Report of the state of Astronomical Calculations, on 18

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
1	Transits.	Transits on separate Wires		
		Means of Wires		
		Corrections for omitted Wires *entered*		
		Observed Transit		
		Factors of Errors		
		Error of Collimation and Level Error *entered.*		
		Product for 1st and 2nd Error		
		Application of 1st and 2nd Error		
		Azimuthal Error *entered*		
		Product for Azimuthal Error		
		True Transit		
		Clock Error and Rate *entered*		
		Proportional part of Rate		
		True Apparent Right Ascension		
		Semidiameter *entered*		
		Right Ascension of Center		
		Stars' corrections *entered*		
		Mean Right Ascension		
		Last discussion of Personal Equation		
		Personal Equation applied		
		Computation for defective limb of Moon		
2	Completion of Transits.	Last investigation of Intervals of Wires		
		Application to Stars and Planets		
		Application to Polaris, λ, and δ Ursæ Minoris		
3	Collimation of Transit.	Last investigation of value of Micrometer Scale		
		Date of last observations for Collimation		
4	Levelling of Transit.	Last investigation of value of Scale Divisions		
		Date of last observations for Level		
5	Azimuthal Error.	Azimuthal Error computed		
6	R. A. of Nautical Almanac Stars.	Corrections to Jan. 1		
		Corrected R. A. for day		
7	R. A. of Polaris and δ Ursæ Minoris.	Corrections to Jan. 1		
		Corrected R. A. for day		
8	Clock Errors.	Apparent R. A. *entered*		
		True Transit *entered*		
		Apparent Error and Mean Error		
		Clock's Loss in 24 hours		
		Rate adopted		
		Clock's Error at 0ʰ Sidereal		

Report of the state of Astronomical Calculations on 18

(*continued.*)

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
9	Corrections of Small Stars in R. A.	No. in B. A. C., or R. A. and N. P. D. *entered*		
		Log. A, B, C, D, *entered*		
		Logarithms for Stars *entered*		
		Sums of Logarithms		
		Natural numbers		
		Sums of numbers		
10	Mean Time.	Sidereal Time for meridional results *entered*		
		Mean Solar Time		
		Sidereal Time for Obs. with Alt. and Azim. Instr. *entered.*		
		Mean Solar Time		
		Sidereal Time for other extrameridional Obs. *entered.*		
		Mean Solar Time		
'11	Adjustments of Transit.	Last examination of Transit Pivots		
		Last observations or remarks		
12	Ledger of Stars' R. A.	Separate determinations of R. A.		
		Means taken		
14	Transit Copy for Press.	Left page written		
		Right page		
		Notes		
15	Approximate Clock Errors.	Last determination from Transits.		
		Clock Errors prepared		
		Comparisons of Clocks reduced		
16	Circle Observations.	Readings of separate Microscopes		
		Corrections for Runs for 5′ *entered*		
		Proportional part of Corrections for Runs		
		Corrected mean of Microscopes		
		Micrometer corrections *entered*		
		Application of micrometer correction		
		Change of N. P. D. and Cor. for Curvature *entered*		
		Application of change of N. P. D. and Cor. for Curvature		
		Concluded Circle Reading		
		Zenith Point *entered*		
		Apparent Zenith Distance		
		Refractions *transferred*		
		True Zenith Distance.		
		Geocentric Zenith Distance		
		N. P. D. of Limb		
		N. P. D. of Center		
		Star Corrections *entered*		
		Mean N. P. D.		

Report of the state of Astronomical Calculations, on 18

(*continued.*)

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
16 (*cont^{d}.*)	Circle Observations (*continued.*)	Refraction numbers for Barometer and Thermometer .		
		Refraction numbers for Zenith Distance . . .		
		Sums		
		Natural numbers		
		Application of correction for Defective Limb of Moon .		
		Observed Diameters of Sun, Moon, and Planets . .		
17	Small Corrections for Circle Observations.	Last investigation of value of Micrometer Scale . .		
		Micrometer Computation		
		Change of N. P. D. for Planets		
		Change of N. P. D. for Moon		
		Computation of Parallax for Planets		
		Correction for Defective Limb of Moon . . .		
20	Adjustments of Circle.	Observations for Runs		
		Transits for Circle Position reduced		
		Last entry of other matters		
23	Zenith Points.	Concluded Circle Readings *entered*		
		Groups separated		
		Circle Readings combined		
		Zenith Points adopted		
		Last observation with Reflecting Eyepiece . . .		
		Zenith Points adopted		
24	Moon's Parallax.	Zenith Distance *entered*		
		Equatoreal Parallax *entered*		
		Parallax computed		
25	N. P. D. of Nautical Almanac Stars.	N. P. D. and Corrections to Jan. 1		
26	Corrections of Small Stars in N. P. D.	Number in B. A. C., or R. A., and N. P. D. *entered* .		
		Log. A, B, C, D, *entered*		
		Logs. for Stars *entered*		
		Sums of Logarithms		
		Natural numbers		
		Sums of natural numbers		
27	Copy of Circle Observations for Press.	Copy written { Left Page / Right Page		
		Notes		
29	Ledger of Stars' N. P. D.	Separate Determinations of N. P. D.		
		Means taken		

Report of the state of Astronomical Calculations, on 18

(*continued.*)

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
30	Interpolations.	Times and subjects for Merid. Obs. *entered*		
		Numbers from N. A. *entered*		
		Interpolation completed		
		Times and subjects for Alt. and Az. Obs. *entered*		
		Numbers from N. A. *entered*		
		Interpolation completed		
		Times and subjects for Equatoreal Obs. *entered*		
		Numbers from N. A. *entered*		
		Interpolation completed		
		Times and subjects for Occultations *entered*		
		Numbers from N. A. *entered*		
		Interpolation completed		
13	Deductions from Meridional Observations.	Investigation of R—D		
		Investigation of Correction of Latitude		
		Star Catalogue		
		Comparison of Observed and Tabular Diameters of Sun, Moon, and Planets		
		Comparison of Observed and Tabular R. A.		
		Comparison of Observed and Tabular N. P. D.		
		Investigation of Position of Ecliptic		
		Errors of Sun and Planets in Long. and E. P. D.		
		Heliocentric Errors of Planets		
		Errors of Moon in Long. and E. P. D.		
60	Zenith Tube.	Last investigation of values of Micrometer Divisions		
		Reduction of Upper Microscope		
		Reduction of Lower Microscope		
		Reduction of Grand Micrometer		
		Result for Zenith Distance		
68	Zenith Distances observed with the Altitude and Azimuth Instrument.	Transits on Separate Horizontal Wires		
		Means of Wires		
		Last examination of Intervals of Wires		
		Correction for Omitted Wires *entered*		
		Clock Time of Vertical Transit		
		Clock Error and Rate *entered*		
		Sidereal Time of Vertical Transit		
		Readings of separate Microscopes of Vertical Circle		
		Last Examination of Runs		
		Correction of Runs for 5′ *entered*		
		Concluded Reading of Vertical Circle		
		Reading Corrected for Level		
		Refractions *transferred*		
		Circle Readings corrected for Refraction		

Report of the state of Astronomical Calculations, on 18

(*continued.*)

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
68 (*cont^{d}.*)	Zenith Distances Observed with the Altitude and Azimuth Instrument— (*continued.*)	Zenith Point *entered*		
		True Observed Zenith Distance		
		Approximate Zenith Distance		
		Refraction numbers for Barometer and Thermometer .		
		Refraction numbers for Zenith Distance . . .		
		Sums		
		Natural numbers . , ...		
69	Azimuths observed with the Altitude and Azimuth Instrument.	Transits on separate Vertical Wires		
		Means of Wires		
		Last examination of intervals of Wires		
		Corrections for Omitted Wires *entered*		
		Clock Time of Horizontal Transit		
		Clock Error and Rate *entered*		
		Sidereal Time of Horizontal Transit		
		Readings of separate Microscopes of Horizontal Circle .		
		Last Examination of Runs		
		Correction of Runs for 5′ *entered*		
		Concluded Reading of Horizontal Circle . . .		
		Correction for form of Pivots *entered*		
		Factors for Collimation and Level *entered* . . .		
		Errors of Collimation and Level *entered* . . .		
		Reading of Horizontal Circle corrected . . .		
		Zero of Azimuth *entered*		
		Observed Azimuth		
		Level Indication for Horizontal Axis		
70	Comparisons of New South Dome Clock with Transit Clock.	Times by Clocks and Chronometers *entered* . . .		
		Correction from Solar to Sidereal Time *entered*. . .		
		Chronometer's Losing Rate *entered*		
		Interval in Sidereal Time		
		Transit Clock slow at 0^{h} Sidereal and Rate *entered*. .		
		Sidereal Time at comparison with Transit Clock . .		
		Error of New South Dome Clock		
71	Corrections for Figure of Earth, Moon's Semi-diameter, and Moon's Parallax, for observations with Altitude and Azimuth Instrument.	Observed Z. D. of Limb *entered*		
		Approx. Tab. Geoc. N. P. D. *entered*		
		Approx. Tab. Normal Centric Z. D. *entered* . .		
		Tab. Hor. Eq. Parallax *entered*		
		Tab. Geoc. Semidiameter *entered*		
		Normal Centric Correction to N. P. D. . . .		
		Semidiameter in Azimuth		
		Normal Centric Semidiameter		
		Normal Centric Parallax		

Report of the state of Astronomical Calculations, on 18

(*continued.*)

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
72	Tabular Azimuths and Zenith Distances of Stars and Moon's Limb for observations with Altitude and Azimuth Instrument.	Sidereal Time of Observation Tabular R. A. of Center *entered* Hour Angle Tabular Geoc. N. P. D. of Center *entered* Normal Centric N. P. D. of Center *entered* Normal Centric Correction *entered* Azimuth of Center Azimuthal Semidiameter *entered* Tabular Azimuth of Limb Observed Azimuth *entered* Error of Tabular Azimuth Normal Centric Zenith Distance of Center Normal Centric Semidiameter *entered* Normal Centric Zenith Distance of Limb Normal Centric Parallax *entered* Tabular Greenwich Zenith Distance of Limb Observed Zenith Distance of Limb Error of Tabular Zenith Distance		
73	Zenith Points of the Vertical Circle of Altitude and Azimuth Instrument.	Corrected Circle Readings *entered* Tabular Zenith Distance *entered* Groups formed Zenith Points adopted		
74	Error of Collimation; and Level Reading for Horizontal Position of Horizontal Axis of Alt. and Az. Instr.	Zenith distances, Cosecants, and Cotans. *entered* Level Readings *entered* Concluded Reading of Circle Tabular Azimuth *entered* Results complete		
75	Zero of Azimuth of Horizontal Circle.	Readings of Horizontal Circle *entered* Tabular Azimuths *entered* Groups formed Zero adopted		
76	Adjustments of Alt. and Az. Instr.	Date of last computation or remark		
81	Conversion of Errors of Azim. and Zen. Dist. into Errors of R. A. and N.P.D.	Mean Solar Time, Hour Angle, and N. P. D. *entered* Errors of Azimuth and Zenith Distance *entered.* p, q, r, s, *entered* Error of R. A. and Error of N. P. D. found		
64	Equatoreal Computations in R. A.	Last observations Last examination of Runs for Hour Circle Microscopes		

Report of the state of Astronomical Calculations, on 18

(*continued.*)

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
64 (*cont^{d}.*)	Equatoreal Computations in R. A.— (*continued.*)	Concluded Reading of Hour Circle in Time . . .		
		Refraction in R. A. *entered*		
		Parallax in R. A. *entered*		
		Instrumental R. A. corrected		
		Assumed R. A. of Star *entered*		
		R. A. of Comet, &c.		
		Interpolated R. A. *entered*		
		Last Transits for Moon's Diameter		
		Error of Moon's Diameter computed		
65	Equatoreal Computations in N.P.D.	Last observations		
		Last examinations of Runs for Dec. Circle Microscopes .		
		Concluded Circle Reading in Arc		
		Last examination of Sector Divs. and Micrometer Divs.		
		Pointer Reading and Micrometer Reading in Arc .		
		Refraction in N. P. D. *entered*		
		Parallax in N. P. D. *entered*		
		Instrumental N. P. D. corrected		
		Assumed N. P. D. of Star *entered*		
		N. P. D. of Comet, &c.		
		Interpolated N. P. D. *entered*		
	Double Image Micrometer.	Last determination of value of divisions . . .		
		Last determination of Polar Point		
		Last observation		
		Reductions made to		
	Eclipses and Occultations.	Last observation		
		Time by Transit Clock		
		Sidereal Time		
		Mean Time		
31	Calculation of Occultations.	Times *entered*		
		Numbers from Interpolation Book *entered* . . .		
		Places of Stars *entered*		
		F. and G. computed		
		Approximation made		
		Distance of corresponding Point found . . .		
		Final equation formed		
	Miscellaneous Computations.			

Report of the state of Astronomical Calculations, on 18

(*concluded.*)

No. of Book.	Subject of Book.	Line of Computation.	Date at Completion of Entry or Computation.	Date at Completion of Examination.
	Miscellaneous Computations— (*continued.*)			
	Preparations for next Year's Work.	Phœnomena of Sun and Planets prepared . . .		
		Phœnomena of Moon prepared		
		Phœnomena of Occultations		
		Phœnomena of Jupiter's Satellites		
		Other Astronomical Phœnomena		
		Magnetical and Meteorological Observations . . .		
		Other matters		

(Signed)

FIRST ASSISTANT.

ROYAL OBSERVATORY, GREENWICH.

[Form No. 68.]

Zenith Distances of Stars and of the Moon's Upper or Lower Limb, observed with the Altitude and Azimuth Instrument, in the Year 18 .

Approximate Solar Time.	d h m	d h m	d h m	d h m		
Name of Object.						
Whether *before* or *after* Meridian passage.					Com- puter.	Exami- ner.
Whether Graduated Face of Vertical Circle was *Right* or *Left*.						
Clock Times of Transit over horizontal wires observed with the Clock Graham 1 — 1st Wire	h m s	h m s	h m s	h m s		
2nd						
3rd						
4th						
5th						
6th						
	)	)	)	)		
Add						
Correction for wires omitted						
Clock Time of Vertical Transit						
At ..... Clock Slow	h m	h m	h m	h m		
Interval..... Proportional part	s	s	s	s		
Losing Rate.... Proportional part						
Sidereal Time of Vertical Transit						
Readings of Vertical Circle. — Pointer	° ′ ″	° ′ ″	° ′ ″	° ′ ″		
Micrometer *A*, and equivalent	r	r	r	r		
B.....						
C.....						
D.....						
Whole correction for Runs.... and prop. part.						

Sidereal Time of Vertical Transit																			
Readings of Vertical Circle.	Pointer																		
	Micrometer *A*, and equivalent	r			r			r			r								
	B.....																		
	C.....																		
	D.....																		
Whole correction for Runs.... and prop. part.																			
Concluded Reading of Vertical Circle		d			d			d			d								
Readings of Lower Level, and ½ equivalents	*E*																		
	F																		
Readings of Upper Level, and ½ equivalents	*G*																		
	H																		
Reading of Vertical Circle corrected for Level																			
Add / Subtract Refraction (from below)	Face Right																		
	Face Left																		
Circle Reading corrected for Level and Refraction																			
Zenith Point (including Zero of Level)																			
Difference, or True Observed Zenith Distance																			
Circle Reading corrected for Level																			
Approximate Zenith Point																			
Difference, or Approx. App. Zenith Distance																			
From Appendix No. I. to Greenwich Observations, 1836.	Barometer and *B* (Table I.)	in.			in.			in.			in.								
	Thermometer and *T* (Table II.)	°			°			°			°								
	Z (Table III.)																		
	Proportional parts																		
	t (Table IV.)																		
	b (Table V.)																		
Sum, or log. Refraction in seconds																			
Refraction																			
Observer.																			
Remarks.																			

ROYAL OBSERVATORY, GREENWICH.

[Form No. 69.]

Azimuths of Stars and of the Moon's Right or Left Limb, observed with the Altitude and Azimuth Instrument, in the Year 18 .

Approximate Solar Time.	d h m	d h m	d h m	d h m		
Name of Object.						
Approximate *Zenith* Distance.	° ′ ″	° ′ ″	° ′ ″	° ′ ″	Computer.	Examiner.
Whether Graduated Face of Vertical Circle was *Right* or *Left*.						
Clock Times of Transit over horizontal wires observed with the Clock Graham 1 — 1st Wire	h m s	h m s	h m s	h m s		
2nd						
3rd						
4th						
5th						
6th						
	)	)	)	)		
Add						
Correction for wires omitted	—	—	—	—		
Clock Time of Horizontal Transit						
At ..... Clock Slow	h m	h m	h m	h m		
Interval..... Losing Rate.... Proportional part						
Sidereal Time of Horizontal Transit						
Readings of Horizontal Circle. — Pointer	° ′ ″	° ′ ″	° ′ ″	° ′ ″		
Micrometer *a*, and equivalent	r	r	r	r		
b.....						
c.....						
d.....						

Graham I	5th					
	6th					
Add						
Correction for wires omitted						
Clock Time of Horizontal Transit						
At ..... Clock Slow						
Interval..... } Proportional part						
Losing Rate.... }						
Sidereal Time of Horizontal Transit						
Readings of Horizontal Circle. Pointer						
Micrometer *a*, and equivalent						
b.....						
c.....						
d.....						
Whole correction for Runs.... and proportional part						
Concluded Reading of Horizontal Circle						
Correction for form of pivots of horizontal axis						
Change Signs of products, when Graduated Face of Vertical Circle is *Left*: Error of Collimation × Cosec. Zen. Dist.						
Level Indication × Cotan Zen. Dist.						
Reading of Horizontal Circle Corrected						
Subtract Zero of Azimuth						
Observed Azimuth						
Readings of Lower Levels and ¼ equivalents *e*						
f						
g						
h						
Readings of Upper Levels and ¼ equivalents *i*						
k						
l						
m						
Divide by 2, if four levels are read						
Mean Level Reading						
Subtract Reading for horizontal position of Hor. Axis						
Level Indication as applying to Horizontal Axis						
Observer.						
Remarks.						

ROYAL OBSERVATORY, GREENWICH.

[Form No. 70.]

Comparisons of New South Dome Clock, Graham 1, Chronometer with the Transit Clock, Hardy, ; in the Year 18 by means of the Solar

Approximate Solar Time.	d h m	d h m	d h m	d h m	Computer.	Examiner.
Time by Chron. at comp. with TRANSIT CLOCK	h m s	h m s	h m s	h m s		
Time by Chron. at comp. with *N. S. Dome Clock*						
Interval in Chronometer Time						
Correction from Solar to Sidereal Time	+ ,	+ ,	+ ,	+ ,		
Chron. losing rate on solar time.... and prop. part	+ ,	+ ,	+ ,	+ ,		
Interval of comparisons in Sidereal Time	− , | − ,	− , | − ,	− , | − ,	− , | − ,		
Time by TRANSIT CLOCK at comparison						
Transit Clock slow at 0^h sidereal						
Tr. Clock's losing rate on sid. time.... and prop. part	+ ,	+ ,	+ ,	+ ,		
Sidereal Time at comparison with Transit Clock	− , | − ,	− , | − ,	− , | − ,	− , | − ,		
Add. if comp. with Tr. Cl. is first / Subtract ..... second } Int. of comp. in Sid. Time						
Sid. Time at comparison with N.S. Dome Clock	− ,	− ,	− ,	− ,		
Time by *N. S. Dome Clock* at comparison						
New South Dome Clock slow on Sid. Time						
Observer.						

Approximate Solar Time.	d h m	d h m	d h m	d h m	Computer.	Examiner.
Time by Chron. at comp. with TRANSIT CLOCK	h m s	h m s	h m s	h m s		
Time by Chron. at comp. with *N. S. Dome Clock*						
Interval in Chronometer Time						
Correction from Solar to Sidereal Time	+ ,	+ ,	+ ,	+ ,		
Chron. losing rate on solar time.... and prop. part	+ ,	+ ,	+ ,	+ ,		
Interval of comparisons in Sidereal Time	− , | − ,	− , | − ,	− , | − ,	− , | − ,		
Time by TRANSIT CLOCK at comparison						
Transit Clock slow at 0^h sidereal						
Tr. Clock's losing rate on sid. time.... and prop. part	+ ,	+ ,	+ ,	+ ,		
Sidereal Time at comparison with Transit Clock	− , | − ,	− , | − ,	− , | − ,	− , | − ,		
Add, if comp. with Tr. Cl. is first / Subtract ..... second } Int. of comp. in Sid. Time						
Sid. Time at comparison with N.S. Dome Clock	− ,	− ,	− ,	− ,		
Time by *N. S. Dome Clock* at comparison						
New South Dome Clock slow on Sid. Time						
Observer.						

ROYAL OBSERVATORY, GREENWICH.

[Form No. 71.]

Corrections for Figure of Earth, Moon's Semidiameter, and Moon's Parallax: to be applied to the Tabular Computations corresponding to Observations of the Moon made with the Altitude and Azimuth Instrument: in the Year 18 .

Approximate Solar Time.	d h m . .	d h m . .	d h m . .	d h m . .	Computer.	Examiner.
Whether *Upper* or *Lower* Limb was observed.						
Observed Z. D. of Limb, corrected for Refraction.	° ′ ″ . . ,	° ′ ″ . . ,	° ′ ″ . . ,	° ′ ″ . . ,		
Approximate Tabular Geocentric N. P. D. of Center.	.	.	.	.		
Approximate Tabular Normal-centric Z. D. of Center.	.	.	.	.		
Tabular Horizontal Equatoreal Parallax.	. ,	. ,	. ,	. ,		
Tabular Geocentric Semidiameter.	. ,	. ,	. ,	. ,		
Normal-centric Correction, to be applied to Geocentric N.P.D. in order to produce Normal-centric N.P.D.						
Log. Seconds of Horizontal Equatoreal Parallax	3 ,	3 ,	3 ,	3 ,		
Log. sine Geocentric N. P. D.	9 ,	9 ,	9 ,	9 ,		
Constant Logarithm	7 , 7 1 7 4 8	7 , 7 1 7 4 8	7 , 7 1 7 4 8	7 , 7 1 7 4 8		
Logarithm of Correction = Sum	,	,	,	,		
Normal-centric Cor. to N.P.D. (always negative)	″ − ,	″ − ,	″ − ,	″ − ,		
Semidiameter in Azimuth, for computation of Azimuth of Right or Left Limb.						
Log. Seconds of Tabular Geocentric Semidiameter	,	,	,	,		
Log. Normal-centric Factor (Table 1, Argument N.P.D.)	,	,	,	,		
Log. cosecant Tabular Normal-centric Z. D. of Center	,	,	,	,		
Log. of approximate Semidiameter in Azimuth = Sum	,	,	,	,		
Approximate Semidiameter in Azimuth	′ ″ . ,	′ ″ . ,	′ ″ . ,	′ ″ . ,		
Correction (Table 2, Argument Z. D.)	+ ,	+ ,	+ ,	+ ,		
True Azimuthal Semidiameter for Azimuth of Limb, including the Greenwich Correction of Semidiameter	. ,	. ,	. ,	. ,		
Normal-centric Semidiameter, for computation of Normal-centric Zenith Distance of Upper or Lower Limb.						
Tabular Geocentric Semidiameter	′ ″ . ,	′ ″ . ,	′ ″ . ,	′ ″ . ,		
Correction (Table 3, Argument N. P. D.)	+ ,	+ ,	+ ,	+ ,		
Normal-centric Semidiameter, including the Greenwich correction of Semidiameter	. ,	. ,	. ,	. ,		
Normal-centric Parallax, for computation of Tabular Greenwich Zenith Distance of Upper or Lower Limb.						
Log. seconds of Tabular Horizontal Equatoreal Parallax	3 ,	3 ,	3 ,	3 ,		
Log. Normal-centric Factor (Table 4, Argument N.P.D.)	,	,	,	,		
Log. sine Observed Z.D. of Limb, corrected for Refraction	9 ,	9 ,	9 ,	9 ,		
Logarithm of approximate Parallax = Sum	,	,	,	,		
Approximate Parallax	′ ″ . ,	′ ″ . ,	′ ″ . ,	′ ″ . ,		
Correction (Table 5, Arguments Z.D. and Name of Limb)	+ ,	+ ,	+ ,	+ ,		
True Normal-centric Parallax for Limb, adapted to Henderson's Co-efficient of Parallax	. ,	. ,	. ,	. ,		

ROYAL OBSERVATORY, GREENWICH.

[Form No. 72.]

Computation of Tabular Azimuths and Zenith Distances of Stars and of the Moon's Limbs, for comparison with the results of observations made with the Altitude and Azimuth Instrument, in the Year 18 .

					Com-puter.	Exami-ner.
Approximate Solar Time.	d h m	d h m	d h m	d h m		
Object.						
Whether *before* or *after* Meridian passage.						
Whether *Right* or *Left* Limb of Moon.						
Whether *Upper* or *Lower* Limb of Moon.						
Sidereal Time of Observation	h m s	h m s	h m s	h m s		
Tabular R. A. of Center						
Difference (taken positively and less than 12^h) or Hour Angle						
	60	60	60	60		
	4)	4)	4)	4)		
	° ′ ″	° ′ ″	° ′ ″	° ′ ″		
Hour Angle in Arc						
180° — Hour Angle						
Tabular Geocentric N. P. D. of Center						
Normal-centric correction for Moon	— ,	— ,	— ,	— ,		
Normal-centric N. P. D. of Center						
Log. cosine Hour Angle	— ,	— ,	— ,	— ,		
Log. tan. Normal-centric N. P. D.	— ,	— ,	— ,	— ,		
Log. tan. α = Sum	— ,	— ,	— ,	— ,		
	° ′ ″	° ′ ″	° ′ ″	° ′ ″		
180° — α						
α						
Colatitude	38.31.21,80	38.31.21,80	38.31.21,80	38.31.21,80		
β = α — Colatitude						
Log. sin. β	— ,	— ,	— ,	— ,		
Its Ar. Comp.	— ,	— ,	— ,	— ,		
Log. sin. α	— ,	— ,	— ,	— ,		
Log. tan. Hour Angle	— ,	— ,	— ,	— ,		
Log. tan. Angle at Zenith = Sum	— ,	— ,	— ,	— ,		
	° ′ ″	° ′ ″	° ′ ″	° ′ ″		
180° — Angle at Zenith						
Angle at Zenith						
Azimuth of Center { Angle at Zenith (after Meridian passage). / 360° — Angle at Zen. (before Merid. pass.) }						
Add / Subtract } Azimuthal Semidiameter for { Right Limb / Left Limb	—	—	—	—		
Tabular Azimuth of Limb						
Observed Azimuth of Limb						
Error of Tabular Azimuth	— ,	— ,	— ,	— ,		
Log. cosine Angle at Zenith	— ,	— ,	— ,	— ,		
Log. cotan. β	— ,	— ,	— ,	— ,		
Log. cotan. Zen. Dist. of Center = Sum	,	,	,	,		
	° ′ ″	° ′ ″	° ′ ″	° ′ ″		
Normal-centric Zenith Distance of Center						
Add / Subtract } Normal-centric Semidiameter for { Lower Limb / Upper Limb	—	—	—	—		
Normal-centric Zenith Distance of Limb						
Add Normal-centric Parallax						
Tabular Greenwich Zenith Distance of Limb						
Observed Zenith Distance of Limb						
Error of Tabular Zenith Distance	— ,	— ,	— ,	— ,		
Remarks.						

ROYAL OBSERVATORY, GREENWICH.

[Form No. 73.]

Computations of Zenith Points of the Vertical Circle of the Altitude and Azimuth Instrument, in the Year 18 .

Approximate Solar Time.	Object.	Circle Reading corrected for Level and Refraction.		C. R. Face Left, + C. R. Face Right = S.	Tabular Zenith Distance.		Z. D. Face Left, − Z. D. Face Right. = D.	S + D	$\frac{S + D}{2}$ = Zenith Point.	Computer.	Examiner.
		Face of Circle Right.	Face of Circle Left.		Face of Circle Right.	Face of Circle Left.					
d h m		° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″		

ROYAL OBSERVATORY, GREENWICH.

[Form No. 74.]

Computation of the Error of Collimation, and of the Level Reading for Horizontal Position of the Horizontal Axis: for observations with the Altitude and Azimuth Instrument, in the Year 18 .

Approximate Solar Time.	Star Observed.	Position of Vertical Circle.	Approx. Zenith Distance.	Cosecant of Zenith Distance.	Cotangent of Zenith Distance.	Mean Level Reading.	Mean Level Reading × Cotangent.	Concluded Reading of Horizontal Circle corrected for form of Pivots, and for Error of Collimation.	Sum of Two last Columns.	Tabular Azimuth.	Sum — Tabular Azimuth.	Com-puter.	Exa-miner.
d h m			° ′			″	″	° ′ ″	° ′ ″	° ′ ″	° ′ ″		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		
. .		Right	.	+ ,	+ ,	,	+ ,	. . ,	. . ,	. . ,	. . ,		
.		Left	.	− ,	− ,	,	− ,	. . ,	. . ,	. . ,	. . ,		
Algebraical Difference of Results, Circle Right − Circle Left				+ ,	+ ,						− ,		
Difference divided by difference of Cotangents				+ ,	+ 1,000						− ,		

ROYAL OBSERVATORY, GREENWICH.

[Form No. 81.]

Deduction of the Errors of Tabular R. A. and Tabular N. P. D. of the Moon from the Errors of Tabular Zenith Distance and Tabular Azimuth, as inferred from Observations made with the Altitude and Azimuth Instrument, in the Year 18 .

For Observations of Zenith Distance.

	Approximate Mean Solar Time. d h m	Hour Angle West. h m	N.P.D. ° ′	p.	q.	δ z. ″
1st observation	. .	.	.	— ,	+ ,	— ,
2nd ,,	. .	.	.	— ,	+ ,	— ,
3rd ,,	. .	.	.	— ,	+ ,	— ,
4th ,,	. .	.	.	— ,	+ ,	— ,
			Sums	— ,	+ ,	— ,
				Log. Σ (p)	Log. Σ (q)	Log. Σ (δ z).
			Logarithms of Sums	— ,	+ ,	— ,

Computed by.

Examined by.

For Observations of Azimuth.

	Approximate Mean Solar Time. d h m	Hour Angle West. h m	N.P.D. ° ′	r.	s.	δ A. ″
1st observation	. .	.	.	+ ,	— ,	— ,
2nd ,,	. .	.	.	+ ,	— ,	— ,
3rd ,,	. .	.	.	+ ,	— ,	— ,
4th ,,	. .	.	.	+ ,	— ,	— ,
			Sums	+ ,	— ,	— , ,
				Log. Σ (r)	Log. Σ (s)	Log. Σ (δ A)
			Logarithms of Sums	+ ,	— ,	— ,

Computation of Common Denominator.

Log. Σ (r) + ,
Log. Σ (q) + ,
Sum and No. + , + ,
Log. Σ (p) — ,
Log. Σ (s) — ,
Sum and No. + , + ,
Denom. = Sum of Numbers + ,
Log. Denominator + ,
Ar. Co. Log. Denom. + ,

Computation of Error of R. A.

Log. Σ (s) — ,
Log. Σ (δ z) — ,
Sum and No. — , — ,
Log. Σ (q) + ,
Log. Σ (δ A) — ,
Sum and No. — , — ,
Sum of Numbers — ,
Its Logarithm — ,
Ar. Co. Log. Denom. + ,
Log. Cosec. N. P. D. + ,
— Ar. Co. Log. 15 — 8, 8 2 3 9
Log. Error of R. A. = Sum — ,
Error of R. A. = — ″ ,

Computation of Error of N. P. D.

Log. Σ (r) + ,
Log. Σ (δ z) — ,
Sum and No. — , — ,
— Log. Σ (p) — ,
Log. Σ (δ A) — ,
Sum and No. — , — ,
Sum of Numbers — ,
Its Logarithm — ,
Ar. Co. Log. Denom. + ,
Log. Error of N. P. D. = Sum — ,
Error of N. P. D. = — ″ ,

ROYAL OBSERVATORY, GREENWICH.

[Form No. 85.]

Comparisons in Right Ascension of the Star Groombridge 1830 , and the Star defined by the position R.A. = 11h. 50m. (50s), N.P.D. = 51°. 16′,

; for the Investigation of the Parallax of the former Star: at the Royal Observatory, Greenwich, in the Year 18 .

Day and Hour of Observation.	d h	d h	d h	d h	d h	d h
Object.						
Approximate R. A.	h m s	h m s	h m s	h m s	h m s	h m s
Approximate Hour Angle West.	h m	h m	h m	h m	h m	h m
Approximate N. P. D.	° ′	° ′	° ′	° ′	° ′	° ′
Clock Time at 1st Wire	h m s ,	h m s ,	h m s ,	h m s ,	h m s ,	h m s ,
,, 2nd ,,	,	,	,	,	,	,
,, 3rd ,,	,	,	,	,	,	,
,, 4th ,,	,	,	,	,	,	,
,, 5th ,,	. . ,	. . ,	. . ,	. . ,	. . ,	. . ,
	) ,	) ,	) ,	) ,	) ,	) ,
	,	,	,	,	,	,
Add	,	,	,	,	,	,
Correction for Wires omitted	— ,	— ,	— ,	— ,	— ,	— ,
Observed Transit	. . ,	. . ,	. . ,	. . ,	. . ,	. . ,
Correction for Refraction	— ,	— ,	— ,	— ,	— ,	— ,
Clock Time corrected for Refraction	. . ,	. . ,	. . ,	. . ,	. . ,	. . ,
Correction to Mean R. A., Jan. 1, 18	— ,	— ,	— ,	— ,	— ,	— ,
Time reduced to Mean for Jan. 1, 18	. . ,	. . ,	. . ,	. . ,	. . ,	. . ,
Time reduced to Mean for preceding Star		. . ,		. . ,		. . ,
Difference		. ,		. ,		. ,
,,		. ,		. ,		. ,
,,		. ,		. ,		. ,
,,		. ,		. ,		. ,
,,		. ,		. ,		. ,
,,		. ,		. ,		. ,
Sum of the Differences for the Day		) . ,		) . ,		) . ,
Mean		. ,		. ,		. ,
Correction for Rate of Clock		— 0,0		— 0,0		— 0,0
Mean corrected Difference for the Day		. ,		. ,		. ,
Factor for Parallax		— ,		— ,		— ,
Factor for Aberration		— ,		— ,		— ,
Observer						
Temperature in the Dome						

Day.		
Star.		
Log. *A*	— ,	— ,
Log. *a*	— ,	— ,
Sum and Number	— , — ,	— , — ,
Log. *B*	— ,	— ,
Log. *b*	— ,	— ,
Sum and Number	— , — ,	— , — ,
Log. *C*	— , — ,	— , — ,
Log. *c*	— ,	— ,
Sum and Number	— , — ,	— , — ,
Log. *D*	— , — ,	— , — ,
Log. *d*	— ,	— ,
Sum and Number	— , — ,	— , — ,
Sum = Star's corrn.	— ,	— ,
Sun's Longitude	° ′	
Sun's Long. + 90°	° ′	
Corresponding Day		
Log. *A′*	— ,	— ,
Log. *a*	— ,	— ,
Sum and Number	— , — ,	— , — ,
Log. *B′*	— ,	— , — ,
Log. *b*	— ,	— ,
Sum and Number	— , — ,	— , — ,
Sum	— ,	—
= Factor for Parallax		
Computer		
Examiner		

Remarks, Computations, Equations of Condition, &c.

The Observations were made with the Micrometer Eye-piece on the Telescope of the E. Equatoreal. Graduated Face of Declination Circle { East / West }; Comb of the Micrometer { Right / Left }.

Reading of the Position Circle, ° ′ ; clock slow, — m . s , losing rate, — s .

ROYAL OBSERVATORY, GREENWICH.

[Form No. 86.]

Comparisons in North Polar Distance of the Star Groombridge 1830 , and the Star defined by the position R.A. = 11h. 50m. (50s); N.P.D. = 51°. 16′,

; for the Investigation of the Parallax of the former Star: at the Royal Observatory, Greenwich, in the Year 18 .

Day and Solar Hour of Observation.	d h	d h	d h	d h	d h	d h
Object.						
Approximate R. A.	h m s	h m s	h m s	h m s	h m s	h m s
Approximate Hour Angle West.	h m	h m	h m	h m	h m	h m
Approximate N. P. D.	° ′	° ′	° ′	° ′	° ′	° ′
Clock Time of Observation	h m s	h m s	h m s	h m s	h m s	h m s
Micrometer Reading	r	r	r	r	r	r
	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
Value in Arc of 90	r	r	r	r	r	r
,,	r	r	r	r	r	r
,, 0,	r	r	r	r	r	r
,, 0,0	r	r	r	r	r	r
,, 0,00	r	r	r	r	r	r
Sum = Micrometer Reading in Arc						
Correction for Refraction	+	+	+	+	+	+
Reading corrected for Refraction						
Correction to Mean N.P.D., Jan. 1, 18						
Reading reduced to Mean for Jan. 1, 18						
Reading reduced to Mean for preceding Star						
Difference						
,,						
,,						
,,						
,,						
,,						
Sum of the Differences for the Day	)		)		)	
Mean of the Differences for the Day						
Factor for Parallax						
Factor for Aberration						
Observer						
Temperature in the Dome						

Day.		
Star.		
Log. A	″	″
Log. a′		
Sum and Number		
Log. B		
Log. b′		
Sum and Number		
Log. C		
Log. c′		
Sum and Number		
Log. D		
Log. d′		
Sum and Number		
Sum = Star's corr^{n}.		
Sun's Longitude	° ′	
Sun's Long. + 90°	° ′	
Corresponding Day		
Log. A′		
Log. a′		
Sum and Number		
Log. B′		
Log. b′		
Sum and Number		
Sum = Factor for Parallax		
Computer		
Examiner		

Remarks, Computations, Equations of Condition, &c.

The Observations were made with the Wire ( ) of the Micrometer Eye-piece on the Telescope of the E. Equatoreal. Graduated Face of the Declination Circle {East / West}; Comb of the Micrometer {Right / Left}.

Clock slow , One revolution of Micrometer {A / a} = , One revolution of Micrometer {B / b} = ,

ROYAL OBSERVATORY, GREENWICH.

[Form No. 86.]

Comparisons in North Polar Distance of the Star Groombridge 1830 , and the Star defined by the position R.A. = 11h. 50m. (50s); N.P.D. = 51°. 16′,

; for the Investigation of the Parallax of the former Star: at the Royal Observatory, Greenwich, in the Year 18 .

Day and Solar Hour of Observation.	d h	d h	d h	d h	d h	d h
Object.						
Approximate R. A.	h m s	h m s	h m s	h m s	h m s	h m s
Approximate Hour Angle West.	h m	h m	h m	h m	h m	h m
Approximate N. P. D.	° ′	° ′	° ′	° ′	° ′	° ′
Clock Time of Observation	h m s	h m s	h m s	h m s	h m s	h m s
Micrometer Reading	r	r	r	r	r	r
	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
Value in Arc of 90r	− ,	− ,	− ,	− ,	− ,	− ,
,, r	− ,	− ,	− ,	− ,	− ,	− ,
,, 0, r	− ,	− ,	− ,	− ,	− ,	− ,
,, 0,0 r	− ,	− ,	− ,	− ,	− ,	− ,
,, 0,00 r	− ,	− ,	− ,	− ,	− ,	− ,
Sum=Micrometer Reading in Arc	− ,	− ,	− ,	− ,	− ,	− ,
Correction for Refraction	+ ,	+ ,	+ ,	+ ,	+ ,	+ ,
Reading corrected for Refraction	− ,	− ,	− ,	− ,	− ,	− ,
Correction to Mean N.P.D., Jan. 1, 18	− ,	− ,	− ,	− ,	− ,	− ,
Reading reduced to Mean for Jan. 1, 18	− ,	− ,	− ,	− ,	− ,	− ,
Reading reduced to Mean for preceding Star		− ,		− ,		− ,
Difference		− ,		− ,		− ,
,,		− ,		− ,		− ,
,,		− ,		− ,		− ,
,,		− ,		− ,		− ,
,,		− ,		− ,		− ,
,,		− ,		− ,		− ,
Sum of the Differences for the Day		) − ,		) − ,		) − ,
Mean of the Differences for the Day		− ,		− ,		− ,
Factor for Parallax		− ,		− ,		− ,
Factor for Aberration		− ,		− ,		− ,
Observer						
Temperature in the Dome						

Day.		
Star.		
Log. A	− ,	− ,
Log. a′	− ,	− ,
Sum and Number	− , − ,	− , − ,
Log. B	− ,	− ,
Log. b′	− ,	− ,
Sum and Number	− , − ,	− , − ,
Log. C	− , − ,	− , − ,
Log. c′	− ,	− ,
Sum and Number	− , − ,	− , − ,
Log. D	− , − ,	− , − ,
Log. d′	− ,	− ,
Sum and Number	− , − ,	− , − ,
Sum = Star's corrn.	− ,	− ,
Sun's Longitude	° ′	
Sun's Long. + 90°	° ′	
Corresponding Day		
Log. A′	− ,	− ,
Log. a′	− ,	− ,
Sum and Number	− , − ,	− , − ,
Log. B′	− ,	− ,
Log. b′	− ,	− ,
Sum and Number	− , − ,	− , − ,
Sum	− , − ,	− , − ,
= Factor for Parallax		
Computer		
Examiner		

Remarks, Computations, Equations of Condition, &c.

The Observations were made with the Wire ( ) of the Micrometer Eye-piece on the Telescope of the E. Equatoreal. Graduated Face of the Declination Circle { East / West } ; Comb of the Micrometer { Right / Left }.

Clock slow , One revolution of Micrometer { A / a } = , One revolution of Micrometer { B / b } = ,

ROYAL OBSERVATORY, GREENWICH.

FORM No. 88.] [PROG. No.

Computation of New Day Constants for the correction of Star Places, in the Year 18 .

Day.				
Log. *A*	— ,	— ,	— ,	— ,
(Table G. 25) Log. *E*	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. *B*	— ,	— ,	— ,	— ,
(Table G. 25) Log. *F*	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. *C*	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. *G*	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. *D*	— ,	— ,	— ,	— ,
(Table G. 25) Log. *H*	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
K = Sum of Numbers	,	,	,	,
Subtract *K* from Constant	1 9 0,0 0 0	1 9 0,0 0 0	1 9 0,0 0 0	1 9 0,0 0 0
L = Remainder	* ,	* ,	* ,	* ,
Computed by				
Examined by				

Day.				
Log. *A*	— ,	— ,	— ,	— ,
(Table G. 25) Log. *E*	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. *B*	— ,	— ,	— ,	— ,
(Table G. 25) Log. *F*	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. *C*	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. *G*	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. *D*	— ,	— ,	— ,	— ,
(Table G. 25) Log. *H*	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
K = Sum of Numbers	,	,	,	,
Subtract *K* from Constant	1 9 0, 0 0 0	1 9 0, 0 0 0	1 9 0, 0 0 0	1 9 0, 0 0 0
L = Remainder	* ,	* ,	* ,	* ,
Computed by				
Examined by				

ROYAL OBSERVATORY, GREENWICH.

FORM No. 89.] [PROG. No.

Computation of New Star Constants in R.A. for Stars included in the British Association Catalogue.

Year of Observation.				
Star's Name.				
Star's No. in B. A. C.				
Log. a	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. e	, *	, *	, *	, *
Constant.....	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. b	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. f	, *	, *	, *	, *
Constant.....	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. c	— ,	— ,	— ,	— ,
(Table G. 25) Log. g	, *	, *	, *	, *
Constant.....	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. d	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. h	, *	, *	, *	, *
Constant.....	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
k = Sum of Numbers	,	,	,	,
Subtract k from Constant	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0
l = Remainder	* ,	* ,	* ,	* ,
Computed by				
Examined by.....				

Year of Observation.				
Star's Name.				
Star's No. in B. A. C.				
Log. a	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. e	, *	, *	, *	, *
Constant.....	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. b	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. f	, *	, *	, *	, *
Constant.....	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. c	— ,	— ,	— ,	— ,
(Table G. 25) Log. g	, *	, *	, *	, *
Constant.....	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. d	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. h	, *	, *	, *	, *
Constant.....	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
k = Sum of Numbers	,	,	,	,
Subtract k from Constant	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0
l = Remainder	* ,	* ,	* ,	* ,
Computed by				
Examined by.....				

ROYAL OBSERVATORY, GREENWICH.

FORM No. 90.] [PROG. No.

Computation of New Star Constants in N.P.D. for Stars included in the British Association Catalogue.

Year of Observation.				
Star's Name.				
Star's No. in B. A. C.				
Log. a'	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. e'	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. b'	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. f'	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. c'	— ,	— ,	— ,	— ,
(Table G. 25) Log. g'	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. d'	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. k'	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
k' = Sum of Numbers	,	,	,	,
Subtract k' from Constant	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0
l' = Remainder	* ,	* ,	* ,	* ,
Computed by				
Examined by				

Year of Observation.				
Star's Name.				
Star's No. in B. A. C.				
Log. a'	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. e'	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. b'	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. f'	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
Log. c'	— ,	— ,	— ,	— ,
(Table G. 25) Log. g'	, *	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,	, ,
Log. d'	— ,	— ,	— ,	— ,
(Table G. 1,2) Log. k'	, *	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,	, ,
k' = Sum of Numbers	,	,	,	,
Subtract k' from Constant	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0	1 7 0,0 0 0
l' = Remainder	* ,	* ,	* ,	* ,
Computed by				
Examined by				

ROYAL OBSERVATORY, GREENWICH.

FORM No. 91.] [PROG. No.

Computation of New Star Constants in R.A. for Stars *not* included in the British Association Catalogue.

Year of Observation.			
Star's Name.			
Star's R.A.	h m s . .	h m s . .	h m s . .
Star's N.P.D.	° ′ .	° ′ .	° ′ .
Constant	8,8 2 3 9 1	8,8 2 3 9 1	8,8 2 3 9 1
Log. cos. R.A.	— ,	— ,	— ,
Log. cosec. N.P.D.	+ ,	+ ,	+ ,
Sum	— ,	— ,	— ,
(Table G. 1,2) Log. *e*	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,
Constant	8,8 2 3 9 1	8,8 2 3 9 1	8,8 2 3 9 1
Log. sin. R.A.	— ,	— ,	— ,
Log. cosec. N.P.D.	+ ,	+ ,	+ ,
Sum	— ,	— ,	— ,
(Table G. 1,2) Log. *f*	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,
Constant	0,1 2 6 1 3	0,1 2 6 1 3	0,1 2 6 1 3
Log. sin. R.A.	— ,	— ,	— ,
Log. cotan. N.P.D.	— ,	— ,	— ,
Sum	— ,	— ,	— ,
Number	— ,	— ,	— ,
Add Constant	2 8,0 7 0 6	2 8,0 7 0 6	2 8,0 7 0 6
g = Sum	,	,	,
Log. *g*	, *	, *	, *
Constant	0,0 7 9 1 8	0,0 7 9 1 8	0,0 7 9 1 8
Sum and Number	, ,	, ,	, ,
Constant	8,8 2 3 9 1	8,8 2 3 9 1	8,8 2 3 9 1
Log. cos. R.A.	— ,	— ,	— ,
Log. cotan. N.P.D.	— ,	— ,	— ,
Sum	— ,	— ,	— ,
(Table G. 1,2) Log. *k*	, *	, *	, *
Constant	1,3 9 7 9 4	1,3 9 7 9 4	1,3 9 7 9 4
Sum and Number	, ,	, ,	, ,
k = Sum of Numbers	,	,	,
Subtract *k* from Constant	1 7 0, 0 0 0	1 7 0, 0 0 0	1 7 0, 0 0 0
l = Remainder	* ,	* ,	* ,
Computed by			
Examined by			

ROYAL OBSERVATORY, GREENWICH.

FORM No. 92.] [PROG. No.

Computation of New Star Constants in N.P.D. for Stars *not* included in the British Association Catalogue.

Year of Observation.			
Star's Name.			
Star's R.A.	h m s	h m s	h m s
Star's N.P.D.	° ′	° ′	° ′
Constant Number	1,2000	1,2000	1,2000
Constant	— 9,63761	— 9,63761	— 9,63761
Log. sin. N.P.D.	+	+	+
Sum and Number	— —	— —	— —
Log. sin. R.A.	—	—	—
Log. cos. N.P.D.	—	—	—
Sum and Number	— —	— —	— —
e' = Sum of Numbers			
Log. e'	*	*	*
25 e'			
— Log. cos. R.A.	—	—	—
Log. cos. N.P.D.	—	—	—
Sum	—	—	—
(Table G. 1,2) Log. f'	*	*	*
Constant	1,39794	1,39794	1,39794
Sum and Number			
Constant	— 1,30222	— 1,30222	— 1,30222
Log. cos. R.A.	—	—	—
Sum	—	—	—
(Table G. 25) Log. g'	*	*	*
Constant	0,07918	0,07918	0,07918
Sum and Number			
Log. sin. R.A.	—	—	—
(Table G. 1,2) Log. h'	*	*	*
Constant	1,39794	1,39794	1,39794
Sum and Number			
k' = Sum of Numbers			
Subtract k' from Constant	170,000	170,000	170,000
l' = Remainder	*	*	*
Computed by			
Examined by			

ROYAL OBSERVATORY, GREENWICH.

FORM No. 93.] [PROG. No.

Computation of Star Corrections applicable to Mean R.A. by the New Constants, in the Year 18 . .

Day.				
Star's Name.				
Star's R.A.	h m s	h m s	h m s	h m s
Star's N.P.D.	° ′	° ′	° ′	° ′
Reference for Star Constants				
Log. *E*	,	,	,	,
Log. *e*	,	,	,	,
Sum and Number	s , ,	s , ,	s , ,	s , ,
Log. *F*	,	,	,	,
Log. *f*	,	,	,	,
Sum and Number	, ,	, ,	, ,	, ,
Log. *G*	,	,	,	,
Log. *g*	,	,	,	,
Sum and Number	, ,	, ,	, ,	, ,
Log. *H*	,	,	,	,
Log. *h*	,	,	,	,
Sum and Number	, ,	, ,	, ,	, ,
L	,	,	,	,
l	,	,	,	,
Sum of Numbers	,	,	,	,
Subtract Constant	240,000	240,000	240,000	240,000
Star Correction = Remainder	— ,	— ,	— ,	— ,
Computed by				
Examined by				

Day.				
Star's Name.				
Star's R.A.	h m s	h m s	h m s	h m s
Star's N.P.D.	° ′	° ′	° ′	° ′
Reference for Star Constants				
Log. *E*	,	,	,	,
Log. *e*	,	,	,	,
Sum and Number	s , ,	s , ,	s , ,	s , ,
Log. *F*	,	,	,	,
Log. *f*	,	,	,	,
Sum and Number	, ,	, ,	, ,	, ,
Log. *G*	,	,	,	,
Log. *g*	,	,	,	,
Sum and Number	, ,	, ,	, ,	, ,
Log. *H*	,	,	,	,
Log. *h*	,	,	,	,
Sum and Number	, ,	, ,	, ,	, ,
L	,	,	,	,
l	,	,	,	,
Sum of Numbers	,	,	,	,
Subtract Constant	240,000	240,000	240,000	240,000
Star Correction = Remainder	— ,	— ,	— ,	— ,
Computed by				
Examined by				

ROYAL OBSERVATORY, GREENWICH.

FORM No. 94.] [PROG. No.

Computation of Star Corrections applicable to Mean N.P.D. by the New Constants, in the Year 18 .

Day.				
Star's Name.				
Star's R.A.	h m s	h m s	h m s	h m s
Star's N.P.D.	° ′	° ′	° ′	° ′
Reference for Star Constants				
Log. E				
Log. e'				
Sum and Number				
Log. F				
Log. f'				
Sum and Number				
Log. G				
Log. g'				
Sum and Number				
Log. H				
Log. h'				
Sum and Number				
L				
l'				
Sum of Numbers				
Subtract Constant	240,000	240,000	240,000	240,000
Star Correction = Remainder	—	—	—	—
Computed by				
Examined by				

Day.				
Star's Name.				
Star's R.A.	h m s	h m s	h m s	h m s
Star's N.P.D.	° ′	° ′	° ′	° ′
Reference for Star Constants				
Log. E				
Log. e'				
Sum and Number				
Log. F				
Log. f'				
Sum and Number				
Log. G				
Log. g'				
Sum and Number				
Log. H				
Log. h'				
Sum and Number				
L				
l'				
Sum of Numbers				
Subtract Constant	240,000	240,000	240,000	240,000
Star Correction = Remainder	—	—	—	—
Computed by				
Examined by				