

VISUAL OBSERVATIONS OF  
EIGHT CEPHEIDS IN CASSIOPEIA

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In the latter part of 1973 and continuing into 1974 the author made intensive visual observations on ten Cepheid variables in the constellation Cassiopeia. One of the stars (BY Cas) could not be found, and one (RS Cas) had a strange discordancy, but the remaining eight had ranges large enough to allow their light curves to be drawn and data extracted.

The observations were reduced and the light curves drawn by the method reported previously (Small, 1973) with the exception of the two stars having periods close to a multiple of a whole day. These observations were necessarily bunched in groups and were so averaged.

All of the stars were selected by reading the 1969 General Catalog of Variable Stars and picking out those most likely to be bright enough and with a large enough range to make visual observations feasible. The general field was then plotted and arbitrary magnitudes assigned to each star; usually after a few days the variable showed itself and comparison observing was begun.

After a month a preliminary light curve was drawn and the comparisons rectified to match the range indicated by the GCVS. (The blue magnitudes tabulated in the GCVS were converted to visual by the values of B-V given in the notes of the GCVS.) Thus, the magnitudes shown are relatively accurate in range, but not necessarily correct in zero point. The comparisons used are shown in a chart inset beside each light curve (Figures 1a and 1b). In each case North is up and the scale marks are 0.5 apart.

STARS OBSERVED

000955 FM Cas:

Epoch	2,436,845.92	J.D.	No. of observations	87
Period	5.80938	days	O-C	+ 0.05 d
Mean Date	2,442,066	J.D.	M-m	0.43 P

001057 SY Cas:

Epoch	2,436,849.76	J.D.	No. of observations	63
Period	4.070976	days	O-C	+ 0.28 d
Mean Date	2,442,076	J.D.	M-m	0.43 P

002459 DL Cas:

Epoch	2,436,819.66	J.D.	No. of observations	87
Period	8.00027	days	O-C	+ 0.2 d±
Mean Date	2,442,066	J.D.	M-m	0.23 P

004459 XY Cas:

Epoch	2,436,811.70	J.D.	No. of observations	52
Period	4.501601	days	O-C	+ 0.5 d±
Mean Date	2,442,098	J.D.	M-m	0.38 P±

013057	RW Cas:				
Epoch	2,437,646.50	J.D.	No. of observations	70	
Period	14.7943	days	O-C	+ 1.07 d	
Mean Date	2,442,086	J.D.	M-m	0.41 P	
230258	SW Cas:				
Epoch	2,436,846.71	J.D.	No. of observations	40	
Period	5.44091	days	O-C	+ 0.21 d	
Mean Date	2,442,086	J.D.	M-m	0.35 P	
234758	RY Cas:				
Epoch	2,436,846.66	J.D.	No. of observations	81	
Period	12.13726	days	O-C	+ 0.46 d	
Mean Date	2,442,063	J.D.	M-m	0.40 P	
235262	DD Cas:				
Epoch	2,436,814.87	J.D.	No. of observations	83	
Period	9.81102	days	O-C	+ 0.76 d	
Mean Date	2,442,062	J.D.	M-m	0.47 P	

## REFERENCES

- Kukarkin, B. V. et al. 1969, General Catalog of Variable Stars, Moscow.
- Small, B.F. 1973, JAAVSO, 2, 76.

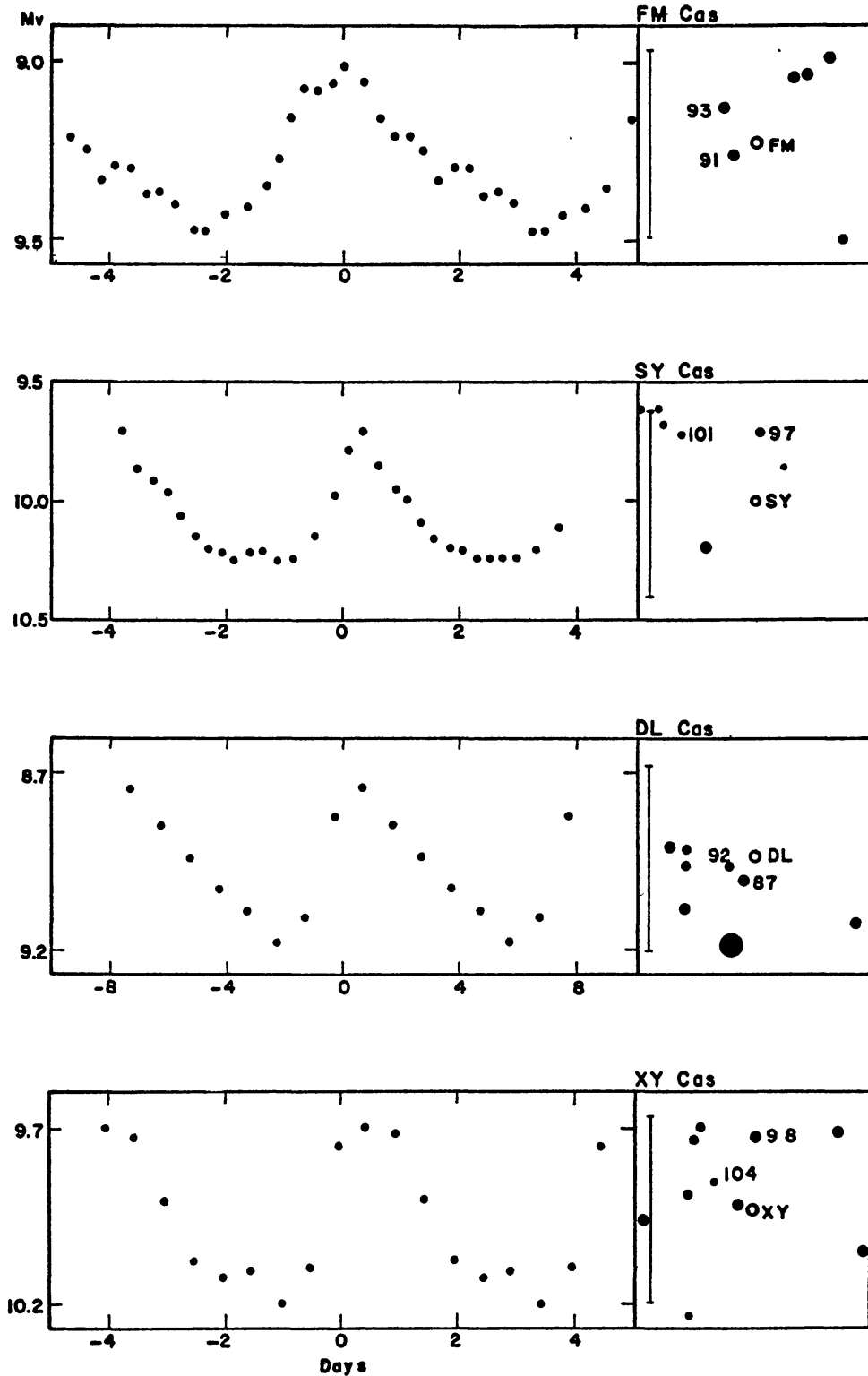


Figure 1a. Light curves and finder charts of four short period Cepheid variables.  
 (scale marks  $0.5^\circ$  apart, north up)

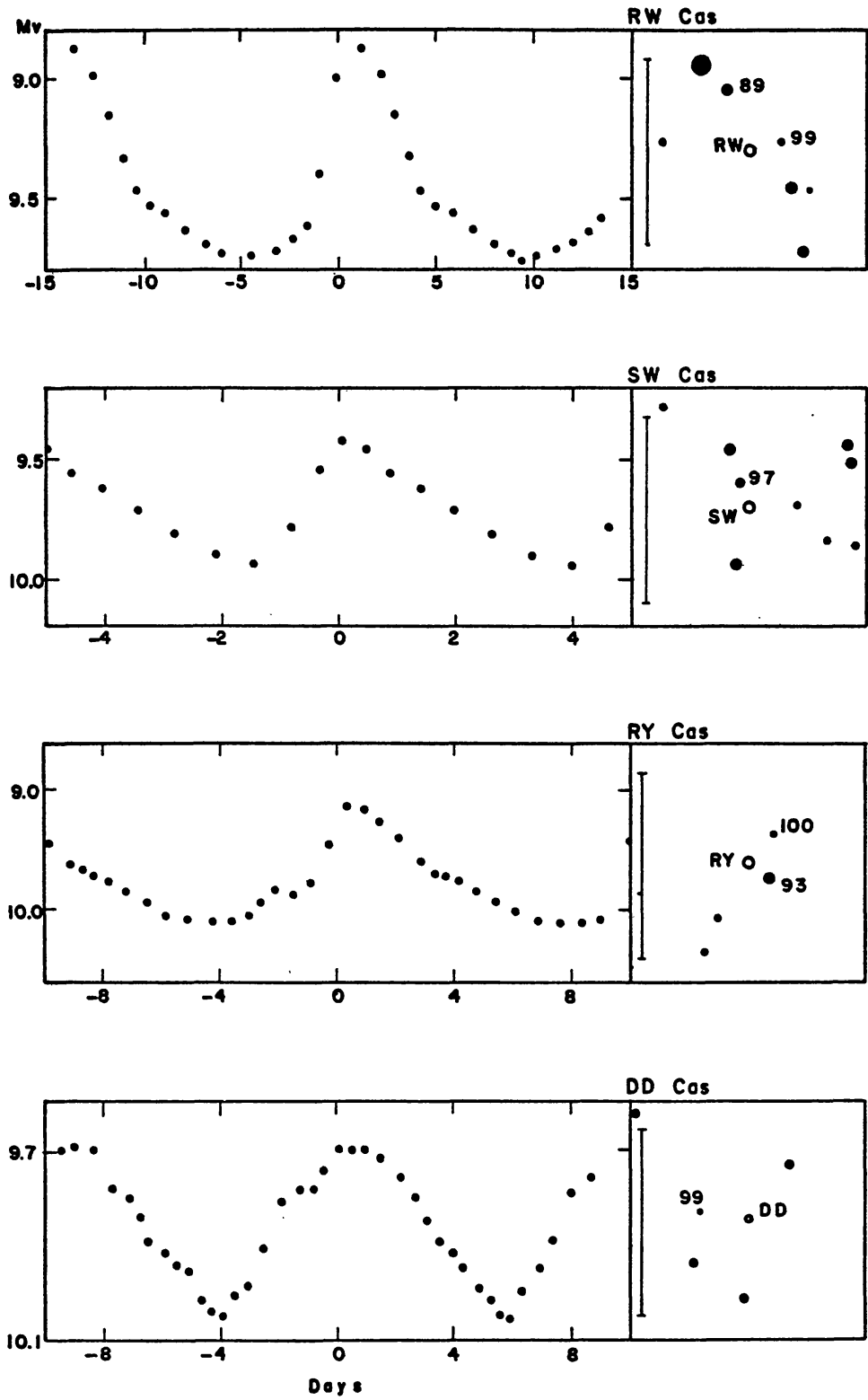


Figure 1b. Light curves and finder charts of four short period Cepheid variables.  
(scale marks  $0.5^\circ$  apart, north up)