NEW FAINT SOUTHERN VARIABLE STARS

On sky patrol plates (red and blue) taken at the Southern Sta-
tion of the University of Florida, Gainesville and the Remeis-Stern-
warte, Bamberg, at the Mount John Observatory, New Zealand, the 20
stars of the following list were found to be variable (17 new stars
and 3 stars listed already in the Catalogue of Suspected Variable
Stars, CSV).

The brightness of these stars were obtained from the Harvard-
Groningen-Atlas, Selected Areas (edition 1965 by A. Brun and H.Veh-
renberg).

Finding charts are 1° in declination and south is up.

BV-Nr.		RA 1900.0	Decl.	max. brightness pg	Ampl. pg	Type	Remarks
BV 1622	Hya	$14^h26^m58^s$ =CSV 7139	$-26^{\circ}19\rlap{.}'3$ = S 6580	$12\rlap{.}^m8$	$0\rlap{.}^m5$	EA	1
BV 1623	Lib	14 30 24	-23 55.7	12.5	0.9	EA	2
BV 1624	Lib	14 48 45	-15 12.8	13.0	0.9		3
BV 1625	Lib	14 59 04	-17 01.6	12.5	1.1	EA	4
BV 1626	Lib	=CoD $-26^{\circ}10719$ (10^m)			0.9		5
BV 1627	Lib	15 09 06 =CSV 2300	-14 56.0 = HV 8693	12.8	1.0	EA	6
BV 1628	Lup	15 14 34	-52 44.2	11.7	0.6	EA	7
BV 1629	Sco	16 05 02 =CSV 2595	-16 20.3 = Ross 174	13.6	0.6	L	8
BV 1630	Sco	=BD $-15^{\circ}4276$ (9^m5)			0.6	L	9
BV 1631	Ser	17 35 37	-13 29.0	12.8	0.6	L	10
BV 1632	Ser	17 56 23	-15 31.6	12.5	0.7	EA	11
BV 1633	Tel	18 19 10	-49 11.1	12.4	0.6*		12
BV 1634	Sgr	18 38 06	-17 18.8	12.6	0.8		13
BV 1635	Sct	18 38 40	-06 44.6	13.1	0.9*		14
BV 1636	Sgr	19 14 59	-12 02.9	13.0	0.7	L	15
BV 1637	Sgr	19 22 28	-15 51.4	13.1	0.9*	L	16
BV 1638	Aql	19 38 40	-11 33.7	10.8	0.7	L	17
BV 1639	Sgr	19 48 24	-18 56.0	12.9	0.7		18
BV 1640	Cap	20 12 00	-11 16.2	11.9	0.9	EA	19
BV 1641	Cap	20 31 54	-15 58.0	12.3	0.9	L	20

*= Amplitude until plate limit.

Remarks:

1 Few minima, not enough for a period

2 Few minima, not enough for a period

3 More minima than maxima, and values between

4 Few minima, not enough for a period

5 Few good maxima

6 BV 1627 Lib = CSV 2300 = HV 8693

With these minima the following primary period was found:

$$Min = JD\ 243\ 8906.350 + 1\overset{d}{.}130\ 47\ \cdot E$$

Minima		E	O – C
243 8855.507	(1/2)	–45	+0.028
8906.355		0	+0.005
8940.265		30	+0.001
9270.353		322	–0.008
9287.307		337	–0.011
244 1755.182	(1/2)	2520	+0.048
2136.110		2857	+0.007

Amplitude $1\overset{m}{.}0$; without a secondary minimum, EA type.

7 Only 5 minima in 139 plates
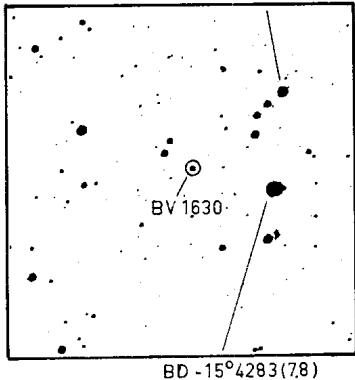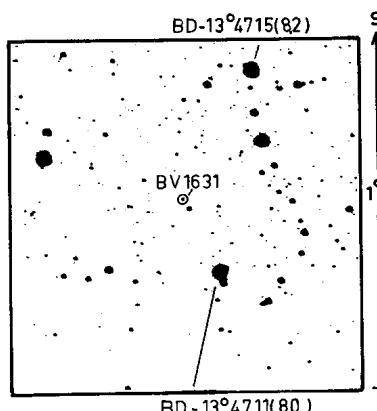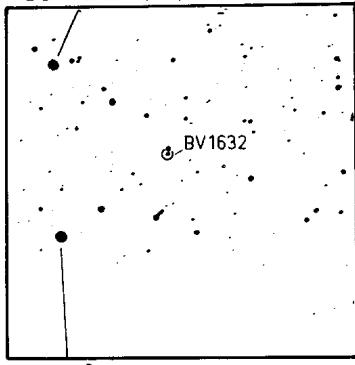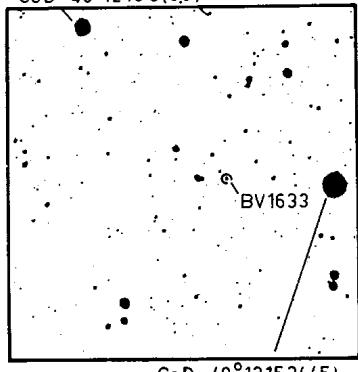
8 Many maxima and minima, rather difficult

9 Many maxima and minima

10 Many maxima and minima

11 Only 2 minima in 50 plates

12 Several maxima, minima below plate limit, rather difficult

13 Few good maxima

14 Several maxima, minima below plate limit

15 Many maxima and minima, and values between

16 Maxima and minima, and values between

17 Many maxima and minima, and values between

18 More minima, rather difficult

19 Very few minima, not enough for a period
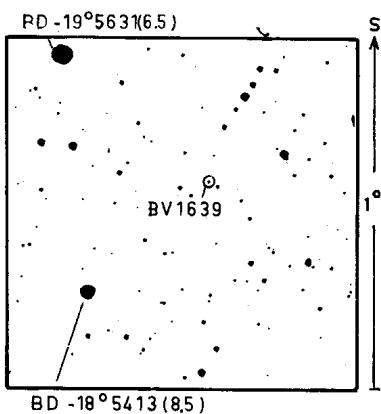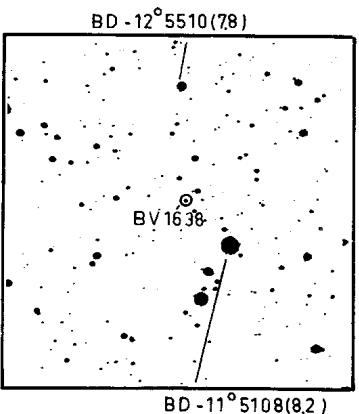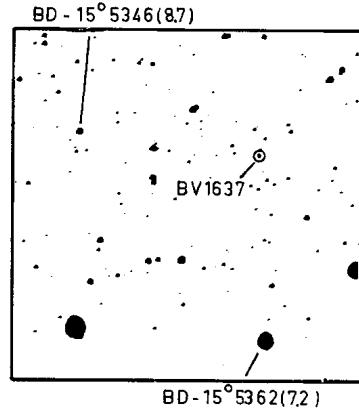
20 Many maxima and minima, and values between

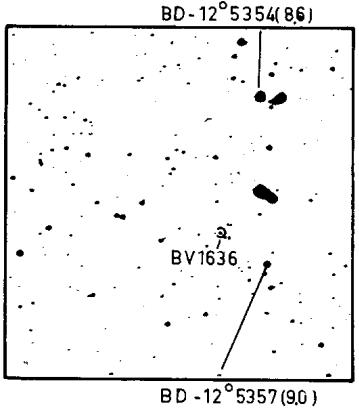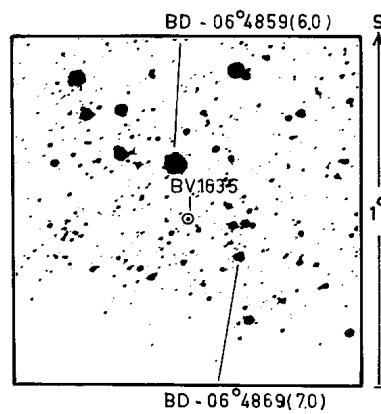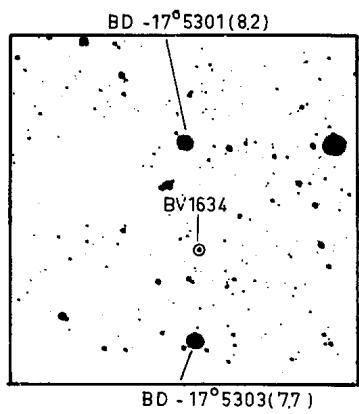The above 20 variable stars were found whilst on a short stay at the Remeis-Sternwarte Bamberg. I would like to thank the Director, Prof.Dr.W.Strohmeier and Mr.R.Knigge of the Remeis-Sternwarte for their most valuable assistance in the preparation of this paper.Also thanks to Mr.M.Clark for taken the plates.

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Remeis-Sternwarte Bamberg
and South African Astronomical
Observatory Cape Town.

3

CoD -26°10357(9,2)
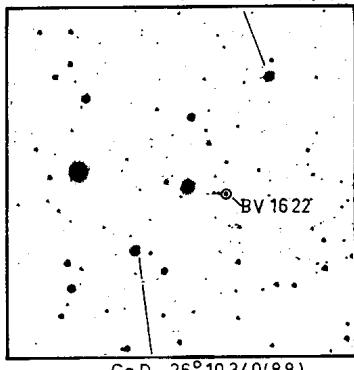
BV 1622

CoD -26°10340(8,8)

CoD -24°11581(8,2)

S

1°

BV 1623

CoD -23°11829(80)

BD -15°3986(8,0)

BV 1624

BD -14°4055(7,7)

BD -17°4249(8.9)

BV 1625

BD -17°4243(6,8)

CoD -26°10714(8,1)

BV 1626

CoD -26°10732(9,4)

BD -15°4050(7,8)

S

1°

BV 1627

BD -14°4161(9,0)

4

CoD - 52°6592(8.3)

BV1628

BV 75 2
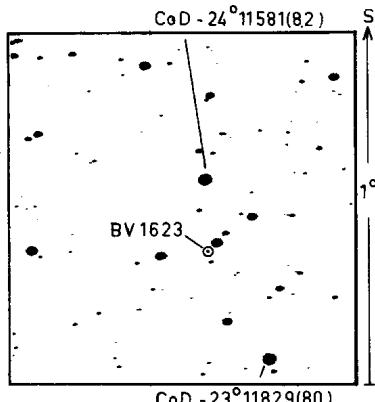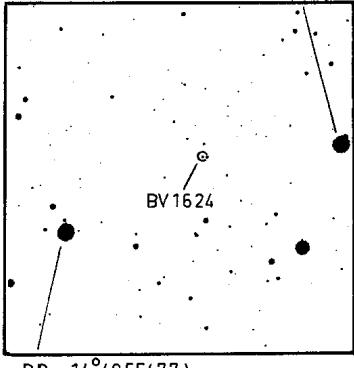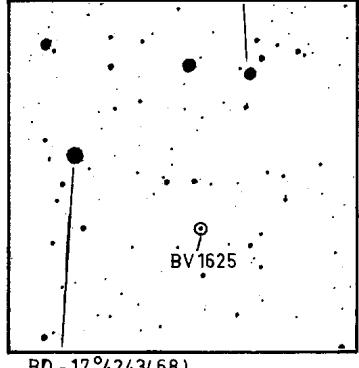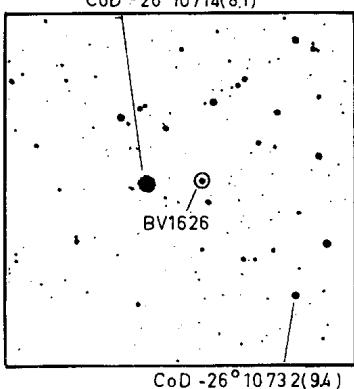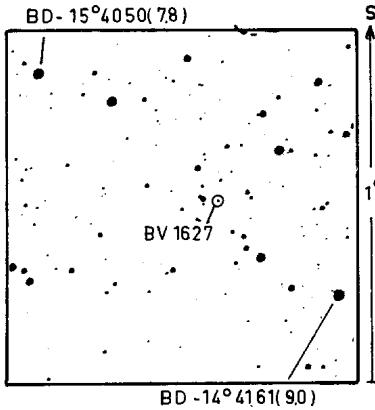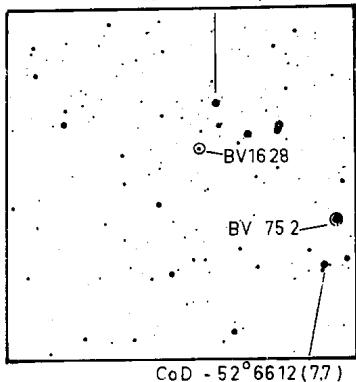
CoD - 52°6612(7.7)

BD - 16°4230(7.8)

BV1629
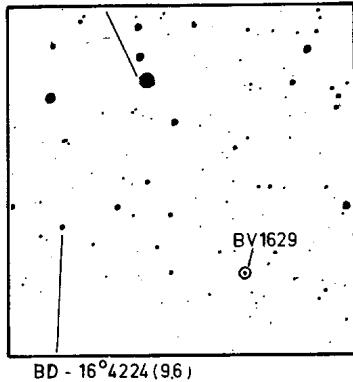
BD - 16°4224(9.6)

BD - 15°4284 (7.8)

BV 1630

BD - 15°4283(7.8)

BD-13°4715(8.2)

S

BV 1631

1°

BD - 13°4711(8.0)

BD - 15°4767(8.7)

BV 1632

BD -15°4769(8.2)

CoD - 49°12105(6.6)

BV 1633

CoD -49°12153(4.5)

BD -17°5301(8.2)

BV 1634

BD - 17°5303(7.7)

BD - 06°4859(6.0)

S

BV 1635

1°

BD - 06°4869(7.0)

BD - 12°5354(8.6)

BV 1636

BD -12°5357 (9.0)

BD - 15°5346(8.7)

BV 1637

BD - 15°5362(7.2)

BD - 12°5510 (7.8)

BV 16 38

BD -11°5108(8.2)

RD -19°563 1(6.5)

S

BV 1639

1°

BD -18°5413 (8.5)

BD -11° 5281(9,0)

BD -16° 5645(9,2)

BV 1640

BV 1641

BD -11° 5290(7,7)

BD -15°5725(8,3)