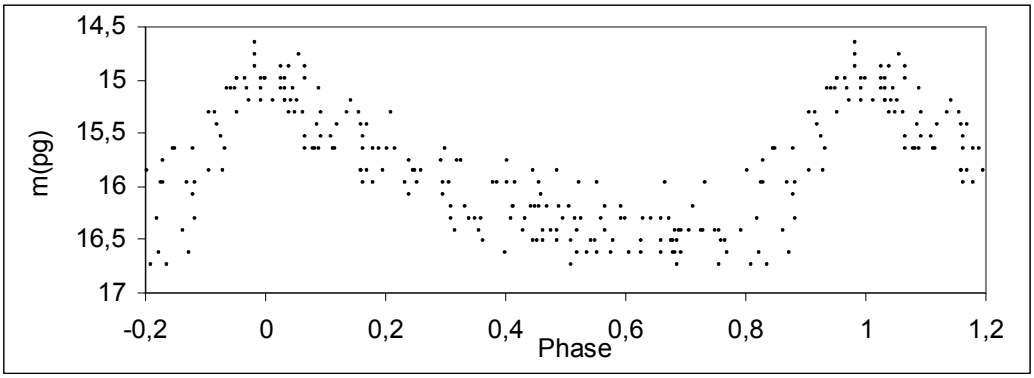
Max = JD 2449194,437(±0,008) + 0,5054098(±0,0000004) x E



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
29110,461	-39738	-0,001	Hau	41539,483	-15146	-0,017	Hau
30931,453	-36135	-0,001	Hau	43477,214	-11312	-0,027	Hau
30932,501	-36133	0,036	Hau	45583,318	-7145	0,034	Hau
30933,493	-36131	0,017	Hau	46001,258	-6318	0,000	Hau
30935,497	-36127	0,000	Hau	46260,528	-5805	-0,005	Hau
30936,497	-36125	-0,011	Hau	46298,421	-5730	-0,018	Hau
39712,408	-18761	-0,036	Hau	47411,349	-3528	-0,002	Hau
40828,376	-16553	-0,013	Hau	47822,284	-2715	0,035	Hau
41240,29	-15738	-0,008	Hau	49194,455	0	0,018	Hau

V 1100 Aql = USNO 0825-17914078 (16,1) = S 8270

Max = JD 2448894,340(±0,008) + 0,540122(±0,0000005) x E

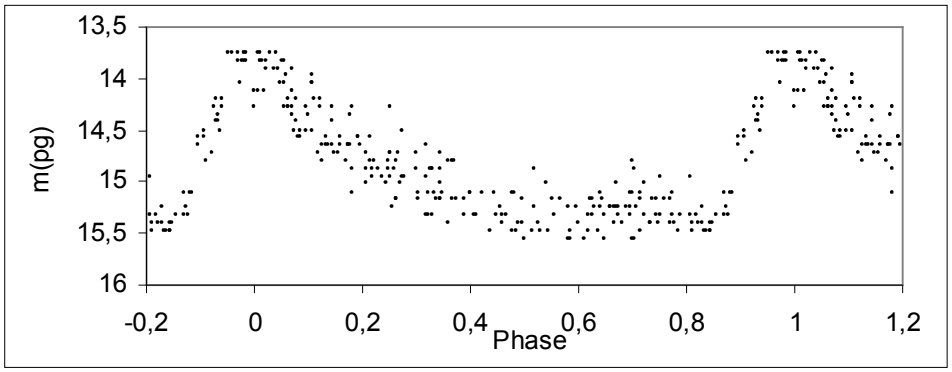


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30931,453	-33257	-0,050	Hau	45530,456	-6228	-0,004	Hau
30936,413	-33248	0,049	Hau	45556,383	-6180	-0,003	Hau
31671,452	-31887	-0,018	Hau	45583,384	-6130	-0,008	Hau
39681,497	-17057	0,018	Hau	45635,259	-6034	0,015	Hau

39708,51	-17007	0,025	Hau	46019,245	-5323	-0,026	Hau
40824,378	-14941	0,001	Hau	46264,507	-4869	0,021	Hau
40837,355	-14917	0,015	Hau	46296,371	-4810	0,018	Hau
41539,483	-13617	-0,016	Hau	47030,415	-3451	0,036	Hau
41987,251	-12788	-0,009	Hau	48801,47	-172	0,031	Hau
45193,399	-6852	-0,025	Hau	48888,354	-11	-0,045	Hau
45200,437	-6839	-0,009	Hau	48894,34	0	0,000	Hau
45207,44	-6826	-0,027	Hau				

V 1102 Aql = USNO 0825-17960410 (15,2) = S 8271
Dambis A V (7) stated a period of 0.372634 days. This period does not describe my observations. The new elements are

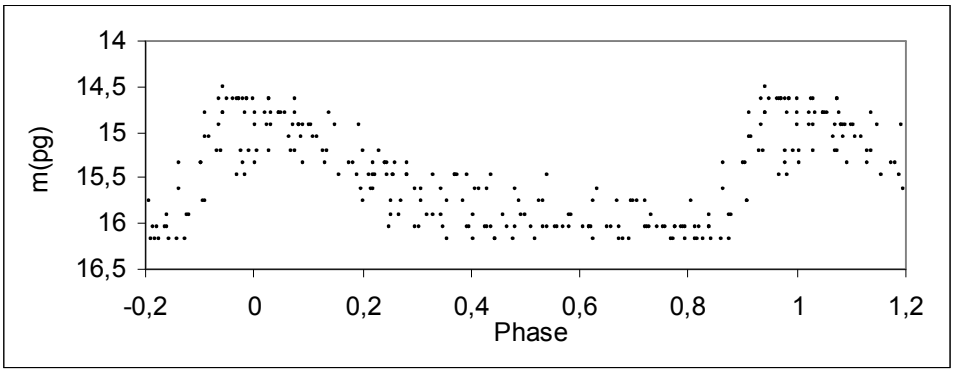
Max = JD 2448103,433(±0,006) + 0,5940388(±0,0000005) x E



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30232,383	-30084	0,013	Hau	46290,436	-3052	0,009	Hau
31673,495	-27658	-0,013	Hau	46296,371	-3042	0,004	Hau
40444,483	-12893	-0,008	Hau	46644,449	-2456	-0,025	Hau
40779,517	-12329	-0,012	Hau	46650,446	-2446	0,032	Hau
44129,305	-6690	-0,008	Hau	46982,47	-1887	-0,012	Hau
44132,308	-6685	0,024	Hau	47038,338	-1793	0,017	Hau
44414,47	-6210	0,018	Dam	47411,349	-1165	-0,029	Hau
45194,408	-4897	-0,017	Hau	48097,476	-10	-0,017	Hau
45228,316	-4840	0,031	Hau	48103,447	0	0,014	Hau

V 1158 Aql = USNO 0825-16974858 (15,6) = S 9994

Max = JD 2447770,333(±0,011) + 0,6618849(±0,000001) x E

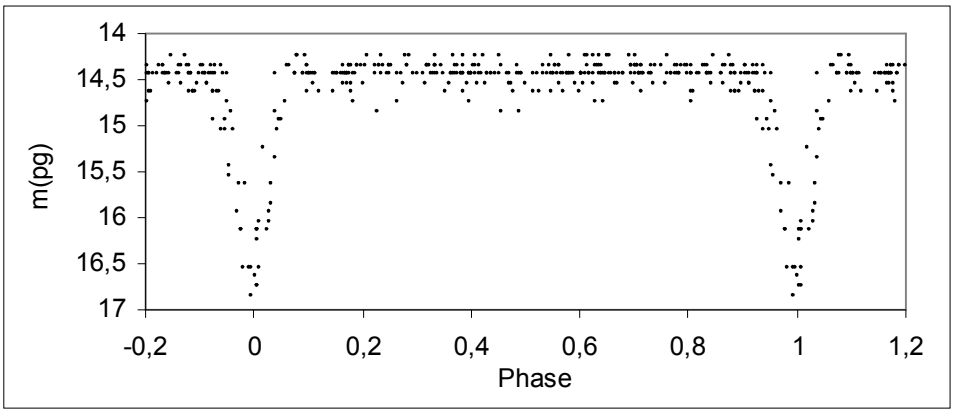


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30234,373	-26494	0,019	Hau	45556,383	-3345	0,055	Hau

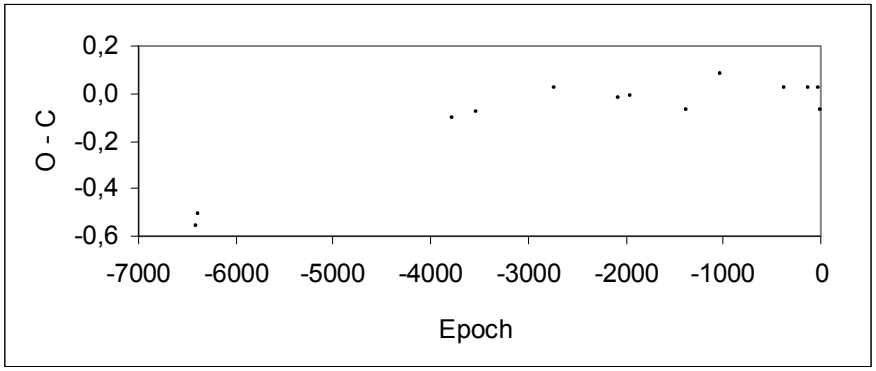
39681,497	-12221	0,059	Hau	45583,428	-3304	-0,037	Hau
40472,348	-11026	-0,042	Hau	45609,279	-3265	0,000	Hau
40476,337	-11020	-0,024	Hau	45902,473	-2822	-0,021	Hau
40828,442	-10488	-0,042	Hau	46264,507	-2275	-0,038	Hau
41901,381	-8867	-0,019	Hau	46270,488	-2266	-0,014	Hau
43432,329	-6554	-0,010	Hau	46296,371	-2227	0,056	Hau
43749,437	-6075	0,055	Hau	46644,449	-1701	-0,018	Hau
44129,305	-5501	0,001	Hau	46646,444	-1698	-0,008	Hau
44871,311	-4380	0,034	Hau	46650,446	-1692	0,022	Hau
45229,319	-3839	-0,038	Hau	47770,383	0	0,050	Hau
45530,481	-3384	-0,033	Hau				

V 1164 Aql = USNO B1 0882-0590834 = S 10006
The period changed close to epoch -3000. The lightcurve is composed from all measurements.

From 2426000 to 39000 : Min = JD 2439378,355 + 3,2142670 x E
Since 2439000 : Min = JD 2448175,339 + 3,2141117 x E (O – C calculated)

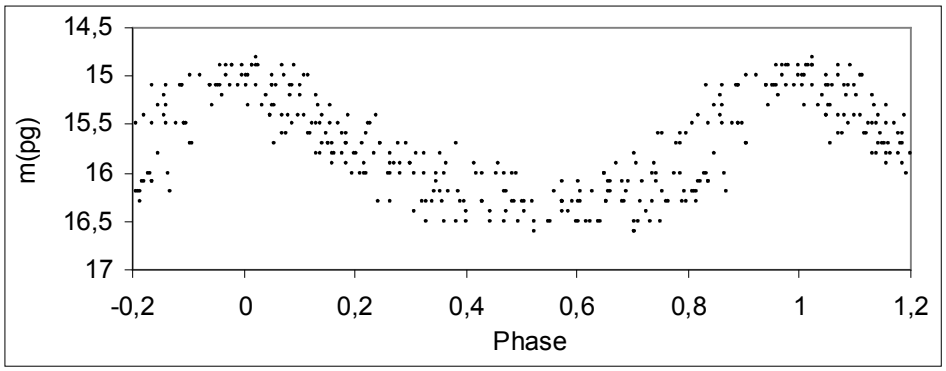


Minimum	Epoch	O - C	Obs	Minimum	Epoch	O - C	Obs
27604,47	-6400	-0,554	Hau	43749,436	-1377	-0,071	Hau
27633,443	-6391	-0,508	Hau	44871,311	-1028	0,079	Hau
36019,463	-3782	-0,106	Hau	46976,502	-373	0,027	Hau
36813,374	-3535	-0,080	Hau	47770,382	-126	0,021	Hau
39378,34	-2737	0,025	Hau	48101,438	-23	0,024	Hau
41512,467	-2073	-0,018	Hau	48175,268	0	-0,071	Hau
41901,381	-1952	-0,012	Hau				



V 1167 Aql = USNO 0900-17210155 (16,2) = S 10008

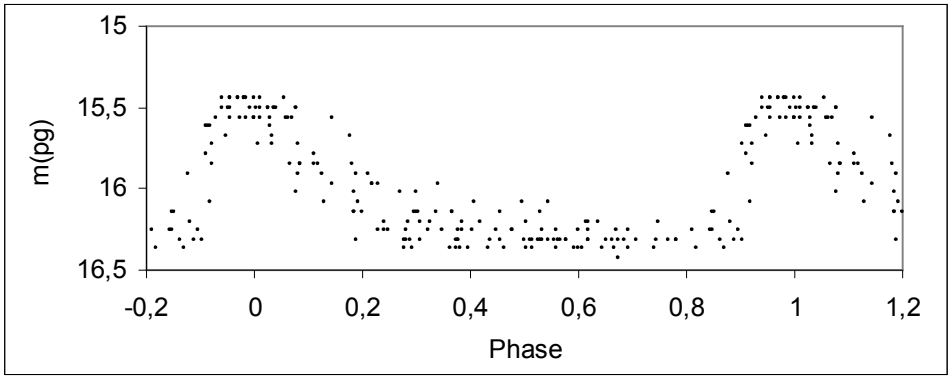
Max = JD 2448103,459(±0,009) + 0,4007874(±0,0000004) x E



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
27577,521	-51214	-0,012	Hau	43477,214	-11543	0,044	Hau
29462,436	-46511	0,000	Hau	44157,298	-9846	-0,008	Hau
33183,35	-37227	0,004	Hau	44484,369	-9030	0,020	Hau
31672,406	-40997	0,028	Hau	45201,364	-7241	0,007	Hau
40470,406	-19045	-0,057	Hau	45229,404	-7171	-0,009	Hau
40779,432	-18274	-0,038	Hau	45583,318	-6288	0,010	Hau
41240,345	-17124	-0,031	Hau	46704,319	-3491	0,009	Hau
41512,51	-16445	0,000	Hau	48101,438	-5	-0,017	Hau
43432,328	-11655	0,046	Hau	48103,447	0	-0,012	Hau

V 1172 Aql = USNO 0825-17556292 (16,8) = S 10013

Max = JD 2448832,508(±0,007) + 0,5463365(±0,0000007) x E

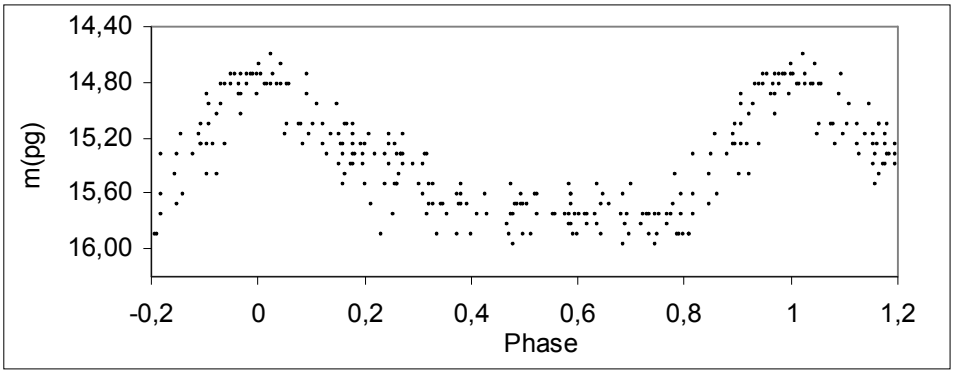


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30933,408	-32762	-0,024	Hau	45583,428	-5947	-0,017	Hau
40471,37	-15304	-0,004	Hau	45663,2	-5801	-0,010	Hau
40825,385	-14656	-0,015	Hau	45902,473	-5363	-0,032	Hau
41539,483	-13349	0,021	Hau	46261,463	-4706	0,015	Hau
41927,403	-12639	0,042	Hau	46650,446	-3994	0,006	Hau
43482,211	-9793	-0,024	Hau	46679,387	-3941	-0,009	Hau
43749,436	-9304	0,043	Hau	47038,354	-3284	0,015	Hau
45141,478	-6756	0,019	Hau	47805,372	-1880	-0,023	Hau

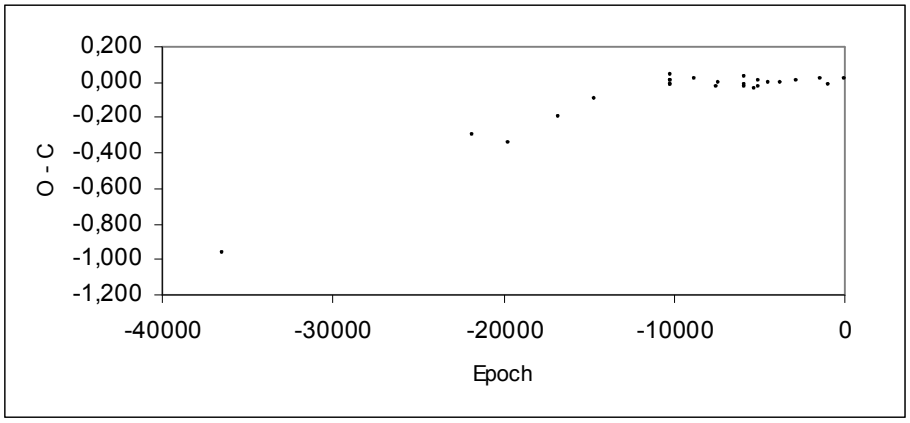
45193,361	-6661	0,000	Hau	48175,268	-1203	0,003	Hau
45228,316	-6597	-0,010	Hau	48832,475	0	-0,033	Hau
45530,481	-6044	0,031	Hau				

V 1173 Aql = USNO 0900-17550303 (16,3) = S 10014
The period changes close to epoch -12000.

From 2429000 to 2442000 : Max = JD 2430936,362 + 0,5030709 x E
Since 2442000 : Max = JD 2449270,306 + 0,5030319 x E (O –C calculated)

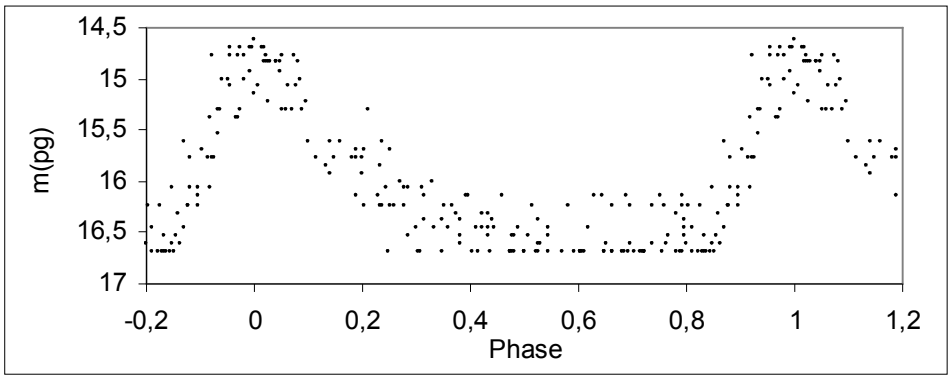


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30936,35	-36445	-0,958	Hau	46296,371	-5912	-0,010	Hau
38289,323	-21829	-0,300	Hau	46298,421	-5908	0,027	Hau
39376,337	-19668	-0,338	Hau	46299,374	-5906	-0,026	Hau
40837,28	-16764	-0,199	Hau	46641,427	-5226	-0,034	Hau
41918,405	-14615	-0,090	Hau	46704,319	-5101	-0,021	Hau
44127,321	-10224	0,013	Hau	46705,355	-5099	0,009	Hau
44128,32	-10222	0,006	Hau	47038,354	-4437	0,001	Hau
44129,305	-10220	-0,015	Hau	47379,404	-3759	-0,005	Hau
44131,379	-10216	0,047	Hau	47848,247	-2827	0,012	Hau
44132,321	-10214	-0,017	Hau	48534,385	-1463	0,015	Hau
44871,311	-8745	0,019	Hau	48801,47	-932	-0,010	Hau
45494,523	-7506	-0,026	Hau	49270,329	0	0,023	Hau
45556,415	-7383	-0,006	Hau				



V 1174 Aql = USNO 0825-17647407 (15,9) = S 10015

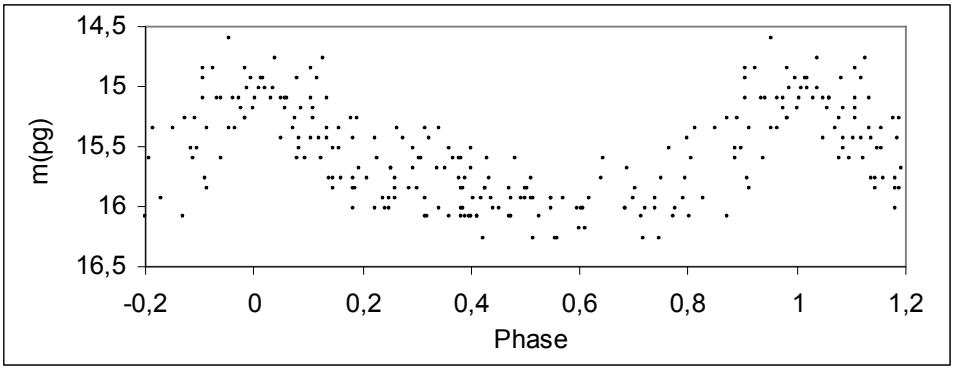
Max = JD 2449270,322(±0,007) + 0,4503039(±0,0000004) x E



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30232,383	-42278	0,009	Hau	45201,364	-9036	-0,012	Hau
30933,493	-40721	-0,004	Hau	45229,318	-8974	0,023	Hau
40471,37	-19540	-0,014	Hau	45494,523	-8385	-0,001	Hau
40824,44	-18756	0,018	Hau	46288,423	-6622	0,013	Hau
41548,509	-17148	-0,002	Hau	46641,427	-5838	-0,021	Hau
41549,444	-17146	0,033	Hau	46650,446	-5818	-0,008	Hau
43012,429	-13897	-0,020	Hau	48894,34	-835	0,022	Hau
44871,311	-9769	0,008	Hau	49270,329	0	0,007	Hau
45196,388	-9047	-0,035	Hau				

V 1175 Aql = USNO 0900-17674656 (15,7) = S 10018
The star has a bright neighbor and is biased by his light.

Max = JD 2429110,445(±0,031) + 0,4299329(±0,0000009) x E

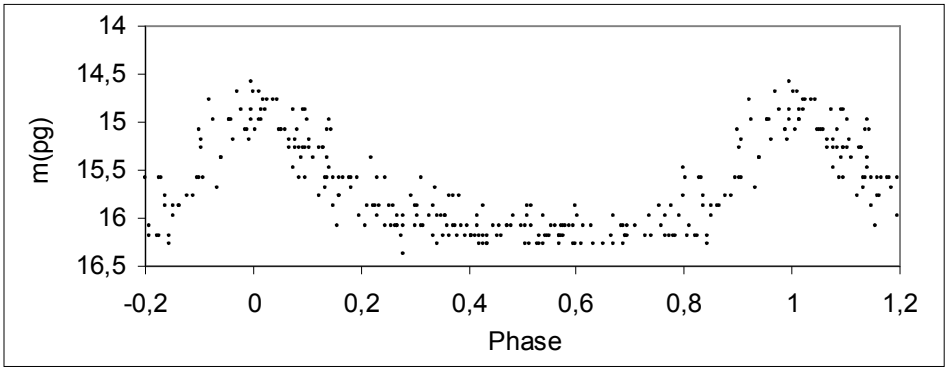


Maximum	Epoch	O -C	Obs	Maximum	Epoch	O -C	Obs
29110,461	0	0,016	Hau	44484,369	35759	-0,047	Hau
40443,454	26360	-0,022	Hau	46272,491	39918	-0,016	Hau
40471,474	26425	0,052	Hau	46288,423	39955	0,009	Hau
41548,368	28930	-0,036	Hau	47770,382	43402	-0,011	Hau
44129,32	34933	0,029	Hau	48179,295	44353	0,036	Hau
44459,433	35701	-0,046	Hau	49215,437	46763	0,040	Hau

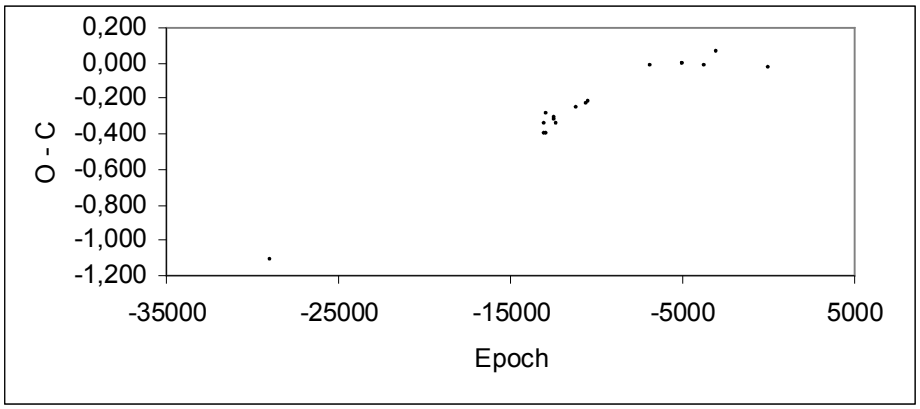
V 1176 Aql = USNO B1 0930-0667810 (15,68) = S 10020

There is a jump in the period value close to epoch -6800. The ligtcurve is composed by all measurements. Magnitudes refer to the B-values of the USNO B1 catalogue.

From JD 2429000 to 2444000: Max = JD 2441929,369 + 0,5948059 x E
Since JD 2444000 : Max = JD 2448179,322 + 0,5947584 x E (O – C calculated)

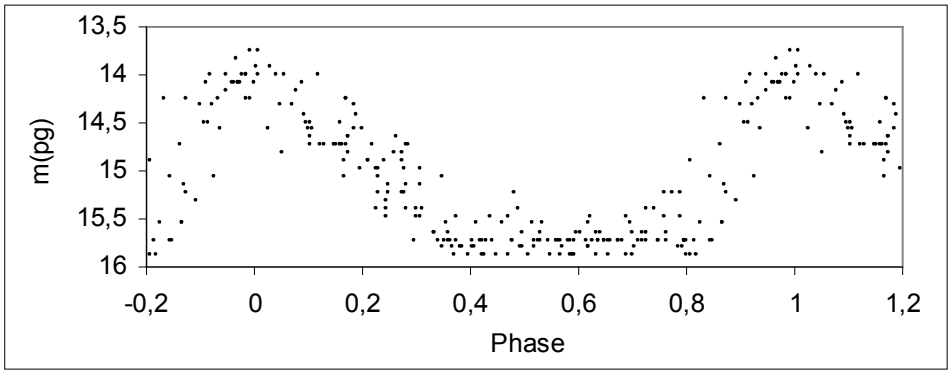


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O -C	Obs
30931,411	-28998	-1,107	Hau	41901,421	-10555	-0,226	Hau
40443,499	-13006	-0,395	Hau	41929,378	-10508	-0,223	Hau
40467,342	-12966	-0,343	Hau	44131,379	-6806	-0,017	Hau
40473,342	-12956	-0,290	Hau	45201,364	-5007	-0,003	Hau
40477,4	-12949	-0,395	Hau	45229,318	-4960	-0,002	Hau
40775,459	-12448	-0,310	Hau	45957,292	-3736	-0,013	Hau
40778,421	-12443	-0,322	Hau	46374,291	-3035	0,061	Hau
40825,385	-12364	-0,344	Hau	48179,295	0	-0,027	Hau
41512,425	-11209	-0,250	Hau				



V 1178 Aql = USNO 0825-18048618 (14,2) = S 10026
The period is variable.

From JD 2429000 to 2438000 : Max = JD 2430931,457 + 0,6074134 x E
Since JD 2438000 : Max = JD 2449270,342 + 0,6074741 x E (O – C calculated)

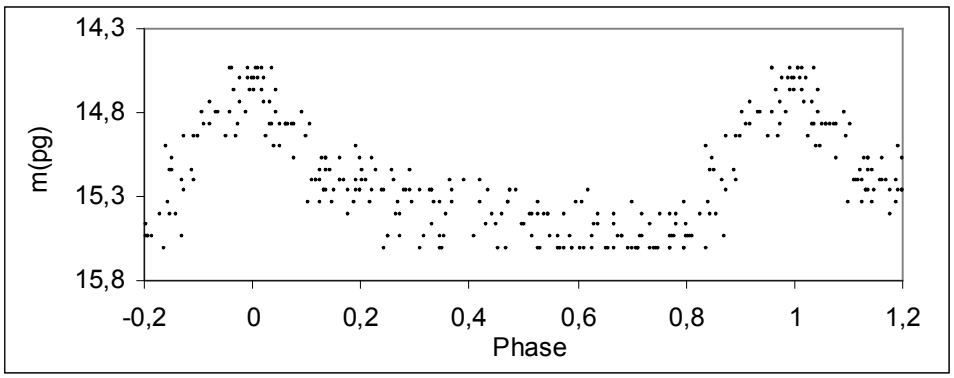


Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30931,453	-30189	0,147	Hau	45916,468	-5521	-0,009	Hau
30937,536	-30179	0,155	Hau	46264,507	-4948	-0,053	Hau
38613,415	-17543	-0,009	Hau	46272,491	-4935	0,034	Hau
40470,491	-14486	0,019	Hau	46976,502	-3776	-0,018	Hau
40472,348	-14483	0,053	Hau	47088,285	-3592	-0,010	Hau
40837,355	-13882	-0,032	Hau	47848,247	-2341	0,002	Hau
42301,403	-11472	0,004	Hau	47862,218	-2318	0,001	Hau
42685,306	-10840	-0,017	Hau	48179,295	-1796	-0,024	Hau
44132,308	-8458	-0,018	Hau	48894,34	-619	0,024	Hau
45229,404	-6652	-0,020	Hau	49194,455	-125	0,047	Hau
45635,288	-5984	0,071	Hau	49270,329	0	-0,013	Hau
45902,473	-5544	-0,033	Hau				

V 1179 Aql =USNO 0825-18083696 (15,6) = S 10029

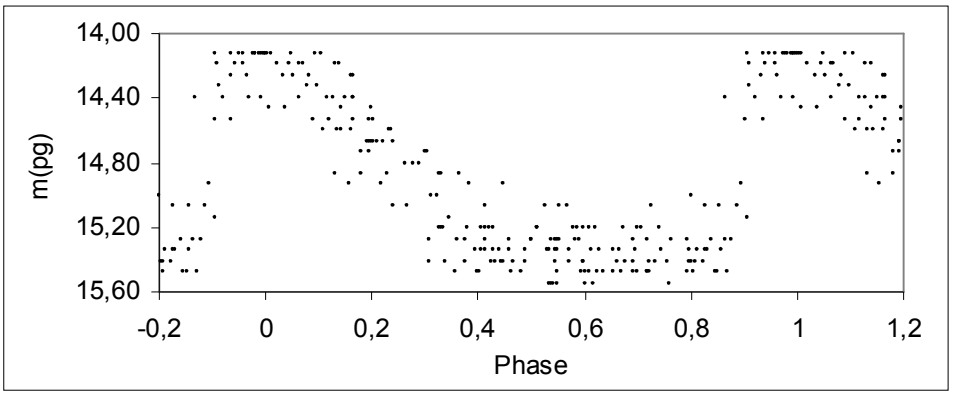
Max = JD 2448894,302(±0,008) + 0,5682566(±0,0000006) x E

Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
29110,461	-34815	0,013	Hau	45203,453	-6495	-0,022	Hau
30933,408	-31607	-0,008	Hau	45207,44	-6488	-0,013	Hau
41548,453	-12927	0,004	Hau	45231,321	-6446	0,001	Hau
41918,349	-12276	-0,035	Hau	45556,383	-5874	0,020	Hau
42712,264	-10879	0,026	Hau	45663,2	-5686	0,005	Hau
44128,32	-8387	-0,014	Hau	46705,355	-3852	-0,023	Hau
44132,308	-8380	-0,004	Hau	47038,354	-3266	-0,022	Hau
45194,408	-6511	0,025	Hau	48894,34	0	0,038	Hau



NSV 12468 = USNO 0825-17128043 (15,0) = S 10002

Max = JD 2448894,346(±0,011) + 0,5252108(±0,0000001) x E

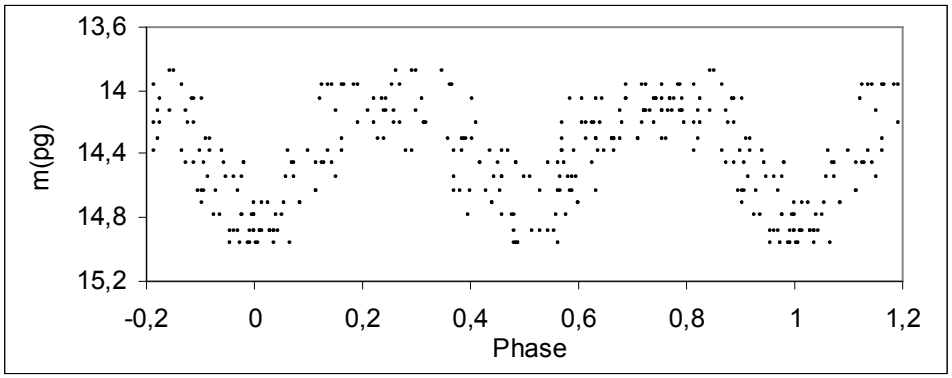


Maximum	Epoch	O -C	Obs	Maximum	Epoch	O -C	Obs
38289,323	-20192	0,033	Hau	45583,384	-6304	-0,033	Hau
39709,496	-17488	0,036	Hau	45663,2	-6152	-0,049	Hau
40469,405	-16041	-0,035	Hau	45905,415	-5691	0,044	Hau
40477,341	-16026	0,023	Hau	46261,463	-5013	-0,001	Hau
41561,358	-13962	0,005	Hau	46271,469	-4994	0,026	Hau
41927,403	-13265	-0,022	Hau	46272,491	-4992	-0,003	Hau
41987,251	-13151	-0,048	Hau	46626,503	-4318	0,017	Hau
42301,344	-12553	-0,031	Hau	46646,444	-4280	0,000	Hau
42685,306	-11822	0,002	Hau	47770,382	-2140	-0,013	Hau
44132,308	-9067	0,048	Hau	48103,447	-1506	0,068	Hau
44459,462	-8444	-0,004	Hau	48803,474	-173	-0,011	Hau
45228,348	-6980	-0,027	Hau	48894,34	0	-0,006	Hau
45229,404	-6978	-0,021	Hau				

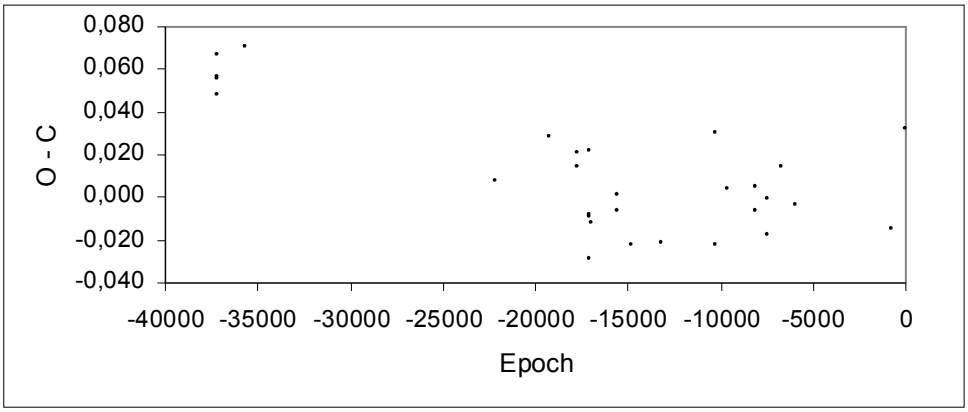
NSV 12769 = USNO 0825-17648072 (14,5) = S 10016

The period has changed close to epoch -15000.

From JD 2429000 to 2432000 : Min = JD 2430930,463 + 0,4917387 x E
Since JD 2438000 : Min = JD 2449194,423 + 0,4917416 x E (O – C calculated)

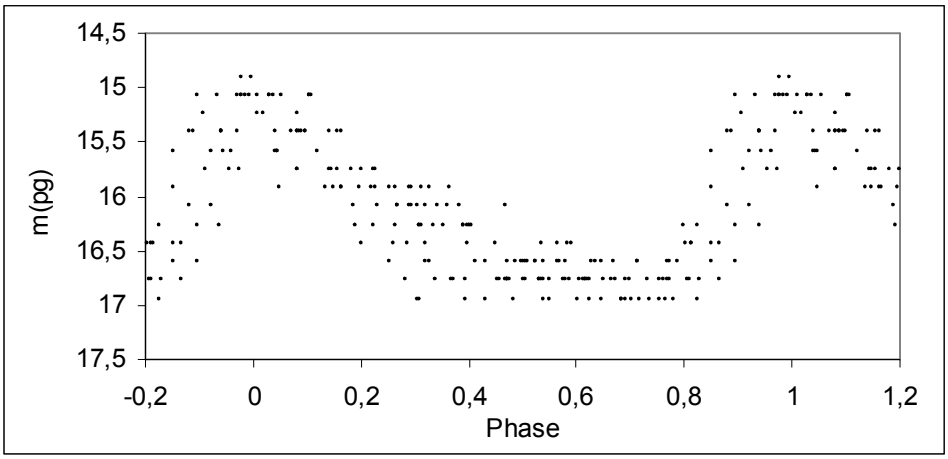


Minimum	Epoch	O - C	Obs	Minimum	Epoch	O - C	Obs
30930,459	-37141,5	0,057	Hau	41561,358	-15522,5	-0,006	Hau
30931,453	-37139,5	0,067	Hau	41901,381	-14831	-0,022	Hau
30932,417	-37137,5	0,048	Hau	42712,264	-13182	-0,021	Hau
30933,408	-37135,5	0,055	Hau	44156,262	-10245,5	-0,022	Hau
31673,495	-35630,5	0,071	Hau	44157,298	-10243,5	0,030	Hau
38289,323	-22176,5	0,008	Hau	44459,447	-9629	0,004	Hau
39708,51	-19290,5	0,028	Hau	45193,361	-8136,5	-0,006	Hau
40473,4	-17735	0,014	Hau	45203,453	-8116	0,005	Hau
40477,341	-17727	0,021	Hau	45527,488	-7457	-0,018	Hau
40778,502	-17114,5	-0,009	Hau	45530,456	-7451	0,000	Hau
40779,517	-17112,5	0,022	Hau	45902,473	-6694,5	0,014	Hau
40780,47	-17110,5	-0,008	Hau	46272,491	-5942	-0,003	Hau
40781,433	-17108,5	-0,029	Hau	48803,474	-795	-0,014	Hau
40828,411	-17013	-0,012	Hau	49194,455	0	0,032	Hau
41539,483	-15567	0,001	Hau				



NSV 12826 = USNO 0900-17807953 (16,1) = S 10021

Max = JD 2449215,439(±0,013) + 0,6051914(±0,000001) x E



Maximum	Epoch	O - C	Obs	Maximum	Epoch	O - C	Obs
30232,383	-31367	-0,017	Hau	45907,422	-5466	-0,041	Hau
30931,411	-30212	0,015	Hau	46001,258	-5311	-0,009	Hau
30937,451	-30202	0,003	Hau	46018,245	-5283	0,032	Hau

40827,437	-13860	-0,049	Hau	46683,371	-4184	0,053	Hau
41549,496	-12667	0,016	Hau	47411,349	-2981	-0,014	Hau
44157,312	-8358	0,063	Hau	47822,284	-2302	-0,004	Hau
44871,311	-7178	-0,064	Hau	47862,218	-2236	-0,013	Hau
45527,46	-6094	0,057	Hau	48801,47	-684	-0,018	Hau
45530,481	-6089	0,052	Hau	49215,437	0	-0,002	Hau
45556,383	-6046	-0,069	Hau				

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