

19 Stars from NSV Catalog: Eclipsing, Pulsating and Cataclysmic Variables

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#	Name	Other	Coord (J2000)	Type	Max	Min	System	Period	Epoch (JD)	type	Sp	Comment	L.Curve	Find.Chart	Data
1	NSV 09705	HV 6998	17 49 08.20, -37 11 13.7	EW	13.4	13.95	V	0.379142	2454507.884	min		Comm. 1	9705lc.jpg	9705ch.jpg	ASAS 174908-3711.2
2	NSV 09744	HV 7806	17 51 43.76, -57 45 17.3	RRC	13.8	14.4	V	0.239022	2454753.5575	max		Comm. 2	9744lc.jpg	9744ch.jpg	ASAS 175144-5745.3
3	NSV 09753	BV 1124	17 53 36.78, -71 11 11.8	RRAB	14.05	14.68	CV	0.461903	2454302.915	max		Comm. 3	9753lc.jpg	9753ch.jpg	9753.txt ASAS 170518-2334.5
4	NSV 09836	HV 7833	17 55 59.40, -56 42 22.6	RRC:	13.4	13.7	V	0.321868	2454949.805	max		Comm. 4	9836lc.jpg	9836ch.jpg	ASAS 175559-5642.4
5	NSV 09854	HV 10310	17 55 53.42, -27 25 57.6	EA	12.8	13.3	V	8.3194	2454350.60	min		Comm. 5	9854lc.jpg	9854ch.jpg	ASAS 175553-2726.0
6	NSV 09856	HV 10309	17 56 00.20, -30 42 46.6	DSCT	12.15	12.45	V	0.1184880	2453581.7052	max		Comm. 6	9856lc.jpg	9856ch.jpg	ASAS 175600-3042.8
7	NSV 09858	HV 10312	17 56 05.67, -27 54 25.7	EB	12.7	13.2	V	0.624860	2454756.529	min		Comm. 7	9858lc.jpg	9858ch.jpg	ASAS 175606-2754.4
8	NSV 09864	HV 10314	17 56 25.26, -28 01 30.0	EA	12.00	12.50	V	3.68260	2454652.63	min		Comm. 8	9864lc.jpg	9864ch.jpg	ASAS 175625-2801.5
9	NSV 09873	HV 7840	17 57 53.92, -57 18 02.7	EW	15.00	15.65	CV	0.402897	2456175.895	min		Comm. 9	9873lc.jpg	9873ch.jpg	9873.txt
10	NSV 09889	HV 7842	17 58 58.73, -60 08 09.4	RRAB	15.60	16.10	CV	0.613005	2454977.119	max		Comm. 10	9889lc.jpg	9889ch.jpg	9889.TXT
11	NSV 09899	HV 7844	17 59 31.60, -59 03 15.3	EW	13.94	14.60	CV	0.314012	2455773.012	min		Comm. 11	9899lc.jpg	9899ch.jpg	9899.txt
12	NSV 09914	HV 7935	17 59 51.68, -59 19 59.6	UG:	16.6	19.5:	CV			other		Comm. 12	9914lc.jpg	9914ch.jpg	9914.txt
13	NSV 09918	HV 7846	17 59 54.59, -57 26 09.5	RRAB	14.53	15.00	CV	0.572678	2456065.139	max		Comm. 13	9918lc.jpg	9918ch.jpg	9918.txt
14	NSV 09931	HV 7938	17 59 55.99, -52 12 08.0	EA	12.70	13.70	V	0.676207	2454926.908	min		Comm. 14	9931lc.jpg	9931ch.jpg	ASAS 175956-5212.1
15	NSV 09933	BV 1313	18 00 55.79, -63 24 50.7	RRAB	14.40	15.40	CV	0.516071	2453918.046	max		Comm. 15	9933lc.jpg	9933ch.jpg	9933.txt
16	NSV 09945	HV 7849	18 01 10.21, -58 33 01.0	RRAB	15.50	16.60	CV	0.477629	2455773.024	max		Comm. 16	9945lc.jpg	9945ch.jpg	9945.txt
17	NSV 09976	HV 9170	18 04 11.25, -71 59 47.5	UG:	14.0	18.0:	CV			other		Comm. 17	9976lc.jpg	9976ch.jpg	9976.txt ASAS 180411-7159.8
18	NSV 09993	HV 7853	18 03 09.77, -58 18 06.7	RRAB	14.80	15.20	CV	0.749060	2455013.001	max		Comm. 18	9993lc.jpg	9993ch.jpg	9993.txt
19	NSV 10005	HV 7855	18 03 24.62, -57 04 16.2	RRAB	15.20	15.95	CV	0.591445	2455012.981	max		Comm. 19	10005lc.jpg	10005ch.jpg	10005.txt

Comments:

1. HV 6998 was discovered by Swope (1936) and found, upon our request, by the late Dr. M.Hazen in Harvard Observatory's logbooks. No finding chart was available for this variable before. MinII = 13^m.9 (V). J-K = 0.41.

2. $M-m = 0.42$ P. $J-K = 0.39$.
3. $M-m = 0.28$ P. $J-K = 0.25$. ASAS-3 data were used to improve our results.
4. HV 7833 was discovered by Shapley and Boyd (1937) and found, upon our request, by the late Dr. M.Hazen in Harvard Observatory's logbooks. No finding chart was available for this variable before. $M-m = 0.43$ P. $J-K = 0.31$.
5. MinII = $13^m.25$ (V), $D = 0.06$ P. Eccentric system: MinII–MinI = 0.56 P. $J-K = 0.31$.
6. $J-K = 0.24$.
7. MinII = $12^m.9$ (V). $J-K = 0.50$.
8. MinII = $12^m.25$ (V), $D = 0.06$ P. Eccentric system: MinII–MinI = 0.59 P. $J-K = 0.31$. [VSX](#) gives a close period value, 3.68267 d, and the same EA type for the star.
9. MinII = $15^m.63$: (CV). $J-K = 0.43$.
10. $M-m = 0.22$ P. $J-K = 0.38$.
11. MinII = $14^m.43$ (CV). $J-K = 0.69$.
12. $J = 16^m.55$, $H = 17^m.46$, $K = 16^m.92$.
13. $M-m = 0.17$ P. $J-K = 0.40$.
14. MinII = $12^m.80$ (V), $D = 0.15$ P. $J-K = 0.25$.
15. $M-m = 0.11$ P. $J-K = 0.36$.
16. $M-m = 0.22$ P. $J-K = 0.24$.
17. Blue star. $J = 16^m.73$, $H = 16^m.30$, $K = 15^m.79$. ASAS-3 data were used to improve our results.
18. $M-m = 0.22$ P. $J-K = 0.28$.
19. $M-m = 0.18$ P. $J-K = 0.33$.

Remarks:

We present improved coordinates, types and light elements for 19 poorly studied variables from the NSV catalog (Samus et al. 2007–2012). The study was carried out using the publicly available electronic archives of CCD observations of the ASAS-3 project (Pojmanski 2002), and to the US Naval Observatory Image and Catalog Archive. The new possibilities of applying the online publicly available photometry from [Catalina Sky Survey](#) (2013, data release 2) allowed us to investigate and classify stars of interest.

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