

COMMISSIONS 27 AND 42 OF THE IAU
 INFORMATION BULLETIN ON VARIABLE STARS

Number 5573

Konkoly Observatory
 Budapest

26 October 2004

HU ISSN 0374 – 0676

NEW DWARF NOVAE ON MOSCOW PLATES III

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Name of the object:	
Antipin V79 (Var 79 Peg) = 1RXS J215434.4+355023	

Equatorial coordinates:	Equinox:
R.A. = 21 ^h 54 ^m 33 ^s .66 DEC. = +35°50'17".4	2000

Observatory and telescope:
40-cm astrograph in Crimea

Detector:	Photoplate
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Filter(s):	None
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Comparison star(s):	α (J2000)	δ (J2000)	B_{pg}
	21 ^h 54 ^m 18 ^s .7	+35°48'04"	14 ^m 01
	21 ^h 54 ^m 35 ^s .6	+35°49'16"	14 ^m 53
	21 ^h 54 ^m 18 ^s .4	+35°51'07"	14 ^m 86
	21 ^h 54 ^m 21 ^s .1	+35°52'49"	15 ^m 29
	21 ^h 54 ^m 30 ^s .2	+35°51'46"	15 ^m 61
	21 ^h 54 ^m 34 ^s .2	+35°51'50"	15 ^m 90
	21 ^h 54 ^m 38 ^s .9	+35°51'22"	16 ^m 70
	21 ^h 54 ^m 37 ^s .4	+35°50'43"	17 ^m 0
	21 ^h 54 ^m 37 ^s .9	+35°49'32"	17 ^m 1
	21 ^h 54 ^m 32 ^s .5	+35°50'14"	17 ^m 6
	21 ^h 54 ^m 34 ^s .1	+35°50'35"	18 ^m 1

Transformed to a standard system:	B_{pg}
Standard stars (field) used:	Calibrated using the photoelectric B-band standard sequence near Cyg X-2 (Basko <i>et al.</i> , 1976) and the blue magnitudes of neighboring stars from the GSC 2.2 catalogue.

Date(s) of the observation(s):	
1974–1996	
Availability of the data:	
Upon request	
Type of variability:	UG
Remarks:	
<p>We investigated Var 79 Peg on 440 plates of Moscow collection taken for the interval JD 2442278–50279 (mostly in JD2442278–47828). The finding chart is given in Fig. 1. The light curve (Fig. 2) shows two important features. First, two kinds of outbursts were found: the short-lasting ones and the longer ones. The long-lasting outbursts with flat maxima, resembling superoutbursts of SU UMa-type dwarf novae, are clearly seen in Fig. 3b and 3d. The outbursts are relatively frequent. Second, the amplitude of variability strongly changed during the interval of observation: the brightness of Var 79 in minimum smoothly increased in 1980–1982. The photographic magnitudes changed within $14^m0 - <18^m1$ before 1980 and within $14^m35 - 17^m0$ after 1982. The only exception is the year 1987 when the star was fainter than 17^m1 on Moscow plates and appeared at $b=18^m26$, as measured in the GSC 2.2 catalog, on a POSS II blue plate (the asterisk in Fig. 2). Furthermore, we propose to identify the new variable with the X-ray source 1RXS J215434.4+355023. The source is relatively hard, the ROSAT hardness ratios are $HR1 = 1.00 \pm 0.13$ and $HR2 = 0.91 \pm 0.13$ (Voges et al., 2000). All foregoing characteristics make Var 79 Peg a very interesting and important object for investigation. Further observations are encouraged.</p>	

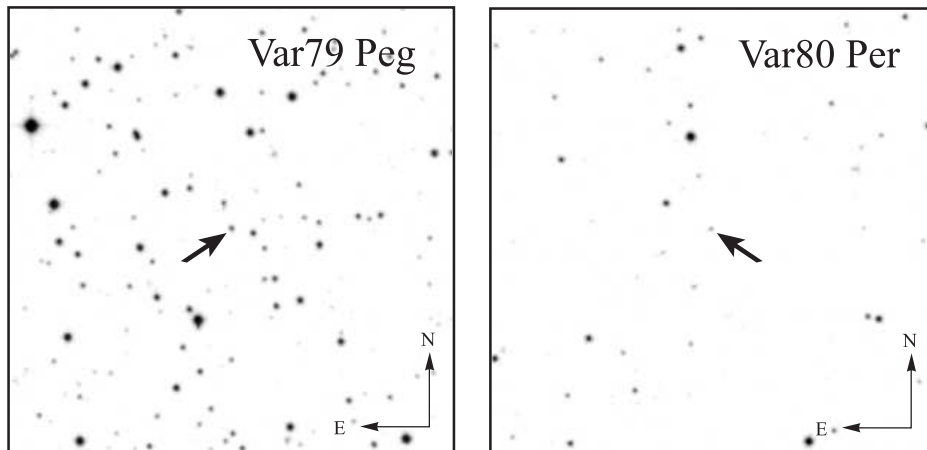


Figure 1. The finding charts, size 5' x 5'.

Name of the object:	
Antipin V80 (Var 80 Per)	
Equatorial coordinates:	Equinox:
R.A. = $2^h46^m02^s33$ DEC. = $+34^\circ55'08''.4$	2000

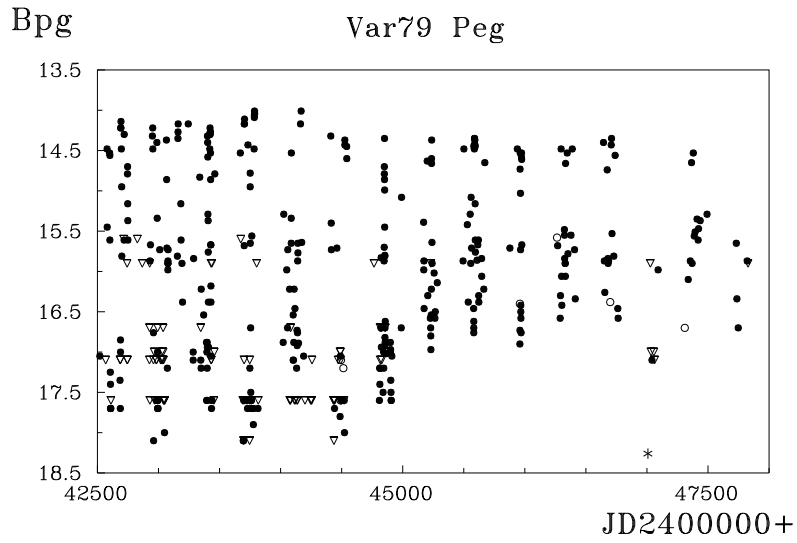


Figure 2. The photographic light curve of Var 79 Peg. Open circles: uncertain observations; open triangles: brighter limits; the asterisk: the GSC 2.2 estimate.

Observatory and telescope:	
40-cm astrograph in Crimea	

Detector:	Photoplate
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Filter(s):	None
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Comparison star(s):	α (J2000)	δ (J2000)	B_{pg}
	$2^{\text{h}}45^{\text{m}}36^{\text{s}}.0$	$+34^{\circ}56'13''$	$13^{\text{m}}88$
	$2^{\text{h}}45^{\text{m}}54^{\text{s}}.0$	$+35^{\circ}00'05''$	$14^{\text{m}}51$
	$2^{\text{h}}45^{\text{m}}45^{\text{s}}.2$	$+34^{\circ}56'35''$	$15^{\text{m}}00$
	$2^{\text{h}}46^{\text{m}}03^{\text{s}}.4$	$+34^{\circ}56'10''$	$15^{\text{m}}20$
	$2^{\text{h}}45^{\text{m}}47^{\text{s}}.6$	$+34^{\circ}55'02''$	$15^{\text{m}}53$
	$2^{\text{h}}45^{\text{m}}57^{\text{s}}.1$	$+34^{\circ}52'44''$	$15^{\text{m}}90$
	$2^{\text{h}}46^{\text{m}}08^{\text{s}}.6$	$+34^{\circ}58'03''$	$16^{\text{m}}46$
	$2^{\text{h}}46^{\text{m}}03^{\text{s}}.9$	$+34^{\circ}57'10''$	$16^{\text{m}}74$
	$2^{\text{h}}46^{\text{m}}14^{\text{s}}.3$	$+34^{\circ}53'42''$	$17^{\text{m}}2$
	$2^{\text{h}}46^{\text{m}}04^{\text{s}}.8$	$+34^{\circ}55'26''$	$17^{\text{m}}4$
	$2^{\text{h}}46^{\text{m}}10^{\text{s}}.2$	$+34^{\circ}52'44''$	$17^{\text{m}}6$

Transformed to a standard system:	B_{pg}
Standard stars (field) used:	Calibrated using the blue magnitudes of neighboring stars from the GSC 2.2 catalogue.

Date(s) of the observation(s):
1963–1994

Availability of the data:
Upon request

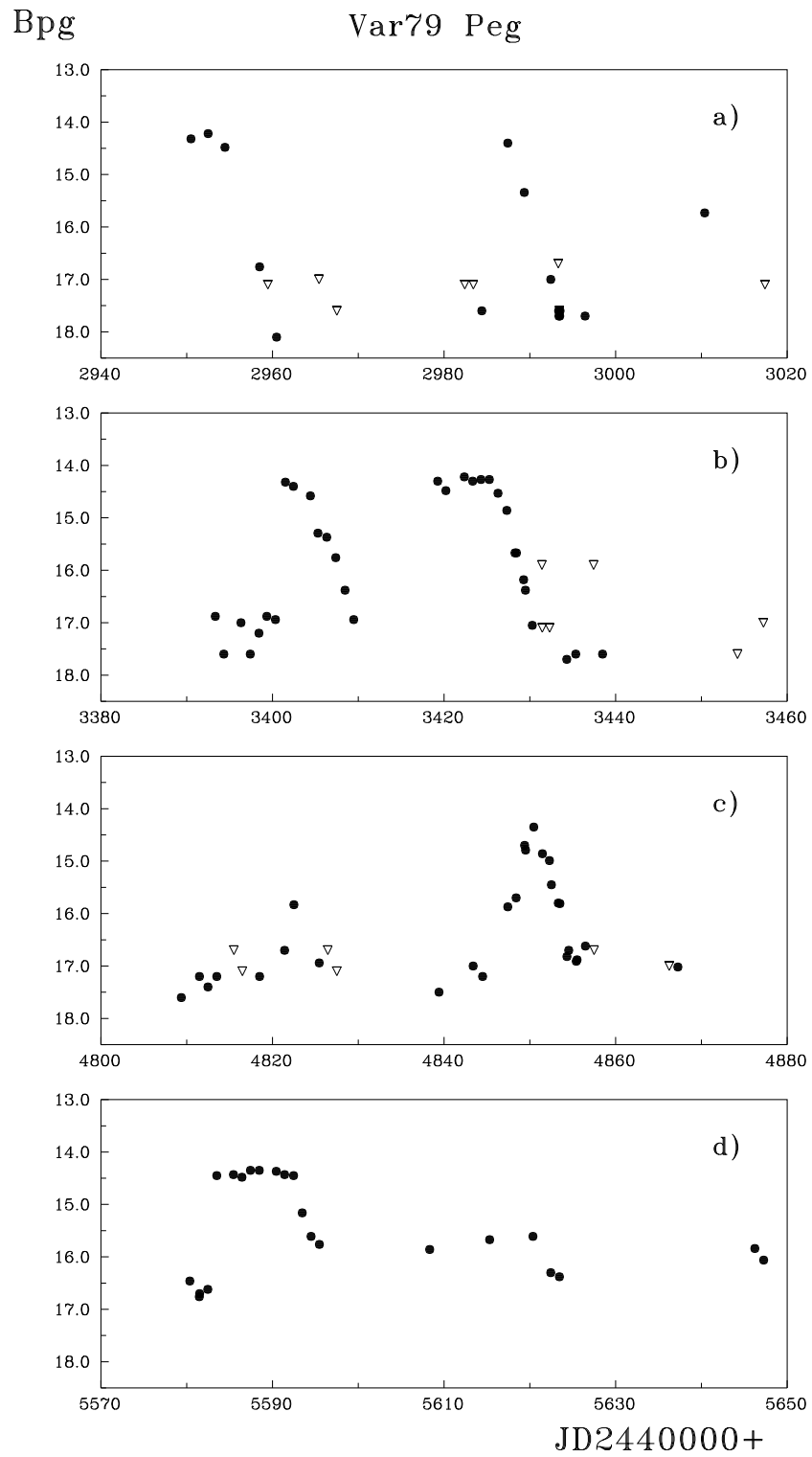


Figure 3. The sample light curves of Var 79 Peg. Open triangles: brighter limits.

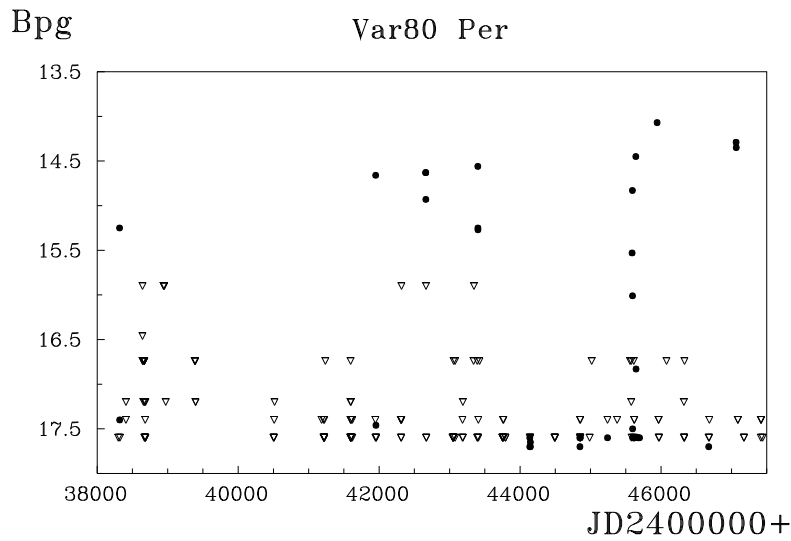


Figure 4. The photographic light curve of Var 80 Per. Open triangles: brighter limits.

Type of variability:	UG
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Remarks:								
The new variable star was estimated on 205 plates (JD 2438101–49634). Eight outbursts have been revealed. The range of variability on Moscow plates is 14 ^m 1–<17 ^m 6. All observed outbursts are relatively short-lasting. The finding chart and the light curve are shown in Fig. 1 and Fig. 4 respectively. Outbursts (JD24...):								
#1	38317.504	15.25	#4	43394.484	<17.6	#6	45642.438	14.45
	38319.426	17.40		43400.477	14.56		45645.374	16.83
	38322.332	<17.6		43401.544	15.25			
				43401.573	15.27	#7	45944.558	14.07
#2	41948.446	<17.6		43408.505	<17.6			
	41951.467	14.66				#8	47064.575	14.29
	41954.489	17.46	#5	45584.494	<17.6		47066.537	14.35
	41957.476	<17.6		45589.460	15.53			
				45593.547	14.83			
#3	42661.484	14.63		45595.550	16.01			
	42661.518	14.63		45597.546	17.60			
	42662.535	14.93		45597.578	17.50			
	42665.494	<15.9						
	42668.557	<17.6						

Acknowledgements:
The author would like to thank Dr. N. N. Samus for his help. The author is grateful to the Russian Foundation for Basic Research (grants No. 02-02-16069 and No. 02-02-16462), the Program for the Support of Leading Scientific Schools (grant NSh-389-2003-2) and the Federal Program “Astronomy” for partial support of this research.

References:

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- Voges, W., Aschenbach, B., Boller, Th., et al., 2000, *IAU Circ.*, No. 7432, ROSAT All-Sky Survey Faint Source Catalogue (RASS-FSC)