

1939phae.proj.2282c

Carina - Cent. Region

Chart 1.

R.A. $9^h 10$ to $9^h 27$ Dec -45° to -48° Center $9.3 - 46.5$

Cape stars marked MSM

Chart plate B24965

Sp. plates

B 38415 (H.D.) and 37731

M # 7900 (A.)

M # 7949

M # 7815

Faint spectra inserted by inspection

Compound full edge with 19 and peak in
A3 star only one in overlap

Edge of 2 marked.

Chart 2

R.A. 9 16 to 9 31

Decl. - 48° to - 51.5°

Center 9.24-49.7

Cape stars marked C L

MSM compared
corrected MLM

Chart plate 24565

Sp. in F. 7900 (chart)

Chart 3

Mch. 14, 1939

Looked over again and a few sp. patches
but B 38415 is excellent, done for H.D.
similar better than M 7900

Chart 4

Mch. 15, 39

A few more patches but nearly all
done present.

Chart 5

Mch. 15, 1939

Very few more patches

April 13, 1939

List of approximate classes in H.D. in Me, lab, etc

Chart 1

H.D. ~~80763~~

2 ~~80837~~
 ~~81432~~

3 ~~78432~~
 ~~78815~~
 ~~79944~~
 ~~79774~~
 ~~79775~~
 ~~80556~~
 ~~80837~~

4 ~~80092~~
 ~~81132~~
 ~~81652~~

5- ~~76655~~
 ~~77168~~
 ~~76806~~
 ~~77815~~

6 ~~79778~~
 ~~80092~~
 ~~82518~~

Chart 7 H.D. ~~76639~~

77831

~~79778~~

8 80562

~~80422~~

83081

9 81875

~~81875~~

81209

80797

80741

10 ~~77558~~~~80701~~

80791

81235

~~81519~~

81535

11 ~~75714~~12 ~~81473~~~~13~~

Chart 13 H.D. 82501

~~84630~~

~~86254~~

14

~~2855~~

~~3030~~

~~3388~~

~~4329~~

~~4621~~

15

none

16

~~7083~~

~~8507~~

~~7732~~

~~8508~~

~~8264~~

~~8813~~

~~8482~~

17

9273

0173

9317

0503

9356

18

none

Chart 19 none

20 none

21 88482
~~88507~~
 88525
 88554
~~89063~~

22 9356 0519
 9411
 0326
 0424
 0423

23 43602 48734
 43109 49286
 43200 51164
 44409

Chart 24

49286	54346	56982
51164	55379	57665
53708	55572	
53709	55353	

25

64508	66424
63205	48226
63296	
62717	

26

71793
71985

27

78447	83818
78086	
81559	
83903	

28

53708
56562

29

64508

Chart 30 73372
74424

31 75278
76862
77290

32 71308
74184

33 74639 77744
75088
76808
77148

34 85814 87495
85986
86054
86291

35 90220
91094
91600

36 92046 93005 95914
92165 94008
92879 94495

clark 37 none

38 none

39	89303	90190
	89647	89941
	89096	
	89845	
	90315	

40

91600

41	96655
	98658
	98465

42 ~~83943~~ none

43 89096

Chack 44

88918	90563	91421
89096	90801	91571
89625	90187	91693
89374	90707	
89845	91837	

45

91270	93283	92876	93455	93576
91837	93146	{93128	93795	93827
92251	{93204	{93129	93343	93724
92314	{93205	93250	94096	94452
92608	93160	93420	93842	94599

46

95589	94828	96355	95687	96158	{97206
95497	95095	95645	95950	96669	{97207
94599	96655	96308	96139	96715	97222
94962	95733	96447	96159	96816	97399
	97400	97581	96775	97671	

47

83081

83931

48

85413

49

87124 Delet. Same star as 87107

86653 RR Can. M6

88606 Comp?

88946 2 Can M6c

Chen 50

		93759	94408	93890	93795
			93856	93824	93808
92251	92007	92894	92584	93249	
92088	92024	92436	93160	93342	
92206	91571	92694	93250	93190	
91421	92398	92760	93420	93188	
91983	92876	92759	93455	93670	

51 94315 94898 96042 95306 95875 96040 96260
 95069 94408 95862 95459 96340 96430 96227
 94612 94773 95990 95289 96090 96191 96213
 94490 95357 95967 95320 96412 96212 96445

52

~~82518~~

96192	96246	96306	96159
96158	96669	96880	96732
96791	96565	96667	96730
96878	96790	96895	97451
97081	97165	97368	

53

none

54

none

55

91745

56

91745	93368	93757
92834	93561	93975
93627	93631	94007
93643	93679	94228

57

94315	93975	95320	95822	96 97079
94609	94713	95875	96663	
94007	95200	96257	96635	
94228	95069	95748	96877	

14

Chart

58

89302

89788

89938

91745

Chart

59

83818

83903

87497

88310

60

88310

94025

90744

90787

90914

92914

61

82113

62

85140

86443

87991

87267

63

88625

90914

91930

89877

91325

90038

91908

90191

91326

90247

92090

Chart 64 93325 94814

91946

92952

91985

94008

65 76808 81055

77148 80112

77089 80193

77744

66 80112

80193

81055

82113

67 85814 85266 86054

85986 86256 86291

84909 87545

85194 87786

85287 87991

68

{ 89974 88734 91985

{ 89975 91325

89265 91946

69 91648 93109

91649 93629

91807 93643

92681

93086

chart

70

93357	94168
93629	94507
93643	95013
93109	94520
93086	94855

71

98920

72

100985
101776

73

91110
93336

74

93336	94224
93438	94591
94050	95596
94107	

75

95596
96134
97466
97312

76

97312	98509
97466	98518
98443	

Chart 77 100211
100733
100785

78

91019
91760
91110
92445

79

93336
94050
94591

80

96056 97466
95965 97312
95596
96943

81

98495
98918
99113

82

99113
99793

83 none

84

96056

chart

85

99094

86

98918

99094

100378

100966

87

95505

95716

95858

88

99018

89

99018

100687

99495

99333

99496

90

none

91

100687

101048

92

none

chart 93

101776

102726

94

101707

102833

102289

102291

102850

95

none

96

100966

97

95914

98292

96851

95995

96449

98

97671

98898

100025

97451

99416

100713

98434

98847

98111

98926

99

97483

97793

96877

98923

97079

99203

97743

99498

chart

100

96350	97011
96086	96663
95822	96770
96635	97029

101

38015	39313
38994	39525
39536	
39247	

102

101996	102466
102352	
101413	
101712	

103

98624	100052	100930	101413	{101993
98657	100136	101007	101191	{101994
98678	100025	100840	101712	101222
99547	100713	100856	101104	

104

105753
105675

105	101712	102352	103006	104094	105675
	102248	103147	103052	104256	104672
	{101993	102867	103733	105563	
	{101994	103515	104011	105753	

Chert

106

101007	101222	103104
101104	102248	103733
100479	103513	103052
102062	103166	104011

107

100479
100275⁻
101362
102115

108

98766	100725 ⁻
98923	100611
99203	100275 ⁻
99842	

109

100611	103441
100725 ⁻	
101541	
102658	

110

102658	104124
103441	104400
103426	104668
104313	

111

103733	104421
103513	104011
104313	104583
104565	104094

Chart

112

104400	106474	107543
104668	107078	106870
105611	107079	107443
105776	107376	

113

106870	107079	109231
107443	107078	109064
107543	108903	109652
107376	108732	

114

109652
110101
111034

115

108573

116

110760

117

115254	118685
{ 114500	
{ 114501	
115880	

118

104569
106418
106849

chart 119

109372
~~11~~ 111523
 112094

120

111333 113919
 112460 113756
 111523 115880
 112094

121

115925 115880 118593
 117007 117844 118848
 117345 117891
 116828 118474

122

105753
 105675
 105563
 107269

123

111333

124

113282
 113756
 113619
 115925

125

104672 104583 105563 106962
 104256 104933 106391
 104094 105675 105582

Chart

126

111124

127

111332

111124

112513

113034

128

113389

115805

116301

114024

115937

114105

115418

114809

115283

129

107127

108396

108690

130

108690

110388

108903

111077

109090

111208

109516

131

111208

113431

111077

113389

112811

114024

113486

132

113057

114234

Chart 133

114234	114927
114731	114458
114856	114790
115032	

134

118257
118568
118518
118831

135

119973
120179
121582
122497

136

113389	114024	114885
114458	114105	116418
114790	115805	
114836	115896	

137

117429	118170
117488	119296
118834	118923
118833	

138

119296	121178
120361	121518
121363	121772
121061	121519

Chart

139

116120	116418	117256	117922
116301	116949	117491	118923
115937	117490	118833	119387
115805	117239	118834	119682

140

119387	120361	{ 120767	122905
118923	120460	{ 120768	
118833	120494	121839	
118834	121363	122763	

141

116120	118474
116492	
115925	
117007	

142

118474	121242
119682	121243
119661	121509
120814	

143

122905
123722
123593
125500

144

117844	120229	118848	121099
117891	120332	121126	
117345	120333	121950	
118474	118593	121100	

Chart 145

121100	123337	125210
121099	123451	
122166	123028	
121950	123722	

146

118343	121521
117961	121126
118685	
121437	

147

121521	126302
124729	126989
124515	
125740	

148

114444
116362
117041

149

123469
123723

150

123723	128843
123469	129778
123493	
128183	

151

115637
116362

chart

152

121296

124113

122250

124136

122420

124317

153

124317

131110

128076

133028

127114

133743

128508

154

none

155

121511

125517

124845

126674

156

128508

128863

133620

133028

157

110832

158

108573

112183

159

129332

Chart 160

134208

140790

137346

161

150508

162

170391

177591

Oct. 17, 1939

Carnia

Notes on Chart 56, (new)

Star about half-way between 2981 and 3112, marked
A2p. See MFH 542

56
 Very dark lines, apparently different from other spectrum
 one line near 4026, but shorter &.

Approx. 10 39.6 -54 30

Star 10 42.0 -53 43
 preceding 3 454

Appears to be a narrow lined star
 thought it might be B but below M.S.

Best plates

B3762

37662

MF 7542

7922

Visible interference in 3417 but H
 K seen on these plates

many other ⁷⁹³⁴ plates looked up, but no ft.

A5p

Carnia

Oct. 19, 39
Chart 56 (cont.)

56 Star H.D. 3753, 4

217 in B37600

Classified Comp. for
A3On inspection of several plates, I have my
doubts about composite type

B37600, 40097 used for plates

Carina

Oct. 23, 1939

Chart 57

H.D. 5943, 4

Classified G0 in B37762 (combined light)
 but numerous plates show best stars to have strong
 hydrogen lines and to be near Class A.

Entire in correction.

H.D. 6542

Classified F2

Corrected to A3

Larus

Dec. 4, 1939

Notes on Charts of Larus Cloud
 Numbering same as

5

No. 5 A bright star left out.
 Numbering of a few must be changed.

Notes:

✓ 486 Check which one of pairs

✓ Br. Star near 804 Defect.

863 ^{anti} marking not recp / wrd.

No. 9. M stars numerous.

Plates 8144, 8150 not well defined
 at red end and there may have been a
 tendency to place red stars a little
 later, (that is too mistimed of K7) than
 formerly.

894 decidedly M1

Some are very fl.

Lunar charts

Numbering on 9, 8, 7, 6 checked.

Chart 2

Numbering gone on

143 which star \rightarrow position marked. 27 4 40 + 40
 1158, 9m 10014 O.K. in chart,

O.K. 166 " " n. p. marked 4 40 539

2 135- 1758 196 Change pos. of 196 ?

✓ R5 line to star might be a little darker

✓ 217 also to 236

✓ " " 516

✓ 577 to be star

Taurus cloud
region. cont.

Dec. 7, 1939

Chart I

Numbering checked

O.K. 0104² Surely double?

ch 662 line fl.

ch 667 " "

ch 716 " "

ch 747 line short

✓ Br. star in. 7764 A Torfars.

ch 791 line indistinct

240 Deflection following?

O.K. 894, 5 Double?

ch 910 line indistinct

ch 078 " "

Dec. 7, 1935

Taurus

25- Check 25-
Numbering checked

24 Numbering checked
✓ Star 836 in near edge?
changed.

17 2961 should be 29
Numbering same as

✓ 833 R5 Look for star - n. of 3922
cl 3840 not understood
cl 3922 not understood

✓ 058 M. look up

tan. M3c 135 M2 very ft. RX Per

✓ 177 as very ft. near b. star

cl 467.9 not understood

193 P^o mean 347.2 + 33.29 (1.875)
known? Is

chart
16

Dec. 8, 1935 Taurus
Numbering gone over
404. Make line a bit longer

550, 51 Confirmed duplicate.

15

Numbering gone over

One star below 607 missing chart 16
crossed off both, but as it is classified
✓ only A better than it out as it is
very indistinct on 10014, 8173, 10004

12

Numbering checked

4
48+38

188 S sect? numbering gone over.
Record says confirmed on M 18175 (very poor but resembles π 11
211 Marking? in 1345071

✓ Star N. of 0896 n.s.

1992 Line shorter

Dec. 9, 39

Taurus

chart

4 ✓ Star N. of 250 ? Defect.

✓ m. of 318 Torpor.

✓ Double Below 364 Defect? or double?

✓ Above ³⁹⁶ 449 Torpor

✓ 462, 63 close

✓ 529 ft. ! Yes, very No. 1369. I found
in ft. lines in three days!

538 line poor

3 ✓ 566, 67. Double?
numbering gone over

✓ 596, 97 ;

✓ Br. star N. of 607

{ 635 near edge. Change if possible
 changed to star a little N. marked on first chart
 661, 2 lines faint

Taurus

Dec. 11, 1939

(Too dark, rainy & snowy)

3

~~line short~~

✓

143 Which star? O.K. the following
 Conf. in H₂ 10515 but I do not think this is
 the plate I used for the edges.

20

number being checked.

326

nebulous? Check up.

208

line ft.

Jarus

Dec. 13, 1939

Chart

19 ^{corrected} CL ^{numbering gone on}
 Note 539, 639 very near each other

^{corrected} CL 490 Very close marked. Changed in preliminary copy.

605 ✓ Check. Ft. near a to star,
 about $x^2 = +29$

^{corrected} CL 671 A_2 ^{not} on final copy!

^{corrected} CL 722 line looks as if going to fainter stars
 on final copy.

^{corrected} CL 787 marked differently in two sheets

5295 Br. object S?

3 56 + 31

Best on 8167. See whether best to include it
 and with something near?

^{corrected} CL Original 491 rather poor, omitted &
 no. assigned to this object. See first chart -
 Correct on final

Dec. 13, 1939

Taurus

18

corrected
CL876 line ft. ~~numbering system~~corrected
CL

934 line out directly torr. stars

086, 7, 8 3 stars?

121 be sure which star

corrected
CL

181 badly marked

Noted
CL

Notes 178, 273 better feet measurement was for adjacent stars.

corrected
CL

242 badly marked

Dec. 13, 1935 *Taurus*

13

344 *numbering fine run*
very fl.

Noted
 CL.

note 430, 473

438, 485 —

✓

10

numbering fine run

Corrected
 CL

586 *Masking rather light*

Corrected
 CL

542, 640 close

~~747, 7~~

Corrected
 CL

761 *the ink well made*

Corrected
 CL ✓

776 *line poor.*

777 " "

779 " "

Dec. 13, 39

Larus

10

799 Where is star?
Big defect covering star.

23

numbering gone on
 CL 967 line rather short.
 CL 3632 " " "
 CL 974 looks like 1974
 136 mag ft.
 048 Oes Confirm O.R. on second photo.
 CL 4. D. 3548. omitted on final
 217 ft. defect near?
 CL 3899 and again change in numbering.

22

final
 number ✓
 ✓

numbering gone on
 373 look up. Can not better
 412, 13 " " Apparently O.R.

✓ O.R. 7108 R Subdivided?
 → R3

Jannus

21 ✓ ^{numbering from on} 681 ft. Yes, but apparently near F.

✓ 571 R ~~ft~~ ⁴ Jan
What is peculiar? Soft and hazy
the line omit p.

14 ✓ ^{numbering from on} 734 done

11 ^{numbering from on}

✓ 948 say ft. also 946
Better images on edge of track 11
Plate 8207 confirms general types of sp.

Taurus

Jan. 17, 1940

Have finished going over the charts of
Taurus Cloud region. Plates are not good
for ft. stars. Perhaps the region was too
low at Acapulco. I have looked up
many of the very faint objects and have
omitted those which seemed very uncertain
and which I could not confirm.

Chart 39 Star 3 53 + 11 35 (rough)
R₁₀

I do not find this R star in any
list I have at hand.

Carmia

Jan. 19, 1940

Chart 57 ^{near} Overlap at n. of chart 57Star s.p. 4626. 10 49 - 57
arp. hinc rarr.

Star following H.D. 6930

Fg p. K line ft. on several plates
examined, suspected the comparison.Belum 7471 + 7498
Fsp. K line n.s. Apparently comparison
on 7957 best..near chart 51 Star H.D. 4468 (on chart 57)
10 48.7 - 57 39Shows strong tilt. aside huls on B37600,
n.s. on 7957. With a known var.

H.D. 7151

CHP found Hb h. on X14967

Br. Hb Confirmed. Various plates looked up to see if

I can be sure of B2, but nothing very pure.

chart 51 p. 61 B ~~43030~~ 43030 line.
So I assume B2.

Carmichael

Feb. 23, 1940

Chart 98-99

98 completed Feb. 21.

M F 7541

99

slaw n.f. HD 8981

Looks like G-K with line K ft.

Probably composite

M F 7506 shows very large portion like H γ and H β ,
appears black very fl.If comp. I can not classify secondary
Spectrum Better learn it K p. (Comp?)Slaw. Lich 9338⁽⁸⁾ and 9339 11 26-5430On M F 7522 H γ , H δ H ϵ double.

not very double

On A chart plates duplicity not evident.

March 1, 1900

Finished Chart 99

Started " 100

Finished 100

March 11, 1940

70

Finished Chart 70

With very satisfactory plates.
 1st. plates not well seen, especially in
 northern part. B37600 and B37574 show
 families than M Fe plates, but again in one edge.

M Fe 7942

7834 perhaps best.

Started Chart 69

but, the plates are so poor I stopped
 in this and went back to M Fe 7957,
 for finishing Chart 45.

March 21, 1940

Finished chart 45 yesterday, the η Cas.
chart.

Started chart 46

Peculiar sp. n. of 5153

Sp. G γ with strong line

or F δ " " metallic & bright portion
between H β and H γ .

Remembers ρ Cass. no. 69 on D37241
in prominent features..

March 25, 1940
Chart 51 cont. from p. 58

Star H.D. 7253

C.H.P. 9 from it Oe X 14967

confirmed.

Classified for H.D. B 43000, no poor def.

7434

Same as above. Picking series seen
and barely the bellies 4686, 4688

March 28, '40

Chart 46 a hard one!

New net? N. pos. 7499

Finish star cluster n. 78242

all seem like A or near A stars

HD 8645 Pec. Br. lines in MF 7841

Star n. p. 5415

Grant! Classified F8. Probably a giant or supergiant, lines H γ , me of shorter than H δ very narrow, as seen in 7957

Go star field and n. 75043 10 53 - 60 13
C of Car. lines narrow

Star n. 76139 s.f. 76060

Very weak lines narrow.
Resembles λ Carinae

Chart 46

Go slow m. 77284

Difficult due to superposition of faint spectra.

Make H γ K seen best on Pl. 7906

May 4, 1940

Chart 103

Star approx. 11 10 - 60 50 A.P. 8657

on MF 7841 a very strong K line. From this plate alone I should classify A5 - but on other plates certainly a B star. Rather puzzling to note such differences in two plates taken with the same instrument.

#8628

Appears to have bright lines on MF 7902

See also p. 66.

May 18, 1940

Charts

Chart 34 new
Edge of 7321 poor.

About half of 34^{new} is covered by 67^{new}
in which a few additional spectra were
obtained. All plates lacking in fr. sp.
B 40308 examined
A 2222 very poor def.

40 new

Star Be s. spec. Bright star 2664
Bright lines. Class indef.

41 a used because 41 new does not
quite lap.

May 22, 1946

Sheet 103

Worked on quite a bit, but reprint is
very crowded and sheet very poor.

A new one has been asked for, so I think
best to wait as the images are so diffuse
that it may be uncertain which is intended.

X sp. plate
I 2602

X 15589 10 39.7-64.7
used for chart 103

others

X 15690

15694

15721 turned the other way from 15589

15725 shows again N. of cluster

15732 Dec. 1907
appears to be in Car.

15850 no ft. stars

15895 Def too poor

Feb. 3766

X 15841 11 32.9-61.2
Def. good. Perhaps best.

15734 best? marked.

15726

J. Cl. 2714

11 15 - 62.3

X 15680

St. cluster Pl. marked

X 15838


June 1, 1940

Check 63

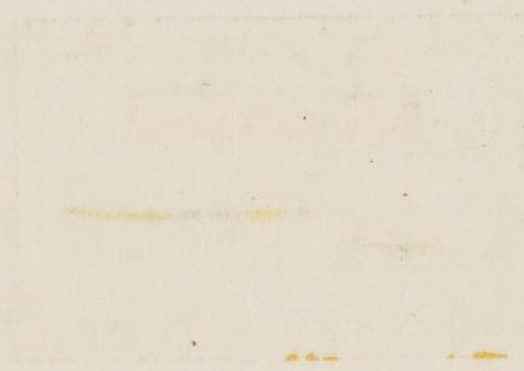
not much found good enough to fill in
B3846 about the best.

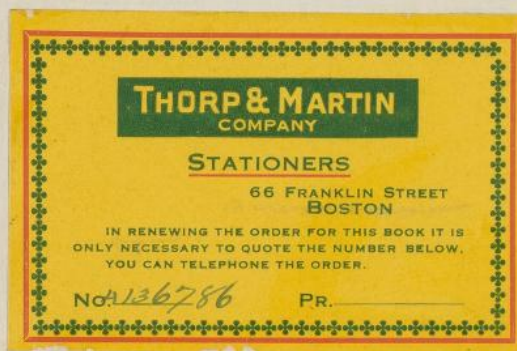
B22988 can not be found.

Sat. Aft. June 22, 1980

Checked up charts a and b for
objects marked  dipping in charts

nos 101, 23, 24, 25, 26, 27,
28, 29, 30, 31, 32, 33, 65, 66,





1939phae.proj.2283C