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Reduction C.
of
Zone Observations
1853

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Wood's 1587

8 1853·0 α 20ʰ 11ᵐ 06ˢ·06 (2) δ + 0° 11′ 11″·1 (2)

Ann. p	−3·07		−10·9
	α 20ʰ 11ᵐ 02ˢ·99		δ + 0° 11′ 00″·2
t_{15}	11ᵐ 03ˢ·75	s_{15}	11′ 09″
t_{17}	11ᵐ 03ˢ·10	s_{17}	11′ 07″
$\alpha - t_{15}$	−0·76	$\delta - s_{15}$	−8·8
$\alpha - t_{17}$	−0·11	$\delta - s_{17}$	−6·8
		Δ'_{15}	−0·2
		Δ'_{17}	−0·2
			−8·6
			−6·6

8·9 1853·0 α 20ʰ 12ᵐ 43ˢ·21 (2) δ + 0° 17′ 01″·4

Ann. p	−3·06		−11
1852·0	α 20ʰ 12ᵐ 40ˢ·15		δ + 0° 16′ 50″·4
t_{15}	20ʰ 12ᵐ 40ˢ·70	s_{15}	16′ 57″
t_{17}	12ᵐ 40ˢ·10	s_{17}	16′ 57″
$\alpha - t_{15}$	−0·55	$\delta - s_{15}$	−6·6
$\alpha - t_{17}$	+0·05	$\delta - s_{17}$	−6·6
		Δ'_{15}	−1·3
		Δ'_{17}	−1·4
			−5·3
			−5·2

9 1853·0 α 20ʰ 11ᵐ 09ˢ·80 (2) δ + 0° 15′ 56″·7 (2)

	−3·06		−10·9
	α 20ʰ 11ᵐ 06ˢ·74		δ + 0° 15′ 45″·8
t_{15}	11ᵐ 7ˢ·40	s_{15}	16′ 53″
t_{17}		s_{17}	
$\alpha - t_{15}$	−0·66	$\delta - s_{15}$	−7·2
$\alpha - t_{17}$		$\delta - s_{17}$	
		Δ'_{15}	−1·1
		Δ'_{17}	
			−6·1
			---

9 1853·0 α 20ʰ 52ᵐ 02ˢ·44 (1) δ + 0° 17′ 30″·5

Ann. p	−3·07		−13·7
1852·0	α 20ʰ 51ᵐ 59ˢ·37		δ + 0° 17′ 16″·8
t_{15}	51ᵐ 59ˢ·85	s_{15}	17′ 23″
t_{17}	51ᵐ 59ˢ·20	s_{17}	17′ 25″
$\alpha - t_{15}$	−0·48	$\alpha - t_{15}$	−6·2
$\alpha - t_{17}$	+0·17	$\alpha - t_{17}$	−8·2
		Δ'_{15}	−1·3
		Δ'_{17}	−1·4
			−4·9
			−6·8

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Jones 15 8 17

		h m s	° ′ ″
9	1853.0	a 21 12 33.43 (1)	δ +0 13 31.6 (1)
	Ann. μ	−3.07	−14.9
		a 21 12 30.36	δ +0 13 16.7
		t_{15} 12 31.10	s_{15} 13 21
		t_{17} 12 30.60	s_{17} 13 22
		$a - t_{15}$ −0.74	$\delta - s_{15}$ −4.3
		$a - t_{17}$ −0.24	$\delta - s_{17}$ −5.3
			d'_{15} −0.5
			d'_{17} −0.6
			−3.8
			−4.7

August 1853. Thermometer.

Max. 12 I — 95-3 Pk — 21 II — 8.7 — min. 48

Barometer

Highest — Lowest

26. 9th m 30.298-65 — 18-9 Pk 29.568

Rain 8.588

Sept. 8th Mr Walton

Kitchen sides & floor Painted.

Sitting Room, Papered & Painted

Parlour Painted.

Entry Painted.

452
19
4068
452
8.588

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1851.

EC – Jan. 30 Hour – 13.40
Feb. 3 " 13.43
7 " — 13.20 +0.06
11 " — 12.46 +

July – 1 " — 1.40.09
5 " — 1.59.00 / 4 / 18.41 / 4.73
7 " . 2.06.41 / 2 / 7.41 / 3.70
9 " . 2.19.0
12 " . 2.36.0 / 3 / 20 / 6.70

July 21 " — 1.37.91
23 " — 1.28.33 / 2 / 4.58 / 4.79
25 " — 1.22.0 / 2 / 6.33 / 3.16

Aug. 2 0 Hour. 38.16
5 " — 22.18 / 3 / 15.98 / 5.33
8½ P.M. Hour 4.13
11 " Watch – 11.79 / 3 / 15.92 / 5.31
20 " — 1.11.41 / 5 / 58.62 / 6.62

Oct. 31 Hour 16 5 13.51 / 16.15 / 2 / 2.64 / 1.32

Nov. 1 + 16.15

EC.
Nov. 6 – Watch 9.42
Dec. 3 – Hour 13.61
5 –

202.
Dec. 5 – Hour 18.66
16 – " 40.63
11 / 21.91 / 2 / 3.41 / 15 / 16 / 2.43

EC – Dec 24 – 11 2.60.35
Jan 1 – " – 2.11.32 / 3 / 10.97 / 3.66

1 – 2.11.40
2 – 2.14.63 / 3.23 ± 3.48.83
27 – 3.48.09 / 2 / 7.26 / 3.63

Jan. 24 – Hour 13.75 24 Feb.
Average 15.38 / 1.65

Jan 3 = 4.16
Feb. 24 + 13.25 / 11 / 17.91 / 1.79

1851.

EC – Jan. 30 Hour – 13.40
Feb. 3 " 13.43
7 " — 13.20 +0.06
11 " — 12.46 +

4) 74 / 18

29.
March 12 Hour 6.93
14 " – 6.16 / 2 / 77 / 1.38

202
April 4 Hour 2.42
7 " 10.41 / 3 / 7.99 / 2.66

19. April 9½ Hour 2.67
10 " 2.65
12 – 1.27 / 2 / 1.38 / .69

June 2 0 Hour 14.68
5 " 15.08 / 3 / 40 / 0.13
10 " 19.38 / 5 / 4 30 / 0.82

2964
Sept. 6 – Hour 49.82
8 " 55.57 / 2 / 5.75 / –2.87
11 — " 56.66 / 3 / 1.09 / .36
15 " 56.54 +0.03 / 12 / 33 / .16

Oct. 1 5 Hour 46.67
6 – " 38.83 / 5 / 7.84 / 1.57
37.60 / 1.23

Nov. 3 – Hour 13.61

Dec. 3 – Hour 13.61

Jan. 3 = 4.16
Feb. 24 + 13.25 / 11 / 17.91 / 1.79

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1853phae.proj...211.

Jones 15 8 17

	h m s	° ′ ″
☿ 1853·0	α 21 12 33·43 (1)	δ +0 18 31·6 (1)
Ann. p	−3·07	−14·9
	α 21 12 30·36	δ +0 13 16·7
t_{15}	12 31·10	s_{15} 13 21
t_{17}	12 30·60	s_{17} 13 22
$\alpha - t_{15}$	−0·74	$\delta - s_{15}$ −4·3
$\alpha - t_{17}$	−0·24	$\delta - s_{17}$ −5·3
		d'_{15} −0·5
		d'_{17} −0·6
		−3·8
		−4·7

24 Sheets written.
70 moon culminations with stars observed at ~~Harvard~~ Observatory, Cambridge, Mass.

Rain −0.555−
May 97. min ~~40~~ 38 frost on low grounds.

Large, and also protractile iris. Pupil circular. Eyes, & eyelids, but it is effected by light. Ray shall provide their own stationary.

~~30.338 ☉ ☿ ☌ ♃ Ann~~
30·368−66. d.r. 12th
~~29.878−77 3 Pall ☿~~
29.720.73 − d.r. 24

3.37

1854.
May. 22. Jupt. 1.45.04
24 " 1.41.67 +1.68
25 " −1.38.86 +2.81
4.49
2.24

26 Jupt. 1.36.69
28 " 1.32.85
4.44
2.22

☾C −
1852 − Oct. 28 Moon − 1.69
22 " − 1.49
23 " − 1.19
25 " − 0.67

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1853phae.proj..211.

Jones 15 & 17

	h m s	° ′ ″
9 1853·0	α 21 12 33·43 (1)	δ +0 13 31·6 (1)
Am. p	− 3·07	− 14·9
	α 21 12 30·36	δ +0 13 16·7
t_{15}	12 31·10	s_{15} 13 21
t_{17}	12 30·60	s_{17} 13 22
$\alpha - t_{15}$	− 0·74	$\delta - s_{15}$ − 4·3
$\alpha - t_{17}$	− 0·24	$\delta - s_{17}$ − 5·3
		d'_{15} −0.5
		d'_{17} −0.6
		−3.8
		−4.7

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Comparison of Stars with Zones 15 & 11 1852. for beginning of Zones 15 & 17 1852.

Mag	Zone 11	k	Zone 10	k	α 1852
10	19..39..19.10	+0.70	19..39..19.90	−0.10	19h..39m..19s.80
10	40..57.05	+ .70	40..57.80	− .10	40..57.72
9-10	41..38.15	+ .70	41..39.00	− .10	41..08.87

Comparison of Stars with Zones 61 & 62 for the end of Zones 15 & 17

	Zone 61	k	Zone 62	k	α 1853.	prec.	α 1852.
11	21..23..28.70	+0.10	21..23..28.90	−0.10	21h..23m..28s.80	+3s.06	21..23..25.74
12	24..10.00	+ .10	24..10.00	− .10	24..10.00	3.06	24..06.94
13	24..10.80	+ .10	24..10.95	− .10	24..10.87	3.06	24..07.81

Beginning of Zones 15 & 17.

α 1852.0	t_{15}	t_{17}	$\alpha - t_{15}$	$\alpha - t_{17}$	δ 1852.0	s_{15}	s_{17}	$\delta - s_{15}$	$\delta - s_{17}$
19h..39m..19s.80	20.00	19.55	−0.20	+0.25	+0°..05'..02".3	5.08	5.09	−5.7	−6.7
40..57.72	58.00	57.55	−.28	+.17	5..00.3	5.07	5.07	−6.7	−6.7
41..08.87					10..04.8				

Mean

End of Zones 15 & 17.

α 1852.0	t_{15}	t_{17}	$\alpha - t_{15}$	$\alpha - t_{17}$	δ 1852.0	s_{15}	s_{17}	$\delta - s_{15}$	$\delta - s_{17}$
21h..23m..28s.74	26.55	25.95	−.81	−0.21	+0°..04'..37".9	4.48	4.48	−10.1	−10.1
24..06.94	7.70	7.15	−.76	−.21	6..40.9	6.37	6.37	−10.1	−10.1
24..07.81	8.70	8.05	−.87	−.24	4..15.9	4.27	4.27	−11.1	−11.1
			−.82	−.22				−10.4	−10.4

Mean

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Comparison of Stars with Zones 1011 for the beginning of Zones 15 & 17.

Zone 15	d	Zone 10	d	δ 1852
0° 5′ 08″	−5.0	0° 5′ 09″	−6.5	0° 05′ 02″.3
5 05	−5.0	5 07	−6.5	5 00.3
10 11	−5.0	10 10	−6.5	10 04.8

Comparison of Stars with Zones 61 & 62 for the end of Zones 15 & 17.

Zone 61	d	Zone 62	d	δ α 1853.0	prec.	δ 1852.
0° 4′ 56″	−1.0	0° 4′ 57″	−5.0	4° 04′ 53″.5	+15″.6	+0° 4′ 37″.9
6 59	−1.0	7 00	−5.0	6 56.5	+15.6	+ 6 40.9
4 34	−1.0	4 35	−5.0	4 31.5	+15.6	+ 4 15.9

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Wones 1881 9

	h m s	° ′ ″
9 1853·0	α 22 06 18·81 (2)	δ + 0 09 06·4
Au. p.	− 3·07	− 17·6
	α 22 06 15·74	δ + 0 08 48·8
t_{18}	22 06 16·40	s_{18} 8·67
t_{19}	6 16·70	s_{19} 8·56
$\alpha - t_{18}$	− 0·66	$\delta - s_{18}$ ~~+ 8·2~~
$\alpha - t_{19}$	− 0·96	$\delta - s_{19}$ − 7·2
		d'_{18} − 1·1
		d'_{19} − 2·3
		~~− 7·1~~ − 7·1
		− 4·9

	h m s	° ′ ″
8 1853·0	α 21 39 23·13 (6)	δ + 0 10 36·7 (6)
Au. p.	− 3·07	− 16·4
	α 21 39 20·06	δ 0 10 20·3
t_{18}		s_{18} 10·26
t_{19}	39 20·40	s_{19} 10·24
$\alpha - t_{18}$		$\delta - s_{18}$ − 5·7
$\alpha - t_{19}$	− 0·34	$\delta - s_{19}$ − 3·7
		d'_{18} − 1·2
		d'_{19} − 2·6
		− 4·5
		− 1·1

	h m s	° ′ ″
9 1853·0	α 22 11 00·38 (1)	δ + 0 08 13·7 (1)
Au. p.	− 3·07	− 17·8
	α 22 10 57·31	δ + 0 07 55·9
t_{18}	22 10 57·65	s_{18} 8·06
t_{19}	10 57·90	s_{19} 8·06
$\alpha - t_{18}$	− 0·34	$\delta - s_{18}$ − 10·1
$\alpha - t_{19}$	− 0·59	$\delta - s_{19}$ 10·1
		d'_{18} − 1·0
		d'_{19} − 1·7
		− 9·1
		− 8·4

	h m s	° ′ ″
8 1853·0	α 21 43 01·31 (5)	δ + 0 04 11·1 (5)
Au. p.	− 3·07	− 16·6
	α 21 42 58·24	δ + 0 03 54·5
t_{18}	42 58·55	s_{18} 4·02
t_{19}	42 58·80	s_{19} 4·01
$\alpha - t_{18}$	− 0·31	$\delta - s_{18}$ − 7·5
$\alpha - t_{19}$	− 0·56	$\delta - s_{19}$ − 6·5
		d'_{18} − 0·5
		d'_{19} − 1·0
		− 7·0
		− 6·5

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Jones 1848 19

	h	m	s		°	′	″
9 1853.0	α 22	15	13.69 (1)	δ + 0	04	57.1
			− 3.07			− 18.0
	α 22	15	10.62	δ + 0	04	39.1
t_{18}		15	11.10	s_{18}		4.44
t_{19}		15	11.90	s_{19}		4.42
$\alpha - t_{18}$		− .48		$\delta - s_{18}$		− 4.9
$\alpha - t_{19}$		− .88		$\delta - s_{19}$		− 2.9
				d'_{18}		− 0.6
				d'_{19}		− 1.3
						−4.3
						− 1.6

	h	m	s		°	′	″
9 1853.0	α 22	14	33.46 (1)	δ + 00	00	30.9 (1)
Am. p.			− 3.07			− 18.0
	α 22	14	30.39	δ + 0	00	12.9
t_{18}		14	30.60	s_{18}		0.21
t_{19}		14	30.90	s_{19}		0.21
$\alpha - t_{18}$		− 0.21		$\delta - s_{18}$		− 8.1
$\alpha - t_{19}$		− 0.51		$\delta - s_{19}$		− 8.1
				d'_{18}		− 0.0
				d'_{19}		− 0.1
						−8.1
						−8.0

	h	m	s		°	′	″
9 1853.0	α 22	49	21.57 (1)	δ + 0	06	13.4
			− 3.07			− 19.1
	α 22	49	18.50	δ + 0	05	56.3
t_{18}	22	49	18.60	s_{18}		6.05
t_{19}		49	18.95	s_{19}		6.04
$\alpha - t_{18}$		− 0.10		$\delta - s_{18}$		− 8.7
$\alpha - t_{19}$		− 0.45		$\delta - s_{19}$		− 7.7
				d'_{18}		− 0.7
				d'_{19}		− 1.6
						−8.0
						−6.1

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Jones 1848 19

	h m s	° ′ ″
6.7 1853.0	α 22 51 55.69 (9)	δ +0 10 43.6
An. p.	−3.07	−19.2
	α 22 51 52.62	δ +0 10 24.3
t_{18}	22 51 53.15	s_{18} 10.35
t_{19}	51 53.25	s_{19} 10.32
$\alpha - t_{18}$	−0.53	$\delta - s_{18}$ −10.7
$\alpha - t_{19}$	−0.63	$\delta - s_{19}$ −7.7
		d'_{18} −1.2
		d'_{19} −2.7
		−9.5
		−5.0

8.9 1853.0	α 23 05 57.85 (4)	δ +0 07 56.6 (3)
An. p.	−3.07	−19.5
	α 23 05 54.78	δ +0 07 37.1
t_{18}	23 05 55.00	s_{18} 7.46
t_{19}	23 05 55.35	s_{19} 7.44
$\alpha - t_{19}$	−0.22	$\delta - s_{18}$ −8.9
$\alpha - t_{19}$	−0.57	$\delta - s_{19}$ −6.9
		d'_{18} −1.0
		d'_{19} −2.1
		−7.9
		−4.8

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Comparisons of Zones 14 & 16 for the beginning of Zones 18 & 19

Mag.	Zone 14	K	Zone 16	K	α 1852.
10	— 21h 33m 53.80	−0.25	21h 33m 54.00	−0.60	21h 33m 53.48
10	34 41.85	−.25	34 42.20	−.60	34 41.60
10	34 47.30	−.25	34 47.80	−.60	34 47 13
11	36 35.80	−.25	36 36.00	−.60	36 35.48

Comparisons of Zones 22 & 23 – for end of Zones 18 & 19

	Zone 22	K	Zone 23		α 1852.
10	23h 06m 02.00	−0.20	23h 06m 02.30	−0.50	23h 06m 01.80
12	6 53.90	−0.20	6 54.20	−.50	6 53.70
10-11	7 28.20	−.20	7 28.65	−.50	7 28.07

Beginning of Zones 18 & 19.

α 1852.0	t_{18}	t_{19}	$\alpha - t_{18}$	$\alpha - t_{19}$	δ 1852.0	s_{18}	s_{19}	$\delta - s_{18}$	$\delta - s_{19}$
21h 33m 53.48	53.20	53.70	+.28	−.22	+0° 00′ 01.8	0.06	0.05	−4.2	−3.2
34 41.60	41.50	41.80	+.10	−.20		10.18	10.17		
34 47.13	47.15	47.45	+.02	−.32	0 04.3	0.08	0.07	−3.7	−3.7
21 36 35.48	35.45	35.70	+.03	−.22	6 28.3	6.33	6.33	−4.7	−4.7
Mean			+.10	−.24				−4.2	−3.8

End of 18 & 19

	t_{18}	t_{19}				s_{18}	s_{19}		
h m s					° ′ ″				
23h 06m 01.80	2.20	2.40	−0.40	−0.60	0° 03′ 37.0	3.45	3.44	−8.0	−7.0
6 53.70	54.20	54.40	−.50	−.70	0 57.0	1.05	1.03	−8.0	−8.0
7 28.07	28.55	28.80	−.48	−.73	10 02.5	10.09	10.08	−6.5	−6.5
			−.46	−.68				−7.5	−7.2

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Comparison with Zones 14 & 16 for beginning of Zones 1849.

Zone 14	Zone 16	δ 1852
0h 0m 12s − 11.0	0h 0m 04s −1.5	0° 00′ 1.8
10h 14m − 11.	10h 15m − 1.5	10h 8.3 = 3.3
0h 15m − 11.	0h 06m − 1.5	0h 4.3
6h 39m − 11.	6h 30m − 1.5	6h 28.3

10″ ? Dec

Comparison with Zones 22 & 23 - for the end of Zones 1849.

Zone 22	Zone 23	δ 1852
0h 3m 41s − 4.0	0h 3m 40s − 3.0	0h 3m 37.0
1h 00m − 4.0	1h 01m − 3.0	0h 57.0
10h 06m − 4.0	10h 06m − 3.0	10h 02.5

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Jones 20 & 21

8 1853·0 α 21h 39m 23s·20 (6) δ +0° 10′ 36″·7 (6)

Am. p	−3·07		−16·4
α	21h 39m 20s·13	δ	+0° 10′ 20″·3
t_{20}	39m 20s·45	s_{20}	10″·24
t_{21}	39m 19s·95	s_{21}	10″·26
$\alpha - t_{20}$	−0·32	$\delta - s_{20}$	−3·7
$\alpha - t_{21}$	+0·18	$\delta - s_{21}$	−5·7
		d'_{20}	−0·0
		d'_{21}	−0·1
			−3·6
			−5·6

9 1853·0 α 22h 08m 07s·18 (2) δ +0° 14′ 38″·0 (2)

Am. p.	−3·07		−17·7
α	22h 08m 04s·11	δ	+14″·20·3
t_{20}	22h 8m 5s·00	s_{20}	14″·32
t_{21}	08m 04s·40	s_{21}	14″·31
$\alpha - t_{20}$	−0·89	$\delta - s_{20}$	−11·7
$\alpha - t_{21}$	−0·29	$\delta - s_{21}$	−10·7
		d'_{20}	−1·0
		d'_{21}	−1·2
			−10·7
			−9·5

8 1853·0 α 21h 52m 28s·89 (5) δ +0° 13′ 18″·7 (5)

Am. p	−3·07		−17·0
α	21h 52m 25s·82	δ	+0° 13′ 01″·7
t_{20}	21h 52m 26s·40	s_{20}	13″·12
t_{21}	21h 52m 25s·90	s_{21}	13″·12
$\alpha - t_{20}$	−0·58	$\delta - s_{20}$	−10·3
$\alpha - t_{21}$	+0·12	$\delta - s_{21}$	−10·3
		d'_{20}	−0·8
		d'_{21}	−0·8
			−9·5
			−9·5

This star is not in the Jones

6 1853·0 α 22h 27m 28s·26 (5) δ +0° 16′ 57″·5 (5)

Am. p.	−3·07		−18·5
α	22h 27m 25s·19	δ	+0° 16′ 39″·0
t_{20}		s_{20}	
t_{21}		s_{21}	
$\alpha - t_{20}$		$\delta - s_{20}$	
$\alpha - t_{21}$		$\delta - s_{21}$	

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Wonen 20 & 21

9 1853·0 α 22h 32m 14.65 (1) δ +0° 16′ 25.6 (1)

	−3.07		−18.6
α	22h 32m 11.58	δ	+0° 16′ 07.0
t_{20}	32m 12.40	s_{20}	16″.19
t_{21}	32m 11.80	s_{21}	16″.19
$\alpha - t_{20}$	−0.82	$\delta - s_{20}$	−12.0
$\alpha - t_{21}$	−0.22	$\delta - s_{21}$	−12.0
		α'_{20}	−1.4
		α'_{21}	−1.8
			−10.4
			−10.2

6.7 1853·0 α 22h 51m 65.69 (9) δ +0° 10′ 43.5 (

	−3.07		−19.2
α	22h 51m 52.62	δ	+0° 10′ 24.3
t_{20}	51m 53.25	s_{20}	10″.34
t_{21}	51m 52.80	s_{21}	10″.35
$\alpha - t_{20}$	−0.63	$\delta - s_{20}$	−9.7
$\alpha - t_{21}$	−0.18	$\delta - s_{21}$	−10.7
		α'_{20}	−0.1
		α'_{21}	−0.1
			−9.6
			−10.6

6.7 1853·0 α 22h 47m 28.34 (6) δ +0° 16′ 57.8

	−3.07		−19.1
α	22h 47m 25.24	δ	+0° 16′ 38.7
t_{20}	47m 26.10	s_{20}	16″.49
t_{21}	47m 25.60	s_{21}	16″.49
$\alpha - t_{20}$	−0.86	$\delta - s_{20}$	−10.8
$\alpha - t_{21}$	−0.36	$\delta - s_{21}$	−10.8
		α'_{20}	−1.8
		α'_{21}	−1.9
			−8.8
			−8.7

6 1853·0 α 23h 19m 43.02 (8) δ +0° 18′ 56.3 (8)

	−3.07		−19.7
α	23h 19m 39.95	δ	+0° 18′ 36.6
t_{20}	19m 41.10	s_{20}	18″.47
t_{21}	19m 40.60	s_{21}	18″.47
$\alpha - t_{20}$	−1.15	$\delta - s_{20}$	−10.4
$\alpha - t_{21}$	−0.65	$\delta - s_{21}$	−10.4
		α'_{20}	−2.4
		α'_{21}	−2.5
			−8.0
			−7.9

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Jones 20 & 21

9 1853·0 α 23ʰ 22ᵐ 03·88 (1) δ +0° 17′ 40·7 (1)

An. f −3·07 −19·8

α 23ʰ 22ᵐ 00·81 δ +0° 17′ 20·9

t_{20} 22ᵐ 01·85 s_{20} 17′ 34

t_{21} 22ᵐ 01·35 s_{21} 17′ 33

$\alpha - t_{20}$ − 1·04 $\delta - s_{20}$ − 13·1

$\alpha - t_{21}$ − 0·54 $\delta - s_{21}$ − 12·1

α'_{20} − 1·9

α'_{21} −2·1

−11·2

−10·0

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Comparisons with Zones 61 & 62 (1853.) for beginning of Zones 20 & 21 (1852.)

Mag.	Zone 61	k	Zone 62	k	α 1853.	prec.	α 1852.
11	21h 40m 45s.45	+.00	21h 40m 45s.70	−0.15	21h 40m 45s.50	+3s.06	21h 40m 42s.44
	42m 35s.55	+.00	42m 35s.65	−.15	42m 35s.53	+3.06	42m 32s.47

Comparisons with Zones 24 & 25 (1852.) for the end of Zones 20 & 21 (1852.)

	Zone 24	k	Zone 25	k	α 1852.
11 10-11	23h 24m 57s.00	−0.40	23h 24m 56s.80	−0.30	23h 24m 56s.55
11	26h 08m 80s	−.40	26h 08m 75s	−.30	26h 08m 42s
11 9	27h 57m 00s	−.40	27h 56m 80s	−.30	27h 56m 55s
11	28h 42m 65s	−.40	28h 42m 30s	−.30	28h 42m 12s

Beginning of Zones 20 & 21.

α 1852.0	t_{20}	t_{21}	$\alpha - t_{20}$	$\alpha - t_{21}$	δ 1852.0	s_{20}	s_{21}	$\delta - s_{20}$	$\delta - s_{21}$
21h 40m 42s.44	42s.80	42s.10	−.36	+.34	0° 13′ 36″.9	3s.42	3s.42	−5s.1	−5s.1
42m 32s.47	32.85	32.05	−.38	+.42	16′ 40″.9	6s.43	6s.45	−2.1	−4.1
Mean.			−.37	+.38				−3.6	−4.6

End of Zones 20 & 21.

α 1852.0	t_{20}	t_{21}	$\alpha - t_{20}$	$\alpha - t_{21}$	δ 1852.0	s_{20}	s_{21}	$\delta - s_{20}$	$\delta - s_{21}$
23h 24m 56s.55	57s.40	56s.85	−.85	−.30	−0° 0′ 27″.0	−0s.18	−0.19	−9.0	−8.0
26m 08s.42	9.20	8.65	−.78	−.23	+ 2′ 21″.5	2s.30	2.31	−8.5	−8.5
27m 56s.55	57.65	57.05	−1.10	−.50	− 0′ 43″.5	−0s.33	−0.33	−10.5	−10.5
23h 28m 42s.12	43.00	42.60	−.88	−.48	+ 5′ 33″.5	5s.43	5s.43	−9.5	−9.5
Mean.			−.90	−.38				−9.4	−7.5

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Comparisons with Zones 61 & 62 for beginning of Zones 20 & 21.

Zone 61	d	Zone 62	d	δ 1853.	prec.	δ 1852.
13.51	+1.0	13.56	−3.0	0°..13..52".5	+15.6	+0°..13..36.9
16..56	+1.0	16..59	−3.0	16..56.5	+15.6	16..40.9

Comparisons with Zones 24 & 25 for the end of Zones 20 & 21

Zone 24	d	Zone 25		δ. 1852.	
−0°..0'..18"	−8".0	−0°..0'..19"	−9".0	−	0°..0'..27".0
2..30	−8.	2..30	−9.0	+	2..21.5
− 0..35	−8.	0..35	−9.0	−	0..43.5
5..41	−8.	5..43	−9.0	+	5..33.5

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Wones 22823

	h m s	° ′ ″
8.9 1853.0	α 23 05 57.85 (4)	δ +0 07 56.6 (3)
Am. p.	−3.07	−19.5
1852.0	α 23 05 54.78	δ +0 07 37.1
t_{22}	5 54.80	s_{22} 7.42
t_{23}	5 55.20	s_{23} 7.42
$\alpha - t_{22}$	−0.02	$\delta - s_{22}$ +0.9
$\alpha - t_{23}$	−0.42	$\delta - s_{23}$ −4.9
		α'_{22} −1.3
		α'_{23} −1.9
		−3.6
		−3.0

	h m s	° ′ ″
1853.0	α 23 31 39.74 (1)	δ +0 09 42.0 (1)
Am. p.	−3.07	−19.9
1852.0	α 23 31 36.67	δ +0 09 22.1
t_{22}	31 37.20	s 9.31
t_{23}	31 37.70	s 9.30
$\alpha - t_{22}$	−0.53	$\delta - s_{22}$ −8.9
$\alpha - t_{23}$	−1.03	$\delta - s_{23}$ −7.9
		α'_{22} −1.6
		α'_{23} −2.4
		−7.3
		−5.5

	h m s	° ′ ″
8 1853.0	α 23 23 09.47 (1)	δ +0 04 05.3
Am. p.	−3.07	−19.8
1852.0	α 23 23 06.40	δ +0 03 45.5
t_{22}	23 6.75	s_{22} 3.48
t_{23}	23 7.15	s_{23} 3.48
$\alpha - t_{22}$	−0.35	$\delta - s_{22}$ −2.5
$\alpha - t_{23}$	−0.75	$\delta - s_{23}$ −2.5
		α'_{22} −0.6
		α'_{23} −0.9
		−1.9
		−1.6

	h m s	′ ″
9 1853.0	α 0 14 16.29 (1)	0 06 08.8 (1)
	+3.07	+20.0
1852.0	0 14 13.22	0 05 48.8
t_{22}	---	---
t_{23}	0 14 14.80	5.54
	−1.58	---
	−1.58	−5.2

		−1.5
		−3.7
		−3.7

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Jones 22823

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1853.0	0ᵈ 31ᵐ 16.24	(4)	0ᵈ 08ᵐ 25.2
	+3.07		+19.9
	0ᵈ 31ᵐ 13.17		0ᵈ 08ᵐ 05.3
t_{23}	0ᵈ 31ᵐ 16.90		8ᵐ 11.0
	---		-5.7
$a - t_{23}$	-1.73		-2.0
			-~~3.7~~
		Zone 23	-3.7

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Comparisons with Zones 1852 18 19 for beginning of Zones 1852. 22 & 23

Mag.	Zone 18	k	Zone 19	k	α 1852.
11	23h 00m 37.15	−0.40	23h 00m 37.40	−0.60	23h 00m 36.77
11	00 43.85	−.40	00 43.95	−.60	00 43.40
11–12	1 12.65	−.40	1 13.00	−.60	1 12.32
11–12	1 48.00	−.40	1 48.35	−.60	1 47.67

Comparisons with Zones 1853 26 & 27 for the end of Zones 1852. 22 & 23.

	Zone 26	k	Zone 27	k	α 1853.	prec.	1852.
13	0h 42m 05.60	−0.35	0h 42m 05.70	−0.50	0h 42m 05.23	3.07	0h 42m 02.16
12	42 30.05	−.35	42 30.35	−.50	42 29.77	3.07	42 26.70
11	42 40.15	−.35	42 40.25	−.50	42 39.75	3.07	42 36.70
9	43 53.95	−.35	43 54.05	−.50	43 53.58	3.07	43 50.51

Beginning of Zones 22 & 23.

α 1852.0	t_{22}	t_{23}	$\alpha - t_{22}$	$\alpha - t_{23}$	δ 1852.0	s_{22}	s_{23}	$\delta - s_{22}$	$\delta - s_{23}$
23h 00m 36.77	36.90	36.90	−.13	−.13	+0° 01′ 36.3″	1.40	1.39	−3.7	−2.7
00 43.40	43.45	43.75	−.05	−.35	8 15.8	8.20	8.22	−4.2	−6.2
1 12.32	12.30	12.70	+.02	−.38	3 44.8	3 47	3 48	−2.2	−3.2
1 47.67	47.80	48.00	−.13	−.33	3 57.3	3 59	4 00	−1.7	−2.7
Mean			−.07	−.30				−2.9	−3.7

End of Zones 22 & 23.

α 1852.0	t_{22}	t_{23}	$\alpha - t_{22}$	$\alpha - t_{23}$	δ 1852.0	s_{22}	s_{23}	$\delta - s_{22}$	$\delta - s_{23}$
0h 42m 02.16		3.70		−1.54	0° 02′ 30.5″		2.32		~~−1.82~~ −1.5
42 26.70		28.00		−1.30	7 54.5		7 58		−03.5
42 36.70		38.25		−1.55	3 02.5		3 05		−2.5
0 43 ~~56~~ 51		52.00		−1.49	6 22.0		6 25		−3.0
Mean				−1.47					−2.6

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Comparisons with Zones 18&19 for beginning of Zones 22&23

Zone 18	α	Zone 19	α	δ 1852
$0^h..01'..44''$	$-8''.5$	$0^h..1'..42''$	$-5''.0$	$+0^\circ..01'..36''.3$
8..23	-8.5	8..22	-5.0	8..15.8
3..52	-8.5	3..57	-5.0	3..44.8
4..04	-8.5	4..04	-5.0	3..57.3

Comparisons with Zones 26&27 for the end of Zones 22&23

Zone 26	α	Zone 27	α	δ 1853.0	prec.	δ 1852.0
$0^h..2'..33''$	$+17''.1$	$0^h..2'..34''$	$+16''.5$	$0^\circ..02'..50''.2$	$+19''.7$	$+0^\circ..02'..30''.5$
7..57	+17.1	7..58	+16.5	8..14.2	19.7	7..54.5
3..04	+17.1	3..07	+16.5	3..22.2	19.7	3..02.5
6..24	+17.1	6..26	+16.5	6..41.7	19.7	6..22.0

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Zones 24 & 25

	h	m	s	°	′	″	
9	1853·0	α	23	35	43·22 (1)	δ + 0	17 55·1
	An.p	−		3·07			−19.9
	1852·0	α	23	35	40·15	δ + 0	17 35·2
		t_{24}		35	40·50	s_{24}	17 42
		t_{25}		35	40·30	s_{25}	17 45
		α − t_{24}			−0,35	δ − s_{24}	− 6·8
		α − t_{25}			−0,25	δ − s_{25}	− 9·8
						d'_{24}	− 1.6
						d'_{25}	− 1.2
							− 5.2
							−8.6

7	α	23	41	55·94 (6)	δ + 0	15 35·4	
An.p.			−3.07			− 20.0	
1852·0	α	23	41	52·87	δ + 0	15 15·4	
	t_{24}		41	53·75	s_{24}	15 26	
	t_{25}		41	53·55	s_{25}	15 27	
	α − t_{24}			−0·88	δ − s_{24}	−10.6	
	α − t_{25}			−0·68	δ − s_{25}	−11·6	
					d'_{24}	−1.1	
					d'_{25}	−0.9	
						−9.5	
						−10.7	

9	1853·0	α	23	41	10·01 (1)	δ + 0	11 22·1 (1)
An.p.				−3·07			− 20·0
1852·0	α	23	41	06·94	δ + 0	11 02·1	
	t_{24}	23	41	07·45	s_{24}	11 10	
	t_{25}		41	7·20	s_{25}	11 11	
	α − t_{24}			−0,51	δ − s_{24}	− 7·9	
	α − t_{25}			−0,26	δ − s_{25}	− 8·9	
					d'_{24}	−0. 2	
					d'_{25}	−0. 2	
						−7.7	
						−8.7	

9	1853·0	α	23	52	28·74 (1)	δ + 0	16 14·4 (1)
An.p				−3·07			− 20
1852·0	α	23	52	25·67	δ + 0	15 54·4	
	t_{24}		52	26·55	s_{24}	16 05	
	t_{25}		52	26·20	s_{25}	16 05	
	α − t_{24}			−0,88	δ − s_{24}	− 10.6	
	α − t_{25}			−0·53	δ − s_{25}	− 10·6	
					d'_{24}	− 1.3	
					d'_{25}	− 1.0	
						−9.3	
						−9.6	

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9 1853.0 α 23h 53m 03s.10 (1) δ +00° 14′ 50″.2 (1)

Ann.	−3.07		−20.0
1852.0	α 23h 53m 00s.03	δ	+00° 14′ 30″.2
	t_{24} 23h 53m 00s.35	s_{24}	14″.39
	t_{25} 53m 00s.20	s_{25}	14″.38
α − t_{24}	−0.32	δ − s_{24}	−8.8
α − t_{25}	−0.17	δ − s_{25}	−7.8
		α'_{24}	−0.9
		α'_{25}	−0.7
			−7.9
			−7.1

9 1853.0 α 00h 26m 52s.28 (1) δ +0° 11′ 29″.4

			−3.07
			−19.9
1852.0	α 0h 26m 49s.21	δ	+0° 11′ 09″.6
	t_{24} 0h 26m 50s.10	s_{24}	11″.18
	t_{25} 26m 49s.95	s_{25}	11″.18
α − t_{24}	−0.89	δ − s_{24}	−8.5
α − t_{25}	−0.74	δ − s_{25}	−8.5
		α'_{24}	−0.2
		α'_{25}	−0.2
			−8.3
			−8.3

8.9 1853.0 α 00h 00m 08s.64 (1) δ +0° 16′ 37″.0

Ann.	−3.07		+20.0
1852.0	α 0h 00m 05s.57	δ	+0° 16′ 17″.0
	t_{24} 0h 00m 06s.25	s_{24}	16″.27
	t_{25} 0h 00m 06s.15	s_{25}	16″.28
α − t_{24}	−0.68	δ − s_{24}	−10.0
α − t_{25}	−0.58	δ − s_{25}	−11.0
		α'_{24}	−1.3
		α'_{25}	−1.0
			−8.7
			−10.0

8.9 1853.0 α 0h 32m 15s.84 (1) δ +0° 12′ 20″.5

			−3.07
			−19.8
1852.0	α 0h 32m 12s.77	δ	0° 12′ 00″.7
	t_{24} 32m 13s.85	s_{24}	12″.07
	t_{25} 32m 13s.70	s_{25}	12″.06
α − t_{24}	−1.08	δ − s_{24}	−6.3
α − t_{25}	−0.93	δ − s_{25}	−5.3
		α'_{24}	−0.4
		α'_{25}	−0.3
			−5.9
			−5.0

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Jones 24 & 25

8.9 1853.0 α 0h 32m 51.28 (1) δ + 0° 19′ 34.8″

Am. p.	− 3.07		− 19.8
1852.0	α 0h 32m 48.21	δ	+ 0° 19′ 15.0″
t_{24}	32m 49.50	s_{24}	19′ 25″
t_{25}	32m 49.30	s_{25}	19′ 28″
$\alpha - t_{24}$	− 1.29	$\delta - s_{24}$	− 10.0
$\alpha - t_{25}$	− 1.09	$\delta - s_{25}$	− 13.0
		α'_{24}	− 2.0
		α'_{25}	− 1.5
			− 8.0
			− 11.5

8.9 1853.0 α 0h 34m 35.19 (1) δ + 0° 15′ 34.1″

Am. p.	− 3.07		− 19.8
1852.0	α 0h 34m 32.12	δ	+ 0° 15′ 14.3″
t_{24}	34m 33.00	s_{24}	15′ 18″
t_{25}	34m 32.80	s_{25}	15′ 17″
$\alpha - t_{24}$	− 0.78	$\delta - s_{24}$	− 3.7
$\alpha - t_{25}$	− 0.68	$\delta - s_{25}$	− 2.7
		α'_{24}	− 1.0
		α'_{25}	− 0.8
			− 2.7
			− 1.9

8.9 1853.0 α 0h 34m 30.12 (1) δ + 0° 13′ 07.4 (1)

Am. p.	− 3.07		− 19.8
α	0h 34m 27.05	δ	+ 0° 12′ 47.6″
t_{24}	34m 28.05	s_{24}	12′ 52″
t_{25}	34m 27.95	s_{25}	12′ 51″
$\alpha - t_{24}$	− 1.00	$\delta - s_{24}$	− 4.4
$\alpha - t_{25}$	− 0.90	$\delta - s_{25}$	− 3.4
		α'_{24}	− 0.6
		α'_{25}	− 0.5
			− 3.8
			− 2.9

9 1853.0 α 1h 05m 29.25 (1) δ + 0° 18′ 04.0″ (1)

Am. p.	− 3.07		− 19.2
α	1h 05m 26.18	δ	+ 0° 17′ 44.8″
t_{24}	1h 5m 27.80	s_{24}	17′ 51″
t_{25}	1h 5m 27.40	s_{25}	17′ 52″
$\alpha - t_{24}$	− 1.62	$\delta - s_{24}$	− 6.2
$\alpha - t_{25}$	− 1.22	$\delta - s_{25}$	− 7.2
		α'_{24}	− 1.7
		α'_{25}	− 1.3
			− 4.5
			− 5.9

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Comparisons with Zones $\frac{1852.}{20 \& 21}$ for the beginning of Zones $\frac{1852.}{24 \& 25}$

mag.	Zone 20	k	Zone 21	k	α 1852.0
11	23..24..57.40	−0.90	23..24..56.85	−0.50	23h..24m..56s.42
11	26..09.20	−.90	26..08.65	−.50	26..08.22
9	27..57.65	−.90	27..57.05	−.50	27..56.65 ~~57.00~~
	28..43.00	−.90	28..42.60	−.50	28..42.10

Comparisons with Zones $\frac{1853}{28 \& 29}$ for the end of Zones $\frac{1852}{24 \& 25}$

	Zone 28	k	Zone 29	k	α 1853	prec.	α 1852.
9-10	1..04..57.85	−0.50	1..04..57.95	−0.30	1h..04m..57s.50	3s.08	1h..04m..54s.42
9	5..29.70	−.50	5..29.80	−.30	5..29.35	3.08	5..26.27
12	7..27.30	−.50	7..27.40	−.30	7..26.95	3.08	7..23.87
11	7..56.90	−.50	7..56.90	−.30	7..56.50	3.08	7..53.42
10	8..13.95	−.50	8..14.60	−0.30	8..13.57	3.08	8..10.49

Beginning of Zones 24 & 25.

α 1852.0	t_{24}	t_{25}	$\alpha - t_{24}$	$\alpha - t_{25}$	δ 1852.0	s_{24}	s_{25}	$\delta - s_{24}$	$\delta - s_{25}$
23h..24m..56s.42	57.00	56.80	−.58	−.38	−0°..0'..27".0	−0..18	−0..19	−9.0	−8.0
26..08.22	8.80	8.75	−.58	−.58	+2..22.0	2..30	2..30	−8.0	−8.0
27..56.65	57.00	56.80	−.35	−.15	−0..41.5	−0..35	−0..35	−6.5	−6.5
23..28..42.10	42.65	42.30	−.55	−.20	+5..34.5	5..41	5..43	−6.5	−6.5
Mean			−.51	−.35				−7.5	−7.2

End of Zones 24 & 25.

α 1852.0	t_{24}	t_{25}	$\alpha - t_{24}$	$\alpha - t_{25}$	δ 1852.0	s_{24}	s_{25}	$\delta - s_{24}$	$\delta - s_{25}$
1h..04m..54s.42	55.90	55.65	−.48	−1.23	+0°..02'..10".7	2..15	12..15	−4.3	−4.3
5..26.27	27.80	27.40	−1.53	−1.13	7..47.7	7..51	7..52	−3.3	−4.3
7..23.87	25.30	25.20	−1.43	−1.33	4..53.7	4..59	4..58	−5.3	−4.3
7..53.42	55.00	54.80	−1.38	−1.38	+5..41.2	5..45	5..46	−3.8	−4.8
1..08..10.49	12.00	11.90	−1.51	−1.41	−0..36.8	−0..33	−0..34	−3.8	−2.8
Mean			−1.26	−1.29				−4.1	−4.1

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Comparisons with Zones 20 & 21 for the beginning of Zones 24 & 25.

Zone 20	d	Zone 21	d	δ 1852.
− 0° 0′ 18″	−9″.0	−0° 0′ 19″	−8″.0 ?	− 0° 0′ 27″.0
2 30	−9.0	2 31	−8.0	2 22.0
− 0 33	−9.0	− 0 33	−8.0	− 0 41.5
5 43	−9.0	5 43	−8.0	5 34.5

Comparisons with Zones 28 & 29 for the end of Zones 24 & 25

Zone 28	d	Zone 29	δ 1853	prec.	δ 1852.
0° 2′ 34″	−4″.0	0° 2′ 33″	−3″.0	0° 2′ 30″.0	+19″.3	+ 0° 2′ 10″.7
8 11	−4.	8 10	−3.0	8 07.0	19.3	7 47.7
5 17	−4.	5 16	−3.0	5 13.0	19.3	4 53.7
6 04	−4.	6 04	−3.0	6 00.5	19.3	5 41.2
− 0 14	−4.	− 0 14	−3.0	− 0 17.5	19.3	− 0 36.8

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Zones 26 & 27

g 1853.0 α 0ʰ 47ᵐ 29ˢ.41 (1) δ + 0° 00′ 16″.8

t_{26}	0ʰ 47ᵐ 29ˢ.85	s_{26}	0″.38
t_{27}	47ᵐ 30ˢ.00	s_{27}	0″.33
$\alpha - t_{26}$	− 0ˢ.44	$\delta - s_{26}$	+ 21″.2
$\alpha - t_{27}$	− 0ˢ.59		+ 18″.2
		d'_{26}	− 0″.1
		d'_{27}	+ 0″.1
			+21″.3
			+18″.1

g 1853.0 α 1ʰ 08ᵐ 13ˢ.68 (1) δ + 0° 09′ 41″.8

t_{26}	8ʰ 14ˢ.00	s_{26}	9″.26
t_{27}		s_{27}	9″.26
$\alpha - t_{26}$	− 0ˢ.32	$\delta - s_{26}$	+ 15″.8
$\alpha - t_{27}$		$\delta - s_{27}$	+ 15″.8
		d'_{26}	+ 1″.6
		d'_{27}	− 2″.0
			+14″.2
			+17″.8

6.7 1853.0 α 1ʰ 08ᵐ 03ˢ.07 (4) δ + 0° 08′ 03″.8 (4)

t_{26}	8ʰ 3ˢ.40	s_{26}	7″.48
t_{27}	− 0ˢ.33	s_{27}	7″.50
$\alpha - t_{26}$	− 0ˢ.33	$\delta - s_{26}$	+ 15″.8
$\alpha - t_{27}$		$\delta - s_{27}$	+ 13″.8
		d'_{26}	+ 1″.2
		d'_{27}	− 1″.6
			+14″.6
			+15″.4

g 1853.0 α 1ʰ 33ᵐ 45ˢ.52 (1) δ − 0° 00′ 04″.5

t_{26}	33ᵐ 45ˢ.90	s_{26}	− 0″.24
t_{27}	33ᵐ 46ˢ.15	s_{27}	− 0″.21
$\alpha - t_{26}$	− 0ˢ.38	$\delta - s_{26}$	+ 15″.5
$\alpha - t_{27}$	− 0ˢ.63	$\delta - s_{27}$	+ 16″.5
		d'_{26}	− 0″.1
		d'_{27}	+ 0″.1
			+19″.6
			+16″.4

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Comet 26 & 27

8.9 1853.0 α 1ʰ 36ᵐ 14ˢ.49 (1) δ + 0° 09′ 47″.8

t_{24}	1ʰ 36ᵐ 15ˢ.00	s_{26}	9″.31
t_{27}	36, 15.20	s_{27}	9″.32
$\alpha - t_{24}$	− 0.51	$\delta - s_{26}$	+ 16.8
$\alpha - t_{27}$	− 0.71	$\delta - s_{27}$	+ 15.8
		d'_{26}	+ 1.6
		d'_{27}	− 2.0
			+15.2
			+17.8

9 1853.0 α 2ʰ 02ᵐ 11ˢ.84 (1) δ + 0° 05′ 59″.3

t_{26}	2ʰ 12ᵐ 25ˢ	s_{26}	6″.46
t_{27}	2ʰ 12ᵐ 70	s_{27}	5″.47
$\alpha - t_{26}$	− 0.41	$\delta - s_{26}$	+ 13.3
$\alpha - t_{27}$	− 0.486	$\delta - s_{27}$	+ 12.3
		d'_{26}	+ 1.0
		d'_{27}	− 1.2
			+12.3
			+13.5

9 1853.0 α 1ʰ 58ᵐ 14ˢ.85 (1) δ + 0° 07′ 11″.7 (1)

t_{26}	58ᵐ 15ˢ.60	s_{26}	7″.01
t_{27}	58ᵐ 15ˢ.80	s_{27}	7″.03
$\alpha - t_{26}$	− 0.75	$\delta - s_{26}$	+ 10.7
$\alpha - t_{27}$	− 0.95	$\delta - s_{27}$	+ 8.7
		d'_{26}	+ 1.2
		d'_{27}	− 1.5
			+9.5
			+10.2

7 1853.0 α 2ʰ 07ᵐ 37ˢ.28 (1) δ + 0° 02′ 01″.6 (1)

t_{26}	7ᵐ 37ˢ.95	s_{26}	1″.45
t_{27}	7ᵐ 38ˢ.25	s_{27}	1″.47
$\alpha - t_{26}$	− 0.67	$\delta - s_{26}$	+ 15.6
$\alpha - t_{27}$	− 0.97	$\delta - s_{27}$	+ 14.6
		d'_{26}	+ 0.3
		d'_{27}	− 0.4
			+15.3
			+15.0

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Zones 26 & 27

9 1853·0 α 2h 21m 46·57 (1) δ +0° 07′ 21·1 (1)

t_{26}	2h 21m 47·35	s_{26}	7′ 08
t_{27}	21h 48·00	s_{27}	7′ 09
$\alpha - t_{26}$	− 0·84	$\delta - s_{26}$	+ 13·1
$\alpha - t_{27}$	− 1·49	$\delta - s_{27}$	+ 12·1
		α'_{26}	+ 1·2
		α'_{27}	− 1·5
			+11·9
			+13·6

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Comparisons with Zones 22 & 23 (1852) for beginning of Zones 26 & 27 (1853.)

Mag.	Zone 22	k	Zone 23	k	α 1852	prec.	α 1853
			h m s	s	h m s		h m s
11			0 40 53.40	−1.70	0 40 51.70	+ 3.07	0 40 54.77
10			41 23.40	−1.70	41 21.70	3.07	41 24.77
12			42 03.70	−1.70	42 02.00	3.08	42 05.08
12			42 28.02	−1.70	42 26.30	3.07	42 29.37
9			43 52.00	−1.70	43 50.30	3.08	43 53.38

Comparisons with Zones 30 & 32 for the end of Zones 26 & 27

	Zone 30	k	Zone 32	k	α 1853.
	h				h m s
9	2 21 46.05	+0.50	2 21 46.50	−0.20	2 21 46.42
12	23 05.90	+.50	23 06.30	−.20	23 06.20
10	23 11.85	+.50	23 12.25	−.20	23 12.20

Beginning of Zones 26 & 27.

α 1853.0	t_{26}	t_{27}	$\alpha - t_{26}$	$\alpha - t_{27}$	δ 1853.0	s_{26}	s_{27}	$\delta - s_{26}$	$\delta - s_{27}$
h m s					° ′ ″				
0 40 54.77	55.30	55.40	−.53	−.63	+ 0 06 33.8	6.18	6.19	+ 15.8	+ 14.8
41 24.77	25.20	25.65	−.63	−.88	10 09.8	9.54	9.55	+ 15.8	+ 14.8
42 05.08	5.60	5.70	−.52	−.62	2 47.8	~~4.00~~ 2.33	2.34	+ ~~1.~~ 14.8	+ ~~1.~~ 13.8
42 29.37	30.05	30.35	−.68	−.98	8 13.8	7.57	7.58	+ 16.8	+ 15.8
43 53.38	53.95	54.05	−.67	−.67	6 40.8	6.24	6.26	+ 16.8	+ 14.8
Mean			−.59	−.75				+ 16.0	14.6

End of Zones 26 & 27.

α 1853.0	t_{26}	t_{27}	$\alpha - t_{26}$	$\alpha - t_{27}$	δ 1853.0	s_{26}	s_{27}	$\delta - s_{26}$	$\delta - s_{27}$
h m s					° ′ ″				
2 21 46.42	47.35	48.00	−.93	−1.58	0 07 21.5	7.08	7.09	+ 13.5	+ 12.5
23 06.20	7.25	7.70	−1.05	−1.50	9 39.0	9.26	9.26	+ 13.0	+ 13.0
2 23 12.20	13.30	13.80	−1.10	−1.60	10 04.5	9.50	9.50	+ 14.5	+ 14.5
Mean.			−1.02	−1.56				+ 13.6	+ 13.3

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Comparisons with Zones 22 & 23 for the beginning of Zones 26 & 27

Zone 22	Zone 23	δ 1852.	prec.	δ - 1853.
			1852.	1853.
0° 6′ 18″	−4″.0	0° 06′ 14″.0	− +19″.8	+0° 6′ 33″.8
9 54	−4.0	9 50.0	19.8	10 09.8
2 32	−4.0	2 28.0	19.8	2 47.8
7 56	−4.0	7 52.0	19.8	8 11.8
6 25	−4.0	6 21.0	19.8	6 40.8

Comparisons with Zones 30 & 32 for the end of Zones 26 & 27

Zone 30	α	Zone 32	α	δ 1853.
0° 7′ 22″	+0″.0	0° 7′ 21″	0.0	0° 7′ 21″.5
9 39	+0.0	9 39	0.0	9 39.0
10 05	+0.0	10 05	0.0	10 05.5

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Zones 28 & 29

g 1853·0 α 1ʰ 10ᵐ 56ˢ·00 (1) δ + 0° 11′ 43″·2 (1)

t_{28}	10ᵐ 56ˢ·50	s_{28}	11′ 50″
t_{29}	10ᵐ 56ˢ·30	s_{29}	11′ 49″
$\alpha - t_{28}$	− 0ˢ·50	$\delta - s_{28}$	− 6″·8
$\alpha - t_{29}$	− 0ˢ·30	$\delta - s_{29}$	− 5″·8
		d'_{28}	− 0″·4
		d'_{29}	− 0″·5
			− 6″·4
			− 5″·3

g 1853·0 α 1ʰ 42ᵐ 27ˢ·85 (1) δ + 0° 15′ 21″·1 (1)

t_{28}	42ᵐ 28ˢ·60	s_{28}	15′ 28″
t_{29}	42ᵐ 28ˢ·50	s_{29}	15′ 27″
$\alpha - t_{28}$	− 0ˢ·75	$\delta - s_{28}$	− 6″·9
$\alpha - t_{29}$	− 0ˢ·65	$\delta - s_{29}$	− 5″·9
		d'_{28}	− 1″·2
		d'_{29}	− 1″·2
			− 5″·7
			− 4″·7

g 1853·0 α 1ʰ 31ᵐ 59ˢ·28 (1) δ + 0° 12′ 12″·9 (1)

t_{28}	31ᵐ 59ˢ·65	s_{28}	12′ 13″
t_{29}	31ᵐ 59ˢ·65	s_{29}	12′ 14″
$\alpha - t_{28}$	− 0ˢ·37	$\delta - s_{28}$	− 0″·1
$\alpha - t_{29}$	− 0ˢ·37	$\delta - s_{29}$	− 1″·1
		d'_{28}	− 0″·4
		d'_{29}	− 0″·5
			+ 0″·3
			− 0″·6

8·9 1853·0 α 2ʰ 01ᵐ 09ˢ·16 (1) δ + 0° 13′ 48″·9

t_{28}	1ᵐ 09ˢ·95	s_{28}	13′ 57″
t_{29}	1ᵐ 09ˢ·80	s_{29}	13′ 56″
$\alpha - t_{28}$	− 0ˢ·79	$\delta - s_{28}$	− 8″·1
$\alpha - t_{29}$	− 0ˢ·64	$\delta - s_{29}$	− 7″·1
		d'_{28}	− 0″·9
		d'_{29}	− 0″·9
			− 7″·2
			− 6″·2

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Zones 28 & 29

8 1853.0 α 2ʰ 14ᵐ 15.94 (1) δ + 0° 17′ 46.8

t_{28}	~~14ᵐ 16.85~~	s_{28}	~~17′ 55″~~
t_{29}	14ᵐ 16.85	s_{29}	17′ 55″
$\alpha - t_{28}$		$\delta - s_{28}$	
$\alpha - t_{29}$	−0.91	$\delta - s_{29}$	− 8.2
		d'_{28}	− ...
		d'_{29}	−1.8
			−6.4

9 1853.0 α 2ʰ 57ᵐ 41.50 (1) δ + 0° 16′ 46.9 (1)

7.8 1853.0 α 2ʰ 42ᵐ 04.53 (4) δ + 0° 18′ 29.3 (4)

t_{28}	42ᵐ 05.90	s_{28}	18′ 43
t_{29}	42ᵐ 05.90	s_{29}	18′ 44
$\alpha - t_{28}$	− 1.37	$\delta - s_{28}$	− 13.7
$\alpha - t_{29}$	− 1.39	$\delta - s_{29}$	− 14.7
		d'_{28}	− 1.9
		d'_{29}	− 2.0
			−11.8
			−12.7

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Comparisons with Zones 24 & 25 (1852) for the beginning of Zones 28 & 29 (1853)

Mag.	Zone 24	k	Zone 25	k	α 1852.	prec.	1853
9	1h..04m..55s.90	−1.20	1h..04m..55s.65	−1.00	1h..04m..54s.67	+3.07	1h..04m..57s.74
9	5h..27m.80	−1.20	5h..27m.40	−1.00	1h..5m..26s.50	+3.07	05h..30m..29s.57
12	7h..25m.30	−1.20	7h..25m.15	−1.00	1h..07m..24s.12	+3.07	07h..27m..27s.19

Comparisons with Zones 34 & 35 (1853) for the end of Zones 28 & 29 (1853)

	Zone 34	k	Zone 35	α 1853.
10-11	2h..47m..09s.45	−0.10	2h..47m..09s.50	2h..47m..09s.37
10	47..47.15	−.10	47..47.05	47..47.00
6.7	42..04.55	−.10	42..04.55	42..04.45

Beginning of Zones 28 & 29.

α 1853.0	t_{28}	t_{29}	$\alpha - t_{28}$	$\alpha - t_{29}$	δ 1853.0	s_{28}	s_{29}	$\delta - s_{28}$	$\delta - s_{29}$
1h..04m..57s.74	57.85	57.95	−.11	−.21	+0°..2'..31".0	2'..34	2'..33	−3.0	−2.0
5h..30m..29s.57	29.70	29.80	−.13	−.23	8..07.5	8..11	8..10	−3.5	−2.5
7h..27m..27s.19	27.30	27.40	−.11	−.21	5..14.5	5..17	5..16	−2.5	−1.5
Mean.			−.12	−.22				−3.0	−2.0

End of Zones 28 & 29.

α 1853.0	t_{28}	t_{29}	$\alpha - t_{28}$	$\alpha - t_{29}$	δ 1853.0	s_{28}	s_{29}	$\delta - s_{28}$	$\delta - s_{29}$
2h..47m..04s.45	5.90	5.90	−1.25	−1.25	+0°..08'..33".0	8'..43	8'..44	−10.0	−11.0
47..09.37	10.85	10.80	−1.28	−1.43	8..11.5	8..22	8..23	−10.5	−11.5
47..47.00	48.40	48.25	−1.40	−1.25	2..10.5	2..22	2..22	−11.5	−11.5
Mean.			−1.24	−1.38				−10.7	−11.2

2 mistakes in getting α 1852
1 " taken from sheet wrong

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Comparisons with Zones 24 & 25 for the beginning of Zones 28 & 29

Zone 24	α	Zone 25	α	δ 1852.	prec.	δ 1853.
0° 2′ 15″	−3.5	0° 2′ 15″	−3.0	0° 2′ 12.8	+19.2	+0° 2′ 31.0
7.51	−3.5	7.52	−3.0	7.48.3	19.2	8.07.5
4.59	−3.5	4.58	−3.0	4.55.3	19.2	5.14.5

Comparisons with Zones 34 & 35 for the end of Zones 28 & 29

Zone 34	Zone 35	δ 1853.
0° 8′ 22″ −10.0	0° 8′ 21″ −10.0	0° 8′ 11.5
2.21 −10.	2.20 −10.	2.10.5.
8.43 −10	8.43 −10.	8.33.0

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Zones 30 & 32

9 1853·0 α 2h 21m 46s·51 (1) δ +0° 07′ 21″·1 (1)

t_{30}	2h 21m 46s·05	s_{20}	0″·22
t_{32}	2h 21m 46s·50	s_{32}	7″·21
$\alpha - t_{30}$	+ 0·46	$\delta - s_{20}$	− 00·9
$\alpha - t_{32}$	− 0·01	$\delta - s_{32}$	+ 0·1
		d'_{30}	−1·8
		d'_{32}	−1·5
			+0·9
			+1·6

7 1853·0 α 3h 29m 14s·82 (2) δ +0° 06′ 17″·6 (7)

t_{30}	29m 14s·30	s_{20}	6″·23
t_{32}	29m 15s·30	s_{32}	6″·23
$\alpha - t_{30}$	+ 0·66 + ·52	$\delta - s_{30}$	− 5·64
$\alpha - t_{32}$	− ·98	$\delta - s_{32}$	− 5·64
		d'_{30}	−1·5
		d'_{32}	−1·3
			−3·9
			−4·1

8 1853·0 α 3h 13m 39s·17 (1) δ +0° 00′ 49″·4 (1)

t_{30}	3h 13m 38s·90	s_{30}	0″·53
t_{32}	13m 39s·90	s_{32}	0″·52
$\alpha - t_{30}$	+ 0·27	$\delta - s_{30}$	− 3·6
$\alpha - t_{32}$	− 0·73	$\delta - s_{32}$	− 2·6
		d'_{30}	− 0·2
		d'_{32}	− 0·2
			− 3·4
			− 2·4

8·9 1853·0 α 3h 38m 11s·08 (1) δ +0° 09′ 15″·2 (1)

t_{30}	38m 10s·95	s_{30}	9″·23
t_{32}	38m 12s·10	s_{32}	9″·22
$\alpha - t_{30}$	+ 0·13	$\delta - s_{30}$	− 7·8
$\alpha - t_{32}$	− 1·02	$\delta - s_{32}$	− 6·8
		d'_{30}	− 2·2
		d'_{32}	− 2·0
			− 5·6
			− 4·8

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Wones 30 & 32

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1853. 1853

Comparisons with 26 & 27 for beginning of Zones 30 & 32

Mag.	Zone 26	K	Zone 27	K	α 1853.
9	2h 21m 47.35	−6.70	2h 21m 48.00	−1.20	2h 21m 46.72
12	23h 07.25	−0.70	23h 07.70	−1.20	23h 06.52
9−10	23h 13.30	−0.70	23h 13.80	−1.20	23h 12.60

The end of Zone 30 runs on to 31 and the end of 32 does not reach 33 - so that their zeros at connection are identical

30 & 31 are one Zone of double length -

Beginning of Zones 30 & 32.

α 1853.0	t_{30}	t_{32}	$\alpha - t_{30}$	$\alpha - t_{32}$	δ 1853.0	s_{30}	s_{32}	$\delta - s_{30}$	$\delta - s_{32}$
2h 21m 46.72	46.05	46.80	+.67	+.22	+0° 7′ 21.5″	7.22	7.21	−0.5	+0.5
23h 06.52	5.90	6.30	+.62	+.22	9° 39.0	9.39	9.39	+0.0	+0.0
23h 12.60	11.85	12.25	+.75	+.35	10° 03.0	10.05	10.05	−2.0	−2.0
Mean			+.68	+.28				−1.2	−1.2

I mistake in getting δ 1853

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Comparisons with Zones 26 & 27 for beginning of Zones 30 & 32

Zone 26	d	Zone 27	d	1853.
0° 7' 08"	+12.0	0° 07' 09"	+14".0	0° 7' 21".5
9..26	+12.0	9..26	+14.0	9..39.0
9..50	+12.0	9..50	+14.0	10..03.0

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Zones 31 & 33

7 1853·0 α 4h 26m 54s.44 (1) δ + 0° 06′ 01″.5 (1)

t_{31}	26h 54s.10	s_{31}	6s.06
t_{33}	26h 54s.35	s_{33}	6s.07
$\alpha - t_{31}$	+ 0.34	$\delta - s_{31}$	− 4.5
$\alpha - t_{33}$	+ 0.09	$\delta - s_{33}$	− 5.5
		α'_{31}	− 1.5
		α'_{33}	− 1.1
			− 3.0
			− 4.4

7·8 α 4h 08m 28s.75 (5) δ + 0° 05′ 02″.6

t_{31}	8h 28s.50	s_{31}	5s.07
t_{33}		s_{33}	5s.07
$\alpha - t_{31}$	+ 0.25	$\delta - s_{31}$	− 4.4
$\alpha - t_{33}$	— — —	$\delta - s_{33}$	− 4.4
		α'_{31}	− 1.2
		α'_{33}	− 0.9
			− 2.7
			− 3.0

8 1853·0 α 4h 28m 21s.84 (1) δ + 0° 04′ 59″.6 (1)

t_{31}	28h 21s.30	s_{31}	5s.05
t_{33}	28h 21s.85	s_{33}	5s.04
$\alpha - t_{31}$	+ 0.54	$\delta - s_{31}$	− 5.4
$\alpha - t_{33}$	− 0.01	$\delta - s_{33}$	− 4.4
		α'_{31}	− 1.2
		α'_{33}	− 0.9
			− 4.2
			− 3.5

9 1853·0 α 4h 26m 12s.62 (1) δ + 0° 01′ 41″.1

t_{31}	26h 12s.45	s_{31}	1s.45
t_{33}	26h 12s.65	s_{33}	1s.45
$\alpha - t_{31}$	+ 0.17	$\delta - s_{31}$	− 3.9
$\alpha - t_{33}$	− 0.03	$\delta - s_{33}$	− 3.9
		α'_{31}	− 0.4
		α'_{33}	− 0.4
			− 3.5
			− 3.5

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Wones 31833

9 1853.0 α 4h 31m 37.12 (1) δ +0° 01′ 25.7

t_{31}	31m 37.00	s_{31}	1.28
t_{33}	31 37.10	s_{33}	1.28
$\alpha - t_{31}$	+0.12	$\delta - s_{31}$	− 2.3
$\alpha - t_{33}$	+0.02	$\delta - s_{33}$	− 2.3
		d'_{31}	− 0.4
		d'_{33}	− 0.3
			−1.9
			−2.0

2 1853.0 α 4h 58m 00.61 (1) δ +0° 07′ 32.0 (1)

t_{31}	58m 00.10	s_{31}	7.38
t_{33}	58m 00.45	s_{33}	7.38
$\alpha - t_{31}$	+0.51	$\delta - s_{31}$	− 6.0
$\alpha - t_{33}$	+0.16	$\delta - s_{33}$	− 6.0
		d'_{31}	− 1.9
		d'_{33}	− 1.3
			− 4.1
			− 4.7

9 1853.0 α 4h 48m 50.64 (1) δ +0° 02′ 19.4 (1)

t_{31}	48m 50.30	s_{31}	2.24
t_{33}	48m 50.36	s_{33}	2.22
$\alpha - t_{31}$	+0.34	$\delta - s_{31}$	− 4.6
$\alpha - t_{33}$	+0.09	$\delta - s_{33}$	− 2.6
		d'_{31}	− 0.6
		d'_{33}	− 0.4
			−4.0
			−2.2

9.10 1853.0 α 5m 00m 14.17 (1) δ +0° 03′ 36.6 (1)

t_{31}	00m 14.10	s_{31}	3.41
t_{33}	00 14.30	s_{33}	3.41
$\alpha - t_{31}$	+0.07	$\delta - s_{31}$	− 4.4
$\alpha - t_{33}$	−0.13	$\delta - s_{33}$	− 4.4
		d'_{31}	− 0.9
		d'_{33}	− 0.7
			−3.5
			−3.7

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Zone 31/33

9 1853·0 α 5h 07m 59.34 (1) δ +0° 01′ 37.5″ (1)

t_{31}		s_{31}	
t_{33}	7.59.85	s_{33}	1.38
$\alpha - t_{31}$		$\delta - s_{31}$	~~0.5~~
$\alpha - t_{33}$	−0.51	$\delta - s_{33}$	−0.5
		d'_{31}	−....
		d'_{33}	−0.4
			−0.1

9 1853·0 α 5h 42m 26.47 (1) δ +0° 06′ 08.6

t_{31}	42.26.70	s_{31}	6.34
t_{33}		s_{33}	6.35
$\alpha - t_{31}$	−0.23	$\delta - s_{31}$	25.4
$\alpha - t_{33}$		$\delta - s_{33}$	26.4
		d'_{31}	−1.6
		d'_{33}	−1.2

X

8 9 1853·0 α 5h 35m 52.46 (1) δ +0° 06′ 08.9 (1)

t_{31}	35.52.85	s_{31}	6.15
t_{33}	35.53.15	s_{33}	6.17
$\alpha - t_{31}$	−0.39	$\delta - s_{31}$	−6.1
$\alpha - t_{33}$	−0.69	$\delta - s_{33}$	−8.1
		d'_{31}	−1.6
		d'_{33}	−1.3
			−4.5
			−6.8

8 1853·0 α 5h 49m 53.86 (1) δ +0° 00′ 23.7 (1)

t_{31}	49.54.10	s_{31}	0.25
t_{33}	49.54.20	s_{33}	0.25
$\alpha - t_{31}$	−0.24	$\delta - s_{31}$	−1.3
$\alpha - t_{33}$	−0.34	$\delta - s_{33}$	−1.3
		d'_{31}	−0.1
		d'_{33}	−0.1
			−1.2
			−1.2

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Zones 31 to 33

9 1853.0 α 5h 58m 46.51 (1) δ +0° 01′ 28.3

t_{31}	5h 58m 47.25s	s_{31}	1.26
t_{33}	58m 47.25s	s_{33}	1.26
$\alpha - t_{31}$	− 0.74	$\delta - s_{31}$	+ 2.3
$\alpha - t_{33}$	− 0.74	$\delta - s_{33}$	+ 2.3
		d'_{31}	− 0.4
		d'_{33}	− 0.3
			+2.7
			+2.6

8 1853.0 α 6m 08m 42.97 (1) δ +0° 03′ 35.0

t_{31}	8m 43.35s	s_{31}	3.43
t_{33}		s_{33}	
$\alpha - t_{31}$	+ 0.38	$\delta - s_{31}$	− 8.0
$\alpha - t_{33}$		$\delta - s_{33}$	
		d'_{31}	−0.9
		d'_{33}	----
			−8.1
			---

8 1853.0 α 5h 59m 27.35 (5) δ +0° 05′ 18.1 (5)

t_{31}	59m 27.95s	s_{31}	5.26
t_{33}	59m 28.20	s_{33}	5.26
$\alpha - t_{31}$	− 0.56	$\delta - s_{31}$	− 7.9
$\alpha - t_{33}$	− 0.81	$\delta - s_{31}$	− 7.9
		d'_{31}	− 1.4
		d'_{33}	− 1.0
			−5.5
			−6.9

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For Zones 31 & 33 see former note.

Comparisons with Zones 38 & 39 for the end of Zones 31 & 33 1853.

Mag.	Zone 38	K	Zone 39	K	α 1853. h m s
8	5..58..46.40	+0,25	5..58..46.30	+0,20	5..58..46.57
7	5..59..27..10	+0,25	5..59..27.15	+,20	5..59..27.35
10	6..01..11..85	+1,25	6..01..12.00	+,20	6..01..12.15

End of Zones 31 & 33.

α 1853.0 h m s	t_{31}	t_{33}	$\alpha - t_{31}$	$\alpha - t_{33}$	δ 1853.0 ° ′ ″	s_{31}	s_{33}	$\delta - s_{31}$	$\delta - s_{33}$
5..58..46.57	47.25	47.25	+.32	+.32	+0..1..21.0	1..26	1.26	−5.0	−5.0
5..59..27.34	27.95	28.20	−.61	−.86	+ 5..20.5	5..26	5..26	−5.5	−5.5
6..01..12.14	12.65	12.70	−.51	−.56	− 0..04.5	0..02	0..03		
Mean.			−.26	−.36				−5.2	−5.2

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Comparisons with Zones 38 & 39 for the end of Zones 31 & 33.

Zone 38	α	Zone 39	α	δ 1853.
0h 2m 25s	−64″	0h 2m 23s	−62″	+0° 1′ 21.0″
6 24	−64	6 23	−62	+0 5 20.5
1 00	−64	0 57	−62	−0 0 04.5

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Zone 3485

7.8 1853.0 α 2h 42m 04.53 (4) δ +0° 18′ 29.3 (1)

t_{34}	42m 04.55	s_{34}	18.43
t_{35}	42m 04.55	s_{35}	18.43
$\alpha - t_{34}$	−0.02	$\delta - s_{34}$	−13.7
$\alpha - t_{35}$	−0.02	$\delta - s_{35}$	−13.7
		d'_{34}	−2.2
		d'_{35}	−2.3
			−11.5
			−11.4

9 1853.0 α 3h 00m 10.06 (1) δ +0° 17′ 49.7

t_{34}	3h 00m 10.75	s_{34}	18.1
t_{35}	00m 10.50	s_{35}	18.00
$\alpha - t_{34}$	−0.69	$\delta - s_{34}$	−11.3
$\alpha - t_{35}$	−0.44	$\delta - s_{35}$	−10.3
		d'_{34}	−2.0
		d'_{35}	−2.2
			−9.3
			−8.1

9 1853.0 α 2h 57m 41.50 (1) δ +0° 16′ 46.9 (1)

t_{34}	57m 41.75	s_{34}	16.58
t_{35}	2h 57m 41.65	s_{35}	16.57
$\alpha - t_{34}$	−0.25	$\delta - s_{34}$	−11.1
$\alpha - t_{35}$	−0.15	$\delta - s_{35}$	−10.1
		d'_{34}	−1.7
		d'_{35}	−1.9
			−9.4
			−8.2

7.8 1853.0 α 3h 06m 29.19 (5) δ +0° 11′ 17.8

t_{34}	6m 29.58	s_{34}	11.26
t_{35}	6m 29.45	s_{35}	11.25
$\alpha - t_{34}$	−0.16 (−0.31)	$\delta - s_{34}$	−8.2
$\alpha - t_{35}$	−0.11 (−0.26)	$\delta - s_{35}$	−7.2
		d'_{34}	−0.4
		d'_{35}	−0.4
			−7.8
			−6.8

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Zones 34 & 35

9 1853·0 α 3h 08m 24s.56 (1) δ + 0° 13′ 02″.9

t_{34}	8s.25.15	s_{34}	13″.13
t_{35}	8s.24.95	s_{35}	13″.13
$\alpha - t_{34}$	−0.59	$\delta - s_{34}$	−10.1
$\alpha - t_{35}$	−0.39	$\delta - s_{35}$	−10.1
		d'_{34}	−0.8
		d'_{35}	−0.8
			−9.3
			−9.3

9 1853·0 α 3h 31m 24s.86 (1) δ + 0° 18′ 50″.8 (1)

t_{34}	31m 25s.30	s_{34}	19″.04
t_{35}	31m 25s.30	s_{35}	19″.03
$\alpha - t_{34}$	−0.44	$\delta - s_{34}$	−13.2
$\alpha - t_{35}$	−0.44	$\delta - s_{35}$	−12.2
		d'_{34}	−2.2
		d'_{35}	−2.4
			−11.0
			−9.8

8 1853·0 α 3h 27m 01s.53 (1) δ + 0° 11′ 05″.9 (1)

t_{34}	27m 02s.20	s_{34}	11″.XX
t_{35}	27m 02s.20	s_{35}	11″.17
$\alpha - t_{34}$	−0.65	$\delta - s_{34}$	−14.1
$\alpha - t_{35}$	−0.65	$\delta - s_{35}$	−11.1
		d'_{34}	−0.3
		d'_{35}	−0.4
			−13.8
			−10.7

9 1853·0 α 3h 51m 21s.34 (1) δ + 0° 19′ 50″.5

t_{34}	51m 22s.25	s_{34}	20″.07
t_{35}	51m 22s.20	s_{35}	20″.04
$\alpha - t_{34}$	−0.91	$\delta - s_{34}$	−16.5
$\alpha - t_{35}$	−0.86	$\delta - s_{35}$	−13.5
		d'_{34}	−2.5
		d'_{35}	−2.7
			−14.5
			−10.8

X

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Jones 34835

9 1853·0 α 4h 28m 41·09 (1) δ + 0° 18′ 51·6

t_{34}	28m 41·80	s_{34}	19″·08
t_{35}	28m 41·65	s_{35}	19″·07
$\alpha - t_{34}$	− 0·71	$\delta - s_{34}$	− 16·4
$\alpha - t_{35}$	− 0·56	$\delta - s_{34}$	− 15·4
		d'_{34}	− 2.2
		d'_{35}	− 2.4
			−14.2
			−13.0

8·9 1853·0 α 4h 29m 53·68 (1) δ + 0° 15′ 05·1

t_{34}	29m 54·60	s_{34}	15″·18
t_{35}	29m 54·50	s_{35}	15″·18
$\alpha - t_{34}$	− 0·92	$\delta - s_{34}$	− 12·9
$\alpha - t_{35}$	− 0·82	$\delta - s_{35}$	− 12·9
		d'_{34}	− 1.3
		d'_{35}	− 1.4
			−11.6
			−11.5

8·9 1853·0 α 4h 29m 53·15 (1) δ + 0° 16′ 01·4

t_{34}	29m 53·90	s_{34}	16″·38
t_{35}	29m 53·70	s_{35}	16″·37
$\alpha - t_{34}$	− 0·75	$\delta - s_{34}$	− 36·6
$\alpha - t_{35}$	− 0·55	$\delta - s_{35}$	− 35·6
		d'_{34}	− 1.6
		d'_{35}	− 1.7
			---.
			---.

× See Note in Zone 34 in for Dec

8·9 1853·0 α 4h 32m 32·90 (1) δ + 0° 15′ 32·4

t_{34}	32m 33·75	s_{34}	15″·48
t_{35}	32m 33·60	s_{35}	15″·46
$\alpha - t_{34}$	− 0·85	$\delta - s_{34}$	− 15·6
$\alpha - t_{35}$	− 0·60	$\delta - s_{35}$	− 13·6
		d'_{34}	− 1.4
		d'_{35}	− 1.5
			−14.2
			−12.1

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Zones 348 & 385

~~8~~

8 1853.0 α 4h 34m 03.11 (1) δ +0° 16' 18".8 (1)

t_{34} 34m 03.90 s_{34} 16' 35"

t_{35} 34m 03.85 s_{34} 16' 35"

$\alpha - t_{34}$ − 0.79 $\delta - s_{34}$ − 16".2

$\alpha - t_{35}$ − 0.74 $\delta - s_{35}$ − 16".2

d'_{34} − 1.6

d'_{35} − 1.7

− 14".6

= 14".5

9 1853.0 α 4h 39m 35.10 (1) δ +0° 17' 42".0 (1)

t_{34} 39m 35.85 s_{34} 17' 58"

t_{35}

$\alpha - t_{34}$ −0.75 $\delta - s_{34}$ − 16".0

$\alpha - t_{35}$

d'_{34} − 2.0

d'_{35} ------

− 14".0

7.8 1853.0 α 4h 37m 09.66 (4) δ +0° 17' 34".0 (4)

t_{34} 37m 10.25 s_{34} 17' 48"

t_{35} s_{35}

$\alpha - t_{34}$ − 0.59 $\delta - s_{34}$ − 14".0

$\alpha - t_{35}$ $\delta - s_{35}$

d'_{34} − 2.2

d'_{35} ------

~~−11.8~~ 11.8

---

9 1853.0 α 4h 40m 03.85 (1) δ +0° 16' 58".4

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Comparisons with Zones $\frac{1853.}{28\,29}$ for beginning of Zones 34 & 35 — 1853.

Mag	Zone 28	K	Zone 29	K	α 1853.
					h m s
6-7	2..42..05.90	−1.40	2..42..05.90	−1.40	2..42..04.50
10-11	43..31.90	−1.40			43..30.50
10-11	43..31.90	−1.40	43..31.95	−1.40	43..30.52
11	44..32.05	−1.40	44..32.60	−1.40	44..30.62
11	47..10.85	−1.40	47..10.80	−1.40	47..09.42

Comparisons with Zones $\frac{1853.}{36\,37}$ for the end of Zones 34 & 35

	Zone 36	K	Zone 37	K	α 1853.
		s		s	h m s
10	4..38..29.80	−0.05	4..38..29.20	+0.50	4..38..29.72
8-9-1	39..35.20	−.05	39..34.75	+0.50	39..35.19
7-8	40..04.20	−.05	40..03.70	+0.50	40..04.17

Beginning of Zones 34 & 35.

α 1853.0	t_{34}	t_{35}	$\alpha - t_{34}$	$\alpha - t_{35}$	δ 1853.0	s_{34}	s_{35}	$\delta - s_{34}$	$\delta - s_{35}$
h m s					° ′ ″				
2..42..04.50	4.55	4.55	−.05	−.05	0..8..31.5	8.43	8.43	−11.5	−11.5
43..30.50	31.00	30.50	−.05	.00	5..01.0	5.13	5.12	−12.0	−12.0
43..30.52	30.60	30.60	+.08	−.08	8..57.0	9.02	9.04	−13.0	−13.0
44..30.62	30.85		−.23		3..21.0	3..32		−11.0	
2..47..09.42	9.45	9.50	−.03	−.08	8..10.5	8..22	8.21	−11.5	−10.5
Mean.			−.092	−.05				−11.8	−11.7

End of Zones 34 & 35

α 1853.0	t_{34}	t_{35}	$\alpha - t_{34}$	$\alpha - t_{35}$	δ 1853.0	s_{34}	s_{35}	$\delta - s_{34}$	$\delta - s_{35}$
h m s					° ′ ″				
4..38..29.72	30.55		−.83		0..4..59.5	5.14	5.12	−14.5	−12.5
39..35.19	35.85		−.66		7..42.5	7..58	7..57	−15.5	−13.5
40..04.17	4.85		−.68		7..60.0	7..15	7..12	−15.0	−12.0
Mean.			−.72					−15.0	−12.6

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Comparisons with Zones 2829 for beginning of Zones 3435

Zone 28	d	Zone 29	d	δ 1853
0°..8'..43"	−12.0"	0°..8'..44"	−12"	+0°..8'..31.5
5..13	−12			5..01.0
9..03	−12	9..03	−12	8..51.0
3..33	−12	3..33	−12	3..21.0
8..22	−12	8..23	−12	8..10.5

Comparisons of Zones 3637 for the end of Zones 3435

Zone 36	d	Zone 37	d	δ 1853
0°..4'..56"	+4.0"	0°..4'..56"	+3.0"	+0°..4'..57.5
7..38	+4.	7..40	+3.0	7..42.5
6..56	+4.	6..57	+3.0	7..00.0

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Zones 36 & 37

8.9 1853.0 α 4h 29m 53.15 (1) δ +0° 16′ 01.4 (1)

t_{36}	4h 29m 53.00	s_{36}	16.″22
t_{37}	4h 29m 52.40	s_{37}	16.″20
$\alpha - t_{36}$	+0.15	$\delta - s_{36}$	−20.6
$\alpha - t_{37}$	+0.75	$\delta - s_{37}$	−18.6
		d'_{36}	−1.5
		d'_{37}	−1.5
			−−−
			−− −

× See Note Zone 34

8.9 1853.0 α 4h 32m 32.90 (1) δ +0° 15′ 32.4

t_{36}	4h 32m 32.85	s_{36}	15.″29
t_{37}	32m 32.20	s_{37}	15.″29
$\alpha - t_{36}$	+0.05	$\delta - s_{36}$	+3.4
$\alpha - t_{37}$	+0.70	$\delta - s_{37}$	+3.4
		d'_{36}	−1.3
		d'_{37}	−1.3
			+4.7
			+4.7

8.9 1853.0 α 4h 29m 53.68 (1) δ +0° 15′ 05.1 (1)

t_{36}	29m 53.75	s_{36}	15.″03
t_{37}	29m 53.20	s_{37}	15.″02
$\alpha - t_{36}$	−0.07	$\delta - s_{36}$	+2.1
$\alpha - t_{37}$	+0.48	$\delta - s_{37}$	+3.1
		d'_{36}	−1.2
		d'_{37}	−1.2
			+3.3
			+4.3

7.8 1853.0 α 4h 34m 03.11 (1) δ +0° 16′ 18.8

t_{36}	34m 03.20	s_{36}	16.″17
t_{37}	34m 02.75	s_{37}	16.″20
$\alpha - t_{36}$	−0.09	$\delta - s_{36}$	+1.8
$\alpha - t_{37}$	+0.36	$\delta - s_{37}$	−1.2
		d'_{36}	−1.5
		d'_{37}	−1.5
			+3.3
			+0.3

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Zones 36 & 37

7.8 1853.0 α 4h 37m 09.66 (4) δ +0° 17′ 34.0 (4)

t_{36}	37m 09.80	s_{36}	17″.32
t_{37}	37m 09.25	s_{37}	17″.32
$\alpha - t_{36}$	− 0.14	$\delta - s_{36}$	+ 2.0
$\alpha - t_{37}$	+ 0.41	$\delta - s_{37}$	+ 2.0
		d'_{36}	−1.8
		d'_{37}	−1.9
			+3.8
			+3.9

9 1853.0 α 4h 40m 03.565 (1) δ +0° 16′ 58.4 (1)

t_{36}	40m 04.20	s_{36}	16″.56
t_{37}	40m 03.90	s_{37}	16″.57
$\alpha - t_{36}$	− 0.35	$\delta - s_{36}$	+ 2.4
$\alpha - t_{37}$	+ 0.15	$\delta - s_{37}$	+ 1.4
		d'_{36}	−1.7
		d'_{37}	−1.7
			+4.1
			+3.1

9 1853.0 α 4h 39m 35.10 (1) δ +0° 17′ 42.0 (1)

t_{36}	39m 35.20	s_{36}	17″.38
t_{37}	39m 34.75	s_{37}	17″.40
$\alpha - t_{36}$	− 0.10	$\delta - s_{36}$	+ 4.0
$\alpha - t_{37}$	+ 0.35	$\delta - s_{37}$	+ 2.0
		d'_{36}	−1.9
		d'_{37}	−1.9
			+2.1
			+0.1

7 1853.0 α 4h 47m 18.76 (1) δ +0° 13′ 32.8

t_{36}	47m 18.25	s_{36}	13″.26
t_{37}	47m 17.75	s_{37}	13″.26
$\alpha - t_{36}$	+ 0.51	$\delta - s_{36}$	+ 6.8
$\alpha - t_{37}$	+ 1.01	$\delta - s_{37}$	+ 6.8
		d'_{36}	−0.8
		d'_{37}	−0.9
			+7.6
			+7.7

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Zones 36 & 37

9 1853·0 α 4h 48m 04s.44 (1) δ + 0° 11′ 45″.7

t_{36}	48m 04s.46	s_{36}	11″.42
t_{37}	48m 03s.90	s_{37}	11″.41
$\alpha - t_{36}$	+ 0s.49	$\delta - s_{36}$	+ 3″.7
$\alpha - t_{37}$	+ 1s.04	$\delta - s_{37}$	+ 4″.7
		d'_{36}	− 0″.4
		d'_{37}	− 0″.4
			+4″.1
			+5″.1

8 1853·0 α 5h 04m 08s.56 (1) δ + 0° 19′ 49″.9

t_{36}	4m 08s.90	s_{36}	19″.47
t_{37}	4m 08s.20	s_{37}	19″.48
$\alpha - t_{36}$	− 0s.34	$\delta - s_{36}$	+ 2″.9
$\alpha - t_{37}$	+ 0s.36	$\delta - s_{37}$	+ 1″.9
		d'_{36}	−2″.3
		d'_{37}	−2″.4
			+5″.2
			+4″.3

8 1853·0 α 4h 50m 46s.41 (7) δ + 0° 13′ 33″.7

t_{36}	50m 46s.10	s_{36}	13″.26
t_{37}	50m 45s.60	s_{37}	13″.27
$\alpha - t_{36}$	+ 0s.31	$\delta - s_{36}$	+ 7″.7
$\alpha - t_{37}$	+ 0s.81	$\delta - s_{37}$	+ 6″.7
		d'_{36}	− 0″.8
		d'_{37}	− 0″.9
			+8″.5
			+7″.6

8·9 1853·0 α 5h 04m 53s.01 (1) δ + 0° 11′ 30″.5

t_{36}	s_{36}
t_{37}	s_{37}
$\alpha - t_{36}$	$\delta - s_{36}$
$\alpha - t_{37}$	$\delta - s_{37}$

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Zone 36837

8 1853·0 α 5ʰ 05ᵐ 33ˢ·02 (1) δ +0° 19′ 03″·4

t_{36}	5ʰ 33ᵐ 5ˢ·0	s_{34}	19″·03
t_{37}	5ʰ 32ᵐ 8ˢ·5	s_{37}	19″·03
$\alpha - t_{36}$	−0ˢ·48	$\delta - s_{34}$	+0″·1
$\alpha - t_{37}$	+0ˢ·17	$\delta - s_{37}$	+0″·1
		d'_{36}	−2″·1
		d'_{37}	−2″·2
			+2″·2
			+2″·3

7 1853·0 α 5ʰ 33ᵐ 32ˢ·82 (3) δ +0° 15′ 20″·4

t_{36}	33ᵐ 33ˢ·60	s_{34}	15″·16
t_{37}	33ᵐ 33ˢ·05	s_{37}	15″·19
$\alpha - t_{36}$	−0ˢ·78	$\delta - s_{34}$	+2″·4
$\alpha - t_{37}$	−0ˢ·23	$\delta - s_{37}$	+1″·4
		d'_{36}	−1″·3
		d'_{37}	−1″·3
			+3″·7
			+2″·7

9 1853·0 α 5ʰ 29ᵐ 12ˢ·80 (1) δ +0° 11′ 46″·7

t_{36}	5ʰ 29ᵐ 13ˢ·65	s_{36}	11″·41
t_{37}	29ᵐ 13ˢ·05	s_{37}	11″·42
$\alpha - t_{36}$	−0ˢ·85	$\delta - s_{34}$	+5″·7
$\alpha - t_{37}$	−0ˢ·25	$\delta - s_{37}$	+4″·7
		d'_{36}	−0″·4
		d'_{37}	−0″·4
			+6″·1
			+5″·1

9 1853·0 α 5ʰ 43ᵐ 23ˢ·07 (1) δ +0° 17′ 40″·3

t_{36}	43ᵐ 24ˢ·20	s_{36}	17″·85
t_{37}	43ᵐ 23ˢ·75	s_{37}	17″·35
$\alpha - t_{36}$	−1ˢ·13	$\delta - s_{35}$	+5″·3
$\alpha - t_{37}$	−0ˢ·68	$\delta - s_{37}$	+5″·3
		d'_{36}	−1″·8
		d'_{37}	−1″·9
			+7″·1
			+7″·2

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Zones 36 & 37

8.9 1853.0 α 5h 59m 37.16 (4) δ + 0° 20′ 24.9

t_{36}	5h 38.00	s_{36}	20″.26
t_{37}	~~5h 36.15~~	s_{37}	20.22
$\alpha - t_{36}$	~~− 0.84~~	$\delta - s_{36}$	~~− 1.1~~
$\alpha - t_{37}$	~~+ 1.01~~	$\delta - s_{37}$	~~+ 2.6~~
		d'_{36}	− 2.5
		d'_{37}	~~− 3.6~~
			+1.6
			~~+6.7~~

Another star in Zone 37

8.9 1853.0 α 6h 19m 36.96 (1) δ + 0° 13′ 11.5″

t_{36}	19m 38.05s	s_{36}	13″.07
t_{37}	19m 37.75s	s_{37}	13.06
$\alpha - t_{36}$	− 1.09	$\delta - s_{36}$	+ 4.5
$\alpha - t_{37}$	− 0.79	$\delta - s_{37}$	+ 5.5
		d'_{36}	−0.7
		d'_{37}	−0.7
			+5.2
			+6.2

8.9 1853.0 α 6h 10m 26.08 (3) δ + 0° 16′ 33.6 (3)

t_{36}	10m 27.10	s_{36}	16″.31
t_{37}	10m 26.83s	s_{37}	16.33
$\alpha - t_{36}$	− 1.02	$\delta - s_{36}$	+ 2.6
$\alpha - t_{37}$	− 0.77	$\delta - s_{37}$	+ 0.6
		d'_{36}	−1.5
		d'_{37}	−1.7
			~~+4.1~~
			+2.3

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1853. 1853.

Comparisons with Zones 34 & 35 for the beginning of Zones 36 & 37

Mag.	Zone 34	k	Zone 35	k	α 1853.
6-7	4..29..53.90	−0.70	4..29..53.70	−0.60	H m s 4..29..53.15
6-7	29..54.60		29..54.50		29..53.90
11	30..26.90?		30..26.90?		30..26.25
9-10	31..20.70		31..20.45		31..19.92

Comparisons with Zone 40 for end of Zones 36 & 37

Zone 40		α 1853
10	6..17..14.40 −0.10	6..17..14.30
12	17..48.15	17..48.05
11	18..21.55	18..21.45
12	18..45.05	18..44.95

Beginning of Zones 36 & 37

α 1853. H m s	t_{36}	t_{37}	a−t 36	a−t 37	δ 1853 H m s	s_{36}	s_{37}	δ−s 36	δ−s 37
4..29..53.15	53.00	52.40	+.15	+.75	0..06..25.0	6..22	6..20	+3.0	+5.0
29..53.90	53.75	53.20	+.15	+.70	05..05.5	5..03	5..02	+2.5	+3.5
30..26.25	26.20		+.05		07..29.0	7..36	7..26	+3.0	+3.0
4..31..19.92	19.75	19.35	+.17	+.57	0..04..24.5	4..19	4..20	+5.5	+4.5
Mean			+.13	+.67				+3.5	+4.0

End of Zones 36 & 37

α 1853 H m s	t_{36}	t_{37}	a−t 36	a−t 37	δ 1853 H m s	s_{36}	s_{37}	δ−s 36	δ−s 37
6..17..14.30	15.45	15.45	−1.15	−1.15	0..03..15.0	3..12	3..14	+3.0	+1.0
17..48.05	49.25	49.25	−1.20	−1.20	08..18.0	8..17	8..17	+1.0	+1.0
18..21.45	22.80	22.55	−1.35	−1.10	10..07.0	10..07	10..07	0.0	+0.0
6..18..44.95	46.20	46.00	−1.25	−1.05	0..08..35.0	8..33	8..33	+2.0	+2.0
Mean			−1.24	−1.12				+1.5	+1.0

1 mistake in getting α 1853

1 " " " δ 1853

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Comparisons with Zones 34 & 35 for the beginning of Zones 36 & 37

Zone 34	α	Zone 35	α	δ 1853
0° 6′ 38″	−13″	0° 6′ 37″	−12″	+ 0° 6′ 25″.0
5 18		5 18		5 05.5
7 42		7 41		7 29.0
4 38		4 36		4 24.5 ~~24.0~~

Zone 40	α	δ 1853
3 16	−1″.0	+ 0° 3′ 15″.0
8 19	−1.	8 18.0
10 08	−1.	10 07.0
8 36	−1.	8 35.0

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Zones 38 & 39

9 1853.0 α 5h 58m 46.51 (1) δ + 0° 01′ 28.3 (1)

t_{38}	58m 46.40	s_{38}	2.25
t_{39}	58m 46.30	s_{39}	2.23
$\alpha - t_{38}$	+ 0.11	$\delta - s_{38}$	− 56.7
$\alpha - t_{39}$	+ 0.21	$\delta - s_{39}$	− 54.7
		d'_{38}	− 0.6
		d'_{39}	− 0.7
			− 56.1
			− 54.0

8 1853.0 α 6h 08m 42.97 (1) δ + 0° 03′ 35.0 (1)

t_{38}	8m 42.75	s_{38}	4.41
t_{39}	8m 42.90	s_{39}	4.38
$\alpha - t_{38}$	+ 0.22	$\delta - s_{38}$	− 1′ 06.0
$\alpha - t_{39}$	+ 0.07	$\delta - s_{39}$	− 1′ 03
		d'_{38}	− 1.2
		d'_{39}	− 1.3
			− 64.8
			− 61.7

8 1853.0 α 5h 59m 27.39 (5) δ + 0° 05′ 18.1 (5)

t_{38}	59m 27.10	s_{38}	6.24
t_{39}	59m 27.15	s_{39}	6.23
$\alpha - t_{38}$	+ 0.29	$\delta - s_{38}$	− 1′ 05.9
$\alpha - t_{39}$	+ 0.24	$\delta - s_{39}$	− 1′ 04.9
		d'_{38}	− 1.6
		d'_{39}	− 1.8
			− 64.3
			− 63.1

9 1853.0 α 6h 16m 12.03 (3) δ + 0° 03′ 13.2 (3)

t_{38}	[illegible]	s_{38}	4.22
t_{39}	16m 13.00	s_{39}	4.20
$\alpha - t_{38}$	---	$\delta - s_{38}$	− 1′ 08.8
$\alpha - t_{39}$	*−0.97?	$\delta - s_{39}$	− 1′ 06.8
		d'_{38}	− − 1.1
		d'_{39}	− 1.2
			− 67.7
			− 65.6

No Explanation of this discrepancy can be given - There are 3 Obs. in Weiss rightly reduced & our Zone reading is correct

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Jones 3889

9 1853·0 α 6ʰ 16ᵐ 22ˢ·03 (1) δ +0° 02′ 59″·2 (1)

t_{38}	16ᵐ 22ˢ·20	s_{38}	4″·03
t_{39}	16ᵐ 22ˢ·20	s_{39}	4″·01
$\alpha - t_{38}$		$\delta - s_{38}$	−1″·03·8
$\alpha - t_{39}$	−0·17	$\delta - s_{39}$	−1″·1·8
		d'_{38}	−1·0
		d'_{39}	−1·1
			−62·8
			−60·7

8·9 1853·0 α 6ʰ 22ᵐ 47ˢ·73 (1) δ +0° 04′ 02″·4 (1)

t_{38}	4ᵐ	s_{38}	5″·06
t_{39}	22ᵐ 47ˢ·60	s_{39}	5″·02
$\alpha - t_{38}$		$\delta - s_{38}$	−1″·03·6
$\alpha - t_{39}$	+0ˢ·15	$\delta - s_{39}$	−0″·59·6
		d'_{38}	−1·2
		d'_{39}	−1·4
			−62·4
			−58·2

9 1853·0 α 6ʰ 22ᵐ 15ˢ·04 (1) δ +0° 00′ 07″·7 (1)

t_{38}	22ᵐ 15ˢ·10	s_{38}	0″·50
t_{39}	22ᵐ 15ˢ·10	s_{39}	0″·48
$\alpha - t_{38}$		$\delta - s_{38}$	57·7
$\alpha - t_{39}$	−0ˢ·06	$\delta - s_{39}$	55·7
		d'_{38}	−0·2
		d'_{39}	−0·3
			−57·5
			−55·4

9 1853·0 α 6ʰ 26ᵐ 03ˢ·48 (1) δ +0° 04′ 18″·2 (1)

t_{38}	26ᵐ 03ˢ·30	s_{38}	5″·16
t_{39}	26ᵐ 03ˢ·30	s_{39}	5″·14
$\alpha - t_{38}$		$\delta - s_{38}$	−57·8
$\alpha - t_{39}$	+0ˢ·18	$\delta - s_{39}$	−55·8
		d'_{38}	−1·3
		d'_{39}	−1·5
			−56·5
			−54·3

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Zones 38 & 39

9 1853·0 α 6ʰ 32ᵐ 56·27 (1) δ + 0° 04′ 46·6 (1)

t_{38}		s_{38}	
t_{39}	wanting	s_{39}	
$\alpha - t_{38}$		$\delta - s_{38}$	
$\alpha - t_{39}$		$\delta - s_{39}$	
		d'_{38}	
		d'_{39}	

8.9 1853·0 α 6ʰ 35ᵐ 40·89 (1) δ + 0° 07′ 07·1 (1)

t_{38}	35ᵐ 41·20	s_{38}	8″ 14
t_{39}	35ᵐ 41·70	s_{39}	8″ 13
$\alpha - t_{38}$	− 0·31	$\delta - s_{38}$	− 1′ 06·9
$\alpha - t_{39}$	− 0·81	$\delta - s_{39}$	− 1′ 05·9
		d'_{38}	− 2·1
		d'_{39}	− 2·3
			− 64·8
			− 63·6

8 1853·0 α 6ʰ 33ᵐ 49·58 (1) δ + 0° 05′ 24·9 (1)

t_{38}		s_{38}	
t_{39}		s_{39}	
$\alpha - t_{38}$		$\delta - s_{38}$	
$\alpha - t_{39}$		$\delta - s_{39}$	

9 1853·0 α 6ʰ 37ᵐ 32·62 (1) δ + 0° 04′ 04·9 (1)

t_{38}	37ᵐ 32·50	s_{38}	5″ 12
t_{39}	37ᵐ 32·90	s_{39}	6″ 10
$\alpha - t_{38}$	+ 0·12	$\delta - s_{38}$	− 1′ 7·1
$\alpha - t_{39}$	− 0·28	$\delta - s_{39}$	− 1′ 05·1
		d'_{38}	− 1·2
		d'_{39}	− 1·4
			− 65·4
			− 63·7

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Zones 38 & 39

8 1853.0 α 6h 37m 38.74 (1) δ +0° 06′ 14.1 (1)

t_{38}	37m 39.35	s_{38}	7.22
t_{39}	37m 39.56	s_{39}	7.18
$\alpha - t_{38}$	−0.59	$\delta - s_{38}$	−1′ 07.9
$\alpha - t_{39}$	−0.81	$\delta - s_{39}$	−1′ 03.9

Δ'_{38} −1.8
Δ'_{39} −2.0
−66.1
−61.9

9 1853.0 α 6h 52m 23.95 (1) δ +0° 09′ 11.8 (1)

t_{38}	s_{38}
t_{39}	s_{39}
$\alpha - t_{38}$	$\delta - s_{38}$
$\alpha - t_{39}$	$\delta - s_{39}$

X

9 1853.0 α 6h 51m 27.58 (1) δ +0° 06′ 25.4 (1)

t_{38}	6h 51m 28.05	s_{38}	7.32
t_{39}	51m 28.25	s_{39}	7.29
$\alpha - t_{38}$	−0.47	$\delta - s_{38}$	−1′ 06.6
$\alpha - t_{39}$	−0.67	$\delta - s_{39}$	−1′ 03.6

Δ'_{38} −1.9
Δ'_{39} −2.1
−64.7
−61.5

9 1853.0 α 6h 54m 14.70 (1) δ +0° 06′ 27.9 (1)

t_{38}	54m 15.25	s_{38}	7.36
t_{39}	54m 15.60	s_{39}	7.34
$\alpha - t_{38}$	−0.55	$\delta - s_{38}$	−1′ 08.1
$\alpha - t_{39}$	−0.90	$\delta - s_{39}$	−1′ 06.1

Δ'_{38} −1.9
Δ'_{39} −2.1
−66.2
−64.0

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Comparisons with Zones 31 & 33 for beginning of Zones 38 & 39 — 1853 — 1853

Mag.	Zone 31	k	Zone 33	k	α 1853.
8	5h 58m 47.25	−0.55	5h 58m 47.25	−0.75	5h 58m 46.60
7	5h 59m 27.95		5h 59m 28.20		5h 59m 27.42
12			6h 00m 12.85		6h 00m 12.10
10	6h 01m 12.65		6h 01m 12.70		6h 01m 12.02

Comparisons with Zones 42 & 43 for the end of Zones 38 & 39 — 1853. — 1853

	Zone 42	k	Zone 43	k	α 1853.
11	7h 47m 56.75	−1.06	7h 47m 56.80	−1.20	7h 47m 55.64
10-11	48m 24.10		48m 24.20		48m 23.02
10-11	48m 36.75		48m 36.85		48m 35.67

Beginning of Zones 38 & 39

α 1853	t_{38}	t_{39}	$a-t_{38}$	$a-t_{39}$	δ 1853	s_{38}	s_{39}	$\delta-s_{38}$	$\delta-s_{39}$
5h 58m 46.60s	46.40	46.30	+.20	+.30	+ 0° 01′ 21.0″	2′ 25″	2′ 23″	−1° 04′ 0″	+1° 02′ 0″
5h 59m 27.42	27.10	27.15	+.32	+.27	05′ 21.0″	6′ 24″	6′ 23″	−1° 03′ 0″	+1° 02′ 0″
6h 00m 12.10	11.90	11.95	+.20	+.15	+ 02′ 03.0″	3′ 08″	3′ 06″	−1° 05′ 0″	+1° 03′ 0″
6h 01m 12.00	11.85	12.00	+.15	.00	− 0° 00′ 03.5″	1′ 00″	0′ 57″	−1° 03′ 5″	+1° 02′ 5″
Mean			+.22	+.14				−1° 04′	−1° 02′

End of Zones 38 & 39

α 1853	t_{38}	t_{39}	$a-t_{38}$	$a-t_{39}$	δ 1853	s_{38}	s_{39}	$\delta-s_{38}$	$\delta-s_{39}$
7h 47m 53.64s	56.00	56.25	−.36	−.61	0° 05′ 30.5″	6′ 38″	6′ 36″	+1° 07′ 5″	−1° 05′ 5″
48m 23.02	23.70			−.68	06′ 14.0″		7′ 19″		−1° 05′ 0″
7h 48m 35.67	36.15		—	−.48	0° 02′ 25.0″		3′ 20″		−1° 03′ 0″
Mean			−.36	−.59					−1° 02′

1 mistake in getting α 1853
1 " " " δ 1853

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Comparisons with Zones 31 & 33 for the beginning of Zones 38 & 39

Zone 31	dδ	Zone 33		δ 1853.
1..26	+5.0	0° 1' 26"	− 5".0	+ 0° 1' 21".0
5..26		5..26		5..21.0
		2..08		2..03.0
0..02		0..01		− 0..03.5

Comparisons with Zones 42 & 43 for the end of Zones 38 & 39

Zone 42	dδ	Zone 43	dδ	δ 1853.
0° 6' 37"	− 67.	0° 6' 34"	− 64"	0° 5' 30".6
7..21		7..18		6..14.0
3..32		3..29		2..25.0

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Zones 38 & 39

9 1853.0 α 6ʰ 55ᵐ 39ˢ.25 (1) δ + 0° 00′ 10″.6 (1)

t_{38}	55ᵐ 39ˢ.60	s_{38} +	0″.56
t_{39}	55ᵐ 39ˢ.75	s_{39}	0″.55
$\alpha - t_{38}$	− 0ˢ.35	$\delta - s_{38}$	− 1″ 06″.6
$\alpha - t_{39}$	− 0ˢ.52	$\delta - s_{39}$	− 1″ 05″.6
		d'_{38}	− 0.2
		d'_{39}	− 0.3
			−66.4
			−65.3

9 1853.0 α 7ʰ 00ᵐ 28ˢ.90 (1) δ + 0° 05′ 20″.6 (1)

t_{38}	00ʰ 29ˢ.20	s_{38}	6″.36
t_{39}	00ʰ 29ˢ.55	s_{39}	6″.26
$\alpha - t_{38}$	− 0ˢ.30	$\delta - s_{38}$	− 1″ 09″.4
$\alpha - t_{39}$	− 0ˢ.65	$\delta - s_{39}$	− 1″ 05″.4
		d'_{38}	− 1.6
		d'_{39}	− 1.8
			−67.8
			−63.6

9 1853.0 α 6ʰ 58ᵐ 49ˢ.94 (1) δ + 00° 01′ 50″.9

t_{38}	58ᵐ 49ˢ.15	s_{38}	3″.00
t_{39}	58ᵐ 49ˢ.30	s_{39}	2″.58
$\alpha - t_{38}$	+ 0ˢ.79	$\delta - s_{38}$	− 1″ 09″.1
$\alpha - t_{39}$	+ 0ˢ.64	$\delta - s_{39}$	− 1″ 07″.1
		d'_{38}	− 0.7
		d'_{39}	− 0.8
			− 68.4
			−66.3

9 1853.0 α 7ʰ 01ᵐ 05ˢ.9 (1) δ + 0° 06′ 54″.7

t_{38}	wanting	s_{38}	
t_{39}	"	s_{39}	
$\alpha - t_{38}$			
$\alpha - t_{39}$			

X

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Zones 38 & 39

9 1853·0 α 7ʰ 03ᵐ 12ˢ·77 (1) δ +0° 06′ 53″·0 (1)

t_{38}	3ᵐ 12ˢ·85	s_{38}	8″.02
t_{39}	3ᵐ 13ˢ·15	s_{39}	8″.01
$\alpha - t_{38}$	− 0ˢ.04	$\delta - s_{38}$	− 1″.09·0
$\alpha - t_{39}$	− 0ˢ.38	$\delta - s_{39}$	− 1″.08·0
		d'_{38}	− 2.0
		d'_{39}	− 2.2
			−67.0
			−65.8

9 1853·0 α 7ʰ 06ᵐ 19ˢ·16 (1) δ +0° 06′ 29″·0 (1)

t_{38}	6ᵐ 19ˢ·30	s_{38}	7″.37
t_{39}	6ᵐ 19ˢ·60	s_{39}	7″.35
$\alpha - t_{38}$	− 0ˢ.14	$\delta - s_{38}$	− 1″.08
$\alpha - t_{39}$	− 0ˢ.44	$\delta - s_{39}$	− 1″.06
		d'_{38}	−1.9
		d'_{39}	−1.2
			−66.1
			−64.8

7 1853·0 α 7ʰ 05ᵐ 47ˢ·28 (3) δ − 0° 00′ 53″·2 (3)

t_{38}	5ᵐ 47ˢ·15	s_{38} +	0″.12
t_{39}	5ᵐ 47ˢ·55	s_{39} +	0″.09
$\alpha - t_{38}$	+ 0ˢ.13	$\delta - s_{38}$	− 1″.05·2
$\alpha - t_{39}$	− 0ˢ.27	$\delta - s_{39}$	− 1″.02·2
		d'_{38}	−0.0
		d'_{39}	−0.1
			−65.2
			−62.1

6·7 1853·0 α 7ʰ 07ᵐ 48ˢ·26 (4) δ +0° 06′ 23″·2 (4)

t_{38}	7ʰ 48ˢ·00	s_{38}	6″.33
t_{39}	7ʰ 48ˢ·30	s_{39}	6″.30
$\alpha - t_{38}$	+ 0ˢ.26	$\delta - s_{38}$	− 1″.09·8
$\alpha - t_{39}$	− 0ˢ.04	$\delta - s_{39}$	− 1″.06·8
		d'_{38}	−1.6
		d'_{39}	−1.7
			−68.2
			−65.1

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Zones 38 & 39

8 1853.0 α 7h 10m 39.68 (1) δ +0° 04' 57.7 (1)

t_{38}	10m 39.85	s_{38}	6.07
t_{39}	10m 40.15	s_{39}	6.04
$\alpha - t_{38}$	−0.17	$\delta - s_{38}$	−1'09 3
$\alpha - t_{39}$	−0.47	$\delta - s_{39}$	−1'06.3
		d'_{38}	−1.5
		d'_{39}	−1.6
			−67.8
			−64.7

9 1853.0 α 7h 16m 47.21 (1) δ +0° 03' 55.9

t_{38}	7h 16m 47.40	s_{38}	6'04
t_{39}	16m 47.90	s_{39}	5'04
$\alpha - t_{38}$	−0.19	$\delta - s_{38}$	−1'08.1
$\alpha - t_{39}$	−0.69	$\delta - s_{39}$	−1'08.1
		d'_{38}	−1.2
		d'_{39}	−1.4
			−66.9
			−66.7

8 9 1853.0 α 7h 15m 38.06 (1) δ +0° 04' 09.8 (1)

t_{38}	15m 38.10	s_{38}	5'18
t_{39}	15m 38.30	s_{39}	5'16
$\alpha - t_{38}$	−0.04	$\delta - s_{38}$	−1'08.2
$\alpha - t_{39}$	−0.24	$\delta - s_{39}$	−1'06.2
		d'_{38}	−1.3
		d'_{39}	−1.5
			−66.9
			−64.7

9 1853.0 α 7h 19m 45.37 (1) δ +0° 07' 52.5

t_{38}	19m 45.60	s_{38}	9'03
t_{39}	19m 46.00	s_{39}	8'59
$\alpha - t_{38}$	−0.23	$\delta - s_{38}$	−1'10.5
$\alpha - t_{39}$	−0.63	$\delta - s_{39}$	−1'06.5
		d'_{38}	−2.2
		d'_{39}	−2.5
			−68.3
			−64.0

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Zones 38 & 39

8.9 1853.0 α 7ʰ 23ᵐ 42ˢ.64 (1) δ + 0° 03′ 31″.3 (1)

t_{38}	7ʰ 23ᵐ 42ˢ.65	s_{38}	4″.39
t_{39}	23ᵐ 43ˢ.05	s_{39}	4″.37
$\alpha - t_{38}$	− 0ˢ.01	$\delta - s_{38}$	− 1″.07.7
$\alpha - t_{39}$	− 0ˢ.41	$\delta - s_{39}$	− 1″.05.7
		d'_{38}	− 1.2
		d'_{39}	− 1.3
			− 66.5
			− 64.4

8 1853.0 α 7ʰ 41ᵐ 11ˢ.76 (1) δ + 00° 06′ 09″.7

t_{38}	41ᵐ 12ˢ.10	s_{38}	7″.18
t_{39}	41ᵐ 12ˢ.45	s_{39}	7″.17
$\alpha - t_{38}$	− 0ˢ.35	$\delta - s_{38}$	− 1″.08.3
$\alpha - t_{39}$	− 0ˢ.70	$\delta - s_{39}$	− 1″.07.3
		d'_{38}	− 1.8
		d'_{39}	− 2.0?
			− 66.5
			− 65.3

7 1853.0 α 7ʰ 31ᵐ 25ˢ.41 (4) δ + 0° 04′ 12″.2 (4)

t_{38}	31ᵐ 25ˢ.60	s_{38}	5″.22
t_{39}	31ᵐ 26ˢ.00	s_{39}	5″.17
$\alpha - t_{38}$	− 0ˢ.19	$\delta - s_{38}$	− 1″.09.8
$\alpha - t_{39}$	− 0ˢ.59	$\delta - s_{39}$	− 1″.04.8
		d'_{38}	− 1.3
		d'_{39}	− 1.5
			− 68.5
			− 63.3

9 1853.0 α 7ʰ 48ᵐ 23ˢ.04 (1) δ + 0° 06′ 11″.4 (1)

t_{38}		s_{38}	
t_{39}	48ᵐ 23ˢ.80	s_{39}	7″.19
$\alpha - t_{38}$		$\delta - s_{38}$	
$\alpha - t_{39}$	− 0ˢ.66	$\delta - s_{39}$	− 1″.07.6
		d'_{38}	
		d'_{39}	− 1.8

			− 65.8

see Over

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Revised up to this page for α-t's & n's Aug 10 1853

Zones 38 & 39

9 1853.0 α 7h 48m 35.70 (1) δ + 0° 02' 26.0

t_{38} 7h 48m ~~36.15~~ s_{38} ~~3.50~~

t_{39} 7h 48m 36.15 s_{39} 3.30

$\alpha - t_{38}$

$\alpha - t_{39}$ − 0.45 $\delta - s_{38}$ − 1.04

d'_{38}

d'_{39} − 0.8

m_{38} ----

m_{39} − 63.2

For comparison of Zones with 38 & 39 see back.

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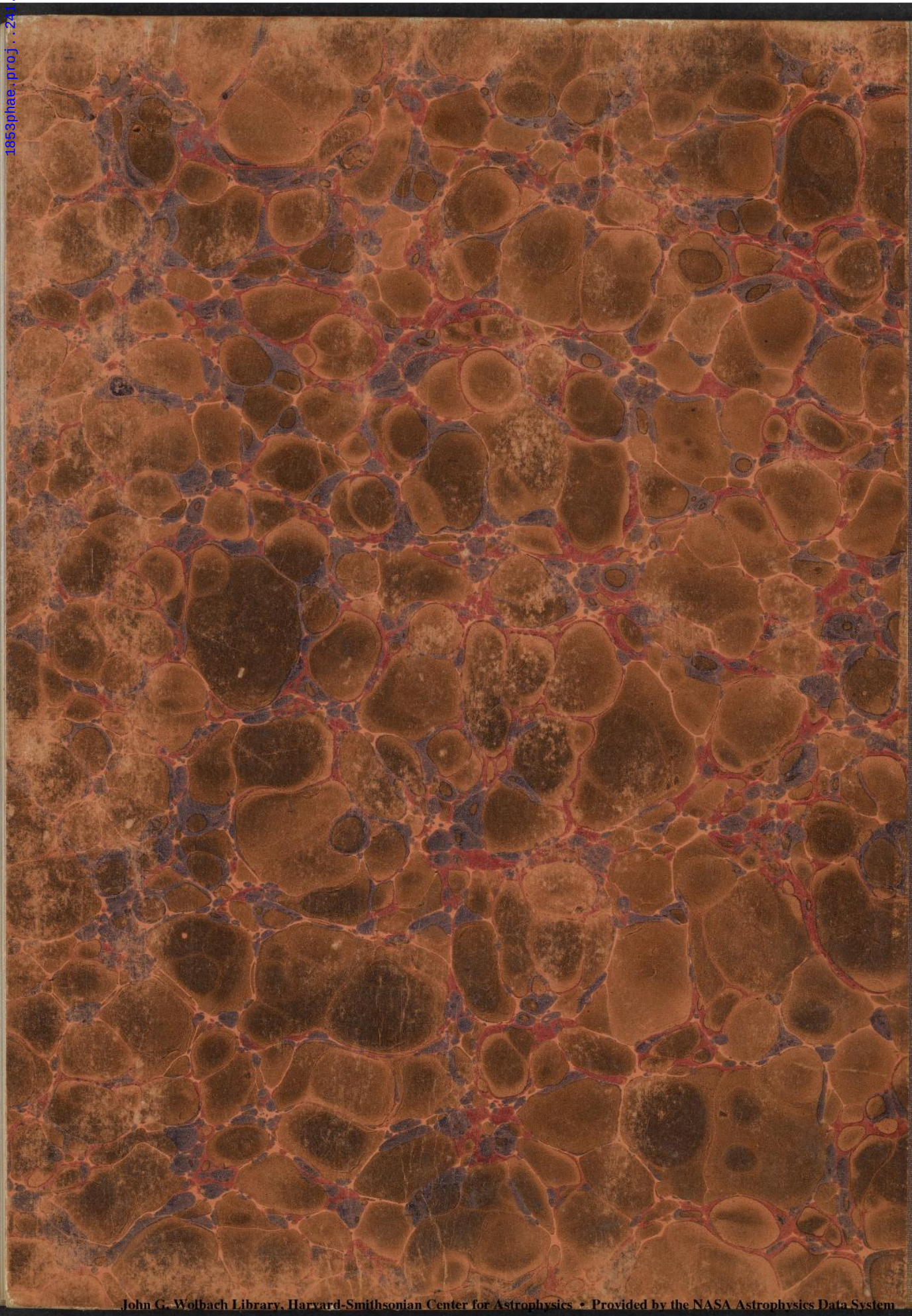
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