

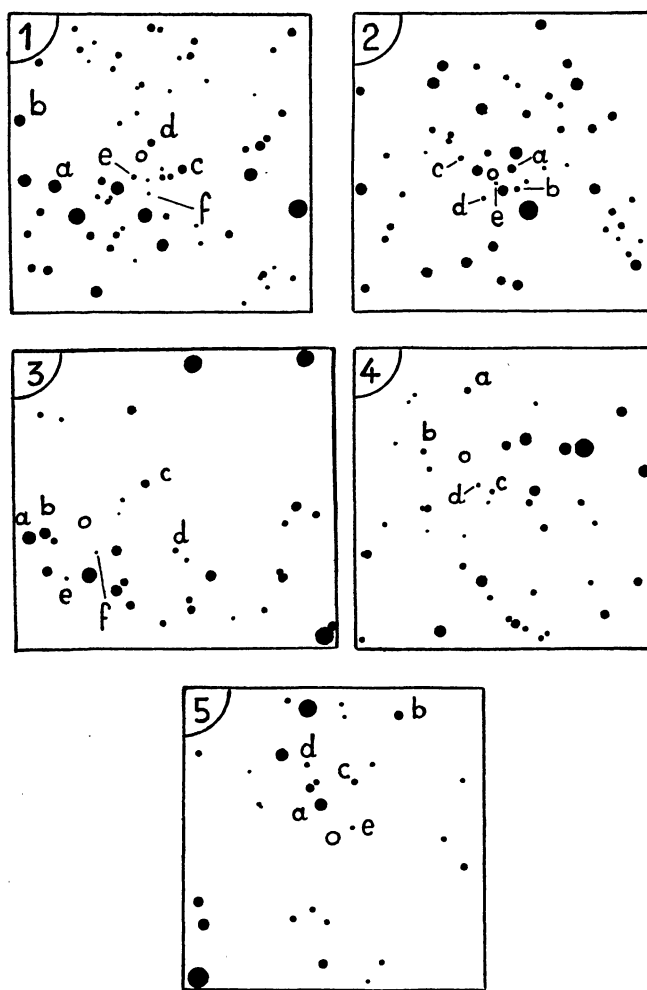
FIVE NEW VARIABLE STARS IN CORONA AUSTRALIS

BY P. TEMPESTI

During a stay at the Leiden Observatory the writer compared in the blink microscope one pair of plates of the Franklin-Adams star field centred on Boss 4599. Five of the variable stars so discovered proved to be new and were classified as long-period variables; the main data of these stars are given in Table 1. The classification and the period of the variable no. 2, which is invisible on most of the plates, is rather uncertain, but examination of different plates taken on the same night indicates that this star does not belong to the RR Lyrae type.

Estimates have been made on 308 plates; the magnitudes of the comparison stars, derived from a

grating plate with CPD magnitudes (corrected according to *H. A.* 80 and *H. B.* No. 781) as zero point, are given in Table 2; such magnitudes are of course very provisional. The magnitudes estimated for the variables are given in Table 3; the magnitudes derived from plates taken on the same night have been collected in one mean value; in the second column of the table is indicated the number of plates on which the magnitudes given in following columns are based. The scatter of the values obtained on the same night suggests that the accuracy of the magnitudes obtained from one plate is $\pm 0^m.1$.



Surroundings of the variable stars.
The size of the charts is $10' \times 10'$.

TABLE 1

var.	co-ordinates 1900.0					amplitude	type	per.	epoch
	h	m	s	°	'	m	m	d	24
1	17	57	37	-41	45.0	13.4	> 15.8	LP	176 31304
2	18	02	03	-39	13.1	13.7	> 15.9	LP?	265? 29800
3	18	18	17	-37	55.2	12.8	> 15.2	LP	252 31632
4	18	20	17	-38	59.5	13.6	> 15.8	LP	250 31258
5	18	26	46	-37	41.9	12.8	> 14.8	LP	251 30944

TABLE 2
Magnitudes of the comparison stars

	1	2	3	4	5
	m	m	m	m	m
a	12.9	13.6	12.1	13.7	12.5
b	13.3	14.6	12.6	14.6	13.1
c	13.6	15.2	13.3	15.3	13.8
d	14.0	15.6	14.0	16.0	14.2
e	14.8	16.1	14.5	—	14.7
f	15.8	—	15.3	—	—

TABLE 3

J.D.	n	variable star					J.D.	n	variable star				
		1	2	3	4	5			1	2	3	4	5
242		m	m	m	m	m	243		m	m	m	m	m
9729.6	1	13.9	> 15.9	> 15.3	> 15.5	14.1	1178.6	2	15.3	> 15.9	13.6	> 16.0	14.2
35.5	2	14.0	> 15.9	> 15.3	> 15.5	13.9	1203.5	2	> 15.8	> 15.9	15.2	> 15.5	13.4
87.3	2	> 15.4	15.0	> 14.7	15.3	> 14.2	04.5	2	> 15.8	> 15.9	15.1	> 15.5	13.3
91.6	2	> 15.8	15.0	> 14.7	15.1	> 14.2	08.4	2	> 15.4	> 15.9	15.3	> 15.5	13.1
93.4	2	> 15.8	15.0	> 15.3	15.2	> 14.2	33.6	2	> 15.4	> 15.9	> 15.3	15.4	13.2
94.6	4	> 15.4	15.1	> 15.3	15.3	> 14.7	38.5	2	> 15.8	> 15.9	> 15.3	14.8	13.2
9807.4	2	> 15.8	15.0	> 15.3	15.5	> 14.7	64.4	2	15.1	> 15.9	> 15.3	13.7	14.3
13.4	2	> 15.8	15.2	> 15.3	16.0	> 14.2	65.5	2	15.1	> 15.9	> 15.3	13.6	14.4
14.5	2	> 15.8	15.5	15.3	15.7	> 14.2	68.4	1	15.0	> 15.9	> 15.3	13.8	14.1
16.4	1	> 15.0	15.6	> 14.7	15.5	> 13.8	69.4	8	14.9	> 15.9	> 15.3	13.9	14.3
17.4	2	> 15.4	15.5	> 14.7	> 15.5	> 14.2	81.3	2	14.5	> 15.9	> 15.3	14.3	> 14.2
243							84.3	2	14.5	> 15.9	> 15.3	14.3	> 14.2
0085.6	2	13.6	15.5	15.3	> 15.5	> 14.2	85.3	2	14.4	> 15.9	> 15.3	14.3	> 14.2
89.6	5	13.7	15.8	14.8	> 15.5	> 14.2	86.4	6	14.4	> 15.9	> 15.3	14.3	> 14.7
0142.5	2	> 15.8	> 15.9	13.1	> 15.5	> 14.7	87.3	12	14.3	> 15.9	> 15.3	14.4	> 14.7
49.5	2	> 15.8	> 15.9	13.5	> 15.5	> 14.2	88.4	16	14.3	> 15.9	> 15.3	14.4	> 14.7
63.3	3	> 15.4	> 15.9	14.0	> 15.5	14.2	89.3	2	14.2	> 15.9	> 15.3	14.5	14.8
65.3	2	> 15.4	> 15.2	14.0	> 15.5	14.0	91.3	2	14.2	> 15.9	14.9	14.5	> 14.7
66.3	2	> 15.8	> 15.9	14.0	> 15.5	13.8	92.4	16	14.1	> 15.9	> 15.3	14.6	> 14.7
0218.3	2	14.5	> 15.9	> 15.3	> 16.0	13.2	93.4	15	14.0	> 15.9	> 15.3	14.6	> 14.2
47.3	2	13.6	> 15.9	> 15.3	15.3	14.1	94.3	2	13.9	> 15.9	> 15.3	14.8	> 14.7
49.3	2	13.7	> 15.9	> 14.7	15.3	14.2	1310.3	1	13.5	> 15.9	> 14.7	15.5	> 14.2
57.3	2	13.7	> 15.9	> 15.3	15.0	14.5	12.3	2	13.6	> 15.9	> 15.3	15.6	> 14.7
58.3	2	13.6	> 15.9	> 15.3	15.1	14.1	14.3	2	13.6	> 15.9	> 15.3	15.5	> 14.7
80.3	2	14.5	> 15.9	> 15.3	15.3	14.7	17.3	2	13.8	> 15.9	> 15.3	15.7	> 14.7
82.3	2	14.6	> 15.9	> 14.7	15.5	> 14.2	18.3	2	13.9	> 15.9	> 15.3	15.8	> 14.7
86.3	2	14.9	> 15.9	> 14.7	15.1	> 14.2	19.3	2	13.9	> 15.9	> 15.3	15.8	> 14.2
0473.5	2	15.3	> 15.9	> 15.3	> 15.5	13.0	20.4	2	14.0	> 15.9	> 15.3	16.0	> 14.7
0500.4	2	> 15.8	> 15.9	> 15.3	15.1	14.4	21.3	2	13.9	> 15.9	> 15.3	> 15.5	> 14.2
44.4	2	15.0	> 15.9	> 14.7	14.8	> 14.2	22.3	2	14.0	> 15.9	> 15.3	> 15.5	> 14.2
49.5	2	14.8	> 15.9	> 14.7	15.1	> 14.7	23.4	2	14.0	> 15.9	> 15.3	> 15.5	> 14.2
53.3	2	14.8	> 15.9	15.3	15.2	> 14.7	24.3	2	13.9	> 15.9	> 15.3	> 15.5	> 14.2
54.3	2	14.7	> 15.9	> 14.7	15.3	> 14.2	25.4	4	14.0	> 15.9	> 15.3	> 15.5	> 14.7
56.2	4	14.7	> 15.9	> 15.3	15.4	> 14.2	26.3	2	14.1	> 15.9	> 15.3	15.8	> 14.7
57.4	2	14.7	> 15.9	15.1	15.5	> 14.7	27.3	2	14.2	> 15.9	> 15.3	> 15.5	> 14.2
59.4	2	14.5	> 15.9	> 15.3	15.4	> 14.2	28.3	2	14.3	> 15.9	> 14.7	> 15.5	> 14.2
74.3	2	14.2	15.6	> 15.3	> 15.5	> 14.2	42.3	2	15.0	> 15.9	> 15.3	> 16.0	> 14.7
76.3	1	14.3	15.5	> 15.3	> 15.5	> 14.2	44.3	3	15.3	> 15.9	15.1	> 15.5	> 14.2
0602.3	2	13.5	15.2	15.3	> 15.5	> 14.2	45.3	2	15.1	> 15.9	15.1	> 15.5	> 14.7
06.3	2	13.5	15.4	15.0	> 15.5	> 14.2	50.3	1	15.0	> 15.9	> 14.7	> 15.5	> 14.7
07.3	1	13.5	15.5	15.0	> 15.5	> 14.2	51.3	1	> 15.0	> 15.9	15.3	> 15.5	> 14.2
42.3	2	15.0	> 15.9	13.1	> 15.5	> 14.7	71.3	2	> 15.4	15.2	13.4	> 15.5	> 14.2
0875.3	2	> 15.4	15.5	13.2	> 15.5	> 14.2	1555.5	2	> 15.8	> 15.9	> 15.3	15.7	> 14.2
77.4	2	> 15.4	15.7	13.0	> 15.5	> 14.7	58.5	2	> 15.4	> 15.9	> 14.7	15.5	> 14.7
0913.3	2	14.7	> 15.9	13.4	> 15.5	> 14.7	60.5	2	> 15.8	> 15.9	> 15.3	15.5	> 14.7
27.3	2	14.1	> 15.9	13.6	> 15.5	13.4	90.4	2	15.4	> 15.9	15.0	> 15.5	> 14.7
30.3	2	13.9	> 15.9	13.7	> 15.5	13.1	94.4	2	15.0	> 15.9	15.1	> 15.5	> 14.7
32.3	2	13.7	> 15.9	13.9	> 16.0	13.0	1612.4	2	14.0	> 15.9	13.6	> 15.5	> 14.7
62.2	2	13.4	> 15.9	15.3	> 16.0	13.0	13.3	2	13.9	> 15.9	13.4	> 15.5	> 14.7
64.3	2	13.4	> 15.9	> 15.3	> 15.5	13.0	15.3	2	13.8	> 15.9	13.2	> 15.5	> 14.2
65.3	2	13.5	> 15.9	15.3	> 15.5	12.9	17.4	2	13.9	> 15.9	13.0	> 15.5	> 14.2
70.3	2	13.6	> 15.9	> 15.3	> 15.5	13.0	68.3	2	13.7	14.6	13.4	> 16.0	> 14.2
73.3	2	13.8	> 15.9	> 15.3	> 15.5	13.0	69.3	2	13.8	14.7	13.5	> 15.5	> 14.7
80.3	2	14.6	> 15.9	> 15.3	15.0	13.6	70.3	2	13.9	14.7	13.5	> 15.5	> 14.2
93.3	2	14.8	> 15.9	> 15.3	14.5	13.7	71.3	2	13.9	14.9	13.5	> 15.5	> 14.7
94.3	2	14.8	> 15.9	> 15.3	14.8	13.8	72.3	2	14.0	14.9	13.6	> 15.5	> 14.7
98.3	2	15.0	> 15.9	> 15.3	14.4	14.1	75.3	2	14.2	15.0	13.8	> 15.5	> 14.4
1000.3	2	15.0	> 15.9	> 15.3	14.1	13.9	78.3	2	14.4	15.0	13.9	> 15.5	> 14.2
01.3	1	15.0	> 15.9	> 14.0	13.9	14.4	2445.3	2	> 15.8	13.7	13.4	> 15.5	12.7
17.3	2	> 15.0	> 15.9	> 14.7	13.9	14.7	2705.4	4	> 15.4	> 15.9	> 15.3	15.3	14.4
1171.6	2	15.5	> 15.9	13.3	> 15.5	> 14.7	3411.3	3	13.3	> 15.9	12.4	> 15.5	> 14.2