

DAILY POLYNOMIAL COEFFICIENTS FOR LUNAR COORDINATES

Notes and formulae

On the following pages, for each day of the year, the apparent right ascension (α) and declination (δ) of the Moon are represented by economised polynomials of the fifth degree, and the horizontal parallax (π) is represented by an economised polynomial of the fourth degree.

The formulae to be evaluated are of the form:

$$a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$$

where a_5 is zero for the parallax.

The time-interval from 0^h TT is expressed as a fraction of a day to form the interpolation factor p , where $0 \leq p < 1$, and the polynomial is evaluated directly, or by re-expressing it in the nested form:

$$(((a_5 p + a_4)p + a_3)p + a_2)p + a_1)p + a_0$$

to avoid the separate formation of the powers of p . Alternatively this nested form for α and δ may be written as:

$$b_{n+1} = b_n p + a_{5-n}, \text{ for } n = 1 \text{ to } 5,$$

where $b_1 = a_5$ and b_6 is the required value. For the parallax a_5 is zero, so that:

$$b_{n+1} = b_n p + a_{4-n}, \text{ for } n = 1 \text{ to } 4,$$

where $b_1 = a_4$ and b_5 is the required value.

The polynomial coefficients are expressed in decimals of a degree, even for α , and the signs are given on the right-hand sides of the coefficients to facilitate their use with small calculators. Subtract 360° from α if it exceeds 360° . In order to obtain the full precision of the polynomial ephemeris the interpolating factor p must be evaluated to 8 decimal places (10^{-3} s); estimates of the precision of unrounded interpolated values are:

RA	Dec	HP
$\pm 0^s 0003$	$\pm 0'' 003$	$\pm 0' 0003$

Particular care must be taken to ensure that the coefficients are entered with the correct signs.

Example. To calculate the apparent right ascension (α) the declination (δ) and the horizontal parallax (π) for the Moon on 2016 January 21^d 13^h 23^m 48^s32 UT1, using an assumed value of $\Delta T = 68^s$.

$$\text{TT} = 13^{\text{h}} 24^{\text{m}} 56^{\text{s}}32, \text{ hence } p = 0.558\ 985\ 19$$

	right ascension	declination	horizontal parallax
b_1	$+0.000\ 5162$	$-0.000\ 0568$	$+0.000\ 005\ 48$
b_2	$-0.000\ 9090$	$+0.003\ 8328$	$+0.000\ 008\ 47$
b_3	$-0.034\ 4658$	$-0.001\ 0268$	$-0.000\ 511\ 67$
b_4	$-0.044\ 3739$	$-0.534\ 2002$	$-0.006\ 994\ 12$
b_5	$+14.319\ 1330$	$+0.445\ 0345$	$\pi = +0.963\ 546\ 69$
b_6	$\alpha = 89.959\ 1379$	$\delta = +18.366\ 4631$	
	$= 5^{\text{h}} 59^{\text{m}} 50^{\text{s}}193$	$= +18^\circ 21' 59''27$	$= 57' 48''768$

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	January 0			January 8		
a_0	165.5988 297+	5.1840 960+	0.9129 9315+	261.3423 776+	18.1463 284-	0.9413 1511+
a_1	11.5657 953+	3.6708 599-	0.0070 2814-	13.5965 176+	0.7265 796-	0.0110 5278+
a_2	1655 124-	728 694-	12 4015+	2268 934+	4663 757+	1 3740+
a_3	278 897+	232 453+	7064+	213 505-	200 114+	1 4095-
a_4	6 664+	9 712-	783-	34 374-	21 317-	101+
a_5	1 091-	855+		3 399+	2 526-	
	January 1			January 9		
a_0	177.0275 596+	1.4627 263+	0.9072 6797+	275.1413 407+	18.3889 051-	0.9523 6536+
a_1	11.3205 604+	3.7503 197-	0.0043 6724-	13.9742 049+	0.2564 180+	0.0109 0877+
a_2	789 331-	81 038-	14 0517+	1456 288+	5110 879+	2 7793-
a_3	294 830+	202 227+	3930+	316 093-	90 377+	1 3696-
a_4	1 365+	5 338-	754-	16 561-	34 368-	570+
a_5	777-	967+		5 033+	1 144-	
	January 2			January 10		
a_0	188.2987 287+	2.2759 117-	0.9043 3766+	289.2284 123+	17.6159 127-	0.9628 6495+
a_1	11.2513 006+	3.7075 113-	0.0014 6915-	14.1665 258+	1.2913 899+	0.0099 6487+
a_2	95 601+	503 292+	14 7792+	459 118+	5164 361+	6 5333-
a_3	292 489+	190 486+	921+	332 448-	57 439-	1 1370-
a_4	2 376-	427-	732-	9 619+	40 086-	981+
a_5	835-	871+		4 251+	788+	
	January 3			January 11		
a_0	199.5885 172+	5.9140 008-	0.9043 4832+	303.4089 921+	15.8177 603-	0.9720 7260+
a_1	11.3567 991+	3.5494 429-	0.0014 8503+	14.1645 855+	2.2913 919+	0.0083 5637+
a_2	950 476+	1080 909+	14 6163+	437 941-	4759 471+	9 3499-
a_3	274 426+	197 308+	2004-	252 912-	209 103-	7361-
a_4	6 451-	4 020+	728-	31 249+	35 740-	1182+
a_5	1 201-	570+		1 669+	2 178+	
	January 4			January 12		
a_0	211.0670 413+	9.3351 630-	0.9072 6765+	317.5077 842+	13.0746 880-	0.9794 3218+
a_1	11.6260 408+	3.2721 761-	0.0043 1903+	14.0144 549+	3.1673 481+	0.0063 1286+
a_2	1723 038+	1702 675+	13 5783+	992 539-	3939 561+	10 8523-
a_3	236 335+	218 757+	4922-	112 693-	330 122-	2538-
a_4	12 465-	6 996+	725-	39 263+	24 399-	1086+
a_5	1 694-	0+		897-	2 449+	
	January 5			January 13		
a_0	222.8876 035+	12.4144 963-	0.9128 8804+	331.4155 526+	9.5485 909-	0.9846 4529+
a_1	12.0357 158+	2.8632 166-	0.0068 5802+	13.7973 945+	3.8476 883+	0.0041 0975+
a_2	2340 281+	2400 941+	11 6683+	1104 079-	2827 330+	10 9729-
a_3	169 422+	246 230+	7840-	34 535+	403 550-	1874+
a_4	21 161-	7 118+	684-	34 283+	11 925-	728+
a_5	1 916-	884-		2 353-	1 860+	
	January 6			January 14		
a_0	235.1719 818+	15.0123 724-	0.9208 2765+	345.1091 857+	5.4595 310-	0.9876 8376+
a_1	12.5451 768+	2.3067 555-	0.0089 2910+	13.5994 754+	4.2882 486+	0.0020 0051+
a_2	2702 348+	3173 498+	8 9101+	818 344-	1563 729+	9 9890-
a_3	66 019+	265 255+	1 0611-	147 844+	433 110-	4797+
a_4	31 229-	2 701+	555-	22 242+	2 657-	244+
a_5	1 250-	1 944-		2 831-	1 043+	
	January 7			January 15		
a_0	247.9907 474+	16.9751 769-	0.9305 3609+	358.6435 521+	1.0583 819-	0.9887 3577+
a_1	13.0923 377+	1.5923 717-	0.0103 7055+	13.4876 408+	4.4705 196+	0.0001 5634+
a_2	2700 457+	3965 994+	5 4018+	269 681-	258 861+	8 4173-
a_3	70 261-	256 192+	1 2877-	208 446+	433 600-	5732+
a_4	37 992-	7 273-	295-	8 022+	2 364+	196-
a_5	721+	2 710-		2 912-	527+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	January 16			January 24		
a_0	12-1255 804+	3-3949 530+	0-9881 0573+	123-8681 594+	15-7532 530+	0-9432 9674+
a_1	13-4979 911+	4-3934 213+	0-0013 6305-	13-3447 282+	2-1645 741-	0-0090 2791-
a_2	374 660+	1022 515-	6 8237-	2690 769-	3836 821-	1 4555-
a_3	211 436+	418 851-	4879+	100 031-	306 432+	7860+
a_4	6 592-	4 761+	463-	37 791+	10 189+	398+
a_5	2 886-	565+		1 158-	2 302-	
	January 17			January 25		
a_0	25-6812 333+	7-6447 703+	0-9861 0446+	136-9374 709+	13-2364 286+	0-9342 0587+
a_1	13-6322 748+	4-0654 503+	0-0026 0000-	12-7911 014+	2-8370 833-	0-0090 6728-
a_2	940 521+	2244 879-	5 6394-	2775 774-	2879 429-	1 1333+
a_3	156 451+	393 850-	2953+	39 070+	324 709+	9458+
a_4	21 278-	7 426+	504-	31 480+	1 405-	142+
a_5	2 503-	1 113+		1 963-	1 342-	
	January 18			January 26		
a_0	39-4208 273+	11-4472 016+	0-9829 6500+	149-4578 537+	10-1435 986+	0-9253 4791+
a_1	13-8575 534+	3-5018 473+	0-0036 5950-	12-2592 786+	3-3167 885-	0-0085 5122-
a_2	1257 106+	3370 731-	5 0511-	2489 346-	1927 144-	4 0480+
a_3	47 098+	352 627-	878+	145 445+	306 208+	1 0013+
a_4	34 291-	13 054+	339-	21 410+	8 035-	106-
a_5	1 168-	1 803+		1 798-	403-	
	January 19			January 27		
a_0	53-4052 552+	14-5781 988+	0-9788 0577+	161-4847 034+	6-6638 726+	0-9173 0057+
a_1	14-1088 064+	2-7280 365+	0-0046 5699-	11-8127 086+	3-6137 701-	0-0074 4546-
a_2	1180 914+	4332 206-	4 9822-	1942 531-	1060 748-	6 9823+
a_3	100 301-	282 289-	507-	213 391+	270 425+	9571+
a_4	40 528-	22 415+	40-	12 393+	9 927-	304-
a_5	1 357+	1 987+		1 298-	267+	
	January 20			January 28		
a_0	67-6182 058+	16-8472 259+	0-9736 4509+	173-1256 075+	2-9701 042+	0-9106 4601+
a_1	14-2993 692+	1-7868 669+	0-0056 7026-	11-4925 281+	3-7486 290-	0-0057 7403-
a_2	650 455+	5024 651-	5 1484-	1240 971-	306 349-	9 6669+
a_3	247 297-	173 257-	660-	250 221+	233 610+	8340+
a_4	33 456-	32 802+	291+	5 986+	8 484-	444-
a_5	4 094+	1 132+		881-	646+	
	January 21			January 29		
a_0	81-9549 547+	18-1176 954+	0-9674 5630+	184-5195 711+	0-7865 824-	0-9059 1763+
a_1	14-3439 373+	0-7436 445+	0-0067 0810-	11-3213 544+	3-7428 859-	0-0036 0822-
a_2	251 080-	5336 262-	5 1641-	463 184-	350 053+	11 8993+
a_3	339 577-	31 693-	541+	265 451+	206 222+	6556+
a_4	11 975-	38 646+	548+	1 698+	5 170-	544-
a_5	5 162+	568-		717-	791+	
	January 22			January 30		
a_0	96-2391 450+	18-3283 522+	0-9602 4267+	195-8212 503+	4-4742 786-	0-9035 5944+
a_1	14-1896 377+	0-3179 432-	0-0077 0275-	11-3086 734+	3-6126 810-	0-0010 5348-
a_2	1289 908-	5205 184-	4 6698-	336 205+	945 624+	13 5365+
a_3	336 667-	116 309+	2787+	265 006+	193 428+	4379+
a_4	14 740+	35 535+	655+	1 774-	1 137-	633-
a_5	3 709+	2 154-		838-	745+	
	January 23			January 31		
a_0	110-2679 702+	17-5048 596+	0-9521 0736+	207-1897 835+	7-9730 937-	0-9038 9708+
a_1	13-8384 038+	1-3109 508-	0-0085 2687-	11-4542 870+	3-3656 105-	0-0017 5987+
a_2	2174 359-	4664 654-	3 4426-	1112 207+	1526 550+	14 4672+
a_3	242 153-	236 563+	5459+	249 327+	196 182+	1854+
a_4	33 385+	24 286+	592+	5 892-	2 682+	734-
a_5	981+	2 752-		1 192-	493+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
February 1			February 9			
a_0	218.7795 155+	11.1661 135-	0.9071 1487+	326.3291 341+	10.9849 068-	0.9946 7811+
a_1	11.7485 735+	3.0001 271-	0.0046 7957+	14.2457 471+	3.6719 323+	0.0078 2695+
a_2	1812 914+	2136 140+	14 5792+	670 552-	3583 418+	17 0901-
a_3	213 609+	211 542+	1075-	97 429-	400 865-	1 0577-
a_4	11 885-	5 271+	857-	33 827+	28 510-	2138+
a_5	1 605-	24-		1 113-	2 973+	
February 2			February 10			
a_0	230.7293 922+	13.9309 477-	0.9132 3303+	340.5013 543+	6.9972 728-	1.0007 1166+
a_1	12.1696 820+	2.5073 410-	0.0075 2888+	14.0953 804+	4.2584 390+	0.0041 7724+
a_2	2366 341+	2802 170+	13 7387+	771 074-	2239 544+	18 9825-
a_3	149 968+	231 910+	4506-	25 963+	485 270-	1825-
a_4	20 144-	5 270+	985-	27 822+	13 312-	2071+
a_5	1 706-	846-		2 452-	2 789+	
February 3			February 11			
a_0	243.1485 201+	16.1344 382-	0.9220 8089+	354.5247 605+	2.5644 587-	1.0029 9311+
a_1	12.6790 309+	1.8756 501-	0.0101 0206+	13.9588 563+	4.5568 355+	0.0004 0892+
a_2	2678 258+	3521 060+	11 7938+	550 822-	731 765+	18 3060-
a_3	52 773+	243 948+	8472-	112 475+	511 047-	6601+
a_4	29 115-	1 054+	1066-	15 265+	741+	1455+
a_5	967-	1 855-		2 866-	2 052+	
February 4			February 12			
a_0	256.0976 460+	17.6336 677-	0.9332 6695+	8.4410 219+	2.0147 279+	1.0016 5199+
a_1	13.2183 872+	1.0987 606-	0.0121 6399+	13.8871 075+	4.5511 961+	0.0029 9603-
a_2	2652 163+	4240 645+	8 6145+	150 494-	776 419-	15 4796-
a_3	72 288-	229 172+	1 2798-	144 955+	487 988-	1 2448+
a_4	34 355-	8 435-	1010-	761+	10 914+	577+
a_5	883+	2 637-		2 722-	1 303+	
February 5			February 13			
a_0	269.5706 734+	18.2865 538-	0.9461 5432+	22.3273 794+	6.4407 050+	0.9972 3825+
a_1	13.7138 355+	0.1865 724-	0.0134 6251+	13.8994 391+	4.2545 326+	0.0056 9546-
a_2	2238 013+	4851 118+	4 1786+	261 684+	2161 892-	11 4237-
a_3	199 568-	169 099+	1 6933-	121 119+	431 546-	1 4685+
a_4	29 849-	22 064-	709-	13 048-	17 269+	224-
a_5	3 197+	2 591-		2 142-	885+	
February 6			February 14			
a_0	283.4856 883+	17.9735 702-	0.9598 5827+	36.2635 797+	10.4377 091+	0.9905 4502+
a_1	14.0912 283+	0.8242 608+	0.0137 6182+	13.9818 225+	3.7000 401+	0.0075 4867-
a_2	1492 301+	5200 053+	1 3078-	525 289+	3344 080-	7 1683-
a_3	286 292-	55 610+	1 9870-	48 187+	353 685-	1 3680+
a_4	13 110-	35 456-	98-	24 034-	21 612+	731-
a_5	4 443+	1 407-		973-	788+	
February 7			February 15			
a_0	297.6966 509+	16.6274 294-	0.9732 8964+	50.3002 489+	13.7702 127+	0.9824 0901+
a_1	14.3007 776+	1.8660 707+	0.0129 0022+	14.0912 380+	2.9341 573+	0.0086 0121-
a_2	599 323+	5140 064+	7 3010-	515 885+	4267 572-	3 5084-
a_3	294 792-	99 196-	2 0312-	56 657-	259 418-	1 0655+
a_4	9 969+	42 603-	760+	29 087-	25 628+	903-
a_5	3 569+	493+		809+	700+	
February 8			February 16			
a_0	312.0292 354+	14.2614 828-	0.9852 6425+	64.4345 819+	16.2543 039+	0.9735 5449+
a_1	14.3379 741+	2.8475 321+	0.0108 6108+	14.1661 894+	2.0134 183+	0.0090 1938-
a_2	189 504-	4591 829+	12 9123-	179 503+	4885 032-	8508-
a_3	220 562-	263 706-	1 7219-	163 882-	150 151-	6975+
a_4	28 110+	39 869-	1620+	24 864-	29 302+	810-
a_5	1 202+	2 186+		2 636+	280+	

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 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
February 17						
a_0	78.6001 107+	17.7671 623+	0.9645 1169+	180.9148 878+	0.4950 824+	0.9061 6854+
a_1	14.1442 988+	1.0032 270+	0.0090 1268-	11.3980 348+	3.7515 221-	0.0040 6701-
a_2	434 882-	5156 852-	7636+	668 553-	107 142+	7 4902+
a_3	236 490-	30 587-	3703+	217 036+	230 628+	6273+
a_4	11 104-	30 805+	560-	2 742+	5 713-	5-
a_5	3 497+	507-		621-	363+	
February 18						
a_0	92.6765 115+	18.2546 752+	0.9556 0680+	192.2679 830+	3.2231 978-	0.9029 1324+
a_1	13.9836 815+	0.0252 515-	0.0087 7126-	11.3302 214+	3.6630 093-	0.0023 8095-
a_2	1175 921-	5068 859-	1 5481+	7 190-	768 380+	9 3645+
a_3	246 303-	87 106+	1459+	221 804+	211 460+	6255+
a_4	6 967+	28 186+	253-	290-	3 847-	164-
a_5	2 841+	1 317-		609-	464+	
February 19						
a_0	106.5189 515+	17.7339 353+	0.9470 0241+	203.6195 757+	6.7885 614-	0.9015 2964+
a_1	13.6788 121+	1.0022 762-	0.0084 2798-	11.3949 035+	3.4472 021-	0.0003 2697-
a_2	1844 588-	4651 626-	1 8428+	650 393+	1384 326+	11 1374+
a_3	190 950-	186 435+	463+	214 463+	200 688+	5600+
a_4	21 355+	21 391+	32+	3 282-	1 466-	326-
a_5	1 202+	1 741-		758-	426+	
February 20						
a_0	119.9964 655+	16.2871 050+	0.9387 6367+	215.1005 608+	10.0773 659-	0.9023 6915+
a_1	13.2617 504+	1.8689 848-	0.0080 4423-	11.5876 289+	3.1105 038-	0.0020 5549+
a_2	2277 325-	3981 410-	2 0075+	1266 513+	1981 869+	12 6165+
a_3	94 408-	254 637+	621+	193 626+	198 965+	4302+
a_4	27 145+	12 499+	244+	7 063-	742+	499-
a_5	358-	1 653-		989-	218+	
February 21						
a_0	133.0237 212+	14.0465 276+	0.9309 2884+	226.8333 984+	12.9696 903-	0.9057 2431+
a_1	12.7886 410+	2.5847 022-	0.0076 1432-	11.8956 994+	2.6540 351-	0.0046 8788+
a_2	2401 305-	3159 051-	2 3435+	1795 109+	2585 413+	13 6013+
a_3	10 106+	288 344+	1630+	155 404+	203 876+	2315+
a_4	25 027+	4 145+	353+	12 094-	1 922+	699-
a_5	1 193-	1 223-		1 134-	195-	
February 22						
a_0	145.5756 258+	11.1750 469+	0.9235 6869+	238.9228 263+	15.3446 238-	0.9117 8848+
a_1	12.3208 262+	3.1289 621-	0.0070 8260-	12.2959 381+	2.0751 191-	0.0074 4963+
a_2	2232 785-	2281 381-	3 0445+	2177 387+	3206 634+	13 8690+
a_3	98 200+	292 998+	3074+	95 818+	209 259+	472-
a_4	18 839+	1 971-	359+	17 970-	1 017+	933-
a_5	1 326-	693-		923-	809-	
February 23						
a_0	157.6847 448+	7.8469 801+	0.9168 2487+	251.4441 956+	17.0781 328-	0.9206 1096+
a_1	11.9106 022+	3.4984 731-	0.0063 6711-	12.7525 123+	1.3710 132-	0.0101 7195+
a_2	1838 419-	1421 133-	4 1797+	2347 751+	3832 418+	13 1599+
a_3	160 427+	278 463+	4533+	15 182+	204 830+	4206-
a_4	12 134+	5 392-	281+	22 854-	3 037-	1182-
a_5	1 093-	220-		108-	1 512-	
February 24						
a_0	169.4286 519+	4.2336 787+	0.9109 2387+	264.4307 049+	18.0458 760-	0.9320 4503+
a_1	11.5953 539+	3.7014 273-	0.0053 8394-	13.2174 227+	0.5450 517-	0.0126 3048+
a_2	1295 263-	620 289-	5 7042+	2255 069+	4413 550+	11 1832+
a_3	198 196+	254 903+	5669+	76 541-	177 266+	8966-
a_4	6 688+	6 439-	150+	23 531-	10 733-	1379-
a_5	802-	135+		1 247+	2 041-	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
March 4			March 12			
a_0	277.8637 521+	18.1331 235-	0.9456 9037+	31.6386 178+	9.1205 685+	1.0096 9350+
a_1	13.6366 868+	0.3855 246+	0.0145 4291+	14.4587 338+	4.0458 918+	0.0076 5300-
a_2	1896 761+	4860 505+	7 6656+	417 878+	3196 886-	18 4282-
a_3	157 468-	113 914+	1 4568-	20 539-	452 012-	2 0421+
a_4	17 086-	21 197-	1395-	22 497-	29 828+	559+
a_5	2 535+	2 070-		570-	1 536+	
March 5			March 13			
a_0	291.6729 131+	17.2524 837-	0.9608 4021+	46.1347 788+	12.8047 069+	1.0004 0746+
a_1	13.9632 319+	1.3822 868+	0.0155 8309+	14.5268 665+	3.2836 087+	0.0107 0376-
a_2	1347 262+	5054 324+	2 4688+	215 577+	4358 595-	12 0012-
a_3	200 268-	8 811+	2 0293-	115 090-	318 025-	2 2520+
a_4	3 895-	31 833-	1053-	25 398-	37 506+	550-
a_5	2 891+	1 407-		1 410+	357+	
March 6			March 14			
a_0	305.7507 440+	15.3672 074-	0.9764 5672+	60.6692 952+	15.6244 400+	0.9887 2327+
a_1	14.1724 901+	2.3823 598+	0.0154 2584+	14.5260 024+	2.3316 621+	0.0124 5048-
a_2	752 063+	4875 665+	4 2249-	267 923-	5084 069-	5 5947-
a_3	187 475-	131 857-	2 4670-	201 688-	165 070-	2 0154+
a_4	11 039+	39 057-	217-	17 956-	39 232+	1171-
a_5	1 953+	140-		2 983+	751-	
March 7			March 15			
a_0	319.9809 920+	12.5143 865-	0.9912 1121+	75.1468 390+	17.4350 363+	0.9759 0315+
a_1	14.2720 500+	3.3022 444+	0.0138 3203+	14.4062 203+	1.2806 438+	0.0130 1172-
a_2	275 417+	4244 343+	11 7173-	950 805-	5351 418-	2563-
a_3	124 779-	288 605-	2 5633-	243 552-	16 137-	1 5343+
a_4	20 943+	39 782-	1044+	2 399-	35 319+	1326-
a_5	225+	1 397+		3 216+	1 595-	
March 8			March 16			
a_0	334.2702 225+	8.8204 069-	1.0036 2562+	89.4337 054+	18.1822 970+	0.9630 0596+
a_1	14.2981 871+	4.0493 186+	0.0107 6138+	14.1436 411+	0.2188 487+	0.0126 5578-
a_2	28 957+	3153 828+	18 7410-	1663 627-	5203 898-	3 5553+
a_3	39 713-	432 985-	2 1378-	221 638-	108 984+	9967+
a_4	21 887+	32 629-	2345+	14 113+	27 115+	1174-
a_5	1 431-	2 754+		2 054+	1 949-	
March 9			March 17			
a_0	348.5693 797+	4.5019 914-	1.0123 2258+	103.3904 367+	17.8941 709+	0.9507 9365+
a_1	14.3001 032+	4.5385 150+	0.0064 6577+	13.7510 947+	0.7793 639-	0.0116 9266-
a_2	26 793+	1686 684+	23 7245-	2223 324-	4733 771-	5 8505+
a_3	32 937+	535 535-	1 1736-	145 593-	198 056+	5247+
a_4	14 424+	18 541-	3101+	24 364+	17 183+	874-
a_5	2 454-	3 497+		385+	1 770-	
March 10			March 18			
a_0	2.8766 529+	0.1501 342+	1.0163 2955+	116.9071 146+	16.6627 768+	0.9397 2977+
a_1	14.3198 853+	4.7095 235+	0.0014 9301+	13.2726 887+	1.6607 123-	0.0104 0012-
a_2	187 561+	3 853+	25 3903-	2510 113-	4054 208-	6 9104+
a_3	65 964+	574 774-	987+	45 000-	249 380+	1751+
a_4	1 818+	722-	2915+	25 993+	8 265+	539-
a_5	2 678-	3 412+		848-	1 267-	
March 11			March 19			
a_0	17.2218 047+	4.8028 347+	1.0153 2254+	129.9268 065+	14.6222 815+	0.9300 3282+
a_1	14.3765 757+	4.5392 783+	0.0034 3875-	12.7671 387+	2.3940 666-	0.0089 8704-
a_2	369 530+	1690 651-	23 3766-	2497 679-	3269 142-	7 1222+
a_3	46 824+	543 983-	1 2844+	50 204+	270 084+	389-
a_4	11 929-	16 547+	1893+	21 462+	1 960+	229-
a_5	2 050-	2 642+		1 326-	723-	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
March 20			March 28			
a_0	142.4512 113+	11.9284 329+	0.9217 5181+	235.4565 568+	14.7486 777-	0.9052 2002+
a_1	12.2905 861+	2.9664 466-	0.0075 8344-	12.1047 110+	2.2433 041-	0.0046 9349+
a_2	2231 572-	2454 347-	6 8758+	1746 198+	3051 274+	11 1713+
a_3	122 831+	270 936+	1284-	71 205+	195 557+	3566+
a_4	14 682+	1 585-	23+	13 976-	2 523-	384-
a_5	1 252-	310-		342-	480-	
March 21			March 29			
a_0	154.5322 663+	8.7434 557+	0.9148 4334+	247.7415 763+	16.6675 990-	0.9110 6246+
a_1	11.8863 680+	3.3768 239-	0.0062 4587-	12.4695 515+	1.5756 317-	0.0070 1937+
a_2	1787 515-	1654 140-	6 5100+	1872 522+	3618 008+	12 0023+
a_3	169 199+	261 642+	1167-	12 219+	180 489+	2044+
a_4	8 391+	3 073-	203+	15 808-	4 922-	651-
a_5	963-	63-		235+	786-	
March 22			March 30			
a_0	166.2575 455+	5.2270 684+	0.9092 3883+	260.3980 446+	17.8639 519-	0.9192 9599+
a_1	11.5824 998+	3.6304 199-	0.0049 7073-	12.8415 166+	0.8002 458-	0.0094 5512+
a_2	1239 200-	888 278-	6 2850+	1816 675+	4122 074+	12 2155+
a_3	193 289+	248 793+	329-	48 212-	152 785+	547-
a_4	3 610+	3 349-	304+	14 666-	8 886-	958-
a_5	689-	60+		1 022+	1 052-	
March 23			March 31			
a_0	177.7357 464+	1.5323 712+	0.9048 9636+	273.4150 431+	18.2377 056-	0.9299 5761+
a_1	11.3937 465+	3.7347 467-	0.0037 1141-	13.1850 335+	0.0659 240+	0.0118 4348+
a_2	644 550-	161 382-	6 3694+	1594 287+	4516 586+	11 4665+
a_3	200 937+	236 034+	910+	96 272-	106 634+	4385-
a_4	221+	3 025-	326+	9 418-	14 203-	1280-
a_5	528-	111+		1 690+	1 203-	
March 24			April 1			
a_0	189.0851 008+	2.1952 018-	0.9018 3426+	286.7491 053+	17.7110 001-	0.9428 9109+
a_1	11.3249 415+	3.6973 674-	0.0023 9716-	13.4720 871+	0.9949 487+	0.0139 5401+
a_2	45 694-	529 686+	6 8369+	1265 899+	4739 228+	9 3755+
a_3	196 555+	225 052+	2236+	116 966-	37 791+	9547-
a_4	2 374-	2 452-	279+	695-	20 286-	1531-
a_5	496-	118+		1 837+	1 201-	
March 25			April 2			
a_0	200.4248 415+	5.8173 287-	0.9001 4594+	300.3361 999+	16.2404 983-	0.9576 7187+
a_1	11.3735 718+	3.5248 361-	0.0009 5153-	13.6908 170+	1.9454 167+	0.0154 8140+
a_2	524 774+	1191 317+	7 6719+	929 241+	4718 856+	5 5923+
a_3	182 069+	216 404+	3368+	101 694-	55 256-	1 5780-
a_4	4 828-	1 839-	175+	8 764+	26 382-	1553-
a_5	555-	80+		1 284+	1 013-	
March 26			April 3			
a_0	211.8685 594+	9.2015 687-	0.8999 9703+	314.1107 763+	13.8314 611-	0.9735 3918+
a_1	11.5309 389+	3.2223 475-	0.0006 9089+	13.8503 032+	2.8615 525+	0.0160 6425+
a_2	1036 467+	1830 294+	8 7826+	689 604+	4384 646+	599-
a_3	157 171+	209 782+	4080+	54 422-	170 627-	2 2169-
a_4	7 616-	1 410-	26+	15 335+	31 598-	1128-
a_5	630-	24-		197+	533-	
March 27			April 4			
a_0	223.5180 376+	12.2200 519-	0.9016 0723+	328.0261 508+	10.5517 198-	0.9893 6448+
a_1	11.7820 225+	2.7939 301-	0.0025 7084+	13.9781 284+	3.6743 889+	0.0153 4198+
a_2	1455 977+	2450 950+	10 0161+	620 318+	3677 814+	7 3555-
a_3	120 428+	203 796+	4194+	8 149+	301 799-	2 6879-
a_4	10 834-	1 492-	160-	16 327+	34 480-	100-
a_5	604-	212-		1 081-	409+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	April 5			April 13		
a_0	342.0686 505 +	6.5431 366 -	1.0037 0113 +	99.5317 598 +	18.1588 026 +	0.9667 3030 +
a_1	14.1106 256 +	4.3058 260 +	0.0130 6046 +	14.2412 070 +	0.5201 160 -	0.0152 8176 -
a_2	731 903 +	2569 601 +	15 4326 -	2738 153 -	5153 624 -	3 0599 +
a_3	61 979 +	434 795 -	2 7377 -	206 870 -	231 499 +	1 6813 +
a_4	10 818 +	32 606 -	1417 +	37 773 +	22 057 +	1538 -
a_5	2 239 -	1 855 +		64 +	3 035 -	
	April 6			April 14		
a_0	356.2595 222 +	2.0269 051 -	1.0149 5874 +	113.4822 481 +	17.1483 762 +	0.9519 0729 +
a_1	14.2788 069 +	4.6771 947 +	0.0092 0936 +	13.6466 543 +	1.4740 848 -	0.0142 2694 -
a_2	960 324 +	1088 141 +	22 7504 -	3131 577 -	4357 158 -	7 1876 +
a_3	82 445 +	545 749 -	2 1584 -	56 214 -	290 023 +	1 0601 +
a_4	627 -	23 267 -	2904 +	37 478 +	6 750 +	1318 -
a_5	2 974 -	3 462 +		1 786 -	1 888 -	
	April 7			April 15		
a_0	10.6422 459 +	2.7025 485 +	1.0217 0627 +	126.8136 924 +	15.2680 640 +	0.9384 9193 +
a_1	14.4938 673 +	4.7235 239 +	0.0041 2813 +	13.0175 720 +	2.2567 525 -	0.0125 2413 -
a_2	1174 079 +	654 029 -	27 4606 -	3093 288 -	3465 457 -	9 5872 +
a_3	50 305 +	603 607 -	9623 -	75 564 +	298 795 +	5315 +
a_4	15 992 -	5 564 -	3637 +	28 059 +	2 577 -	988 -
a_5	2 807 -	4 506 +		2 217 -	751 -	
	April 8			April 16		
a_0	25.2566 716 +	7.3002 029 +	1.0230 2848 +	139.5320 762 +	12.6943 125 +	0.9269 6979 +
a_1	14.7359 761 +	4.4116 627 +	0.0015 0700 -	12.4316 990 +	2.8616 111 -	0.0104 8677 -
a_2	1200 876 +	2453 092 -	28 1784 -	2720 441 -	2592 023 -	10 5992 +
a_3	40 779 -	580 945 -	5301 +	165 842 +	281 413 +	1370 +
a_4	30 689 -	17 572 +	3202 +	16 786 +	6 156 -	653 -
a_5	1 174 -	4 281 +		1 823 -	2 +	
	April 9			April 17		
a_0	40.1054 711 +	11.4106 472 +	1.0187 8865 +	151.7098 116 +	9.6010 250 +	0.9175 5011 +
a_1	14.9510 584 +	3.7559 280 +	0.0068 5547 -	11.9431 671 +	3.2980 527 -	0.0083 5195 -
a_2	882 616 +	4047 610 -	24 7081 -	2140 427 -	1784 677 -	10 6275 +
a_3	173 573 -	468 825 -	1 8302 +	215 088 +	257 021 +	1227 -
a_4	36 903 -	39 518 +	1851 +	7 684 +	6 002 -	357 -
a_5	1 812 +	2 587 +		1 240 -	354 +	
	April 10			April 18		
a_0	55.1239 246 +	14.7191 421 +	1.0096 6389 +	163.4610 892 +	6.1496 419 +	0.9102 4506 +
a_1	15.0616 573 +	2.8228 561 +	0.0111 7402 -	11.5820 622 +	3.5801 055 -	0.0062 7754 -
a_2	158 674 +	5191 085 -	18 1552 -	1461 446 -	1046 074 -	10 0528 +
a_3	301 505 -	286 374 -	2 5659 +	233 683 +	236 597 +	2638 -
a_4	27 292 -	52 613 +	282 +	1 571 +	4 145 -	112 -
a_5	4 595 +	18 -		796 -	424 +	
	April 11			April 19		
a_0	70.1690 291 +	16.9995 119 +	0.9969 3375 +	174.9204 527 +	2.4882 166 +	0.9049 4531 +
a_1	14.9943 216 +	1.7197 606 +	0.0140 2413 -	11.3601 089 +	3.7197 870 -	0.0043 5057 -
a_2	863 476 -	5734 760 -	10 3252 -	758 913 -	356 901 -	9 2005 +
a_3	364 451 -	77 446 -	2 6600 +	232 142 +	224 210 +	3067 -
a_4	3 122 -	52 162 +	898 -	2 319 -	1 977 -	81 +
a_5	5 086 +	2 371 -		574 -	333 +	
	April 12			April 20		
a_0	85.0407 545 +	18.1430 311 +	0.9821 3413 +	186.2275 953 +	1.2450 038 -	0.9014 8493 +
a_1	14.7135 833 +	0.5692 528 +	0.0153 2715 -	11.2767 547 +	3.7245 285 -	0.0025 9924 -
a_2	1924 581 -	5677 932 -	2 9017 -	82 126 -	307 204 +	8 3333 +
a_3	327 260 -	106 877 +	2 2819 +	217 154 +	219 533 +	2724 -
a_4	23 098 +	39 666 +	1470 -	5 127 -	287 -	219 +
a_5	2 964 +	3 425 -		538 -	158 +	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
April 21						
a_0	197-5172 863+	4-9168 714-	0-8996 9398+	296-4109 161+	16-9203 624-	0-9418 1891+
a_1	11-3231 559+	3-5972 639-	0-0010 0550-	13-3304 656+	1-6311 523+	0-0122 1298+
a_2	533 200+	965 662+	7 6503+	514 570+	4518 098+	8 3529+
a_3	191 236+	219 836+	1826-	85 275-	50 510-	4980-
a_4	7 798-	516+	299+	14 397+	19 469-	1238-
a_5	601-	62-		1 066+	323-	
April 22						
a_0	208-9120 459+	8-3955 401-	0-8994 3822+	309-7858 574+	14-8444 304-	0-9548 0500+
a_1	11-4837 470+	3-3380 054-	0-0004 8171+	13-4140 876+	2-5116 698+	0-0136 8461+
a_2	1054 107+	1627 649+	7 2819+	355 795+	4246 533+	6 1098+
a_3	154 020+	221 141+	611-	17 631-	131 689-	9990-
a_4	10 842-	212+	313+	19 772+	21 049-	1450-
a_5	637-	305-		13+	465-	
April 23						
a_0	220-5154 576+	11-5486 758-	0-9006 4514+	323-2357 398+	11-9234 276-	0-9689 8619+
a_1	11-7361 191+	2-9462 012-	0-0019 3230+	13-4878 713+	3-3128 176+	0-0145 4881+
a_2	1444 727+	2289 296+	7 2849+	421 661+	3720 507+	2 2452+
a_3	104 366+	218 804+	663+	60 971+	220 569-	1 5910-
a_4	14 134-	1 320-	260+	19 813+	23 472-	1384-
a_5	494-	544-		1 046-	538-	
April 24						
a_0	232-4050 232+	14-2442 533-	0-9033 1516+	336-7737 511+	8-2630 172-	0-9835 8658+
a_1	12-0504 743+	2-4235 009-	0-0034 1959+	13-5978 961+	3-9810 912+	0-0144 6509+
a_2	1668 062+	2932 343+	7 6363+	712 997+	2912 554+	3 3412-
a_3	43 158+	207 977+	1725+	129 174+	319 611-	2 1624-
a_4	16 744-	4 075-	140+	14 581+	26 420-	845-
a_5	38-	731-		2 060-	170-	
April 25						
a_0	244-6249 412+	16-3542 027-	0-9075 1704+	350-4571 163+	4-0252 907-	0-9974 9287+
a_1	12-3903 181+	1-7766 344-	0-0050 0423+	13-7840 486+	4-4570 668+	0-0131 1423+
a_2	1696 675+	3524 511+	8 2324+	1167 396+	1793 446+	10 3012-
a_3	23 762-	184 334+	2307+	166 310+	426 332-	2 5176-
a_4	17 029-	7 789-	43-	4 262+	27 617-	259+
a_5	724+	798-		3 068-	965+	
April 26						
a_0	257-1809 201+	17-7608 113-	0-9133 6715+	4-3746 549+	0-5658 222+	1-0093 2781+
a_1	12-7160 762+	1-0199 466-	0-0067 1821+	14-0675 907+	4-6772 942+	0-0103 0904+
a_2	1530 471+	4022 787+	8 8911+	1661 183+	358 369+	17 6535-
a_3	84 162-	145 247+	2153+	152 270+	526 071-	2 4186-
a_4	13 352-	11 843-	286-	11 317-	23 005-	1729+
a_5	1 548+	707-		3 807-	2 838+	
April 27						
a_0	270-0404 469+	18-3652 097-	0-9209 9313+	18-6220 785+	5-2243 294+	1-0176 4694+
a_1	12-9923 559+	0-1769 060-	0-0085 4957+	14-4390 787+	4-5833 658+	0-0061 2200+
a_2	1213 392+	4380 391+	9 3559+	2011 915+	1329 461-	23 8331-
a_3	121 817-	90 914+	1023+	69 217+	588 630-	1 7098-
a_4	5 385-	15 402-	583-	31 089-	8 593-	3007+
a_5	2 021+	506-		3 376-	4 749+	
April 28						
a_0	283-1416 239+	18-0965 759-	0-9304 8269+	33-2658 240+	9-6155 018+	1-0212 4473+
a_1	13-1973 453+	0-7200 331+	0-0104 2813+	14-8481 065+	4-1398 229+	0-0009 6293+
a_2	835 879+	4555 673+	9 3027+	1999 115+	3099 294-	27 1446-
a_3	123 253-	24 349+	1302-	87 292-	575 170-	4724-
a_4	5 000+	17 885-	916-	49 048-	15 968+	3450+
a_5	1 842+	333-		615-	5 380+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	May 7			May 15		
a_0	48-3001 465 +	13-3900 131 +	1-0194 8046 +	160-4796 225 +	7-2476 821 +	0-9173 4299 +
a_1	15-2018 203 +	3-3564 882 +	0-0044 6951 -	11-7535 477 +	3-5659 619 -	0-0091 6003 -
a_2	1436 746 +	4675 044 -	26 5112 -	2047 357 -	1175 133 -	12 7755 +
a_3	286 952 -	458 525 -	9402 +	276 220 +	247 397 +	1021 +
a_4	52 476 -	43 919 +	2805 +	3 851 +	9 010 -	685 -
a_5	4 136 +	3 604 +		1 188 -	788 +	
	May 8			May 16		
a_0	63-6121 122 +	16-2378 968 +	1-0124 8188 +	172-0563 229 +	3-5881 245 +	0-9094 6386 +
a_1	15-3841 653 +	2-3032 874 +	0-0093 7744 -	11-4278 892 +	3-7299 795 -	0-0066 0172 -
a_2	302 588 +	5751 001 -	22 0500 -	1207 450 -	479 110 -	12 6782 +
a_3	453 525 -	248 935 -	2 0751 +	280 004 +	219 221 +	1707 -
a_4	30 442 -	62 377 +	1428 +	1 936 -	4 977 -	440 -
a_5	7 682 +	148 -		744 -	756 +	
	May 9			May 17		
a_0	78-9789 078 +	17-9474 134 +	1-0011 2122 +	183-3911 994 +	0-1682 660 -	0-9041 0850 +
a_1	15-3002 888 +	1-1032 794 +	0-0131 0785 -	11-2692 541 +	3-7616 482 -	0-0041 3487 -
a_2	1163 524 -	6125 121 -	15 0126 -	386 476 -	156 259 +	11 9087 +
a_3	498 986 -	2 884 -	2 6381 +	264 889 +	206 753 +	3455 -
a_4	9 975 +	60 990 +	15 -	5 540 -	1 142 -	233 -
a_5	6 744 +	3 629 -		634 -	548 +	
	May 10			May 18		
a_0	94-1146 176 +	18-4436 284 +	0-9867 7576 +	194-6476 773 +	3-8936 723 -	0-9011 2761 +
a_1	14-9252 455 +	0-1000 300 -	0-0153 1962 -	11-2688 923 +	3-6685 534 -	0-0018 6611 -
a_2	2533 094 -	5804 284 -	7 1384 -	368 616 +	775 157 +	10 7377 +
a_3	394 113 -	204 100 +	2 6141 +	236 331 +	207 479 +	4379 -
a_4	44 343 +	41 745 +	1023 -	8 655 -	1 640 +	58 -
a_5	2 319 +	4 794 -		738 -	224 +	
	May 11			May 19		
a_0	108-7518 086 +	17-7872 753 +	0-9709 9348 +	205-9761 250 +	7-4637 757 -	0-9002 9090 +
a_1	14-3192 851 +	1-1853 541 -	0-0160 0408 -	11-4096 839 +	3-4505 106 -	0-0001 4774 +
a_2	3426 301 -	4989 541 -	759 +	1018 300 +	1409 681 +	9 3939 +
a_3	195 853 -	323 737 +	2 1880 +	194 256 +	216 038 +	4602 -
a_4	55 114 +	17 129 +	1468 -	12 368 -	2 793 +	90 +
a_5	1 720 -	3 708 -		883 -	192 -	
	May 12			May 20		
a_0	122-7142 176 +	16-1366 829 +	0-9552 0112 +	217-5057 394 +	10-7514 543 -	0-9013 3291 +
a_1	13-5964 523 +	2-0811 416 -	0-0153 9126 -	11-6662 320 +	3-1027 427 -	0-0018 9208 +
a_2	3700 531 -	3952 644 -	5 7586 +	1518 009 +	2072 627 +	8 0711 +
a_3	6 462 +	356 233 +	1 5903 +	135 984 +	225 014 +	4229 -
a_4	45 492 +	1 435 -	1480 -	16 915 -	1 836 +	206 +
a_5	3 289 -	1 833 -		839 -	661 -	
	May 13			May 21		
a_0	135-9454 833 +	13-6955 734 +	0-9405 2995 +	229-3355 953 +	13-6243 154 -	0-9039 9187 +
a_1	12-8748 374 +	2-7662 891 -	0-0138 2166 -	12-0034 441 +	2-6203 094 -	0-0033 8770 +
a_2	3441 154 -	2910 845 -	9 6483 +	1816 048 +	2752 072 +	6 9285 +
a_3	155 700 +	333 038 +	9939 +	60 220 +	225 515 +	3386 -
a_4	28 552 +	10 333 -	1262 -	21 330 -	1 519 -	278 +
a_5	2 957 -	324 -		353 -	1 076 -	
	May 14			May 22		
a_0	148-4943 349 +	10-6704 380 +	0-9277 5989 +	241-5244 978 +	15-9471 257 -	0-9080 4134 +
a_1	12-2432 600 +	3-2528 406 -	0-0116 4430 -	12-3760 122 +	2-0033 865 -	0-0046 8296 +
a_2	2832 320 -	1976 924 -	11 8821 +	1865 168 +	3408 723 +	6 0798 +
a_3	240 877 +	288 957 +	4886 +	28 043 -	208 572 +	2252 -
a_4	13 720 +	11 686 -	969 -	23 289 -	7 028 -	288 +
a_5	2 001 -	501 +		669 +	1 266 -	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
May 23						
a_0	254.0819 604+	17.5896 120-	0.9133 1264+	359.7576 939+	1.1810 511-	0.9900 6397+
a_1	12.7316 529+	1.2625 141-	0.0058 4289+	13.4933 665+	4.5113 805+	0.0107 4234+
a_2	1647 994+	3979 587+	5 5749+	1314 565+	847 457+	6 5315-
a_3	113 794-	167 908+	1075-	232 590+	421 362-	1 7750-
a_4	19 924-	13 526-	222+	163-	19 755-	359-
a_5	1 931+	1 079-		3 488-	568+	
May 24						
a_0	266.9652 340+	18.4388 371-	0.9197 0449+	13.4054 108+	3.3710 203+	0.9999 7207+
a_1	13.0201 104+	0.4221 735-	0.0069 3450+	13.8242 466+	4.5468 474+	0.0088 8910+
a_2	1206 424+	4391 351+	5 3808+	1976 441+	529 523-	12 0424-
a_3	173 710-	103 325+	162-	196 661+	493 726-	1 9289-
a_4	9 951-	19 026-	73+	17 856-	17 228-	606+
a_5	2 765+	536-		4 223-	2 260+	
May 25						
a_0	280.0878 972+	18.4134 992-	0.9271 7618+	27.4447 597+	7.8140 459+	1.0074 7012+
a_1	13.2066 843+	0.4792 163+	0.0080 0874+	14.2692 802+	4.2870 661+	0.0059 2622+
a_2	653 306+	4581 812+	5 3690+	2416 926+	2091 458-	17 4313-
a_3	185 944-	22 217+	153+	83 431+	538 876-	1 6847-
a_4	4 316+	21 668-	153-	39 877-	5 855-	1717+
a_5	2 617+	96+		3 567-	4 313+	
May 26						
a_0	293.3420 110+	17.4760 373-	0.9357 2180+	41.9597 313+	11.8379 245+	1.0115 0192+
a_1	13.2845 959+	1.3936 248+	0.0090 8098+	14.7599 648+	3.7069 272+	0.0020 0330+
a_2	147 577+	4519 434+	5 3139+	2392 105+	3699 973-	21 4307-
a_3	143 111-	63 287-	447-	109 713-	518 617-	9810-
a_4	17 667+	21 028-	439-	59 001-	16 495+	2531+
a_5	1 560+	467+		68-	5 333+	
May 27						
a_0	306.6289 762+	15.6388 539-	0.9453 2532+	56.9420 283+	15.1251 755+	1.0112 8937+
a_1	13.2790 233+	2.2703 478+	0.0101 1282+	15.1818 437+	2.8206 103+	0.0024 7574-
a_2	160 154-	4208 101+	4 9073+	1708 245+	5103 342-	22 8514-
a_3	57 624-	142 760-	2203-	343 212-	400 226-	574+
a_4	25 457+	18 523-	744-	59 571-	44 392+	2649+
a_5	195+	407+		5 597+	3 749+	
May 28						
a_0	319.8887 870+	12.9637 836-	0.9558 9939+	72.2549 780+	17.4002 432+	1.0065 6071+
a_1	13.2399 845+	3.0619 341+	0.0109 9840+	15.3995 031+	1.6995 010+	0.0069 2273-
a_2	178 351-	3672 766+	3 7919+	377 425+	6000 092-	21 1095-
a_3	45 494+	212 986-	5209-	523 540-	187 440-	1 1382+
a_4	26 291+	16 418-	1004-	29 695-	63 722+	2004+
a_5	946-	38+		9 188+	271-	
May 29						
a_0	333.1180 202+	9.5575 095-	0.9672 1484+	87.6378 189+	18.4873 360+	0.9976 6087+
a_1	13.2280 047+	3.7260 430+	0.0115 6028+	15.3106 400+	0.4685 994+	0.0107 2300-
a_2	106 404+	2935 670+	1 6232+	1279 150-	6182 900-	16 5261-
a_3	140 704+	278 470-	9296-	551 570-	62 576+	1 9463+
a_4	21 476+	16 312-	1114-	18 549+	61 625+	915+
a_5	1 782-	313-		7 137+	4 090-	
May 30						
a_0	346.3727 051+	5.5674 091-	0.9788 3334+	102.7679 556+	18.3496 564+	0.9854 8904+
a_1	13.2991 953+	4.2229 547+	0.0115 6144+	14.9003 210+	0.7266 043-	0.0134 0775-
a_2	639 561+	1999 219+	1 8280-	2751 144-	5666 509-	10 1709-
a_3	208 330+	346 807-	1 3865-	409 096-	267 502+	2 3053+
a_4	12 607+	18 125-	937-	54 599+	39 908+	153-
a_5	2 564-	254-		1 608+	5 225-	
May 31						
May 31						
June 1						
June 1						
June 2						
June 2						
June 3						
June 3						
June 4						
June 4						
June 5						
June 5						
June 6						
June 6						
June 7						
June 7						

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
June 8						
a_0	117.3578 733+	17.0866 197+	0.9712 9319+	214.2574 627+	9.7110 086-	0.9026 0358+
a_1	14.2500 024+	1.7663 034-	0.0147 5654-	11.5616 312+	3.2483 003-	0.0011 8348+
a_2	3634 926-	4676 907-	3 3695-	1385 056+	1851 536+	11 4787+
a_3	177 053-	375 638+	2 2309+	196 034+	212 396+	5429-
a_4	61 447+	13 096+	884-	15 418-	4 078+	246-
a_5	2 636-	3 845-		1 197-	285-	
June 9						
a_0	131.2325 588+	14.8911 145+	0.9564 1395+	225.9755 415+	12.7525 363-	0.9048 7819+
a_1	13.4931 601+	2.5856 752-	0.0147 9657-	11.8906 871+	2.8127 861-	0.0033 0653+
a_2	3823 934-	3509 866-	2 7827+	1868 646+	2510 349+	9 7071+
a_3	41 641+	390 779+	1 8654+	122 491+	225 481+	6414-
a_4	47 143+	6 097-	1210-	21 628-	2 672+	104-
a_5	3 822-	1 714-		1 041-	946-	
June 10						
a_0	144.3518 217+	11.9927 494+	0.9420 7008+	238.0630 754+	15.2915 670-	0.9090 9025+
a_1	12.7578 126+	3.1737 088-	0.0137 2886-	12.2919 929+	2.2424 774-	0.0050 5136+
a_2	3454 432-	2391 205-	7 6521+	2095 891+	3193 343+	7 7251+
a_3	192 380+	350 190+	1 3740+	26 066+	226 371+	6831-
a_4	27 609+	14 344-	1228-	27 161-	2 150-	46+
a_5	3 099-	95-		186-	1 529-	
June 11						
a_0	156.7858 801+	8.6134 951+	0.9292 3155+	250.5645 294+	17.1924 408-	0.9148 4627+
a_1	12.1341 355+	3.5526 772-	0.0118 3539-	12.7080 356+	1.5375 219-	0.0063 9327+
a_2	2742 622-	1427 611-	11 0415+	2009 237+	3844 237+	5 7076+
a_3	272 476+	292 355+	8795+	83 544-	202 376+	6643-
a_4	12 152+	14 530-	1082-	28 294-	10 017-	190+
a_5	1 958-	740+		1 371+	1 724-	
June 12						
a_0	168.6740 204+	4.9459 133+	0.9185 7744+	263.4624 421+	18.3264 755-	0.9217 4577+
a_1	11.6712 367+	3.7559 348-	0.0094 0651-	13.0741 900+	0.7128 300-	0.0073 4309+
a_2	1871 835-	630 305-	13 0371+	1602 587+	4373 984+	3 8319+
a_3	301 985+	241 789+	4464+	182 098-	145 317+	5868-
a_4	2 546+	10 656-	882-	21 242-	18 905-	300+
a_5	1 129-	1 000+		2 972+	1 292-	
June 13						
a_0	180.1884 139+	1.1501 613+	0.9105 1046+	276.6768 541+	18.5893 950-	0.9294 1637+
a_1	11.3879 197+	3.8132 214-	0.0067 0046-	13.3330 678+	0.1973 551+	0.0079 4544+
a_2	961 869-	41 143+	13 8529+	958 644+	4683 567+	2 2525+
a_3	301 095+	209 133+	943+	237 002-	57 319+	4642-
a_4	2 922-	5 560-	690-	5 806-	25 493-	340+
a_5	760-	935+		3 584+	342-	
June 14						
a_0	191.5098 880+	2.6384 948-	0.9051 9783+	290.0818 638+	17.9205 348-	0.9375 4404+
a_1	11.2843 256+	3.7440 094-	0.0039 2918-	13.4531 644+	1.1408 971+	0.0082 7030+
a_2	83 698-	644 545+	13 7270+	248 715+	4699 162+	1 0621+
a_3	281 806+	196 098+	1808-	224 869-	47 520-	3249-
a_4	6 597-	820-	525-	12 655+	27 092-	283+
a_5	767-	681+		2 736+	631+	
June 15						
a_0	202.8132 879+	6.2984 539-	0.9026 1802+	303.5389 519+	16.3171 195-	0.9458 9089+
a_1	11.3491 047+	3.5562 592-	0.0012 5902-	13.4418 747+	2.0559 530+	0.0083 9658+
a_2	714 466+	1234 735+	12 8742+	322 580-	4400 401+	2521+
a_3	247 615+	199 389+	3902-	147 866-	149 293-	2087-
a_4	10 387-	2 647+	382-	26 481+	23 678-	122+
a_5	992-	274+		1 013+	1 121+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	June 24			July 2		
a_0	316.9365 315 +	13.8383 115 -	0.9542 9302 +	66.4923 206 +	16.5976 306 +	0.9977 7009 +
a_1	13.3440 961 +	2.8823 342 +	0.0083 8926 +	14.9829 355 +	2.1461 065 +	0.0022 3755 -
a_2	597 190 -	3821 692 +	3084 -	1448 146 +	5378 453 -	15 9814 -
a_3	32 744 -	232 864 -	1582 -	360 215 -	292 468 -	3095 -
a_4	31 348 +	17 855 -	118 -	52 144 -	43 703 +	1678 +
a_5	604 -	996 +		6 172 +	2 693 +	
	June 25			July 3		
a_0	330.2207 085 +	10.5987 803 -	0.9626 3443 +	81.5794 520 +	18.1812 846 +	0.9939 2023 +
a_1	13.2270 707 +	3.5701 689 +	0.0082 7538 +	15.1467 307 +	1.0014 994 +	0.0054 5948 -
a_2	513 413 -	3025 940 +	8621 -	116 630 +	5966 650 -	15 9035 -
a_3	86 000 +	294 598 -	2059 -	505 824 -	92 678 -	3767 +
a_4	28 083 +	12 807 -	382 -	19 354 -	57 563 +	1660 +
a_5	1 631 -	509 +		8 432 +	767 -	
	June 26			July 4		
a_0	343.4076 831 +	6.7567 070 -	0.9707 9920 +	96.6861 711 +	18.5825 307 +	0.9869 2467 +
a_1	13.1606 051 +	4.0821 087 +	0.0080 2591 +	15.0147 808 +	0.1969 961 -	0.0084 6071 -
a_2	103 239 -	2070 379 +	1 7151 -	1432 389 -	5907 080 -	13 7908 -
a_3	181 658 +	340 991 -	3619 -	500 431 -	128 162 +	1 0520 +
a_4	19 838 +	10 358 -	589 -	24 592 +	53 041 +	1220 +
a_5	2 234 -	59 +		5 706 +	3 837 -	
	June 27			July 5		
a_0	356.5778 905 +	2.5026 894 -	0.9786 1152 +	111.5106 998 +	17.8125 632 +	0.9772 0228 +
a_1	13.2012 723 +	4.3897 738 +	0.0075 5074 +	14.5908 582 +	1.3206 666 -	0.0108 5443 -
a_2	538 432 +	985 821 +	3 1556 -	2729 066 -	5242 869 -	9 9232 -
a_3	238 329 +	381 847 -	6036 -	347 802 -	301 496 +	1 5436 +
a_4	8 725 +	10 290 -	645 -	53 117 +	32 815 +	548 +
a_5	2 812 -	15 +		718 +	4 607 -	
	June 28			July 6		
a_0	9.8574 301 +	1.9464 544 +	0.9857 7989 +	125.7992 546 +	16.0005 802 +	0.9655 1537 +
a_1	13.3825 404 +	4.4682 763 +	0.0067 1267 +	13.9623 061 +	2.2679 674 -	0.0123 5409 -
a_2	1277 648 +	221 353 -	5 3482 -	3446 752 -	4187 635 -	4 9840 -
a_3	244 703 +	422 485 -	8703 -	130 102 -	387 388 +	1 7589 +
a_4	5 321 -	10 525 -	469 -	55 597 +	9 236 +	112 -
a_5	3 522 -	647 +		2 653 -	3 343 -	
	June 29			July 7		
a_0	23.3913 213 +	6.3493 591 +	0.9918 6604 +	139.4091 697 +	13.3531 775 +	0.9528 3764 +
a_1	13.7075 910 +	4.2933 755 +	0.0053 6317 +	13.2548 364 +	2.9872 526 -	0.0128 2775 -
a_2	1944 557 +	1545 520 -	8 2263 -	3530 138 -	3003 475 -	2105 +
a_3	188 018 +	457 328 -	1 0659 -	65 284 +	391 965 +	1 7067 +
a_4	23 278 -	7 540 -	25 -	41 432 +	7 447 -	589 -
a_5	3 884 -	2 006 +		3 402 -	1 486 -	
	June 30			July 8		
a_0	37.3094 535 +	10.4418 964 +	0.9962 9974 +	152.3213 238 +	10.1038 806 +	0.9401 9572 +
a_1	14.1416 561 +	3.8450 621 +	0.0033 9712 +	12.5832 668 +	3.4740 783 -	0.0122 9722 -
a_2	2329 968 +	2942 666 -	11 4192 -	3119 757 -	1887 083 -	4 9696 +
a_3	56 805 +	466 516 -	1 0799 -	197 385 +	348 149 +	1 4642 +
a_4	43 631 -	2 586 +	618 +	24 117 +	14 610 -	836 -
a_5	2 672 -	3 616 +		2 678 -	52 -	
	July 1			July 9		
a_0	51.6851 565 +	13.9466 606 +	0.9984 5313 +	164.6144 973 +	6.4744 427 +	0.9285 3351 +
a_1	14.6059 069 +	3.1194 173 +	0.0008 1402 +	12.0268 399 +	3.7529 195 -	0.0108 9752 -
a_2	2211 723 +	4290 435 -	14 2684 -	2409 670 -	930 784 -	8 8584 +
a_3	142 254 -	419 669 -	8292 -	267 632 +	289 641 +	1 1250 +
a_4	58 029 -	21 365 +	1270 +	10 787 +	14 623 -	899 -
a_5	1 133 +	4 265 +		1 700 -	721 +	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	July 10			July 18		
a_0	176.4280 422+	2.6560 187+	0.9186 2535+	272.4609 209+	18.5592 616-	0.9306 0088+
a_1	11.6286 614+	3.8576 723-	0.0088 2429-	13.3428 741+	0.1431 444-	0.0094 4471+
a_2	1559 023-	142 362-	11 6955+	1558 817+	4657 595+	3 6042+
a_3	294 171+	238 524+	7633+	212 147-	116 726+	1 0842-
a_4	2 459+	10 855-	855-	19 788-	22 661-	65+
a_5	1 033-	989+		3 451+	1 439-	
	July 11			July 19		
a_0	187.9303 610+	1.1930 241-	0.9110 3839+	285.9368 284+	18.2273 839-	0.9402 9825+
a_1	11.4055 755+	3.8184 354-	0.0062 9039-	13.5848 043+	0.8136 100+	0.0098 4292+
a_2	672 062-	517 979+	13 4750+	838 262+	4857 399+	3998+
a_3	293 823+	204 968+	4209+	256 628-	12 355+	1 0580-
a_4	2 544-	5 815-	773-	1 843-	30 005-	354+
a_5	786-	947+		3 733+	281-	
	July 12			July 20		
a_0	199.2977 797+	4.9396 517-	0.9061 2987+	299.5799 849+	16.9298 271-	0.9500 7888+
a_1	11.3578 995+	3.6552 023-	0.0035 0001-	13.6765 958+	1.7766 552+	0.0096 1962+
a_2	186 303+	1107 467+	14 2767+	94 721+	4711 644+	2 5545-
a_3	275 738+	191 030+	1124+	227 401-	109 798-	9137-
a_4	6 360-	1 010-	693-	17 339+	31 283-	600+
a_5	881-	703+		2 442+	904+	
	July 13			July 21		
a_0	210.7011 591+	8.4650 349-	0.9040 6184+	313.2452 907+	14.6960 253-	0.9593 5768+
a_1	11.4748 964+	3.3764 526-	0.0006 3867-	13.6354 736+	2.6739 840+	0.0088 5862+
a_2	966 547+	1681 541+	14 2000+	459 028-	4203 630+	4 9322-
a_3	241 329+	193 772+	1644-	134 752-	225 520-	6687-
a_4	10 736-	2 582+	630-	29 580+	26 480-	719+
a_5	1 159-	277+		466+	1 549+	
	July 14			July 22		
a_0	222.2956 537+	11.6536 703-	0.9048 2043+	326.8243 909+	11.6267 235-	0.9676 6340+
a_1	11.7357 303+	2.9808 421-	0.0021 2682+	13.5153 055+	3.4372 362+	0.0077 0036+
a_2	1614 509+	2281 132+	13 3307+	681 185-	3383 710+	6 5087-
a_3	186 688+	206 511+	4164-	12 706-	315 964-	3751-
a_4	16 640-	4 044+	574-	31 632+	18 496-	661+
a_5	1 352-	343-		1 149-	1 520+	
	July 15			July 23		
a_0	234.2097 045+	14.3853 779-	0.9082 3294+	340.2733 555+	7.8844 104-	0.9746 8199+
a_1	12.1073 069+	2.4612 170-	0.0046 4506+	13.3873 338+	4.0125 497+	0.0063 1256+
a_2	2061 170+	2921 506+	11 7392+	541 039-	2340 048+	7 2444-
a_3	106 780+	218 821+	6472-	101 793+	374 997-	1064-
a_4	23 683-	2 356+	502-	25 629+	10 815-	437+
a_5	1 068-	1 102-		2 059-	1 085+	
	July 16			July 24		
a_0	246.5313 313+	16.5324 369-	0.9139 8218+	353.6191 217+	3.6763 285-	0.9802 6384+
a_1	12.5415 690+	1.8108 791-	0.0067 7866+	13.3188 854+	4.3642 762+	0.0048 4924+
a_2	2228 678+	3581 067+	9 5004+	102 488-	1161 004+	7 3112-
a_3	2 009+	216 839+	8498-	183 434+	407 654-	694+
a_4	29 388-	3 260-	382-	15 242+	5 470-	123+
a_5	40+	1 777-		2 535-	650+	
	July 17			July 25		
a_0	259.2930 341+	17.9640 290-	0.9216 2208+	6.9473 724+	0.7628 007+	0.9843 9013+
a_1	12.9761 738+	1.0318 065-	0.0084 0849+	13.3582 471+	4.4723 178+	0.0034 1275+
a_2	2058 749+	4194 219+	6 7275+	513 918+	88 304-	7 0380-
a_3	114 118-	185 919+	1 0052-	218 832+	423 079-	1162+
a_4	29 345-	12 413-	193-	2 563+	2 413-	168-
a_5	1 845+	1 986-		2 917-	561+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
July 26						
a_0	20.3788 592+	5.1837 950+	0.9871 0901+	134.4606 045+	14.4613 616+	0.9546 3983+
a_1	13.5262 467+	4.3270 491+	0.0020 3324+	13.4801 370+	2.7021 833-	0.0099 6934-
a_2	1156 600+	1366 444-	6 7956-	3051 008-	3539 822-	3 7495-
a_3	199 777+	426 865-	435+	48 585-	370 474+	1 0389+
a_4	12 155-	164+	334-	41 790+	4 785+	375+
a_5	3 173-	1 006+		2 246-	2 357-	
July 27						
a_0	34.0392 107+	9.3316 303+	0.9884 6369+	147.6347 366+	11.4424 863+	0.9444 0318+
a_1	13.8110 521+	3.9262 707+	0.0006 7373+	12.8709 526+	3.2982 685-	0.0103 9259-
a_2	1651 208+	2636 005-	6 8653-	2968 556-	2423 256-	4187-
a_3	119 727+	415 638-	968-	95 957+	366 775+	1 1883+
a_4	28 490-	5 087+	313-	30 044+	6 971-	27+
a_5	2 709-	1 896+		2 481-	1 082-	
July 28						
a_0	48.0242 364+	12.9534 350+	0.9884 3809+	160.2211 856+	7.9377 645+	0.9340 8781+
a_1	14.1644 636+	3.2773 621+	0.0007 4089-	12.3168 063+	3.6762 149-	0.0101 1880-
a_2	1812 253+	3833 405-	7 3367-	2525 254-	1375 547-	3 1530+
a_3	20 145-	375 886-	2273-	191 635+	328 663+	1 1963+
a_4	42 775-	14 773+	101-	17 489+	12 219-	267-
a_5	696-	2 695+		1 912-	69-	
July 29						
a_0	62.3635 637+	15.8116 149+	0.9869 3979+	172.3061 877+	4.1556 324+	0.9244 0127+
a_1	14.5034 167+	2.4051 722+	0.0022 8046-	11.8752 860+	3.8576 467-	0.0091 4001-
a_2	1488 158+	4845 385-	8 0686-	1864 531-	463 536-	6 5753+
a_3	196 211-	289 952-	2700-	242 838+	279 451+	1 0862+
a_4	46 607-	28 814+	239+	7 988+	12 401-	467-
a_5	2 809+	2 526+		1 263-	532+	
July 30						
a_0	76.9917 954+	17.7063 874+	0.9838 2786+	184.0199 768+	0.2783 904+	0.9160 2272+
a_1	14.7249 504+	1.3618 962+	0.0039 6562-	11.5777 952+	3.8712 125-	0.0075 1780-
a_2	648 089+	5517 021-	8 7245-	1100 704-	305 752+	9 5500+
a_3	352 841-	150 377-	1728-	262 393+	235 319+	8969+
a_4	31 788-	41 996+	592+	1 796+	9 618-	578-
a_5	5 853+	888+		858-	784+	
July 31						
a_0	91.7436 771+	18.5058 323+	0.9789 7843+	195.5140 349+	3.5395 984-	0.9095 4382+
a_1	14.7389 274+	0.2306 189+	0.0057 3865-	11.4366 622+	3.7429 216-	0.0053 6188-
a_2	542 417-	5707 290-	8 8804-	311 307-	961 853+	11 8920+
a_3	421 408-	25 132+	694+	261 063+	204 687+	6643+
a_4	1 053-	46 451+	830+	2 376-	5 612-	631-
a_5	5 946+	1 511-		754-	783+	
August 1						
a_0	106.3867 112+	18.1727 293+	0.9723 6699+	206.9453 597+	7.1663 490-	0.9054 3127+
a_1	14.5065 699+	0.8854 766-	0.0074 6067-	11.4513 921+	3.4909 986-	0.0028 0943-
a_2	1753 386-	5368 378-	8 1732-	450 094+	1550 080+	13 5052+
a_3	367 783-	194 868+	4085+	243 941+	189 952+	4116+
a_4	29 475+	38 343+	865+	6 074-	1 623-	663-
a_5	3 047+	3 191-		889-	585+	
August 2						
a_0	120.6844 164+	16.7734 169+	0.9641 3849+	218.4654 589+	10.4834 482-	0.9040 0688+
a_1	14.0588 677+	1.8869 503-	0.0089 3815-	11.6117 187+	3.1243 541-	0.0000 1143-
a_2	2649 459-	4585 715-	6 4344-	1136 580+	2116 061+	14 3410+
a_3	221 343-	316 231+	7603+	210 627+	189 086+	1468+
a_4	44 367+	21 775+	689+	10 525-	1 382+	701-
a_5	361-	3 341-		1 116-	198+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
August 11			August 19			
a_0	230.2107 341+	13.3771 297-	0.9054 3722+	335.9186 221+	9.2034 716-	0.9824 9481+
a_1	11.8974 544+	2.6437 650-	0.0028 7278+	13.7331 078+	3.9086 186+	0.0085 5665+
a_2	1694 128+	2693 604+	14 3593+	352 120-	2923 816+	12 3225-
a_3	157 334+	196 262+	1331-	7 550+	385 837-	9722-
a_4	16 236-	2 448+	754-	26 107+	21 454-	1485+
a_5	1 183-	380-		1 451-	1 978+	
August 12			August 20			
a_0	242.2915 928+	15.7317 013-	0.9097 2509+	349.6197 386+	5.0430 027-	0.9897 3684+
a_1	12.2763 946+	2.0453 775-	0.0056 7456+	13.6746 653+	4.3700 379+	0.0058 5997+
a_2	2056 843+	3293 276+	13 5061+	187 367-	1657 379+	14 3478-
a_3	80 813+	201 842+	4350-	96 976+	451 917-	3651-
a_4	22 417-	568+	809-	18 632+	11 426-	1490+
a_5	757-	1 088-		2 291-	1 895+	
August 13			August 21			
a_0	254.7794 356+	17.4276 189-	0.9166 9866+	3.2869 988+	0.5533 718-	0.9941 4043+
a_1	12.7026 631+	1.3264 870-	0.0082 1290+	13.6725 915+	4.5623 153+	0.0029 4055+
a_2	2157 168+	3891 319+	11 7151+	192 422+	252 024+	14 5601-
a_3	15 769-	192 879+	7607-	148 358+	478 825-	2412+
a_4	26 485-	4 966-	828-	7 033+	1 934-	1124+
a_5	377+	1 716-		2 689-	1 618+	
August 14			August 22			
a_0	267.6936 277+	18.3463 543-	0.9259 9872+	16.9941 028+	3.9862 318+	0.9956 6031+
a_1	13.1189 623+	0.4932 039-	0.0102 9457+	13.7570 522+	4.4691 080+	0.0001 4584+
a_2	1954 717+	4422 969+	8 9390+	652 780+	1179 883-	13 1803-
a_3	117 035-	155 738+	1 0960-	149 583+	470 482-	6940+
a_4	24 642-	13 780-	748-	6 584-	6 074+	542+
a_5	1 960+	1 932-		2 727-	1 433+	
August 15			August 23			
a_0	280.9940 900+	18.3832 586-	0.9370 7011+	30.8304 602+	8.2910 540+	0.9945 6294+
a_1	13.4659 198+	0.4316 337+	0.0117 2359+	13.9284 869+	4.0951 328+	0.0022 6034+
a_2	1475 416+	4788 138+	5 2096+	1034 711+	2540 567-	10 7906-
a_3	195 334-	81 553+	1 4015-	96 323+	431 835-	9074+
a_4	14 472-	23 726-	506-	20 550-	13 155+	33-
a_5	3 144+	1 485-		2 160-	1 475+	
August 16			August 24			
a_0	294.5868 853+	17.4671 769-	0.9491 6945+	44.8697 796+	12.0904 096+	0.9913 1395+
a_1	13.6981 862+	1.4034 953+	0.0123 2480+	14.1550 280+	3.4634 686+	0.0041 4758-
a_2	834 113+	4875 564+	7153+	1178 718+	3742 382-	8 1002-
a_3	221 813-	27 615-	1 6099-	6 563-	364 414-	8870+
a_4	1 840+	31 319-	66-	31 797-	20 584+	430-
a_5	3 084+	457-		597-	1 576+	
August 17			August 25			
a_0	308.3467 941+	15.5820 644-	0.9614 0414+	59.1387 835+	15.1454 146+	0.9864 4076+
a_1	13.8007 418+	2.3575 686+	0.0119 8224+	14.3757 877+	2.6146 894+	0.0055 1875-
a_2	210 615+	4600 237+	4 1357-	962 241+	4696 321-	5 7018-
a_3	184 359-	156 785-	1 6392-	138 333-	266 476-	7071+
a_4	17 646+	33 566-	523+	34 984-	28 706+	580-
a_5	1 761+	729+		1 843+	1 312+	
August 18			August 26			
a_0	322.1521 022+	12.7834 343-	0.9728 1413+	73.5936 479+	17.2668 259+	0.9804 1674+
a_1	13.7954 940+	3.2175 195+	0.0106 8431+	14.5136 664+	1.6076 192+	0.0064 7022-
a_2	218 977-	3935 802+	8 7211-	355 835+	5310 363-	3 9265-
a_3	97 183-	283 251-	1 4264-	258 619-	139 076-	4688+
a_4	26 439+	29 732-	1111+	25 315-	35 532+	508-
a_5	19-	1 613+		4 005+	379+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
August 27						
a_0	88.1149 049+	18.3330 923+	0.9735 9567+	191.7551 876+	2.2592 085-	0.9110 3898+
a_1	14.4991 246+	0.5182 246+	0.0071 3521-	11.5110 989+	3.8074 004-	0.0058 2888-
a_2	531 731-	5510 601-	2 8180-	536 780-	733 126+	7 5894+
a_3	319 618-	6 079+	2625+	221 646+	230 945+	7684+
a_4	4 373-	37 469+	287-	791-	7 293-	162-
a_5	4 383+	967-		640-	461+	
August 28						
a_0	102.5288 956+	18.3045 149+	0.9662 0204+	203.2346 300+	5.9708 851-	0.9060 4426+
a_1	14.2973 335+	0.5675 690-	0.0076 3153-	11.4696 003+	3.5941 784-	0.0040 8696-
a_2	1472 903-	5277 258-	2 1941-	117 022+	1386 822+	9 7929+
a_3	294 212-	145 672+	1475+	212 086+	206 387+	7029+
a_4	18 174+	32 382+	11-	3 931-	4 926-	306-
a_5	2 727+	2 038-		640-	466+	
August 29						
a_0	116.6516 077+	17.2268 217+	0.9583 6574+	214.7366 840+	9.4061 886-	0.9030 0382+
a_1	13.9231 197+	1.5673 854-	0.0080 2653-	11.5547 378+	3.2566 354-	0.0019 2975-
a_2	2219 234-	4666 376-	1 7508-	723 293+	1981 098+	11 7141+
a_3	195 590-	254 643+	1452+	189 908+	191 259+	5803+
a_4	31 749+	21 857+	232+	7 116-	2 533-	433-
a_5	361+	2 342-		736-	320+	
August 30						
a_0	130.3364 561+	15.2202 143+	0.9501 8097+	226.3819 566+	12.4458 097-	0.9022 9917+
a_1	13.4334 742+	2.4166 958-	0.0083 2384-	11.7531 543+	2.8038 919-	0.0005 6983+
a_2	2611 965-	3794 760-	1 1716-	1242 954+	2542 882+	13 1912+
a_3	65 935-	318 866+	2415+	154 056+	184 150+	4075+
a_4	33 096+	9 934+	380+	10 848-	873-	560-
a_5	1 287-	1 950-		793-	21+	
August 31						
a_0	143.5053 212+	12.4567 276+	0.9417 6792+	238.2736 479+	14.9770 836-	0.9042 2326+
a_1	12.9038 953+	3.0769 885-	0.0084 7048-	12.0432 267+	2.2404 098-	0.0033 0789+
a_2	2624 118-	2798 066-	2181-	1632 091+	3090 310+	14 0727+
a_3	53 266+	339 502+	3974+	102 843+	180 616+	1841+
a_4	26 255+	135+	408+	14 941-	721-	706-
a_5	1 813-	1 247-		624-	414-	
September 1						
a_0	156.1545 756+	9.1337 715+	0.9333 1945+	250.4888 114+	16.8905 143-	0.9089 4976+
a_1	12.4046 474+	3.5353 196-	0.0083 7855-	12.3942 100+	1.5686 592-	0.0061 4939+
a_2	2324 944-	1791 210-	1 2165+	1844 708+	3623 691+	14 1957+
a_3	140 267+	327 973+	5636+	37 164+	173 303+	978-
a_4	17 006+	6 050-	328+	18 235-	2 786-	878-
a_5	1 604-	559-		67-	916-	
September 2						
a_0	168.3422 955+	5.4514 674+	0.9251 2217+	263.0693 784+	18.0798 444-	0.9165 0016+
a_1	11.9877 395+	3.7978 682-	0.0079 5307-	12.7669 745+	0.7935 032-	0.0089 2408+
a_2	1818 152-	849 162-	3 0993+	1846 108+	4117 714+	13 3701+
a_3	192 494+	298 495+	6962+	35 912-	152 754+	4493-
a_4	8 972+	8 765-	178+	18 674-	7 431-	1057-
a_5	1 169-	34-		859+	1 345-	
September 3						
a_0	180.1682 495+	1.5976 526+	0.9175 5044+	276.0155 909+	18.4471 784-	0.9267 0576+
a_1	11.6848 620+	3.8816 746-	0.0071 1721-	13.1183 832+	0.0722 207+	0.0114 2103+
a_2	1198 518-	6 595-	5 2895+	1634 927+	4517 922+	11 3844+
a_3	216 899+	263 291+	7676+	101 481-	109 480+	8750-
a_4	3 193+	8 860-	4+	14 284-	14 289-	1185-
a_5	812-	300+		1 811+	1 525-	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
September 12			September 20			
a_0	289:2860 716+	17-9137 988-	0-9391 6588+	40:7205 073+	11-0485 568+	1-0064 6967+
a_1	13-4101 173+	1-0021 716+	0-0133 8797+	14-5171 568+	3-7896 744+	0-0050 4815-
a_2	1262 945+	4745 360+	8 0493+	1022 398+	3677 309-	17 1426-
a_3	140 256-	37 192+	1 3561-	62 750-	437 849-	1 5597+
a_4	4 914-	22 074-	1159-	30 789-	28 675+	626+
a_5	2 246+	1 331-		39-	2 001+	
September 13			September 21			
a_0	302-8081 911+	16-4357 125-	0-9532 1158+	55-3305 461+	14-4297 830+	0-9998 6949+
a_1	13-6197 867+	1-9529 069+	0-0145 4459+	14-6904 788+	2-9353 268+	0-0079 8377-
a_2	835 209+	4711 161+	3 2956+	649 019+	4798 777-	12 1166-
a_3	137 695-	64 083-	1 8309-	184 868-	303 851-	1 8012+
a_4	6 674+	28 872-	845-	30 992-	38 840+	305-
a_5	1 818+	757-		2 479+	778+	
September 14			September 22			
a_0	316-4985 784+	14-0210 607-	0-9678 9421+	70-0645 887+	16-8588 088+	0-9908 5112+
a_1	13-7490 972+	2-8639 880+	0-0146 2060+	14-7536 669+	1-9003 395+	0-0098 7901-
a_2	480 374+	4338 096+	2 6822-	66 652-	5469 506-	6 9139-
a_3	93 470-	186 638-	2 1811-	283 088-	141 550-	1 6662+
a_4	15 962+	32 754-	152-	17 938-	42 747+	877-
a_5	682+	113+		4 182+	686-	
September 15			September 23			
a_0	330-2880 305+	10-7451 911-	0-9820 2697+	84-7819 061+	18-2022 487+	0-9804 3857+
a_1	13-8238 555+	3-6625 717+	0-0134 2373+	14-6503 258+	0-7807 275+	0-0107 9705-
a_2	302 559+	3582 781+	9 2855-	981 590-	5644 568-	2 4472-
a_3	23 579-	315 927-	2 2486-	313 196-	21 883+	1 3043+
a_4	19 361+	32 221-	855+	3 864+	39 094+	1063-
a_5	674-	1 146+		3 856+	1 898-	
September 16			September 24			
a_0	344-1416 527+	6-7590 414-	0-9943 0584+	99-3035 252+	18-4244 273+	0-9695 1660+
a_1	13-8846 997+	4-2720 359+	0-0109 2629+	14-3635 201+	0-3269 332-	0-0109 3774-
a_2	341 229+	2453 148+	15 4865-	1859 378-	5363 386-	8312+
a_3	46 456+	432 771-	1 9005-	260 311-	159 003+	8722+
a_4	15 853+	26 425-	1886+	23 546+	29 258+	963-
a_5	1 830-	2 146+		1 849+	2 373-	
September 17			September 25			
a_0	358-0665 232+	2-2873 958-	1-0035 1230+	113-4576 160+	17-5797 443+	0-9587 3957+
a_1	13-9723 078+	4-6233 378+	0-0073 3438+	13-9238 919+	1-3413 925-	0-0105 4836-
a_2	557 390+	1017 767+	20 0374-	2480 574-	4734 596-	2 8782+
a_3	91 145+	516 604-	1 1266-	148 875-	252 464+	4840+
a_4	6 507+	15 528-	2510+	32 559+	17 142+	705-
a_5	2 570-	2 856+		328-	2 081-	
September 18			September 26			
a_0	12-1040 782+	2-3847 911+	1-0087 5537+	127-1217 861+	15-7916 447+	0-9485 2039+
a_1	14-1124 470+	4-6671 268+	0-0030 8943+	13-3959 728+	2-2067 555-	0-0098 5571-
a_2	844 125+	596 625-	21 9140-	2735 192-	3895 172-	3 9170+
a_3	91 398+	550 027-	983-	22 642-	300 606+	2018+
a_4	6 641-	1 032-	2423+	30 454+	6 675+	394-
a_5	2 713-	3 081+		1 567-	1 403-	
September 19			September 27			
a_0	26-3091 422+	6-9374 576+	1-0096 6780+	140-2448 643+	13-2259 598+	0-9390 7262+
a_1	14-3046 798+	4-3839 211+	0-0012 2584-	12-8535 399+	2-8936 389-	0-0090 2752-
a_2	1051 282+	2222 058-	20 7779-	2636 107-	2967 325-	4 2951+
a_3	38 163+	523 519-	8876+	83 364+	313 657+	456+
a_4	20 650-	14 577+	1674+	22 290+	276-	102-
a_5	1 941-	2 782+		1 792-	743-	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
September 28						
a_0	152.8451 797+	10.0668 521+	0.9304 7815+	246.7763 071+	16.4681 448-	0.9025 2383+
a_1	12.3593 483+	3.3934 883-	0.0081 5890-	12.2004 808+	1.7785 718-	0.0034 8925+
a_2	2270 209-	2035 428-	4 3777+	1466 332+	3473 827+	12 3416+
a_3	154 783+	305 388+	72+	25 342+	159 490+	3869+
a_4	13 212+	3 898-	126+	13 534-	5 231-	462-
a_5	1 471-	289-		271+	443-	
September 29						
a_0	164.9941 595+	6.4999 412+	0.9227 5901+	259.1246 289+	17.8839 524-	0.9072 8131+
a_1	11.9562 913+	3.7106 606-	0.0072 7611-	12.4960 723+	1.0382 737-	0.0060 5517+
a_2	1741 293-	1145 529-	4 4797+	1463 861+	3916 475+	13 2178+
a_3	193 172+	287 054+	608+	25 744-	134 025+	2034+
a_4	5 874+	5 273-	269+	12 200-	7 461-	696-
a_5	1 038-	40-		861+	627-	
September 30						
a_0	176.7961 223+	2.7029 019+	0.9159 3965+	271.7633 791+	18.5179 850-	0.9146 7163+
a_1	11.6678 154+	3.8557 791-	0.0063 5115-	12.7766 727+	0.2180 695-	0.0087 3190+
a_2	1136 904-	316 398-	4 8251+	1322 057+	4267 507+	13 4017+
a_3	206 475+	265 629+	1713+	65 640-	97 825+	740-
a_4	745+	5 434-	320+	7 805-	10 617-	969-
a_5	713-	74+		1 372+	769-	
October 1						
a_0	188.3708 979+	1.1584 903-	0.9100 9134+	284.6650 501+	18.3006 598-	0.9247 2660+
a_1	11.5023 185+	3.8415 069-	0.0053 2192-	13.0189 561+	0.6601 483+	0.0113 5126+
a_2	520 134-	448 623+	5 5301+	1092 051+	4489 593+	12 5893+
a_3	202 422+	244 654+	3017+	83 051-	47 612+	4620-
a_4	2 761-	5 043-	290+	762-	14 473-	1256-
a_5	545-	114+		1 536+	870-	
October 2						
a_0	199.8411 147+	4.9311 624-	0.9053 5551+	297.7849 836+	17.1883 252-	0.9372 7803+
a_1	11.4576 417+	3.6803 463-	0.0041 1378-	13.2129 139+	1.5661 266+	0.0136 8025+
a_2	65 125+	1153 470+	6 6063+	853 714+	4536 894+	10 4427+
a_3	185 963+	225 616+	4192+	70 928-	19 015-	9685-
a_4	5 449-	4 454-	198+	7 116+	18 840-	1481-
a_5	495-	105+		1 213+	937-	
October 3						
a_0	211.3232 707+	8.4740 352-	0.9019 4626+	311.0770 090+	15.1723 885-	0.9518 9089+
a_1	11.5240 284+	3.3836 971-	0.0026 5883-	13.3658 301+	2.4597 962+	0.0154 1893+
a_2	585 370+	1804 642+	7 9786+	695 773+	4357 425+	6 6483+
a_3	159 226+	208 810+	4993+	30 766-	103 728-	1 5710-
a_4	7 927-	3 908-	66+	13 316+	23 595-	1493-
a_5	486-	45+		469+	908-	
October 4						
a_0	222.9209 174+	11.6567 734-	0.9001 3589+	324.5107 184+	12.2896 729-	0.9678 0262+
a_1	11.6854 568+	2.9616 666-	0.0009 1065-	13.5013 150+	3.2902 710+	0.0162 1748+
a_2	1010 625+	2408 076+	9 5115+	688 075+	3895 561+	1 0524+
a_3	122 708+	193 558+	5264+	26 622+	207 004-	2 1846-
a_4	10 402-	3 659-	89-	15 725+	28 305-	1090-
a_5	414-	73-		514-	595-	
October 5						
a_0	234.7186 259+	14.3586 499-	0.9002 2814+	338.0850 242+	8.6334 362-	0.9838 9600+
a_1	11.9200 267+	2.4234 847-	0.0011 4601+	13.6529 484+	3.9956 635+	0.0157 2890+
a_2	1312 184+	2966 063+	11 0318+	857 154+	3098 733+	6 1252-
a_3	77 097+	178 088+	4914+	83 755+	325 676-	2 6389-
a_4	12 557-	4 008-	263-	13 171+	31 536-	126-
a_5	179-	245-		1 592-	251+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	October 14			October 22		
a_0	351-8332 214+	4-3635 955-	0-9987 4724+	109-9312 758+	18-0348 358+	0-9718 0466+
a_1	13-8539 770+	4-5052 204+	0-0137 0710+	14-3429 866+	1-1192 447-	0-0143 7750-
a_2	1171 520+	1934 973+	14 0736-	3080 196-	5112 851-	1 4884+
a_3	119 917+	448 457-	2 6986-	192 078-	294 763+	1 6102+
a_4	5 162+	30 502-	1299+	47 344+	18 891+	1460-
a_5	2 641-	1 718+		1 098-	3 216-	
	October 15			October 23		
a_0	5-8165 941+	0-2873 981+	1-0107 9012+	123-9516 597+	16-4353 497+	0-9577 2243+
a_1	14-1249 993+	4-7463 380+	0-0101 3480+	13-6877 112+	2-0474 363-	0-0136 5517-
a_2	1535 790+	423 772+	21 3472-	3383 459-	4147 389-	5 4484+
a_3	113 762+	552 276-	2 1681-	14 619-	338 995+	1 0199+
a_4	8 305-	21 901-	2712+	41 025+	2 764+	1260-
a_5	3 341-	3 480+		2 698-	1 748-	
	October 16			October 24		
a_0	20-1053 840+	5-0190 436+	1-0186 0052+	137-3033 958+	14-0071 757+	0-9447 0160+
a_1	14-4612 939+	4-6583 905+	0-0053 2360+	13-0216 948+	2-7749 823-	0-0123 0971-
a_2	1793 741+	1329 606-	26 2018-	3208 213-	3131 268-	7 7634+
a_3	47 389+	604 355-	1 0518-	122 506+	333 288+	5142+
a_4	25 656-	4 112-	3445+	27 064+	5 776-	934-
a_5	2 941-	4 762+		2 647-	513-	
	October 17			October 25		
a_0	34-7479 313+	9-4841 030+	1-0212 3321+	150-0189 614+	10-9517 664+	0-9332 1031+
a_1	14-8225 288+	4-2118 991+	0-0000 9430-	12-4263 064+	3-3038 158-	0-0106 4013-
a_2	1752 437+	3119 614-	27 3007-	2704 802-	2171 160-	8 7563+
a_3	83 285-	573 250-	3615+	204 691+	305 464+	1411+
a_4	41 230-	20 412+	3094+	13 731+	8 123-	589-
a_5	599-	4 660+		1 925-	185+	
	October 18			October 26		
a_0	49-7331 924+	13-3292 228+	1-0184 7591+	162-1964 373+	7-4605 872+	0-9234 5404+
a_1	15-1312 437+	3-4264 938+	0-0053 2213-	11-9512 841+	3-6495 653-	0-0088 7009-
a_2	1249 173+	4670 187-	24 3973-	2027 581-	1301 640-	8 8358+
a_3	251 976-	446 108-	1 6185+	240 770+	274 964+	931-
a_4	44 499-	44 423+	1862+	4 188+	7 052-	278-
a_5	3 319+	2 734+		1 220-	428+	
	October 19			October 27		
a_0	64-9600 379+	16-2488 028+	1-0108 9452+	173-9693 371+	3-7076 918+	0-9154 5544+
a_1	15-2893 489+	2-3777 567+	0-0096 4157-	11-6190 647+	3-8300 110-	0-0071 4197-
a_2	259 595+	5714 604-	18 4701-	1292 323-	514 768-	8 3976+
a_3	395 104-	242 857-	2 3603+	245 585+	251 020+	2024-
a_4	26 864-	58 293+	379+	1 795-	4 833-	23-
a_5	6 320+	393-		775-	395+	
	October 20			October 28		
a_0	80-2337 816+	18-0366 034+	0-9996 4575+	185-4834 711+	0-1491 377-	0-9091 3276+
a_1	15-2151 506+	1-1850 966+	0-0126 1243-	11-4331 706+	3-8593 945-	0-0055 2407-
a_2	1023 469-	6097 420-	11 1976-	574 070-	213 248+	7 7828+
a_3	439 636-	15 151-	2 4952+	230 773+	235 540+	2092-
a_4	6 339+	55 800+	773-	5 582-	2 824-	168+
a_5	5 818+	3 097-		584-	227+	
	October 21			October 29		
a_0	95-3038 373+	18-6157 131+	0-9861 5535+	196-8816 954+	3-9639 131-	0-9043 6773+
a_1	14-8840 064+	0-0181 624-	0-0141 3441-	11-3850 638+	3-7470 995-	0-0040 2353-
a_2	2246 077-	5839 162-	4 1944-	78 923+	905 190+	7 2599+
a_3	358 037-	176 541+	2 1677+	202 632+	226 381+	1395-
a_4	36 069+	39 489+	1362-	8 466-	1 681-	289+
a_5	2 365+	4 017-		545-	6+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
October 30			November 7			
a_0	208.2940 136+	7.5980 230-	0.9010 5913+	306.8891 995+	16.1201 076-	0.9345 4539+
a_1	11.4579 793+	3.4988 168-	0.0026 0184-	12.9781 604+	2.1248 935+	0.0124 6385+
a_2	630 572+	1574 306+	7 0161+	296 037+	4193 291+	10 6339+
a_3	163 338+	219 584+	216-	10 293-	86 444-	4749-
a_4	11 214-	1 656-	336+	18 141+	15 436-	1330-
a_5	521-	222-		316+	424-	
October 31			November 8			
a_0	219.8302 105+	10.9176 386-	0.8991 6010+	319.8977 800+	13.5861 154-	0.9480 1185+
a_1	11.6283 492+	3.1188 538-	0.0011 9164-	13.0416 932+	2.9312 318+	0.0143 9495+
a_2	1048 080+	2220 903+	7 1523+	377 160+	3837 104+	8 4035+
a_3	113 365+	210 628+	1151+	64 943+	152 632-	1 0119-
a_4	13 901-	2 783-	312+	19 709+	17 562-	1587-
a_5	366-	422-		516-	786-	
November 1			November 9			
a_0	231.5732 776+	13.7936 598-	0.8986 9833+	332.9856 027+	10.2882 712-	0.9631 3008+
a_1	11.8662 320+	2.6128 091-	0.0002 8585+	13.1442 324+	3.6454 450+	0.0157 0852+
a_2	1301 097+	2831 865+	7 6822+	685 082+	3265 951+	4 4158+
a_3	54 338+	195 203+	2419+	138 118+	230 832-	1 6589-
a_4	15 841-	4 929-	223+	17 156+	21 648-	1582-
a_5	35+	552-		1 358-	959-	
November 2			November 10			
a_0	243.5734 724+	16.1043 103-	0.8997 7882+	346.2137 349+	6.3415 749-	0.9790 9846+
a_1	12.1364 344+	1.9901 230-	0.0019 0382+	13.3288 666+	4.2202 476+	0.0160 3060+
a_2	1369 400+	3382 368+	8 5376+	1188 810+	2433 932+	1 4947-
a_3	8 311-	169 953+	3330+	192 573+	326 748-	2 3112-
a_4	15 741-	7 745-	79+	10 469+	26 777-	1085-
a_5	676+	569-		2 366-	526-	
November 3			November 11			
a_0	255.8445 092+	17.7400 326-	0.9025 7048+	359.6815 501+	1.9133 393-	0.9947 3763+
a_1	12.4018 633+	1.2660 458-	0.0037 1439+	13.6274 036+	4.5980 373+	0.0149 9480+
a_2	1256 785+	3840 061+	9 5777+	1805 691+	1287 698+	9 0439-
a_3	64 122-	133 349+	3660+	210 080+	438 286-	2 7657-
a_4	12 320-	10 639-	116-	1 308-	29 856-	52+
a_5	1 366+	455-		3 601-	898+	
November 4			November 12			
a_0	268.3645 435+	18.6098 468-	0.9072 7807+	13.5100 398+	2.7667 434+	1.0085 5200+
a_1	12.6297 395+	0.4625 115-	0.0057 3508+	14.0492 410+	4.7126 002+	0.0123 5835+
a_2	1004 189+	4171 730+	10 5985+	2392 020+	197 364-	17 2599-
a_3	99 500-	86 358+	3212+	168 321+	547 354-	2 7530-
a_4	5 314-	12 921-	358-	19 661-	25 665-	1670+
a_5	1 786+	263-		4 549-	3 301+	
November 5			November 13			
a_0	281.0843 991+	18.6478 679-	0.9141 0153+	27.8128 939+	7.4026 354+	1.0189 2578+
a_1	12.7994 945+	0.3924 420+	0.0079 3680+	14.5680 036+	4.5003 085+	0.0081 4736+
a_2	691 695+	4350 653+	11 3378+	2733 364+	1960 359-	24 4711-
a_3	102 951-	32 122+	1794+	44 724+	615 605-	2 0687-
a_4	3 837+	14 186-	650-	43 531-	8 857-	3176+
a_5	1 696+	122-		3 715-	5 776+	
November 6			November 14			
a_0	293.9433 213+	17.8185 791-	0.9231 8354+	42.6539 817+	11.6450 394+	1.0244 5091+
a_1	12.9093 304+	1.2664 741+	0.0102 3216+	15.1088 286+	3.9229 010+	0.0027 5975+
a_2	422 849+	4360 702+	11 4752+	2568 988+	3802 388-	28 7527-
a_3	70 968-	25 862-	797-	164 107-	592 926-	7604-
a_4	12 472+	14 702-	986-	63 577-	21 183+	3807+
a_5	1 125+	162-		512+	6 446+	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
November 15			November 23			
a_0	57.9969 921+	15.1311 720+	1.0242 9741+	171.1873 079+	4.8409 833+	0.9215 7199+
a_1	15.5482 268+	2.9962 391+	0.0030 6644-	11.7338 920+	3.8429 186-	0.0101 1387-
a_2	1700 332+	5389 396-	28 7684-	1879 964-	620 774-	12 0466+
a_3	409 720-	445 276-	8005+	300 853+	252 920+	881+
a_4	61 009-	54 835+	3197+	773-	9 599-	686-
a_5	6 888+	3 753+		1 068-	916+	
November 16			November 24			
a_0	73.6688 680+	17.5498 027+	1.0184 6615+	182.7631 047+	0.9604 110+	0.9126 6473+
a_1	15.7444 212+	1.8085 822+	0.0084 5198-	11.4473 124+	3.8945 791-	0.0077 0557-
a_2	174 352+	6358 631-	24 4942-	992 698-	89 565+	11 9080+
a_3	583 080-	191 249-	2 0962+	287 295+	223 578+	1849-
a_4	24 135-	73 930+	1699+	5 947-	4 938-	400-
a_5	10 140+	1 297-		708-	725+	
November 17			November 25			
a_0	89.3710 169+	18.7106 601+	1.0077 9135+	194.1392 112+	2.9032 752-	0.9061 2746+
a_1	15.5997 800+	0.5084 003+	0.0126 5404-	11.3322 283+	3.8112 060-	0.0053 9545-
a_2	1617 949-	6501 936-	17 2361-	173 565-	737 925+	11 1206+
a_3	580 030-	89 281+	2 7679+	256 454+	210 880+	3436-
a_4	28 971+	66 276+	75+	9 397-	1 272-	160-
a_5	6 855+	5 213-		666-	390+	
November 18			November 26			
a_0	104.7545 817+	18.5839 012+	0.9936 9122+	205.4787 221+	6.6196 888-	0.9018 0810+
a_1	15.1171 902+	0.7412 993-	0.0152 6801-	11.3703 596+	3.6006 710-	0.0032 8084-
a_2	3115 665-	5888 770-	8 9233-	532 753+	1366 841+	9 9996+
a_3	399 130-	301 944+	2 7774+	212 165+	209 456+	4065-
a_4	63 211+	38 804+	1077-	12 725-	703+	37+
a_5	543+	5 695-		742-	24-	
November 19			November 27			
a_0	119.5266 678+	17.2872 302+	0.9777 9785+	216.9222 268+	10.0626 622-	0.8994 8694+
a_1	14.3998 694+	1.8157 937-	0.0162 6262-	11.5350 987+	3.2641 972-	0.0014 0137-
a_2	3928 574-	4807 141-	1 2533-	1085 462+	1999 190+	8 8073+
a_3	143 217-	401 318+	2 3274+	153 872+	211 775+	3902-
a_4	64 437+	9 786+	1587-	16 531-	583+	193+
a_5	3 542-	3 701-		705-	467-	
November 20			November 28			
a_0	133.5254 475+	15.0314 627+	0.9616 2677+	228.5795 353+	13.1057 514-	0.8989 2921+
a_1	13.5951 922+	2.6547 596-	0.0158 7861-	11.7913 884+	2.8008 277-	0.0002 5075+
a_2	4007 189-	3581 448-	4 7759+	1440 818+	2633 332+	7 7557+
a_3	78 662+	404 790+	1 6804+	80 925+	209 213+	3113-
a_4	45 604+	8 520-	1602-	20 234-	1 802-	299+
a_5	4 222-	1 367-		323-	853-	
November 21			November 29			
a_0	146.7319 253+	12.0580 486+	0.9463 7777+	240.5210 423+	15.6225 902-	0.8999 2739+
a_1	12.8334 850+	3.2537 021-	0.0144 8341-	12.0955 754+	2.2125 451-	0.0017 2046+
a_2	3539 842-	2431 812-	8 8635+	1558 936+	3241 612+	7 0026+
a_3	219 445+	357 931+	1 0345+	2 755-	193 369+	1896-
a_4	24 173+	14 962-	1352-	22 021-	6 176-	345+
a_5	3 155-	162+		515+	1 042-	
November 22			November 30			
a_0	159.2354 724+	8.5954 785+	0.9328 7065+	252.7700 852+	17.4923 590-	0.9023 3260+
a_1	12.1994 434+	3.6385 880-	0.0124 5444-	12.3979 865+	1.5092 033-	0.0030 7791+
a_2	2768 000-	1446 128-	11 1663+	1423 692+	3774 223+	6 6399+
a_3	285 309+	300 093+	4930+	85 066-	158 325+	493-
a_4	8 509+	13 857-	1015-	19 462-	11 529-	319+
a_5	1 898-	819+		1 609+	907-	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
December 1			December 9			
a_0	265:3001 490+	18:6095 512-	0:9060 7276+	8:3517 300+	0:7848 720+	0:9862 6353+
a_1	12:6502 258+	0:7119 262-	0:0044 0387+	13:3489 377+	4:5633 055+	0:0135 2401+
a_2	1067 846+	4170 932+	6 6800+	2056 201+	448 535+	4 1398-
a_3	146 357-	103 391+	807+	271 070+	421 847-	2 0828-
a_4	11 184-	16 168-	215+	4 504-	23 897-	788-
a_5	2 435+	456-		4 083-	393+	
December 2			December 10			
a_0	278:0416 488+	18:8957 075-	0:9111 5484+	21:9325 361+	5:3484 958+	0:9991 5741+
a_1	12:8166 318+	0:1465 828+	0:0057 7269+	13:8376 549+	4:5170 984+	0:0120 3962+
a_2	586 072+	4379 540+	7 0453+	2801 504+	956 527-	10 8269-
a_3	166 717-	34 481+	1690+	211 611+	512 169-	2 4142-
a_4	1 359+	18 429-	34+	25 304-	22 383-	307+
a_5	2 485+	107+		5 222-	2 711+	
December 3			December 11			
a_0	290:9006 005+	18:3095 548-	0:9176 4930+	36:0684 498+	9:7167 575+	1:0098 7600+
a_1	12:8856 161+	1:0255 174+	0:0072 3381+	14:4487 074+	4:1645 481+	0:0091 6223+
a_2	118 960+	4373 497+	7 5647+	3232 082+	2600 202-	17 8414-
a_3	136 869-	37 956-	1846+	58 830+	572 974-	2 2952-
a_4	14 046+	17 760-	219-	52 823-	8 725-	1739+
a_5	1 718+	475+		4 199-	5 569+	
December 4			December 12			
a_0	303:7860 021+	16:8522 118-	0:9256 5584+	50:8405 461+	13:5636 724+	1:0170 4197+
a_1	12:8748 236+	1:8819 635+	0:0087 9338+	15:0895 503+	3:4719 115+	0:0049 7506+
a_2	190 184-	4157 845+	7 9774+	3049 381+	4315 604-	23 6460-
a_3	64 150-	104 259-	987+	191 411-	551 491-	1 5819-
a_4	22 668+	15 214-	530-	75 647-	20 324+	2963+
a_5	586+	450+		1 074+	6 866+	
December 5			December 13			
a_0	316:6377 178+	14:5663 661-	0:9352 5153+	66:2084 362+	16:5515 934+	1:0195 2387+
a_1	12:8269 011+	2:6763 937+	0:0103 9726+	15:6122 901+	2:4549 028+	0:0001 1001-
a_2	240 780-	3758 302+	7 9445+	2032 042+	5779 217-	26 6017-
a_3	31 804+	160 834-	1129-	478 950-	403 037-	3631-
a_4	25 482+	12 846-	877-	70 066-	56 434+	3362+
a_5	414-	61+		8 795+	4 267+	
December 6			December 14			
a_0	329:4462 280+	11:5315 041-	0:9464 2318+	81:9699 084+	18:3943 410+	1:0167 5099+
a_1	12:7982 709+	3:3746 953+	0:0119 1721+	15:8513 880+	1:2028 490+	0:0054 0463-
a_2	3 365+	3199 336+	7 0696+	263 213+	6606 977-	25 6936-
a_3	129 163+	211 916-	4655-	669 494-	137 858-	1 0128+
a_4	23 318+	12 533-	1205-	22 847-	78 300+	2709+
a_5	1 132-	484-		12 024+	1 478-	
December 7			December 15			
a_0	342:2599 703+	7:8593 685-	0:9589 8875+	97:7795 861+	18:9303 887+	1:0089 0537+
a_1	12:8464 532+	3:9457 321+	0:0131 4326+	15:7000 504+	0:1293 279-	0:0101 3106-
a_2	519 447+	2483 532+	4 9439+	1761 719-	6565 737-	21 0709-
a_3	210 726+	267 105-	9537-	643 326-	157 987+	2 1086+
a_4	17 704+	15 086-	1413-	39 989+	69 502+	1360+
a_5	1 782-	876-		7 148+	6 026-	
December 8			December 16			
a_0	355:1810 330+	3:6935 900-	0:9725 1690+	113:2438 457+	18:1666 334+	0:9968 9168+
a_1	13:0197 497+	4:3558 346+	0:0137 8933+	15:1742 698+	1:3702 918-	0:0136 5827-
a_2	1240 053+	1582 893+	1 2376+	3380 358-	5735 267-	13 9719-
a_3	263 168+	336 115-	1 5311-	416 160-	375 462+	2 6448+
a_4	8 971+	19 776-	1335-	75 216+	37 684+	41-
a_5	2 720-	729-		459-	6 422-	

Formula: Quantity in degrees = $a_0 + a_1 p + a_2 p^2 + a_3 p^3 + a_4 p^4 + a_5 p^5$
 where p is the fraction of a day from 0^h TT.

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
December 17						
a_0	128.0459 393+	16.2634 873+	0.9821 0028+	225.4259 360+	12.1801 123-	0.9004 9204+
a_1	14.4032 021+	2.3928 414-	0.0156 6092-	11.6805 062+	2.9749 999-	0.0005 5553-
a_2	4182 411-	4447 085-	6 0923-	1364 889+	2426 684+	11 4383+
a_3	122 303-	463 349+	2 6109+	149 492+	200 192+	5360-
a_4	71 002+	4 991+	1018-	19 806-	1 671+	160-
a_5	4 599-	3 945-		893-	590-	
December 18						
a_0	142.0253 103+	13.4723 769+	0.9660 8103+	237.2558 105+	14.8923 165-	0.9010 2514+
a_1	13.5561 299+	3.1432 268-	0.0161 3693-	11.9899 638+	2.4292 329-	0.0015 6493+
a_2	4169 471-	3066 503-	1 1157+	1685 567+	3031 375+	9 7394+
a_3	115 557+	445 415+	2 1873+	61 687+	200 660+	5998-
a_4	46 831+	14 444-	1451-	24 527-	1 339-	4+
a_5	4 751-	1 228-		306-	1 136-	
December 19						
a_0	155.1802 568+	10.0654 740+	0.9502 5989+	249.4180 162+	16.9985 935-	0.9035 0406+
a_1	12.7732 615+	3.6292 927-	0.0153 1572-	12.3356 204+	1.7638 640-	0.0033 3300+
a_2	3589 353-	1829 136-	6 8059+	1720 370+	3613 933+	7 9468+
a_3	256 199+	376 343+	1 5966+	38 796-	183 786+	5979-
a_4	22 861+	20 109-	1469-	26 269-	7 183-	157+
a_5	3 264-	456+		892+	1 410-	
December 20						
a_0	167.6221 627+	6.2889 367+	0.9357 6973+	261.9192 563+	18.3835 450-	0.9075 7352+
a_1	12.1397 650+	3.8900 318-	0.0135 3435-	12.6579 954+	0.9895 198-	0.0047 4928+
a_2	2716 194-	816 154-	10 7202+	1455 293+	4108 057+	6 2514+
a_3	315 825+	300 866+	1 0047+	134 152-	141 077+	5337-
a_4	6 746+	17 497-	1268-	21 747-	14 455-	285+
a_5	1 845-	1 124+		2 305+	1 196-	
December 21						
a_0	179.5223 810+	2.3457 387+	0.9233 9520+	274.7074 216+	18.9497 165-	0.9128 9742+
a_1	11.6930 509+	3.9694 396-	0.0111 3962-	12.9012 629+	0.1319 645-	0.0058 5085+
a_2	1746 651-	7 276-	12 9818+	945 461+	4432 576+	4 8234+
a_3	324 846+	242 154+	4970+	197 628-	71 692+	4176-
a_4	2 223-	11 707-	999-	9 820-	20 584-	358+
a_5	1 022-	1 178+		3 128+	503-	
December 22						
a_0	191.0729 269+	1.6012 659-	0.9135 9348+	287.6827 986+	18.6333 630-	0.9191 9244+
a_1	11.4397 745+	3.9023 425-	0.0084 3410-	13.0287 025+	0.7675 740+	0.0067 0460+
a_2	795 647-	660 740+	13 8816+	325 012+	4519 121+	3 7852+
a_3	305 898+	206 968+	985+	205 815-	15 196-	2712-
a_4	7 151-	5 733-	741-	6 312+	23 065-	349+
a_5	746-	931+		2 791+	339+	
December 23						
a_0	202.4629 368+	5.4173 178-	0.9065 4998+	300.7243 311+	17.4176 690-	0.9262 5193+
a_1	11.3691 810+	3.7099 323-	0.0056 5787-	13.0358 791+	1.6577 838+	0.0073 9426+
a_2	71 693+	1256 563+	13 7394+	226 619-	4338 566+	3 1775+
a_3	269 802+	193 109+	1967-	153 380-	103 749-	1282-
a_4	10 792-	1 027-	520-	20 501+	21 176-	239+
a_5	809-	525+		1 519+	887+	
December 24						
a_0	213.8651 072+	8.9823 331-	0.9022 4119+	313.7244 123+	15.3384 325-	0.9339 5350+
a_1	11.4597 387+	3.4008 360-	0.0029 8978-	12.9534 995+	2.4863 451+	0.0080 0086+
a_2	808 253+	1834 981+	12 8433+	548 578-	3909 159+	2 9295+
a_3	218 464+	193 945+	4039-	57 012-	179 572-	298-
a_4	14 858-	1 638+	331-	28 006+	16 527-	28+
a_5	959-	4+		83+	908+	
December 25						
December 26						
December 27						
December 28						
December 29						
December 30						
December 31						
December 32						

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 where p is the fraction of a day from 0^h TT.