

OBSERVATIONS OF V1901 SGR AND
TWO NEW VARIABLES IN CYGNUSGAIL L. HARNS
Maria Mitchell Observatory
Nantucket, MassachusettsAbstract

Compiled in the following report are updated data on V1901 Sgr, preliminary results on a previously unpublished variable in Cygnus, and a newly suspected variable.

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At the Maria Mitchell Observatory, using the blink comparator, I rediscovered a variable star, V1901 Sgr, that had initially been discovered by Dr. Dorrit Hoffleit prior to 1957. She had calculated its period to be 142.6 days and indicated that it behaved like a Mira-type variable. As it is unusual for a Mira-type star to have such a short period, I updated the data to see if any change in period had occurred in the past twenty years. The graphed data still fit the initial period, thus confirming that the period of 142.6 days remains acceptable.

I also studied a variable star that had been discovered by Patricia Guida in 1975 in the Cygnus region. (The provisional unpublished designation used at the Maria Mitchell Observatory is PG7.) From my observations, this star's period is less than a day, and it appears to be of the W Ursae Majoris type.

It was necessary for me to choose comparison stars close to PG7. After having recorded about 75 estimates on PG7, I suspected one of the comparison stars of also varying. Selecting a new comparison star, I re-estimated the brightness of both PG7 and the suspected variable. The new suspect appears to vary by about half a magnitude. The type of variation has not been determined. The following table summarizes the results for the three stars while Figure 1 gives finder charts.

TABLE I

STAR	POSITION (1900)		MAGNITUDE (pg)		TYPE	JD (24200000+)	NO. OBS.
	RA	DEC	Max	Min			
V1901 Sgr	18 ^h 26 ^m 02 ^s	-26°33'.6	12 ^m 3	16 ^m 1	M	42275	500
PG7	19 28:	+38 45:	12.1	13.4	W UMa	43339.743	278
Suspect	19 27:	+38 54:	12.5	13.1	?	-	208

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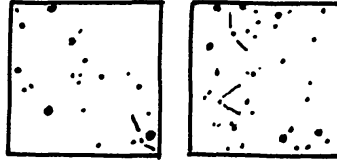


Figure 1. Finder charts approximately 10' x 10', North at top. Left, V1901 Sgr. Right, the area in Cygnus; upper star marked is the suspected new variable, the lower is PG7.

BEAT PHENOMENA IN THE LIGHT CURVE OF VX SGR

HORACE A. SMITH
Yale University Observatory
New Haven, CT 06520

Abstract

Power spectrum analysis (see Smith, 1974) has been applied to 40 years of AAVSO observations of the red super-giant variable VX Sgr. The observed light curve can be represented as a superposition of 660, 750, and 810 day oscillations. Interference of these three oscillations explains the large range in amplitude discovered by Dinerstein (1973), though until further observations accumulate this result must be considered tentative.

REFERENCES

- Dinerstein, H. 1973, JAAVSO, 2, 52.
Smith, H.A. 1974, JAAVSO, 3, 20.