

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 2020 January 21^d 13^h 23^m 48^s.32 UT1, using an assumed value of $\Delta T = 70^s$.

$$\text{TT} = 13^{\text{h}} 24^{\text{m}} 58^{\text{s}}.32, \text{ hence } p = 0.559\ 008\ 33$$

	right ascension	declination	horizontal parallax
b_1	+0.000 4254	-0.000 2068	+0.000 000 75
b_2	-0.005 1294	-0.003 2397	+0.000 006 47
b_3	-0.025 3148	+0.022 3004	-0.000 020 62
b_4	+0.120 2294	+0.583 1790	-0.008 096 03
b_5	+13.977 1586	-2.317 5043	$\pi = +0.951\ 261\ 38$
b_6	$\alpha = 260.848\ 6129$ $= 17^{\text{h}} 23^{\text{m}} 23^{\text{s}}.667$	$\delta = -21.639\ 3832$ $= -21^\circ 38' 21''.78$	$= 57' 04''.541$

DAILY POLYNOMIAL COEFFICIENTS

	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
	January 0			January 8		
a_0	337-6852 299+	14-0517 943-	0-9091 7832+	70-5869 963+	19-8405 152+	0-9498 2680+
a_1	11-7275 810+	3-8474 562+	0-0054 8868-	13-6573 791+	2-8061 267+	0-0130 7504+
a_2	2801 628-	2554 730+	11 4824+	4424 455+	4786 612-	1 3407+
a_3	247 667+	305 604-	7565+	57 417-	476 328-	1 7576-
a_4	23 370+	12 354+	606-	74 493-	710-	253-
a_5	2 248-	358-		1 770-	5 980+	
	January 1			January 9		
a_0	349-1595 271+	9-9782 259-	0-9049 0747+	84-6734 529+	22-1208 749+	0-9628 5762+
a_1	11-2497 809+	4-2714 826+	0-0029 8951-	14-4943 721+	1-7086 119+	0-0128 0572+
a_2	1940 867-	1708 431+	13 3862+	3787 380+	6159 847-	4 0631-
a_3	319 246+	260 169-	5135+	368 474-	419 169-	1 8646-
a_4	12 244+	10 387+	661-	84 524-	30 675+	429+
a_5	1 239-	1 029-		6 417+	6 429+	
	January 2			January 10		
a_0	0-2482 464+	5-5609 812-	0-9033 0131+	99-5019 049+	23-1752 958+	0-9750 7487+
a_1	10-9616 601+	4-5387 584+	0-0001 8466-	15-1107 117+	0-3663 724+	0-0114 5089+
a_2	922 023-	979 949+	14 5283+	2239 348+	7168 783-	9 3764-
a_3	356 165+	229 103-	2496+	638 720-	234 245-	1 6913-
a_4	6 269+	5 143+	718-	49 904-	64 403+	1181+
a_5	663-	1 364-		13 116+	2 785+	
	January 3			January 11		
a_0	11-1538 814+	0-9467 603-	0-9045 8727+	114-7690 006+	22-8080 842+	0-9854 3080+
a_1	10-8862 814+	4-6673 925+	0-0027 6717+	15-3535 593+	1-1105 100-	0-0091 1552+
a_2	177 500+	309 850+	14 8440+	155 503+	7457 270-	13 7247-
a_3	374 601+	222 238-	369-	708 389-	48 075+	1 2080-
a_4	3 220+	1 753-	794-	19 688+	78 182+	1736+
a_5	684-	1 488-		10 899+	2 817-	
	January 4			January 12		
a_0	22-0956 265+	3-7290 693+	0-9088 2720+	130-0703 300+	20-9641 912+	0-9930 7041+
a_1	11-0351 068+	4-6612 460+	0-0056 9315+	15-1854 587+	2-5576 807-	0-0060 7771+
a_2	1313 827+	382 280-	14 2544+	1742 429-	6872 353-	16 3036-
a_3	380 215+	244 050-	3543-	525 388-	330 808+	4973-
a_4	108+	9 324-	882-	74 952+	62 495+	1853+
a_5	1 409-	1 366-		2 347+	6 003-	
	January 5			January 13		
a_0	33-3000 074+	8-3266 133+	0-9159 0155+	145-0367 368+	17-7580 052+	0-9974 8656+
a_1	11-4112 737+	4-5071 633+	0-0084 0246+	14-7105 030+	3-8109 121-	0-0027 4200+
a_2	2441 070+	1184 071-	12 6605+	2845 706-	5565 178-	16 6950-
a_3	365 697+	294 640-	7088-	205 857-	521 042+	2582+
a_4	6 654-	16 425-	946-	84 682+	31 213+	1479+
a_5	2 891-	759-		4 178-	5 408-	
	January 6			January 14		
a_0	44-9910 033+	12-6841 872+	0-9254 8972+	159-4501 338+	13-4452 599+	0-9985 9966+
a_1	12-0050 875+	4-1750 094+	0-0106 8406+	14-1113 863+	4-7578 515-	0-0004 6036-
a_2	3469 314+	2174 195-	9 9675+	2997 216-	3868 895-	15 0546-
a_3	309 135+	367 059-	1 0915-	90 087+	593 175+	8556+
a_4	21 177-	20 656-	918-	62 087+	3 929+	782+
a_5	4 728-	726+		5 767-	2 976-	
	January 7			January 15		
a_0	57-3713 451+	16-6030 782+	0-9370 5220+	173-2764 393+	8-3599 318+	0-9967 2720+
a_1	12-7808 555+	3-6221 561+	0-0123 1336+	13-5609 216+	5-3535 916-	0-0031 8335-
a_2	4222 224+	3392 104-	6 1490+	2412 168-	2095 502-	12 0415-
a_3	176 898+	440 961-	1 4657-	281 299+	580 405+	1 1652+
a_4	45 873-	17 395-	709-	32 807+	10 603-	45+
a_5	5 291-	3 270+		4 742-	767-	

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	186-6270 806+	2-8536 934+	0-9924 5666+	295-0500 271+	22-7839 115-	0-9315 8289+
a_1	13-1736 309+	5-6031 941-	0-0052 4035-	13-7327 262+	1-0267 719+	0-0079 0033-
a_2	1418 814-	425 510-	8 5359-	2147 875-	5802 794+	1 3581+
a_3	365 761+	530 997+	1 1745+	359 482-	222 967-	3873+
a_4	9 339+	13 973-	499-	39 135+	31 950-	407+
a_5	3 588-	390+		2 476+	3 259+	
January 17			January 25			
a_0	199-6959 813+	2-7403 103-	0-9864 7519+	308-5361 787+	21-2020 259-	0-9238 6117+
a_1	13-0015 385+	5-5343 909-	0-0066 1519-	13-2121 947+	2-1092 900+	0-0074 9622-
a_2	301 334-	1087 606+	5 3198-	2966 848-	4974 864+	2 7610+
a_3	367 480+	479 059+	9652+	180 255-	318 353-	5525+
a_4	8 297-	11 617-	752-	50 831+	15 122-	303+
a_5	3 186-	465+		1 159-	2 917+	
January 18			January 26			
a_0	212-7029 862+	8-1191 499-	0-9794 1703+	321-4386 303+	18-6283 053-	0-9166 9933+
a_1	13-0466 044+	5-1775 675-	0-0074 1969-	12-5844 999+	3-0041 650+	0-0067 6614-
a_2	719 468+	2459 765+	2 8748-	3214 345-	3958 261+	4 5955+
a_3	302 468+	436 791+	6568+	10 582+	350 345-	6749+
a_4	24 246-	9 014-	732-	44 136+	387-	144+
a_5	3 183-	313-		2 674-	1 732+	
January 19			January 27			
a_0	225-8490 414+	13-0079 946-	0-9717 6822+	333-7069 001+	15-2632 141-	0-9104 6167+
a_1	13-2699 500+	4-5583 409-	0-0078 2690-	11-9611 230+	3-6914 239+	0-0056 3881-
a_2	1449 492+	3712 928+	1 3372-	2944 592-	2922 216+	6 7012+
a_3	174 107+	396 913+	3594+	160 481+	335 270-	7325+
a_4	40 721-	10 527-	523-	30 294+	8 177+	30-
a_5	2 474-	1 526-		2 460-	516+	
January 20			January 28			
a_0	239-2770 319+	17-1565 567-	0-9638 3831+	345-3923 954+	11-3122 263-	0-9055 6592+
a_1	13-5945 582+	3-7016 562-	0-0080 0746-	11-4312 373+	4-1788 137+	0-0040 8004-
a_2	1702 622+	4825 198+	5637-	2305 999-	1970 602+	8 8754+
a_3	12 013-	339 048+	1488+	257 528+	297 922-	7199+
a_4	53 968-	18 484-	224-	17 926+	10 602+	195-
a_5	107+	2 421-		1 616-	369-	
January 21			January 29			
a_0	253-0352 648+	20-3438 790-	0-9557 8713+	356-6204 166+	6-9651 213-	0-9024 4346+
a_1	13-9099 493+	2-6435 062-	0-0080 8450-	11-0536 591+	4-4876 133+	0-0020 9679-
a_2	1343 806+	5707 129+	2424-	1442 001-	1136 743+	10 9134+
a_3	224 474-	241 114+	605+	313 494+	259 524-	6416+
a_4	53 672-	31 241-	75+	9 977+	8 641+	345-
a_5	4 254+	2 068-		880-	915-	
January 22			January 30			
a_0	267-0522 055+	22-3958 918-	0-9476 8519+	7-5621 346+	2-3890 135-	0-9014 9871+
a_1	14-0920 300+	1-4432 744-	0-0081 1182-	10-8628 580+	4-6401 031+	0-0002 6454+
a_2	391 067+	6222 277+	90-	450 430-	400 855+	12 6262+
a_3	394 956-	96 525+	935+	344 780+	234 294-	5036+
a_4	31 211-	42 067-	301+	5 780+	3 990+	492-
a_5	7 243+	211-		566-	1 228-	
January 23			January 31			
a_0	281-1414 498+	23-2115 136-	0-9395 8484+	18-4149 491+	2-2680 218+	0-9030 7131+
a_1	14-0428 927+	0-1867 909-	0-0080 7348-	10-8782 349+	4-6509 677+	0-0029 2118+
a_2	908 388-	6257 369+	4559+	612 968+	290 378-	13 8366+
a_3	447 854-	72 560-	2180+	362 093+	230 687-	3075+
a_4	6 721+	42 949-	414+	3 203+	2 226-	655-
a_5	6 367+	2 071+		813-	1 360-	

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

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	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
February 1						
a_0	29.3909 292+	6.8665 245+	0.9074 0035+	138.7763 304+	19.2398 348+	1.0057 2458+
a_1	11.1103 302+	4.5221 160+	0.0057 5455+	15.2206 855+	3.4107 865-	0.0086 0437+
a_2	1710 381+	1009 413-	14 3601+	1844 262-	6601 250-	20 7826-
a_3	366 237+	253 104-	465+	429 303-	429 653+	1 5527-
a_4	565-	9 174-	847-	78 455+	62 611+	2701+
a_5	1 738-	1 226-		142+	6 181-	
February 2						
a_0	40.7086 908+	11.2613 488+	0.9145 8709+	153.7775 190+	15.2175 316+	1.0121 2242+
a_1	11.5611 804+	4.2400 203+	0.0086 0665+	14.7544 889+	4.5801 861-	0.0040 9020+
a_2	2788 349+	1836 076-	13 9848+	2660 320-	4998 594-	23 8147-
a_3	345 678+	301 660-	2919-	117 029-	618 504+	4437-
a_4	9 040-	15 606-	1063-	77 129+	30 585+	2892+
a_5	3 331-	552-		4 961-	5 733-	
February 3						
a_0	52.5820 367+	15.2859 797+	0.9245 5239+	168.2614 897+	10.2018 216+	1.0138 1570+
a_1	12.2172 701+	3.7757 907+	0.0112 7349+	14.2156 863+	5.3849 839-	0.0006 9004-
a_2	3737 788+	2840 276-	12 4651+	2598 432-	3016 947-	23 4310-
a_3	275 309+	368 657-	7191-	141 374+	684 739+	7370+
a_4	25 971-	18 816-	1260-	51 007+	1 626+	2226+
a_5	4 949-	1 062+		5 698-	3 555-	
February 4						
a_0	65.1975 246+	18.7391 018+	0.9369 8789+	182.2360 011+	4.5834 239+	1.0108 7851+
a_1	13.0345 584+	3.0901 461+	0.0135 0036+	13.7559 670+	5.7840 766-	0.0050 6607-
a_2	4358 206+	4048 569-	9 5497+	1925 283-	988 494-	19 9205-
a_3	122 197+	431 793-	1 2290-	289 008+	656 939+	1 6350+
a_4	52 071-	13 817-	1338-	22 289+	15 907-	1052+
a_5	4 634-	3 695+		4 610-	1 379-	
February 5						
a_0	78.6744 528+	21.3801 994+	0.9513 0693+	195.8301 086+	1.2355 367-	1.0039 9440+
a_1	13.9197 191+	2.1472 174+	0.0149 8801+	13.4642 247+	5.7917 443-	0.0085 1762-
a_2	4365 734+	5389 835-	5 0661+	970 594-	873 155+	14 4198-
a_3	129 644-	448 712-	1 7755-	332 645+	580 276+	2 0480+
a_4	77 327-	5 149+	1146-	558-	22 369-	107-
a_5	150+	6 218+		3 606-	80-	
February 6						
a_0	93.0100 632+	22.9446 989+	0.9666 1254+	209.2301 220+	6.8841 827-	0.9942 3852+
a_1	14.7231 259+	0.9398 054+	0.0154 2265+	13.3678 742+	5.4520 174-	0.0107 9155-
a_2	3514 299+	6642 667-	9290-	12 050-	2479 034+	8 3644-
a_3	432 848-	366 016-	2 2488-	294 724+	490 158+	1 9903+
a_4	76 868-	37 802+	537-	18 509-	22 368-	890-
a_5	8 390+	6 148+		3 012-	168+	
February 7						
a_0	108.0344 863+	23.1880 310+	0.9817 1206+	222.6241 116+	12.0415 009-	0.9828 0065+
a_1	15.2695 837+	0.4803 425-	0.0145 4066+	13.4449 731+	4.8180 270-	0.0119 0304-
a_2	1838 913+	7452 225-	7 9653-	730 905+	3817 008+	2 9381-
a_3	653 947-	155 592-	2 4756-	191 098+	402 075+	1 6203+
a_4	31 688-	69 916+	509+	33 878-	21 323-	1213-
a_5	12 899+	2 148+		2 148-	353-	
February 8						
a_0	123.4206 878+	21.9541 131+	0.9952 1373+	236.1576 823+	16.4397 873-	0.9707 5370+
a_1	15.4349 518+	1.9884 308-	0.0122 2530+	13.6338 608+	3.9427 095-	0.0120 5314-
a_2	183 588-	7478 071-	15 0484-	1079 372+	4891 748+	1 1961+
a_3	654 118-	142 514+	2 2713-	35 285+	312 882+	1 1261+
a_4	36 106+	80 331+	1751+	45 188-	23 187-	1174-
a_5	8 506+	3 249-		137-	1 020-	

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

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	Apparent Right Ascension	Apparent Declination	Horizontal Parallax	Apparent Right Ascension	Apparent Declination	Horizontal Parallax
February 17			February 25			
a_0	249.8984 763+	19.8644 544-	0.9589 2103+	353.3605 562+	8.1633 814-	0.9014 0901+
a_1	13.8421 804+	2.8802 801-	0.0115 2309-	11.1368 447+	4.4485 016+	0.0024 4981-
a_2	912 698+	5681 019+	3 8773+	1611 731-	1393 821+	7 3022+
a_3	145 063-	209 912+	6520+	264 386+	283 149-	3959+
a_4	46 092-	28 660-	929-	10 913+	6 880+	183+
a_5	2 978+	1 079-		957-	383-	
February 18			February 26			
a_0	263.8131 087+	22.1586 153-	0.9478 4159+	4.3636 619+	3.6031 629-	0.8997 3085+
a_1	13.9642 557+	1.6931 050-	0.0105 8920-	10.8977 011+	4.6448 813+	0.0008 6326-
a_2	230 835+	6127 954+	5 2859+	762 652-	581 818+	8 5954+
a_3	298 236-	85 003+	2794+	298 673+	259 652-	4703+
a_4	30 482-	34 421-	603-	6 261+	4 911+	38+
a_5	5 512+	164-		590-	716-	
February 19			February 27			
a_0	277.7681 273+	23.2338 830-	0.9378 0289+	15.2155 322+	1.0743 545+	0.8997 7454+
a_1	13.9115 150+	0.4558 621-	0.0094 7232-	10.8369 819+	4.6849 555+	0.0009 9842+
a_2	791 462-	6174 795+	5 7723+	165 056+	174 838-	10 0235+
a_3	365 078-	53 523-	391+	317 799+	247 286-	4863+
a_4	1 666-	35 254-	278-	3 486+	1 279+	136-
a_5	5 448+	1 252+		610-	921-	
February 20			February 28			
a_0	291.5643 666+	23.0810 181-	0.9289 0893+	26.1010 872+	5.7171 334+	0.9018 2258+
a_1	13.6457 543+	0.7495 656+	0.0083 1725-	10.9664 215+	4.5758 530+	0.0031 4357+
a_2	1842 111-	5815 270+	5 7313+	1133 296+	918 247-	11 3943+
a_3	318 709-	181 467-	701-	325 348+	251 405-	4328+
a_4	26 242+	28 655-	2-	642+	3 413-	338-
a_5	2 859+	2 225+		1 107-	965-	
February 21			February 29			
a_0	304.9969 490+	21.7707 152-	0.9211 5777+	37.2133 266+	10.1755 833+	0.9061 4548+
a_1	13.1936 423+	1.8478 300+	0.0071 9211-	11.2903 873+	4.3149 346+	0.0055 3876+
a_2	2612 240-	5121 240+	5 5257+	2102 152+	1702 616-	12 4825+
a_3	186 859-	273 809-	684-	316 270+	274 552-	2989+
a_4	40 240+	17 161-	198+	4 702-	8 405-	574-
a_5	144-	2 266+		2 108-	708-	
February 22			March 1			
a_0	317.9146 910+	19.4396 317-	0.9145 1337+	48.7448 752+	14.2918 897+	0.9129 5663+
a_1	12.6311 587+	2.7842 029+	0.0060 9956-	11.8027 628+	3.8883 306+	0.0081 0197+
a_2	2932 914-	4219 527+	5 4429+	3001 670+	2583 822-	13 0260+
a_3	28 325-	320 157-	137+	275 674+	314 774-	706+
a_4	38 851+	5 662-	312+	15 263-	12 223-	853-
a_5	1 835-	1 625+		3 363-	98+	
February 23			March 2			
a_0	330.2534 273+	16.2658 954-	0.9089 6258+	60.8735 098+	17.8891 482+	0.9223 5973+
a_1	12.0507 007+	3.5306 082+	0.0049 9440-	12.4780 117+	3.2722 953+	0.0106 9424+
a_2	2803 206-	3241 336+	5 6718+	3703 392+	3600 552-	12 7164+
a_3	108 566+	327 023-	1410+	180 712+	361 782-	2700-
a_4	29 207+	2 454+	338+	32 682-	12 047-	1163-
a_5	2 074-	804+		3 916-	1 661+	
February 24			March 3			
a_0	342.0373 773+	12.4435 301-	0.9045 5284+	73.7362 722+	20.7641 715+	0.9342 8698+
a_1	11.5332 757+	4.0821 516+	0.0038 0420-	13.2578 756+	2.4396 643+	0.0131 0998+
a_2	2323 027-	2283 026+	6 2963+	4010 090+	4741 578-	11 1997+
a_3	204 936+	309 564-	2785+	11 952+	392 187-	7374-
a_4	18 689+	6 397+	290+	53 594-	3 783-	1451-
a_5	1 565-	112+		2 045-	3 727+	

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	87.3907 881+	22.6904 537+	0.9484 2867+	204.0382 697+	4.9228 974-	1.0152 8110+
a_1	14.0410 250+	1.3740 442+	0.0150 7061+	13.8664 678+	5.8700 382-	0.0089 3130-
a_2	3703 775+	5903 480-	8 1127+	110 139-	1979 009+	21 5535-
a_3	219 945-	369 286-	1 3254-	253 425+	639 853+	2 2845+
a_4	64 913-	15 471+	1592-	14 157-	26 054-	963+
a_5	3 098+	5 117+		3 601-	1 453-	
March 5			March 13			
a_0	101.7740 146+	23.4392 801+	0.9641 6210+	217.9172 902+	10.5338 002-	1.0044 3253+
a_1	14.6913 862+	0.0913 086+	0.0162 3180+	13.9130 055+	5.2934 283-	0.0125 1817-
a_2	2685 577+	6867 175-	3 1883+	529 127+	3727 739+	14 1650-
a_3	445 538-	256 725-	1 9769-	161 576+	521 487+	2 6559+
a_4	48 472-	42 166+	1386-	32 518-	33 091-	437-
a_5	8 643+	4 273+		2 272-	800-	
March 6			March 14			
a_0	116.6854 219+	22.8228 427+	0.9805 0119+	231.8958 870+	15.4056 950-	0.9907 5906+
a_1	15.0797 739+	1.3401 445-	0.0162 2084+	14.0531 633+	4.4050 704-	0.0145 7201-
a_2	1144 958+	7341 528-	3 5502-	795 954+	5085 661+	6 4860-
a_3	552 611-	47 135-	2 5512-	10 205+	381 311+	2 4610+
a_4	2 551-	64 188+	629-	44 379-	37 052-	1279-
a_5	9 338+	1 087+		178+	507-	
March 7			March 15			
a_0	131.8251 091+	20.7503 593+	0.9961 0561+	246.0252 461+	19.2678 240-	0.9757 7177+
a_1	15.1466 249+	2.7963 759-	0.0147 2020+	14.1977 564+	3.2886 184-	0.0151 8214-
a_2	434 582-	7086 980-	11 5398-	562 068+	6002 187+	1211+
a_3	472 221-	218 446+	2 8187-	163 707-	228 332+	1 9334+
a_4	45 688+	69 303+	711+	43 516-	39 773-	1547-
a_5	4 329+	2 500-		3 395+	10-	
March 8			March 16			
a_0	146.8860 555+	17.2738 103+	1.0093 9708+	260.2588 265+	21.9373 688-	0.9607 7961+
a_1	14.9384 756+	4.1217 693-	0.0115 9507+	14.2453 512+	2.0355 948-	0.0146 3981-
a_2	1533 924-	6040 937-	19 5208-	156 074-	6448 416+	4 9969+
a_3	249 531-	469 430+	2 5325-	302 612-	69 687+	1 3059+
a_4	66 622+	56 027+	2296+	25 657-	39 978-	1427-
a_5	1 593-	4 610-		5 554+	959+	
March 9			March 17			
a_0	161.6526 885+	12.6000 319+	1.0188 0979+	274.4562 989+	23.3250 552-	0.9467 5582+
a_1	14.5826 802+	5.1690 227-	0.0070 2314+	14.1158 665+	0.7405 161-	0.0133 0575-
a_2	1898 912-	4342 683-	25 7059-	1162 139-	6427 218+	8 0678+
a_3	768-	647 230+	1 5882-	350 022-	80 070-	7320+
a_4	57 295+	32 342+	3442+	3 308+	35 047-	1123-
a_5	4 644-	4 931-		4 975+	1 963+	
March 10			March 18			
a_0	176.0506 659+	7.0642 050+	1.0231 3793+	288.4217 776+	23.4341 649-	0.9343 1882+
a_1	14.2232 631+	5.8329 177-	0.0015 4339+	13.7822 398+	0.5078 695+	0.0115 1751-
a_2	1603 990-	2256 296-	28 4024-	2142 538-	5996 403+	9 6009+
a_3	181 698+	727 792+	1725-	288 585-	200 415-	2828+
a_4	33 343+	7 342+	3534+	28 654+	24 893-	773-
a_5	5 036-	4 044-		2 223+	2 336+	
March 11			March 19			
a_0	190.1345 306+	1.0787 667+	1.0218 5917+	301.9639 929+	22.3489 524-	0.9237 8194+
a_1	13.9677 948+	6.0649 232-	0.0040 4731-	13.2797 267+	1.6382 357+	0.0095 4342-
a_2	909 212-	69 320-	26 8300-	2814 198-	5269 194+	9 9956+
a_3	265 056+	717 508+	1 2703+	153 321-	276 853-	251-
a_4	8 017+	12 936-	2522+	39 369+	12 956-	446-
a_5	4 419-	2 661-		548-	1 933+	

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						
a_0	314.9508 497+	20.2125 848-	0.9152 3111+	45.6855 842+	13.4872 324+	0.9074 0551+
a_1	12.6863 627+	2.6048 019+	0.0075 6969-	11.6207 216+	4.0357 707+	0.0054 9390+
a_2	3043 520-	4380 236+	9 6610+	2540 059+	2454 148-	9 4660+
a_3	2 137-	309 793-	2019-	237 809+	306 604-	2946+
a_4	35 992+	3 241-	169-	13 853-	6 962-	213-
a_5	1 930-	1 151+		2 429-	196+	
March 21						
a_0	327.3360 529+	17.2009 476-	0.9086 0565+	57.5824 644+	17.2462 513+	0.9138 7334+
a_1	12.0904 493+	3.3871 896+	0.0057 0480-	12.1933 201+	3.4502 743+	0.0074 6695+
a_2	2853 337-	3442 912+	8 9608+	3146 018+	3413 796-	10 2132+
a_3	122 471+	311 664-	2676-	157 966+	331 948-	2109+
a_4	25 946+	2 433+	51+	26 404-	6 153-	490-
a_5	2 001-	427+		2 720-	1 132+	
March 22						
a_0	339.1558 101+	13.5003 472-	0.9037 7067+	70.1032 705+	20.3214 491+	0.9223 7780+
a_1	11.5659 017+	3.9834 589+	0.0039 9088-	12.8579 934+	2.6660 366+	0.0095 5329+
a_2	2350 272-	2526 772+	8 1935+	3434 169+	4435 246-	10 5422+
a_3	206 544+	297 948-	2452-	25 905+	344 552-	164+
a_4	15 838+	4 464+	210+	40 842-	520-	813-
a_5	1 468-	58-		1 454-	2 344+	
March 23						
a_0	350.5087 759+	9.2935 653-	0.9005 7672+	83.3030 417+	22.5096 883+	0.9329 7882+
a_1	11.1634 120+	4.4011 854+	0.0024 1730-	13.5355 389+	1.6765 867+	0.0116 3413+
a_2	1650 289-	1659 126+	7 5872+	3252 190+	5448 540-	10 0931+
a_3	255 535+	280 827-	1589-	150 083-	322 696-	3087-
a_4	8 555+	4 105+	304+	48 843-	11 500+	1158-
a_5	902-	325-		1 896+	3 235+	
March 24						
a_0	1.5334 778+	4.7541 720-	0.8989 0530+	97.1440 965+	23.6106 249+	0.9455 7981+
a_1	10.9129 859+	4.6502 419+	0.0009 3534-	14.1223 672+	0.4962 871+	0.0135 1381+
a_2	841 358-	838 018+	7 2940+	2527 905+	6315 196-	8 4632+
a_3	280 926+	267 742-	349-	324 300-	244 471-	7751-
a_4	4 167+	2 441+	330+	38 962-	28 228+	1454-
a_5	570-	463-		5 804+	3 027+	
March 25						
a_0	12.3907 801+	0.0467 049-	0.8986 9915+	111.4835 084+	23.4540 708+	0.9598 4789+
a_1	10.8303 737+	4.7382 671+	0.0005 2618+	14.5179 765+	0.8272 901-	0.0149 1572+
a_2	20 740+	44 797+	7 3857+	1379 502+	6848 913-	5 2625+
a_3	291 894+	262 651-	992+	421 398-	102 098-	1 3658-
a_4	1 459+	97+	286+	8 327-	43 740+	1560-
a_5	566-	528-		7 092+	1 596+	
March 26						
a_0	23.2525 065+	4.6697 338+	0.8999 7668+	126.0971 718+	21.9362 132+	0.9751 3768+
a_1	10.9223 902+	4.6682 062+	0.0020 4454+	14.6676 698+	2.2094 105-	0.0154 9598+
a_2	899 539+	747 859-	7 8517+	136 459+	6876 823-	2383+
a_3	291 862+	267 528-	2157+	385 258-	87 786+	2 0062-
a_4	1 222-	2 589-	178+	28 469+	51 648+	1270-
a_5	923-	508-		4 456+	212-	
March 27						
a_0	34.2938 222+	9.2360 916+	0.9028 2974+	140.7432 542+	19.0530 426+	0.9904 4418+
a_1	11.1889 052+	4.4370 868+	0.0036 8674+	14.5929 949+	3.5378 874-	0.0148 9087+
a_2	1758 573+	1571 071-	8 6005+	803 945-	6305 730-	6 5151-
a_3	277 338+	282 848-	2888+	229 247-	291 480+	2 5343-
a_4	5 725-	5 227-	10+	50 731+	50 334+	397-
a_5	1 617-	315-		170+	1 548-	

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						
a_0	155.2380 199+	14.9186 088+	1.0044 2615+	269.9339 462+	23.2876 251-	0.9654 0477+
a_1	14.3838 052+	4.6922 309-	0.0128 1160+	14.6530 383+	1.1987 454-	0.0161 5564-
a_2	1185 716-	5144 782-	14 3123-	1232 970-	7004 584+	2 9815+
a_3	26 438-	476 828+	2 7068-	453 433-	68 439-	1 9239+
a_4	50 804+	42 479+	1029+	5 327+	49 618-	1586-
a_5	2 958-	2 402-		6 733+	3 396+	
April 6						
a_0	169.5053 943+	9.7635 902+	1.0155 4615+	284.4195 502+	23.7973 781-	0.9497 2381+
a_1	14.1575 715+	5.5623 493-	0.0091 7833+	14.2759 070+	0.1634 910+	0.0150 4567-
a_2	989 873-	3483 453-	21 7671-	2493 882-	6535 617+	7 8059+
a_3	146 394+	622 301+	2 2886-	367 115-	232 722-	1 2820+
a_4	35 419+	30 443+	2591+	39 655+	31 949-	1430-
a_5	4 294-	3 119-		2 581+	3 787+	
April 7						
a_0	183.5817 303+	3.9178 581+	1.0223 4482+	298.4135 810+	23.0064 140-	0.9355 7263+
a_1	14.0155 349+	6.0617 323-	0.0042 4213+	13.6841 440+	1.3899 101+	0.0131 5711-
a_2	381 153-	1465 095-	27 0484-	3331 594-	5683 677+	10 8028+
a_3	244 898+	712 564+	1 2221-	184 914-	323 219-	7077+
a_4	13 732+	14 734+	3573+	51 820+	12 618-	1132-
a_5	4 660-	3 684-		1 330-	2 773+	
April 8						
a_0	197.5845 469+	2.2180 223-	1.0237 9563+	311.7511 232+	21.0814 425-	0.9235 5525+
a_1	14.0159 366+	6.1369 308-	0.0013 9106-	12.9824 121+	2.4260 175+	0.0108 2953-
a_2	389 301+	724 125+	28 5754-	3588 856-	4666 041+	12 2565+
a_3	253 274+	734 571+	2460+	8 111+	346 798-	2554+
a_4	9 768-	3 900-	3431+	44 197+	1 234+	814-
a_5	4 597-	3 832-		2 940-	1 304+	
April 9						
a_0	211.6633 045+	8.2098 567-	1.0196 0592+	324.3795 866+	18.2232 469-	0.9139 6877+
a_1	14.1635 747+	5.7752 099-	0.0068 9500-	12.2832 834+	3.2563 306+	0.0083 3417-
a_2	1044 459+	2866 090+	25 8152-	3328 811-	3646 062+	12 5431+
a_3	168 848+	680 878+	1 6435+	155 611+	329 493-	688-
a_4	33 355-	23 273-	2246+	28 998+	7 549+	529-
a_5	3 595-	3 448-		2 696-	146+	
April 10						
a_0	225.9445 149+	13.6330 419-	1.0103 1620+	336.3481 802+	14.6344 901-	0.9068 7673+
a_1	14.4079 850+	5.0087 606-	0.0114 7514-	11.6744 568+	3.8897 865+	0.0058 6735-
a_2	1314 792+	4734 568+	19 5858-	2714 959-	2704 303+	12 0268+
a_3	1 214+	553 868+	2 5428+	245 153+	298 217-	2790-
a_4	52 257-	40 775-	653+	15 453+	8 079+	288-
a_5	623-	2 495-		1 793-	493-	
April 11						
a_0	240.4788 126+	18.1172 860-	0.9971 4327+	347.7770 223+	10.5033 365-	0.9021 8127+
a_1	14.6500 987+	3.9132 423-	0.0146 0344-	11.2102 962+	4.3441 665+	0.0035 5723-
a_2	998 625+	6126 522+	11 6066-	1904 699-	1853 172+	11 0230+
a_3	211 395-	366 809+	2 7876+	289 489+	270 978-	3931-
a_4	55 649-	53 584-	671-	6 611+	5 485+	87-
a_5	4 047+	791-		998-	730-	
April 12						
a_0	255.2024 742+	21.3866 326-	0.9816 5121+	358.8263 589+	6.0004 751-	0.8996 8616+
a_1	14.7661 729+	2.5997 214-	0.0161 1543-	10.9183 494+	4.6353 364+	0.0014 7404-
a_2	71 201+	6897 525+	3 6693-	1006 516-	1065 837+	9 7965+
a_3	391 590-	145 883+	2 4994+	306 203+	256 342-	4269-
a_4	34 130-	57 632-	1402-	1 790+	1 769+	79+
a_5	7 511+	1 514+		576-	733-	

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			April 29		
a_0	9.6747 985 +	1.2840 856 -	0.8991 4987 +	107.8187 942 +	23.8561 093 +	0.9466 4722 +
a_1	10.8093 351 +	4.7719 425 +	0.0003 6034 +	14.2123 592 +	0.4673 284 -	0.0111 7506 +
a_2	82 904 -	300 090 +	8 5670 +	1068 147 +	6565 126 -	5 9510 +
a_3	307 610 +	256 523 -	3941 -	404 023 -	85 576 -	3665 -
a_4	927 -	1 936 -	207 +	3 003 -	38 910 +	1002 -
a_5	564 -	609 -		6 479 +	437 +	
	April 22			April 30		
a_0	20.5064 552 +	3.4919 591 +	0.9003 2958 +	122.0979 134 +	22.7276 454 +	0.9583 7069 +
a_1	10.8843 845 +	4.7539 250 +	0.0019 6382 +	14.3068 170 +	1.7902 455 -	0.0122 1517 +
a_2	828 751 +	487 193 -	7 5116 +	97 000 -	6584 071 -	4 2431 +
a_3	298 051 +	270 225 -	3095 -	352 726 -	73 729 +	7723 -
a_4	3 597 -	5 029 -	289 +	30 437 +	40 784 +	1225 -
a_5	936 -	383 -		3 832 +	800 -	
	April 23			May 1		
a_0	31.5030 667 +	8.1696 011 +	0.9030 1649 +	136.3631 848 +	20.2903 641 +	0.9709 2069 +
a_1	11.1376 425 +	4.5732 162 +	0.0033 8485 +	14.1956 860 +	3.0690 279 -	0.0127 8303 +
a_2	1691 976 +	1331 883 -	6 7569 +	934 252 -	6126 236 -	1 1913 +
a_3	273 916 +	293 947 -	1919 -	194 782 -	228 674 +	1 2723 -
a_4	8 187 -	7 022 -	309 +	49 458 +	36 404 +	1222 -
a_5	1 612 -	4 -		81 +	1 110 -	
	April 24			May 2		
a_0	42.8363 185 +	12.5795 316 +	0.9070 6093 +	150.4509 211 +	16.6351 093 +	0.9836 8341 +
a_1	11.5541 309 +	4.2158 452 +	0.0046 9103 +	13.9702 213 +	4.2116 660 -	0.0125 9065 +
a_2	2448 469 +	2255 914 -	6 3649 +	1221 146 -	5232 902 -	3 3464 -
a_3	224 658 +	321 717 -	659 -	2 363 +	363 341 +	1 7756 -
a_4	16 337 -	7 153 -	255 +	49 168 +	30 769 +	833 -
a_5	2 312 -	611 +		2 485 -	815 -	
	April 25			May 3		
a_0	54.6558 971 +	16.5369 596 +	0.9123 8442 +	164.3039 325 +	11.9394 825 +	0.9957 5353 +
a_1	12.1035 310 +	3.6655 929 +	0.0059 5447 +	13.7451 243 +	5.1373 442 -	0.0113 5530 +
a_2	3001 231 +	3257 880 -	6 3162 +	943 965 -	3966 385 -	9 1459 -
a_3	136 175 +	343 717 -	388 +	173 524 +	478 308 +	2 1237 -
a_4	28 346 -	4 175 -	122 +	36 301 +	26 919 +	33 +
a_5	2 374 -	1 476 +		3 569 -	719 -	
	April 26			May 4		
a_0	67.0700 967 +	19.8421 228 +	0.9189 7560 +	177.9752 859 +	6.4559 507 +	1.0059 8220 +
a_1	12.7321 063 +	2.9099 706 +	0.0072 3423 +	13.6211 236 +	5.7767 213 -	0.0088 9028 +
a_2	3215 830 +	4299 310 -	6 4991 +	241 283 -	2377 086 -	15 4596 -
a_3	62 -	345 167 -	899 +	282 702 +	578 433 +	2 1170 -
a_4	41 000 -	3 296 +	90 -	18 435 +	23 653 +	1255 +
a_5	876 -	2 347 +		4 107 -	1 345 -	
	April 27			May 5		
a_0	80.1195 921 +	22.2882 100 +	0.9268 6784 +	191.6019 842 +	0.5015 949 +	1.0131 2739 +
a_1	13.3584 192 +	1.9490 508 +	0.0085 5746 +	13.6629 973 +	6.0698 216 -	0.0052 1352 +
a_2	2960 803 +	5291 510 -	6 7065 +	676 373 +	513 292 -	21 0219 -
a_3	170 953 -	308 343 -	560 +	314 977 +	658 837 +	1 6046 -
a_4	45 924 -	15 391 +	367 -	2 020 -	17 135 +	2425 +
a_5	2 404 +	2 661 +		4 799 -	2 662 -	
	April 28			May 6		
a_0	93.7526 442 +	23.6790 808 +	0.9360 9787 +	205.3634 347 +	5.5522 250 -	1.0161 0251 +
a_1	13.8821 296 +	0.8057 320 +	0.0099 0085 +	13.8895 573 +	5.9693 078 -	0.0006 2491 +
a_2	2196 513 +	6097 517 -	6 6440 +	1561 139 +	1539 397 +	24 3631 -
a_3	328 727 -	220 587 -	903 -	258 715 +	699 891 +	6082 -
a_4	33 356 -	29 141 +	688 -	26 401 -	3 761 +	3003 +
a_5	5 774 +	1 929 +		5 213 -	4 178 -	

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						
a_0	219.4318 160+	11.2976 457-	1.0142 6032+	333.0249 230+	15.9173 026-	0.9152 7384+
a_1	14.2662 350+	5.4520 468-	0.0043 0989-	11.9823 528+	3.7882 422+	0.0087 8469-
a_2	2126 564+	3619 785+	24 3958-	3390 551-	2947 989+	13 5747+
a_3	101 987+	672 664+	6221+	266 132+	336 057-	2405+
a_4	53 752-	17 598-	2679+	22 243+	14 435+	791-
a_5	3 581-	5 063-		2 744-	586-	
May 8						
a_0	233.9151 727+	16.3227 138-	1.0075 9985+	344.6967 839+	11.8664 823-	0.9078 6277+
a_1	14.6988 586+	4.5358 603-	0.0088 9518-	11.3916 090+	4.2825 032+	0.0060 2924-
a_2	2073 991+	5481 426+	20 9545-	2486 109-	2020 533+	13 8279+
a_3	145 793-	552 148+	1 7098+	328 412+	284 485-	749-
a_4	73 123-	43 826-	1623+	8 701+	11 277+	585-
a_5	1 708+	4 228-		1 447-	1 096-	
May 9						
a_0	248.7997 096+	20.2600 221-	0.9967 9642+	355.8733 487+	7.4093 562-	0.9032 0297+
a_1	15.0415 313+	3.2935 715-	0.0125 0823-	10.9956 689+	4.6052 270+	0.0033 0955-
a_2	1215 032+	6832 510+	14 8906-	1463 097-	1223 760+	13 2574+
a_3	417 395-	336 373+	2 3570+	349 186+	250 402-	3082-
a_4	64 072-	65 824-	346+	1 713+	5 678+	410-
a_5	8 531+	1 070-		699-	1 192-	
May 10						
a_0	263.9154 505+	22.8433 947-	0.9830 3828+	6.7577 279+	2.7063 449-	0.9011 8425+
a_1	15.1379 583+	1.8530 174-	0.0147 6546-	10.8081 413+	4.7765 333+	0.0007 6691-
a_2	335 849-	7436 011+	7 6431-	412 217-	494 686+	12 0918+
a_3	587 110-	64 724+	2 4821+	349 145+	239 545-	4718-
a_4	18 469-	71 017-	670-	1 557-	353-	254-
a_5	10 822+	3 081+		536-	1 070-	
May 11						
a_0	278.9603 483+	23.9531 321-	0.9677 5002+	17.5593 527+	2.0955 601+	0.9015 7680+
a_1	14.8926 741+	0.3732 616-	0.0155 7634-	10.8295 505+	4.8029 308+	0.0014 9975+
a_2	2099 450-	7235 062+	6163-	620 550+	236 782-	10 5287+
a_3	555 334-	187 183-	2 1988+	337 352+	251 490-	5733-
a_4	37 840+	54 427-	1222-	4 036-	5 778-	105-
a_5	6 158+	5 453+		896-	781-	
May 12						
a_0	293.5919 438+	23.6265 033-	0.9523 1970+	28.4842 002+	6.8490 078+	0.9040 7104+
a_1	14.3243 912+	0.9985 508+	0.0150 8891-	11.0528 025+	4.6774 264+	0.0034 2930+
a_2	3476 916-	6401 629+	5 2421+	1599 448+	1033 744-	8 7505+
a_3	346 139-	350 665-	1 6989+	311 788+	282 104-	6151-
a_4	68 070+	26 110-	1361-	8 372-	9 797-	42+
a_5	492-	4 869+		1 691-	262-	
May 13						
a_0	307.5407 872+	22.0249 801-	0.9379 1129+	39.7271 200+	11.3938 434+	0.9083 1431+
a_1	13.5521 441+	2.1656 652+	0.0135 8529-	11.4620 333+	4.3819 975+	0.0049 9657+
a_2	4112 075-	5241 699+	9 5257+	2467 666+	1941 481-	6 9349+
a_3	80 836-	407 645-	1 1491+	260 856+	323 412-	5975-
a_4	63 945+	1 527-	1245-	16 873-	11 262-	179+
a_5	4 010-	2 682+		2 640-	594+	
May 14						
a_0	320.6796 338+	19.3757 940-	0.9253 8103+	51.4600 542+	15.5482 848+	0.9139 4641+
a_1	12.7290 513+	3.0924 396+	0.0113 8521-	12.0257 538+	3.8924 709+	0.0062 1146+
a_2	4011 157-	4036 386+	12 2329+	3122 526+	2973 372-	5 2528+
a_3	134 743+	388 107-	6497+	166 801+	361 832-	5245-
a_4	42 883+	11 603+	1024-	30 555-	8 403-	281+
a_5	4 089-	635+		2 978-	1 797+	

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			May 31			
a_0	63-8113 875 +	19-1065 747 +	0-9206 3352 +	174-0397 284 +	8-2422 176 +	0-9888 1915 +
a_1	12-6865 903 +	3-1867 856 +	0-0071 1594 +	13-2284 885 +	5-4700 747 -	0-0077 7650 +
a_2	3409 678 +	4091 298 -	3 8492 +	746 229 -	2616 096 -	6 3513 -
a_3	15 699 +	376 795 -	4096 -	311 054 +	485 565 +	1 2250 -
a_4	46 430 -	716 +	319 +	23 586 +	13 647 +	350 -
a_5	1 476 -	3 003 +		3 573 -	167 +	
May 24			June 1			
a_0	76-8357 248 +	21-8469 229 +	0-9280 9661 +	187-2267 007 +	2-5604 711 +	0-9958 3452 +
a_1	13-3539 299 +	2-2572 758 +	0-0077 7570 +	13-1802 062 +	5-8420 829 -	0-0061 2468 +
a_2	3163 317 +	5187 279 -	2 8104 +	292 762 +	1075 792 -	10 2160 -
a_3	182 554 -	343 697 -	2787 -	369 409 +	541 524 +	1 3732 -
a_4	54 621 -	16 264 +	268 +	6 021 +	14 901 +	316 +
a_5	2 426 +	3 389 +		4 008 -	335 -	
May 25			June 2			
a_0	90-4825 115 +	23-5530 664 +	0-9361 2816 +	200-4733 252 +	3-3335 819 -	1-0008 0345 +
a_1	13-9111 966 +	1-1249 096 +	0-0082 6492 +	13-3499 845 +	5-8889 929 -	0-0036 8217 +
a_2	2312 276 +	6086 798 -	2 1306 +	1397 054 +	634 889 +	14 1209 -
a_3	374 348 -	245 429 -	1683 -	352 824 +	596 908 +	1 2473 -
a_4	41 908 -	33 881 +	117 +	13 889 -	13 599 +	1127 +
a_5	6 770 +	2 207 +		5 066 -	1 839 -	
May 26			June 3			
a_0	104-5839 871 +	24-0483 621 +	0-9445 9048 +	213-9964 019 +	9-0982 191 -	1-0029 6008 +
a_1	14-2479 704 +	0-1514 256 -	0-0086 4523 +	13-7271 533 +	5-5784 249 -	0-0005 2896 +
a_2	1005 761 +	6597 704 -	1 6884 +	2321 425 +	2488 835 +	17 1658 -
a_3	473 686 -	89 146 -	1193 -	246 402 +	631 696 +	7866 -
a_4	6 149 -	45 096 +	120 -	39 924 -	4 506 +	1798 +
a_5	7 843 +	117 -		5 533 -	3 979 -	
May 27			June 4			
a_0	118-8853 345 +	23-2327 493 +	0-9533 9142 +	227-9757 923 +	14-3645 382 -	1-0017 1178 +
a_1	14-3084 752 +	1-4797 325 -	0-0089 4233 +	14-2466 266 +	4-8913 379 -	0-0030 6817 -
a_2	373 564 -	6595 812 -	1 2500 +	2765 496 +	4371 087 +	18 4397 -
a_3	421 668 -	89 004 +	1667 -	33 025 +	609 030 +	502 -
a_4	34 414 +	43 996 +	400 -	69 440 -	15 956 -	2034 +
a_5	4 574 +	1 990 -		2 801 -	5 612 -	
May 28			June 5			
a_0	133-1181 853 +	21-1065 366 +	0-9624 3807 +	242-4950 468 +	18-7600 211 -	0-9968 1497 +
a_1	14-1233 096 +	2-7555 908 -	0-0091 2628 +	14-7804 646 +	3-8435 986 -	0-0066 8972 -
a_2	1386 383 -	6084 822 -	5017 +	2419 702 +	6046 130 +	17 3796 -
a_3	240 858 -	244 895 +	3290 -	268 616 -	489 574 +	7800 +
a_4	57 011 +	33 380 +	657 -	84 924 -	45 361 -	1721 +
a_5	0 +	2 298 -		4 483 +	4 834 -	
May 29			June 6			
a_0	147-0844 719 +	17-7700 614 +	0-9715 7504 +	257-4825 759 +	21-9550 688 -	0-9884 8249 +
a_1	13-7965 767 +	3-8868 824 -	0-0091 0160 +	15-1520 998 +	2-5080 571 -	0-0098 6275 -
a_2	1767 031 -	5172 873 -	8839 -	1149 382 +	7194 186 +	14 0290 -
a_3	14 448 -	355 943 +	5972 -	559 442 -	262 104 +	1 4769 +
a_4	56 032 +	21 604 +	799 -	60 807 -	70 648 -	1003 +
a_5	2 808 -	1 386 -		11 806 +	760 -	
May 30			June 7			
a_0	160-7082 232 +	13-4035 077 +	0-9805 2054 +	272-6887 696 +	23-7246 378 -	0-9773 7455 +
a_1	13-4598 443 +	4-8067 245 -	0-0087 1364 +	15-1957 235 +	1-0192 225 -	0-0121 8537 -
a_2	1502 347 -	3989 265 -	3 1526 -	775 164 -	7549 081 +	9 0219 -
a_3	181 127 +	429 110 +	9254 -	684 736 -	25 296 -	1 8765 +
a_4	41 387 +	14 799 +	724 -	2 119 +	73 955 -	179 +
a_5	3 558 -	301 -		11 576 +	4 207 +	

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			June 16		
a_0	287.7398 727+	23.9984 565-	0.9644 7643+	25.1122 691+	5.3389 062+	0.9044 9704+
a_1	14.8418 977+	0.4555 289+	0.0134 1968-	10.9408 103+	4.7373 306+	0.0025 3413+
a_2	2700 675-	7071 768+	3 3055-	1248 084+	792 658-	12 5402+
a_3	564 628-	277 821-	1 9402+	359 105+	252 715-	5317-
a_4	61 494+	51 308-	484-	5 644-	8 689-	469-
a_5	4 098+	6 326+		1 445-	905-	
	June 9			June 17		
a_0	302.2617 994+	22.8680 310-	0.9509 1537+	36.2130 894+	9.9707 401+	0.9082 2734+
a_1	14.1590 133+	1.7691 747+	0.0135 1816-	11.2951 773+	4.4990 572+	0.0048 6389+
a_2	3984 842-	5993 872+	2 2123+	2277 105+	1612 020-	10 6671+
a_3	281 636-	420 535-	1 7373+	321 390+	296 058-	7205-
a_4	80 376+	18 618-	871-	12 751-	13 424-	358-
a_5	2 883-	4 942+		2 655-	115-	
	June 10			June 18		
a_0	316.0019 141+	20.5428 903-	0.9377 8346+	47.7665 756+	14.2776 357+	0.9140 8231+
a_1	13.3082 600+	2.8368 091+	0.0125 8937-	11.8405 863+	4.0824 106+	0.0067 6684+
a_2	4376 599-	4669 980+	6 8976+	3138 176+	2581 919-	8 2958+
a_3	9 669+	447 109-	1 3822+	243 251+	350 101-	8653-
a_4	64 084+	6 127+	1002-	26 315-	14 247-	200-
a_5	5 139-	2 258+		3 717-	1 258+	
	June 11			June 19		
a_0	328.8793 754+	17.2829 556-	0.9260 1206+	59.9423 013+	18.0655 454+	0.9215 9020+
a_1	12.4589 058+	3.6402 500+	0.0108 3529-	12.5288 129+	3.4559 287+	0.0081 5839+
a_2	4014 588-	3387 942+	10 4437+	3672 719+	3705 132-	5 5861+
a_3	215 135+	401 243-	9775+	101 172+	393 471-	9469-
a_4	37 646+	17 012+	969-	45 925-	8 020-	7+
a_5	4 135-	141+		3 195-	3 072+	
	June 12			June 20		
a_0	340.9616 869+	13.3423 203-	0.9163 0920+	72.8435 913+	21.1111 191+	0.9302 1258+
a_1	11.7335 213+	4.2043 395+	0.0084 9206-	13.2737 451+	2.5951 906+	0.0089 9181+
a_2	3184 652-	2287 643+	12 7981+	3668 533+	4902 872-	2 7566+
a_3	325 363+	332 444-	5887+	112 340-	394 077-	9444-
a_4	17 019+	17 353+	862-	63 309-	7 819+	239+
a_5	2 382-	978-		492+	4 428+	
	June 13			June 21		
a_0	352.4107 431+	8.9408 234-	0.9091 4720+	86.4666 741+	23.1778 395+	0.9393 8801+
a_1	11.1998 181+	4.5685 865+	0.0057 9033-	13.9486 788+	1.5017 339+	0.0092 6940+
a_2	2130 224-	1384 618+	14 0503+	2956 555+	5993 765-	735+
a_3	370 360+	273 063-	2440+	357 317-	318 854-	8467-
a_4	5 398+	12 257+	744-	61 018-	30 968+	446+
a_5	1 108-	1 393-		6 444+	3 884+	
	June 14			June 22		
a_0	3.4350 039+	4.2599 951-	0.9047 7886+	100.6698 192+	24.0517 968+	0.9485 8454+
a_1	10.8864 873+	4.7677 972+	0.0029 3683-	14.4116 131+	0.2216 510+	0.0090 4793+
a_2	997 790-	625 023+	14 3391+	1583 243+	6725 574-	2 1958-
a_3	381 196+	238 001-	529-	535 026-	157 747-	6645-
a_4	151+	5 191+	641-	26 671-	51 096+	559+
a_5	563-	1 445-		9 925+	1 044+	
	June 15			June 23		
a_0	14.2597 906+	0.5468 790+	0.9032 6423+	115.1845 795+	23.5903 297+	0.9573 5204+
a_1	10.8010 668+	4.8227 558+	0.0001 1054-	14.5620 452+	1.1498 311-	0.0084 3183+
a_2	141 115+	72 292-	13 7982+	82 265-	6881 854-	3 8546-
a_3	376 098+	231 594-	3092-	543 894-	55 220+	4359-
a_4	2 400-	2 108-	555-	25 338+	55 941+	531+
a_5	696-	1 292-		7 326+	2 246-	

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	129.6872 752+	21.7632 046+	0.9653 6013+	237.5778 810+	17.4005 291-	0.9869 6755+
a_1	14.3962 157+	2.4883 843-	0.0075 5140+	14.2361 012+	4.1257 862-	0.0038 5923-
a_2	1488 625-	6403 154-	4 8491-	2776 714+	5176 668+	11 0135-
a_3	372 617-	255 687+	2193-	69 345-	500 953+	1630-
a_4	62 185+	43 714+	356+	76 999-	21 570-	981+
a_5	1 364+	3 686-		359-	5 104-	
June 25			July 3			
a_0	143.9037 216+	18.6640 763+	0.9724 0825+	252.0769 834+	20.9612 206-	0.9820 0048+
a_1	14.0122 566+	3.6766 657-	0.0065 3004+	14.7396 701+	2.9513 451-	0.0060 7156-
a_2	2219 913-	5410 765-	5 3017-	2103 024+	6498 865+	10 9105-
a_3	112 723-	394 068+	751-	376 573-	364 423+	2379+
a_4	67 704+	24 618+	86+	79 293-	48 477-	1099+
a_5	2 953-	2 966-		7 411+	3 769-	
June 26			July 4			
a_0	157.6891 896+	14.4879 062+	0.9784 0147+	266.9821 104+	23.2314 615-	0.9748 7265+
a_1	13.5600 607+	4.6322 320-	0.0054 5061+	15.0192 966+	1.5635 156-	0.0081 3829-
a_2	2181 540-	4110 518-	5 4838-	572 060+	7263 473+	9 5422-
a_3	127 817+	463 793+	422-	616 918-	135 233+	6856+
a_4	51 882+	9 719+	190-	39 453-	68 098-	947+
a_5	4 155-	1 358-		12 351+	497+	
June 27			July 5			
a_0	171.0486 506+	9.4918 378+	0.9832 9759+	281.9942 112+	24.0618 666-	0.9658 5817+
a_1	13.1807 730+	5.3119 875-	0.0043 3358+	14.9390 241+	0.0972 370-	0.0098 0315-
a_2	1528 389-	2674 363-	5 7297-	1391 425-	7265 679+	6 9283-
a_3	293 972+	489 843+	1226-	653 039-	129 819-	1 0690+
a_4	30 864+	3 201+	369-	25 592+	64 776-	588+
a_5	3 768-	48-		9 031+	4 700+	
June 28			July 6			
a_0	184.1086 916+	3.9617 136+	0.9870 4225+	296.7322 513+	23.4515 253-	0.9554 7496+
a_1	12.9737 489+	5.6986 503-	0.0031 3607+	14.4795 713+	1.2933 939+	0.0108 4459-
a_2	498 927-	1186 053-	6 3191-	3106 654-	6534 777+	3 3818-
a_3	379 891+	502 442+	2768-	464 712-	341 276-	1 3045+
a_4	12 302+	3 345+	374-	70 910+	39 809-	155+
a_5	3 496-	430+		1 228+	5 789+	
June 29			July 7			
a_0	197.0714 175+	1.8049 201-	0.9895 1501+	310.8618 996+	21.5421 831-	0.9444 2418+
a_1	12.9911 033+	5.7835 756-	0.0017 7425+	13.7477 984+	2.4849 359+	0.0111 2344-
a_2	679 655+	345 709+	7 3672-	4063 331-	5330 095+	6125+
a_3	393 817+	519 822+	4327-	171 795-	443 573-	1 3633+
a_4	4 823-	5 917+	171-	75 149+	10 137-	229-
a_5	4 072-	89-		3 969-	4 050+	
June 30			July 8			
a_0	210.1689 786+	7.5013 599-	0.9905 0756+	324.1933 032+	18.5692 037-	0.9334 9603+
a_1	13.2412 133+	5.5561 669-	0.0001 6415+	12.9116 673+	3.4158 505+	0.0106 0114-
a_2	1791 437+	1939 836+	8 7562-	4167 728-	3979 040+	4 5567+
a_3	333 270+	541 714+	5050-	88 568+	445 005-	1 2675+
a_4	25 269-	5 846+	203+	53 860+	10 013+	494-
a_5	5 071-	1 614-		4 781-	1 619+	
July 1			July 9			
a_0	223.6196 285+	12.8089 486-	0.9897 4762+	336.7019 624+	14.7987 865-	0.9234 7237+
a_1	13.6868 390+	5.0041 566-	0.0017 3048-	12.1238 470+	4.0829 695+	0.0093 2932-
a_2	2588 757+	3583 919+	10 1362-	3626 733-	2720 236+	8 0584+
a_3	181 786+	547 751+	4235-	256 961+	389 794-	1 0663+
a_4	51 738-	2 173-	638+	29 566+	17 735+	635-
a_5	4 670-	3 736-		3 383-	146-	

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						
a_0	348.4914 505 +	10.4810 140 -	0.9150 4917 +	81.6084 210 +	22.5959 842 +	0.9383 5089 +
a_1	11.4857 256 +	4.5170 981 +	0.0074 2314 -	13.7543 008 +	1.9024 352 +	0.0112 7866 +
a_2	2712 257 -	1655 756 +	10 8750 +	3674 361 +	5619 413 -	3 5206 +
a_3	342 304 +	320 861 -	8104 +	228 051 -	383 383 -	1 3847 -
a_4	12 816 +	16 707 +	685 -	71 778 -	16 175 +	212 -
a_5	1 801 -	1 062 -		3 114 +	5 227 +	
July 11						
a_0	359.7412 823 +	5.8288 620 -	0.9087 8770 +	95.7004 863 +	23.9002 801 +	0.9498 4103 +
a_1	11.0501 924 +	4.7581 422 +	0.0050 3246 -	14.3936 105 +	0.6726 197 +	0.0115 5888 +
a_2	1626 416 -	782 769 +	12 8945 +	2590 821 +	6620 054 -	7467 -
a_3	376 129 +	264 870 -	5354 +	480 487 -	267 306 -	1 4729 -
a_4	4 104 +	11 233 +	692 -	55 251 -	43 568 +	238 +
a_5	822 -	1 418 -		9 477 +	3 677 +	
July 12						
a_0	10.6667 742 +	1.0179 484 -	0.9050 9131 +	110.3005 529 +	23.8888 883 +	0.9611 8033 +
a_1	10.8389 788 +	4.8390 188 +	0.0023 2062 -	14.7502 678 +	0.7123 218 -	0.0109 7716 +
a_2	481 585 -	41 359 +	14 0854 +	913 066 +	7123 731 -	5 0077 -
a_3	384 478 +	234 161 -	2587 +	606 160 -	58 452 -	1 3772 -
a_4	277 +	4 054 +	693 -	4 807 -	62 422 +	733 +
a_5	559 -	1 480 -		10 501 +	203 -	
July 13						
a_0	21.4960 142 +	3.8020 475 +	0.9041 9818 +	125.0820 806 +	22.4645 701 +	0.9715 2633 +
a_1	10.8578 363 +	4.7779 237 +	0.0005 4639 +	14.7543 545 +	2.1297 400 -	0.0095 9183 +
a_2	667 966 +	651 619 -	14 4457 +	828 995 -	6926 698 -	8 6874 -
a_3	379 755 +	232 663 -	178 -	523 406 -	187 276 +	1 0777 -
a_4	2 243 -	3 439 -	705 -	49 455 +	60 607 +	1121 +
a_5	979 -	1 336 -		5 035 +	3 612 -	
July 14						
a_0	32.4583 005 +	8.4910 656 +	0.9061 8032 +	139.7066 440 +	19.6665 875 +	0.9801 5285 +
a_1	11.1039 684 +	4.5757 582 +	0.0034 0200 +	14.4538 261 +	3.4364 609 -	0.0075 7591 +
a_2	1784 022 +	1383 626 -	13 9685 +	2052 257 -	6037 509 -	11 2441 -
a_3	360 380 +	259 508 -	2999 -	278 862 -	393 064 +	6195 -
a_4	6 896 -	10 289 -	729 -	73 758 +	41 440 +	1252 +
a_5	2 044 -	882 -		1 377 -	4 470 -	
July 15						
a_0	43.7758 150 +	12.9013 932 +	0.9109 4189 +	153.9345 964 +	15.6693 791 +	0.9865 5491 +
a_1	11.5651 048 +	4.2166 250 +	0.0060 7658 +	13.9885 276 +	4.5117 012 -	0.0051 9136 +
a_2	2803 351 +	2232 750 -	12 6314 +	2460 284 -	4654 455 -	12 3570 -
a_3	311 541 +	308 890 -	5925 -	613 +	514 794 +	1092 -
a_4	17 091 -	14 987 -	738 -	65 312 +	18 561 +	1071 +
a_5	3 484 -	133 +		4 412 -	3 250 -	
July 16						
a_0	55.6503 514 +	16.8623 688 +	0.9182 1499 +	167.6832 468 +	10.7452 429 +	0.9905 1036 +
a_1	12.2106 580 +	3.6714 818 +	0.0083 9561 +	13.5205 730 +	5.2823 526 -	0.0027 3007 +
a_2	3600 497 +	3248 056 -	10 4131 +	2110 806 -	3031 200 -	12 0548 -
a_3	207 920 +	366 479 -	8903 -	217 626 +	557 545 +	3244 +
a_4	35 120 -	14 624 -	688 -	42 501 +	2 359 +	653 +
a_5	4 284 -	1 909 +		4 504 -	1 483 -	
July 17						
a_0	68.2379 105 +	20.1711 256 +	0.9275 5601 +	181.0183 015 +	5.2156 125 +	0.9920 7391 +
a_1	12.9769 452 +	2.9070 342 +	0.0101 8362 +	13.1784 489 +	5.7211 252 -	0.0004 4254 +
a_2	3970 475 +	4416 143 -	7 3349 +	1247 954 -	1359 191 -	10 7049 -
a_3	25 687 +	404 658 -	1 1697 -	342 966 +	552 893 +	5849 +
a_4	58 027 -	5 034 -	525 -	20 030 +	4 742 -	163 +
a_5	2 482 -	4 079 +		3 805 -	203 -	

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	194.1078 741+	0.5866 370-	0.9915 0608+	306.1726 544+	22.3003 955-	0.9433 0078+
a_1	13.0378 575+	5.8290 934-	0.0015 1648-	13.8821 492+	2.1174 387+	0.0088 7625-
a_2	136 880-	269 061+	8 8646-	3378 179-	5724 748+	8834-
a_3	385 114+	532 121+	6449+	282 456-	378 773-	6253+
a_4	1 339+	5 365-	232-	66 418+	23 504-	385+
a_5	3 663-	191+		1 389-	4 263+	
July 27						
a_0	207.1703 226+	6.3361 296-	0.9891 6532+	319.6952 431+	19.6502 834-	0.9344 0257+
a_1	13.1247 192+	5.6176 957-	0.0031 0522-	13.1476 464+	3.1414 842+	0.0088 4993-
a_2	989 886+	1835 207+	7 0750-	3841 142-	4490 071+	1 2181+
a_3	353 566+	512 235+	5451+	32 157-	431 090-	7810+
a_4	16 837-	4 014-	429-	58 001+	1 914-	209+
a_5	4 179-	396-		3 894-	2 611+	
July 28						
a_0	220.4272 852+	11.7195 222-	0.9854 0282+	332.4609 704+	16.1028 314-	0.9257 5464+
a_1	13.4199 415+	5.0987 894-	0.0043 7389-	12.3910 249+	3.9107 093+	0.0083 6363-
a_2	1907 687+	3343 900+	5 6966-	3628 653-	3211 404+	3 6805+
a_3	244 418+	491 406+	3670+	161 045+	413 633-	8647+
a_4	38 270-	5 745-	411-	37 773+	10 981+	8+
a_5	4 278-	1 814-		3 576-	878+	
July 29						
a_0	234.0581 825+	16.4355 368-	0.9804 9186+	344.5086 543+	11.9111 592-	0.9178 4561+
a_1	13.8573 603+	4.2857 943-	0.0054 1959-	11.7269 306+	4.4337 301+	0.0073 6781-
a_2	2368 349+	4765 475+	4 8368-	2954 652-	2045 132+	6 2737+
a_3	49 919+	449 427+	1983+	277 105+	361 625-	8669+
a_4	61 008-	15 021-	226-	19 806+	15 119+	176-
a_5	2 006-	3 346-		2 281-	308-	
July 30						
a_0	248.1510 681+	20.2016 777-	0.9746 0615+	355.9695 827+	7.3075 972-	0.9111 9010+
a_1	14.3206 060+	3.2055 529-	0.0063 3652-	11.2259 150+	4.7401 618+	0.0058 6005-
a_2	2131 849+	5990 043+	4 3695-	2027 282-	1047 863+	8 7641+
a_3	211 012-	355 787+	1067+	334 159+	304 608-	7953+
a_4	72 097-	32 608-	40+	8 593+	13 395+	323-
a_5	3 542+	3 561-		1 172-	949-	
July 31						
a_0	262.6569 023+	22.7762 646-	0.9678 4374+	7.0269 275+	2.4918 653-	0.9062 8276+
a_1	14.6566 105+	1.9156 296-	0.0071 7683-	10.9235 582+	4.8632 354+	0.0038 8157-
a_2	1101 814+	6826 006+	4 0179-	984 930-	204 907+	10 9525+
a_3	460 820-	190 990+	1244+	357 135+	260 684-	6652+
a_4	53 261-	51 373-	292+	2 980+	8 544+	438-
a_5	9 232+	1 379-		620-	1 235-	
August 1						
a_0	277.3732 093+	23.9954 698-	0.9602 8048+	17.8879 423+	2.3665 233+	0.9035 5858+
a_1	14.7220 394+	0.5143 664-	0.0079 3140-	10.8345 949+	4.8288 117+	0.0015 0901-
a_2	507 482-	7076 941+	3 4648-	98 195+	538 240-	12 6824+
a_3	581 307-	26 307-	2449+	362 827+	238 894-	4900+
a_4	4 275-	58 299-	451+	127+	2 292+	538-
a_5	9 658+	2 152+		673-	1 300-	
August 2						
a_0	291.9869 083+	23.8103 875-	0.9520 3161+	28.7685 848+	7.1177 208+	0.9033 6142+
a_1	14.4492 645+	0.8708 885+	0.0085 3280-	10.9627 955+	4.6497 622+	0.0011 5295+
a_2	2180 259-	6669 879+	2 4582-	1180 742+	1254 193-	13 8262+
a_3	504 750-	236 686-	4299+	356 221+	242 637-	2753+
a_4	45 451+	46 594-	480+	2 996-	4 321-	646-
a_5	4 376+	4 436+		1 331-	1 144-	

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	39-8846 438+	11-6172 534+	0-9059 1806+	148-7311 849+	17-2315 062+	0-9937 3709+
a_1	11-3039 446+	4-3238 325+	0-0039 7494+	14-4272 855+	4-2682 763-	0-0092 1869+
a_2	2218 138+	2019 502-	14 2606+	1995 089-	5554 754-	16 0285-
a_3	330 242+	271 044-	177+	158 421-	485 067+	1 4160-
a_4	9 487-	10 243-	774-	69 453+	40 216+	1990+
a_5	2 516-	610-		2 834-	4 339-	
August 12			August 20			
a_0	51-4422 261+	15-7109 459+	0-9113 1309+	162-9497 813+	12-4598 489+	1-0012 3123+
a_1	11-8415 905+	3-8342 179+	0-0068 0142+	14-0071 033+	5-2197 892-	0-0056 6791+
a_2	3126 754+	2900 241-	13 8450+	2082 154-	3901 706-	19 0752-
a_3	266 445+	317 440-	2917-	89 947+	603 033+	6001-
a_4	22 243-	13 598-	918-	54 055+	18 118+	2218+
a_5	3 750-	552+		4 650-	3 448-	
August 13			August 21			
a_0	63-6205 371+	19-2220 911+	0-9194 6067+	176-7626 044+	6-9116 594+	1-0049 5379+
a_1	12-5361 027+	3-1537 767+	0-0094 4620+	13-6369 538+	5-8136 957-	0-0017 6167+
a_2	3754 997+	3928 663-	12 4156+	1534 539-	2018 377-	19 5563-
a_3	140 048+	365 232-	6603-	259 733+	641 811+	3054+
a_4	41 899-	11 078-	1041-	30 409+	870+	1833+
a_5	3 707-	2 427+		4 459-	2 075-	
August 14			August 22			
a_0	76-5415 837+	21-9456 132+	0-9300 7198+	190-2746 725+	0-9601 866+	1-0048 0870+
a_1	13-3105 072+	2-2552 590+	0-0116 8955+	13-4179 004+	6-0255 159-	0-0019 8459-
a_2	3886 463+	5066 523-	9 8093+	617 459-	108 440-	17 5648-
a_3	62 782-	384 160-	1 0813-	337 012+	625 162+	1 0470+
a_4	61 935-	1 278+	1070-	8 245+	9 277-	1026+
a_5	576-	4 402+		4 030-	993-	
August 15			August 23			
a_0	90-2282 079+	23-6563 718+	0-9426 2363+	203-6649 498+	5-0146 841-	1-0011 8259+
a_1	14-0439 101+	1-1294 190+	0-0132 8417+	13-3967 955+	5-8638 622-	0-0051 4243-
a_2	3320 666+	6167 181-	5 9289+	402 768+	1701 504+	13 8354-
a_3	312 869-	334 749-	1 5175-	329 731+	578 329+	1 4542+
a_4	65 402-	24 221+	898-	11 783-	13 895-	145+
a_5	5 475+	4 945+		3 996-	638-	
August 16			August 24			
a_0	104-5669 051+	24-1385 144+	0-9563 3996+	217-1334 173+	10-6520 164-	0-9948 0348+
a_1	14-5907 645+	0-1922 836-	0-0139 7870+	13-5695 577+	5-3559 404-	0-0074 6750-
a_2	2044 672+	6976 501-	8519+	1281 253+	3346 781+	9 4064-
a_3	517 209-	189 609-	1 8874-	242 826+	516 103+	1 5022+
a_4	36 165-	50 007+	430-	32 113-	16 790-	519-
a_5	10 020+	2 856+		3 742-	1 108-	
August 17			August 25			
a_0	119-3078 014+	23-2349 060+	0-9702 1083+	230-8517 973+	15-6234 582-	0-9865 4037+
a_1	14-8350 784+	1-6230 399-	0-0135 6564+	13-8839 420+	4-5390 244-	0-0089 1891-
a_2	376 649+	7216 702-	5 0442-	1779 493+	4783 263+	5 2211-
a_3	562 569-	36 890+	2 0677-	78 085+	437 383+	1 2839+
a_4	16 661+	64 441+	343+	51 780-	22 346-	846-
a_5	8 389+	850-		1 846-	1 968-	
August 18			August 26			
a_0	134-1267 928+	20-9002 439+	0-9830 6871+	244-9161 345+	19-6428 495-	0-9772 1928+
a_1	14-7524 898+	3-0299 653-	0-0119 5020+	14-2416 359+	3-4610 797-	0-0096 1187-
a_2	1127 101-	6728 002-	11 0135-	1684 485+	5941 580+	1 8783-
a_3	415 438-	284 541+	1 9306-	145 041-	328 200+	9370+
a_4	59 279+	59 406+	1257+	61 839-	32 678-	870-
a_5	2 283+	3 669-		2 454+	2 207-	

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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
August 27						
a_0	259.3057 762+	22.4804 397-	0.9675 0457+	3.6490 745+	3.8480 105-	0.9060 6055+
a_1	14.5115 170+	2.1884 770-	0.0097 4128-	10.9874 175+	4.8819 033+	0.0041 6332-
a_2	902 964+	6707 946+	4159+	1214 392-	467 119+	7 2788+
a_3	365 238-	176 149+	5842+	318 953+	288 263-	5445+
a_4	48 907-	44 371-	692-	3 893+	8 516+	60+
a_5	7 139+	934-		696-	757-	
August 28						
a_0	273.8668 890+	23.9850 377-	0.9578 5638+	14.5472 678+	1.0525 544+	0.9026 8016+
a_1	14.5665 462+	0.8122 558-	0.0095 1052-	10.8414 344+	4.8918 761+	0.0025 4180-
a_2	414 502-	6960 806+	1 7619+	241 104-	354 150-	8 9440+
a_3	488 877-	9 350-	3061+	327 639+	261 859-	5690+
a_4	11 133-	49 183-	418-	609+	4 671+	84-
a_5	8 221+	1 420+		576-	914-	
August 29						
a_0	288.3428 060+	24.1069 241-	0.9485 4849+	25.3973 589+	5.8832 053+	0.9010 8882+
a_1	14.3366 361+	0.5581 393+	0.0090 8302-	10.8914 603+	4.7438 999+	0.0005 8567-
a_2	1865 516-	6651 938+	2 4382+	739 731+	1120 852-	10 5957+
a_3	453 184-	190 861-	1397+	324 106+	252 312-	5358+
a_4	31 380+	41 530-	135-	2 084-	26+	238-
a_5	4 644+	3 218+		930-	912-	
August 30						
a_0	302.4511 745+	22.9065 083-	0.9397 2191+	36.3949 015+	10.4897 002+	0.9016 1392+
a_1	13.8424 464+	1.8162 658+	0.0085 5887-	11.1353 386+	4.4435 905+	0.0016 8468+
a_2	2990 398-	5862 451+	2 7834+	1690 262+	1886 771-	12 0549+
a_3	283 936-	324 676-	879+	306 016+	261 183-	4412+
a_4	54 222+	24 778-	98+	6 588-	4 661-	407-
a_5	166-	3 406+		1 710-	670-	
August 31						
a_0	315.9715 931+	20.5386 022-	0.9314 5116+	47.7290 380+	14.7179 622+	0.9045 4414+
a_1	13.1807 889+	2.8831 440+	0.0079 7186-	11.5617 042+	3.9856 830+	0.0042 1174+
a_2	3518 693-	4773 861+	3 1108+	2551 671+	2705 010-	13 1282+
a_3	70 278-	390 285-	1301+	262 018+	286 144-	2795+
a_4	52 259+	7 461-	248+	15 172-	8 207-	602-
a_5	2 867-	2 398+		2 667-	27-	
September 1						
a_0	328.7984 240+	17.2176 070-	0.9238 0587+	59.5703 272+	18.4037 064+	0.9100 9063+
a_1	12.4754 364+	3.7190 438+	0.0073 0073-	12.1432 411+	3.3555 426+	0.0068 9717+
a_2	3444 757-	3582 215+	3 6518+	3219 955+	3612 989-	13 5985+
a_3	109 892+	396 868-	2323+	174 463+	318 566-	400+
a_4	37 163+	4 479+	305+	28 969-	8 559-	832-
a_5	3 134-	1 138+		3 060-	1 144+	
September 2						
a_0	340.9437 768+	13.1794 668-	0.9168 9661+	72.0498 070+	21.3653 519+	0.9183 4333+
a_1	11.8327 517+	4.3187 860+	0.0064 8846-	12.8264 548+	2.5345 247+	0.0095 9561+
a_2	2923 474-	2429 843+	4 5308+	3538 783+	4608 613-	13 2116+
a_3	227 691+	368 133-	3566+	28 833+	340 496-	2923-
a_4	21 292+	10 011+	277+	45 255-	2 878-	1088-
a_5	2 250-	171+		1 645-	2 670+	
September 3						
a_0	352.5088 543+	8.6534 916-	0.9108 9965+	85.2283 335+	23.4049 449+	0.9292 2000+
a_1	11.3237 571+	4.6984 038+	0.0054 6425-	13.5239 414+	1.5108 382+	0.0121 0673+
a_2	2135 134-	1387 199+	5 7639+	3337 181+	5620 619-	11 6751+
a_3	290 911+	326 732-	4689+	166 423-	324 685-	7294-
a_4	10 141+	10 732+	187+	54 338-	10 853+	1320-
a_5	1 287-	426-		2 226+	3 797+	

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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
September 12						
a_0	99.0641 394+	24.3227 177+	0.9424 0809+	212.5016 285+	8.9871 535-	1.0128 1701+
a_1	14.1208 332+	0.2955 481+	0.0141 7008+	13.9394 344+	5.7934 434-	0.0067 0153-
a_2	2534 218+	6491 486-	8 6917+	1189 292+	3029 228+	20 5261-
a_3	359 025-	243 484-	1 2642-	220 242+	641 097+	1 8812+
a_4	42 684-	30 557+	1421-	30 667-	21 975-	1013+
a_5	6 683+	3 505+		4 082-	2 325-	
September 13						
a_0	113.3988 918+	23.9481 751+	0.9573 0672+	226.5785 412+	14.4159 943-	1.0042 6111+
a_1	14.5062 388+	1.0618 209-	0.0154 7225+	14.2290 600+	5.0052 206-	0.0102 0191-
a_2	1268 154+	7003 470-	4 0529+	1625 047+	4797 420+	14 3127-
a_3	462 245-	87 279-	1 8453-	58 124+	530 060+	2 2764+
a_4	7 332-	48 582+	1221-	52 075-	33 630-	227-
a_5	7 919+	1 608+		1 765-	2 169-	
September 14						
a_0	127.9857 803+	22.1822 984+	0.9729 8752+	240.9705 343+	18.8920 468-	0.9928 5330+
a_1	14.6222 192+	2.4684 643-	0.0156 8030+	14.5497 993+	3.9012 543-	0.0123 9068-
a_2	83 173-	6957 746-	2 1949-	1469 214+	6164 076+	7 6443-
a_3	414 212-	121 769+	2 3505-	165 171-	374 248+	2 1690+
a_4	33 712+	56 524+	556-	61 622-	44 847-	1026-
a_5	4 636+	783-		2 892+	1 518-	
September 15						
a_0	142.5620 957+	19.0358 103+	0.9882 0774+	255.6448 650+	22.1441 053-	0.9799 0482+
a_1	14.4971 181+	3.8012 672-	0.0145 1387+	14.7708 933+	2.5748 605-	0.0133 0996-
a_2	1077 209-	6261 191-	9 5442-	633 020+	7002 496+	1 7625-
a_3	235 731-	339 049+	2 5860-	380 168-	180 669+	1 7441+
a_4	56 690+	52 200+	596+	46 273-	52 864-	1326-
a_5	181-	2 470-		7 495+	207+	
September 16						
a_0	156.9335 706+	14.6473 019+	1.0015 1456+	270.4371 657+	24.0059 150-	0.9665 7976+
a_1	14.2335 386+	4.9321 468-	0.0118 5308+	14.7686 858+	1.1412 001-	0.0131 9233-
a_2	1446 215-	4955 596-	16 9029-	709 859-	7229 408+	2 6759+
a_3	12 615-	522 695+	2 3464-	489 989-	27 478-	1 2047+
a_4	54 814+	39 524+	1955+	6 638-	51 720-	1259-
a_5	3 330-	3 223-		8 070+	2 397+	
September 17						
a_0	171.0263 745+	9.2754 952+	1.0114 6228+	285.0860 099+	24.4318 543-	0.9537 6289+
a_1	13.9607 700+	5.7522 595-	0.0078 4690+	14.4810 926+	0.2769 500+	0.0123 4614-
a_2	1188 574-	3182 626-	22 7383-	2138 775-	6860 716+	5 5425+
a_3	172 684+	648 485+	1 5435-	438 040-	209 708-	6972+
a_4	37 525+	23 210+	2965+	34 954+	39 094-	997-
a_5	4 392-	3 345-		4 113+	3 592+	
September 18						
a_0	184.8888 687+	3.2718 079+	1.0169 1065+	299.3133 276+	23.4933 537-	0.9420 3075+
a_1	13.7876 739+	6.1866 278-	0.0029 5498+	13.9379 580+	1.5723 389+	0.0110 6836-
a_2	489 316-	1131 386-	25 5850-	3202 124-	6033 033+	7 0462+
a_3	278 750+	708 027+	3251-	259 781-	330 370-	2979+
a_4	15 432+	6 356+	3113+	54 977+	20 567-	668-
a_5	4 545-	3 066-		628-	3 198+	
September 19						
a_0	198.6565 747+	2.9568 268-	1.0173 0575+	312.9105 299+	21.3524 854-	0.9316 9013+
a_1	13.7773 360+	6.1994 873-	0.0021 3488-	13.2412 727+	2.6732 051+	0.0095 9646-
a_2	394 069+	1000 166+	24 7165-	3658 053-	4950 518+	7 5488+
a_3	295 017+	703 037+	9458+	47 574-	381 378-	316+
a_4	7 332-	8 977-	2321+	50 692+	4 440-	350-
a_5	4 577-	2 621-		3 051-	1 927+	

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	325.7860 041+	18.2226 178-	0.9228 4821+	56.2221 601+	17.6774 446+	0.9040 8492+
a_1	12.5141 412+	3.5480 810+	0.0080 9121-	11.9172 131+	3.5568 643+	0.0042 9271+
a_2	3527 231-	3798 988+	7 4419+	2792 782+	3440 424-	10 7164+
a_3	124 608+	380 573-	1067-	154 246+	302 369-	3659+
a_4	34 742+	5 046+	80-	24 931-	3 739-	291-
a_5	3 123-	710+		2 205-	858+	
September 29						
a_0	337.9630 448+	14.3321 197-	0.9154 8972+	68.4313 624+	20.8597 414+	0.9094 8295+
a_1	11.8584 136+	4.1960 791+	0.0066 3802-	12.5109 699+	2.7770 029+	0.0065 3414+
a_2	2976 207-	2694 614+	7 0803+	3083 790+	4361 391-	11 6316+
a_3	232 870+	353 743-	1364-	33 121+	308 227-	2511+
a_4	18 975+	8 401+	125+	36 625-	542+	548-
a_5	2 185-	59-		1 120-	1 771+	
September 30						
a_0	349.5488 037+	9.9011 192-	0.9095 4735+	81.2502 489+	23.1700 138+	0.9171 9989+
a_1	11.3395 318+	4.6322 098+	0.0052 5786-	13.1224 574+	1.8133 597+	0.0089 1389+
a_2	2185 579-	1683 188+	6 7502+	2952 121+	5265 075-	12 0468+
a_3	287 464+	320 941-	840-	123 008-	287 975-	334+
a_4	8 165+	7 979+	256+	42 807-	9 619+	851-
a_5	1 242-	423-		1 619+	2 432+	
October 1						
a_0	0.6992 162+	5.1319 291-	0.9049 5867+	94.6514 989+	24.4292 737+	0.9273 1328+
a_1	10.9913 007+	4.8755 451+	0.0039 2274-	13.6596 699+	0.6790 159+	0.0112 9924+
a_2	1286 593-	764 000+	6 6539+	2342 491+	6046 908-	11 6263+
a_3	308 032+	293 335-	210+	276 221-	225 247-	3066-
a_4	2 132+	5 800+	312+	34 441-	22 162+	1182-
a_5	677-	554-		4 855+	2 316+	
October 2						
a_0	11.5928 062+	0.2087 929-	0.9017 0654+	108.5148 372+	24.4835 218+	0.9397 3266+
a_1	10.8269 059+	4.9423 875+	0.0025 7318-	14.0339 541+	0.5879 184-	0.0134 8520+
a_2	356 454-	86 752-	6 9037+	1355 908+	6566 486-	9 9880+
a_3	309 865+	275 689-	1480+	364 717-	113 970-	7824-
a_4	1 085-	2 996+	297+	8 934-	33 982+	1478-
a_5	545-	574-		6 150+	1 378+	
October 3						
a_0	22.4148 903+	4.6975 928+	0.8998 4150+	122.6476 320+	23.2310 938+	0.9541 2364+
a_1	10.8478 680+	4.8432 421+	0.0011 3614-	14.1952 200+	1.9211 260-	0.0151 8890+
a_2	561 205+	901 586-	7 5236+	269 819+	6690 735-	6 7502+
a_3	299 928+	269 405-	2687+	339 982-	35 104+	1 3824-
a_4	3 662-	88+	220+	22 951+	40 782+	1601-
a_5	804-	511-		4 310+	258+	
October 4						
a_0	33.3484 250+	9.4236 934+	0.8994 8678+	136.8385 618+	20.6485 088+	0.9698 3332+
a_1	11.0482 199+	4.5818 830+	0.0004 5799+	14.1585 207+	3.2323 006-	0.0160 6011+
a_2	1430 992+	1714 399-	8 4576+	569 300-	6338 180-	1 6511+
a_3	276 915+	274 049-	3581+	207 028-	200 406+	2 0388-
a_4	7 586-	2 543-	92+	44 637+	41 859+	1338-
a_5	1 372-	313-		860+	430-	
October 5						
a_0	44.5665 399+	13.8064 459+	0.9008 2727+	150.9239 994+	16.8065 736+	0.9858 4129+
a_1	11.4137 721+	4.1556 150+	0.0022 6064+	14.0008 338+	4.4232 870-	0.0157 2508+
a_2	2202 500+	2554 956-	9 5818+	914 040-	5490 117-	5 2413-
a_3	232 492+	287 100-	3962+	21 514-	363 307+	2 5945-
a_4	14 493-	4 227-	79-	48 399+	39 684+	490-
a_5	2 019-	121+		1 965-	797-	

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						
a_0	164.8359 212+	11.8744 945+	1.0007 7791+	280.9019 740+	24.7018 680-	0.9704 9157+
a_1	13.8299 468+	5.3968 434-	0.0138 7880+	15.0248 382+	0.1302 207-	0.0156 7540-
a_2	707 905-	4170 028-	13 2746-	2356 661-	7495 005+	1 8057+
a_3	151 524+	513 724+	2 8052-	558 696-	229 051-	1 9033+
a_4	38 127+	35 890+	938+	44 975+	52 357-	1594-
a_5	3 481-	1 392-		5 551+	5 586+	
October 15						
a_0	178.6136 943+	6.1154 705+	1.0130 5813+	295.6403 290+	24.1101 703-	0.9551 7112+
a_1	13.7473 318+	6.0630 730-	0.0104 1988+	14.4066 549+	1.2819 147+	0.0148 0709-
a_2	59 399-	2427 410-	21 0783-	3707 521-	6549 715+	6 5638+
a_3	268 685+	642 739+	2 4249-	327 151-	383 123-	1 2578+
a_4	20 643+	29 105+	2542+	71 827+	23 480-	1434-
a_5	4 361-	2 478-		1 296-	4 634+	
October 16						
a_0	192.3835 830+	0.1234 069-	1.0211 5312+	309.6505 696+	22.2134 810-	0.9411 3185+
a_1	13.8221 332+	6.3453 317-	0.0055 7859+	13.5950 839+	2.4698 433+	0.0131 7436-
a_2	826 905+	349 343-	26 7959-	4271 235-	5305 825+	9 4866+
a_3	307 145+	733 638+	1 3785-	54 665-	431 974-	6818+
a_4	1 150-	16 700+	3595+	63 583+	190-	1119-
a_5	5 240-	3 774-		4 445-	2 380+	
October 17						
a_0	206.3184 822+	6.4290 164-	1.0239 5022+	322.8189 773+	19.2560 334-	0.9289 6314+
a_1	14.0765 775+	6.1903 167-	0.0000 5012-	12.7476 484+	3.4025 284+	0.0111 1724-
a_2	1688 965+	1914 005+	28 7767-	4098 316-	4032 523+	10 8714+
a_3	249 974+	762 130+	995+	155 320+	410 030-	2347+
a_4	27 859-	2 386-	3515+	40 425+	11 384+	777-
a_5	5 619-	4 776-		4 166-	473+	
October 18						
a_0	220.5856 058+	12.3524 359-	1.0210 6753+	335.1759 521+	15.4900 701-	0.9189 4875+
a_1	14.4754 122+	5.5822 196-	0.0056 3486-	11.9886 699+	4.0908 128+	0.0089 0361-
a_2	2215 332+	4138 247+	26 4046-	3431 484-	2875 418+	11 1192+
a_3	83 594+	704 731+	1 5324+	276 194+	360 373-	746-
a_4	57 416-	26 728-	2349+	19 481+	13 408+	466-
a_5	3 572-	4 964-		2 677-	561-	
October 19						
a_0	235.2848 117+	17.4535 269-	1.0129 6892+	346.8507 734+	11.1464 680-	0.9111 4495+
a_1	14.9188 111+	4.5563 223-	0.0103 6210-	11.3916 869+	4.5628 668+	0.0067 2076-
a_2	2085 681+	6042 318+	20 4476-	2512 753-	1869 106+	10 6243+
a_3	178 360-	548 991+	2 4739+	328 099+	312 565-	2593-
a_4	76 763-	52 345-	732+	6 308+	10 394+	203-
a_5	2 426+	3 600-		1 379-	914-	
October 20						
a_0	250.3869 213+	21.3563 129-	1.0008 1675+	358.0244 878+	6.4269 990-	0.9054 5867+
a_1	15.2529 550+	3.2058 959-	0.0136 8027-	10.9894 004+	4.8466 194+	0.0046 8178-
a_2	1114 411+	7339 115+	12 6290-	1504 364-	984 627+	9 7316+
a_3	457 193-	305 525+	2 7504+	339 956+	280 120-	3387-
a_4	63 765-	71 046-	632-	341-	5 730+	11+
a_5	9 541+	254-		669-	899-	
October 21						
a_0	265.7001 756+	23.8048 748-	0.9861 4229+	8.8973 466+	1.5094 458-	0.9017 1628+
a_1	15.3179 451+	1.6749 562-	0.0154 0635-	10.7900 440+	4.9613 514+	0.0028 3663-
a_2	543 878-	7826 922+	4 7811-	493 199-	169 648+	8 7272+
a_3	615 965-	21 026+	2 4770+	331 998+	266 089-	3326-
a_4	12 768-	72 004-	1396-	3 482-	1 190+	175+
a_5	11 143+	3 685+		514-	720-	
October 22						
October 23						
October 24						
October 25						
October 26						
October 27						
October 28						
October 29						

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	19.6708 708+	3.4423 084+	0.8997 2085+	118.7154 780+	23.9211 049+	0.9385 7208+
a_1	10.7893 533+	4.9155 705+	0.0011 8397-	13.8745 388+	1.5126 589-	0.0115 3491+
a_2	476 785+	628 685-	7 8378+	6 181-	6398 452-	8 6189+
a_3	312 768+	268 370-	2607-	326 571-	38 508+	3234-
a_4	5 896-	2 447-	285+	25 843+	33 542+	1134-
a_5	799-	448-		3 871+	666-	
October 31			November 8			
a_0	30.5385 098+	8.2678 840+	0.8992 9744+	132.5597 129+	21.7757 393+	0.9509 2521+
a_1	10.9757 822+	4.7081 204+	0.0003 1679+	13.7876 004+	2.7677 128-	0.0131 1631+
a_2	1371 737+	1452 964-	7 2283+	792 127-	6088 385-	6 9598+
a_3	280 860+	282 410-	1446-	186 307-	165 969+	7809-
a_4	9 808-	4 745-	333+	45 178+	29 831+	1416-
a_5	1 385-	62-		656+	746-	
November 1			November 9			
a_0	41.6784 323+	12.8019 863+	0.9003 2593+	146.2540 532+	18.4186 935+	0.9646 4524+
a_1	11.3297 709+	4.3308 765+	0.0017 3241+	13.5916 792+	3.9240 388-	0.0142 1730+
a_2	2141 601+	2329 291-	6 9939+	1073 505-	5418 972-	3 7655+
a_3	227 435+	301 679-	90-	407-	278 170+	1 3572-
a_4	16 820-	5 132-	313+	47 889+	25 951+	1486-
a_5	1 991-	498+		1 705-	134-	
November 2			November 10			
a_0	53.2432 258+	16.8693 024+	0.9027 5997+	159.7429 595+	13.9831 562+	0.9790 8851+
a_1	11.8185 983+	3.7727 116+	0.0031 4103+	13.3951 576+	4.9140 683-	0.0145 0370+
a_2	2703 022+	3260 148-	7 1520+	804 503-	4430 071-	1 1869-
a_3	140 246+	316 807-	1186+	173 434+	380 945+	1 9682-
a_4	27 161-	2 692-	222+	38 970+	25 461+	1144-
a_5	2 031-	1 229+		2 798-	433+	
November 3			November 11			
a_0	65.3432 316+	20.2841 723+	0.9066 3028+	173.0786 275+	8.6667 648+	0.9932 6527+
a_1	12.3893 977+	3.0251 786+	0.0046 1590+	13.3004 756+	5.6753 979-	0.0136 3000+
a_2	2940 380+	4214 414-	7 6359+	78 349-	3130 072-	7 7494-
a_3	12 049+	314 885-	2096+	300 919+	486 999+	2 4450-
a_4	37 987-	3 544+	61+	25 036+	28 050+	229-
a_5	737-	1 929+		3 472-	236+	
November 4			November 12			
a_0	78.0239 997+	22.8569 683+	0.9120 3134+	186.4035 164+	2.7298 881+	1.0058 7354+
a_1	12.9655 281+	2.0902 127+	0.0062 0841+	13.3833 584+	6.1439 765-	0.0113 3737+
a_2	2741 163+	5118 472-	8 2942+	939 950+	1498 346-	15 1785-
a_3	145 659-	281 300-	2360+	365 633+	600 765+	2 5480-
a_4	42 151-	13 486+	166-	8 005+	29 727+	1187+
a_5	2 086+	2 152+		4 678-	1 124-	
November 5			November 13			
a_0	91.2450 717+	24.4087 676+	0.9190 9111+	199.9177 658+	3.5009 862-	1.0154 5014+
a_1	13.4542 488+	0.9885 978+	0.0079 3144+	13.6818 994+	6.2520 904-	0.0075 8479+
a_2	2072 198+	5859 890-	8 8939+	2038 108+	471 119+	22 0654-
a_3	291 727-	206 201-	1715+	349 870+	707 018+	2 0642-
a_4	31 310-	24 599+	452-	15 336-	24 458+	2658+
a_5	5 073+	1 526+		6 478-	3 574-	
November 6			November 14			
a_0	104.8747 439+	24.7933 688+	0.9279 2456+	213.8362 817+	9.6331 745-	1.0206 4856+
a_1	13.7711 836+	0.2346 394-	0.0097 4357+	14.1851 085+	5.9377 683-	0.0026 5894+
a_2	1060 064+	6315 628-	9 1265+	2930 749+	2703 157+	26 6379-
a_3	365 765-	93 238-	83-	223 540+	767 529+	9703-
a_4	4 714-	32 319+	786-	48 935-	6 444+	3492+
a_5	5 919+	302+		7 014-	6 354-	

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	228.3312 241+	15.2238 652-	1.0205 8159+	343.7877 170+	12.5111 185-	0.9192 6438+
a_1	14.8152 447+	5.1674 789-	0.0028 1987-	11.6472 022+	4.5136 363+	0.0098 7182-
a_2	3237 218+	4980 708+	27 4619-	3247 870-	2035 433+	13 1674+
a_3	39 667-	729 066+	4633+	374 825+	341 074-	2122+
a_4	86 774-	26 430-	3224+	9 417+	18 379+	817-
a_5	2 514-	7 667-		2 079-	1 370-	
November 16			November 24			
a_0	243.4572 952+	19.8237 763-	1.0150 9409+	355.1483 485+	7.8263 453-	0.9107 2236+
a_1	15.4148 334+	3.9670 196-	0.0080 4418-	11.1128 045+	4.8250 676+	0.0072 0736-
a_2	2572 227+	6932 385+	24 1747-	2087 626-	1108 765+	13 3217+
a_3	406 015-	548 177+	1 7748+	392 423+	281 318-	1134-
a_4	100 808-	66 672-	2004+	597-	11 353+	559-
a_5	7 963+	5 120-		854-	1 464-	
November 17			November 25			
a_0	259.0794 654+	23.0499 190-	1.0048 2994+	6.0914 877+	2.9175 441-	0.9048 3024+
a_1	15.7711 412+	2.4453 113-	0.0122 6654-	10.8123 410+	4.9662 345+	0.0045 9939-
a_2	829 484+	8125 550+	17 6952-	922 434-	318 275+	12 6530+
a_3	725 206-	233 906+	2 5749+	381 729+	250 435-	3359-
a_4	57 402-	93 193-	467+	4 569-	3 956+	340-
a_5	16 027+	1 300+		466-	1 264-	
November 18			November 26			
a_0	274.8568 970+	24.6684 739-	0.9910 5603+	16.8492 547+	2.0557 436+	0.9014 5916+
a_1	15.7045 249+	0.7866 503-	0.0150 1453-	10.7403 119+	4.9557 100+	0.0021 8316-
a_2	1529 544-	8281 324+	9 7284-	190 709+	421 939-	11 4472+
a_3	796 630-	122 653-	2 7451+	358 654+	247 041-	4712-
a_4	27 795+	85 212-	761-	6 679-	2 420-	150-
a_5	12 189+	7 017+		709-	911-	
November 19			November 27			
a_0	290.3328 029+	24.6470 766-	0.9753 3554+	27.6437 641+	6.9442 226+	0.9003 7210+
a_1	15.1768 278+	0.8022 432+	0.0161 6725-	10.8830 230+	4.7957 872+	0.0000 4108-
a_2	3630 726-	7472 572+	1 9706-	1219 525+	1186 702-	9 9488+
a_3	569 597-	392 844-	2 4216+	324 443+	265 519-	5307-
a_4	89 046+	47 963-	1413-	10 083-	7 060-	19+
a_5	1 291+	7 788+		1 407-	385-	
November 20			November 28			
a_0	305.0986 320+	23.1408 779-	0.9591 9926+	38.6800 349+	11.5940 431+	0.9012 7302+
a_1	14.3160 591+	2.1636 103+	0.0158 9150-	11.2195 236+	4.4757 751+	0.0017 9022+
a_2	4792 746-	6084 262+	4 4415+	2118 287+	2029 493-	8 3725+
a_3	204 540-	508 477-	1 8430+	269 559+	297 155-	5224-
a_4	92 650+	8 232-	1556-	17 146-	9 108-	167+
a_5	5 695-	4 772+		2 268-	399+	
November 21			November 29			
a_0	318.9236 580+	20.4200 352-	0.9439 2065+	50.1364 016+	15.8362 825+	0.9038 4992+
a_1	13.3303 594+	3.2270 089+	0.0145 1257-	11.7160 556+	3.9772 876+	0.0033 1469+
a_2	4907 700-	4557 104+	9 0419+	2801 343+	2971 625-	6 9092+
a_3	108 629+	495 602-	1 2143+	178 105+	328 981-	4541-
a_4	62 206+	15 242+	1393-	28 890-	7 198-	283+
a_5	6 345-	1 420+		2 633-	1 459+	
November 22			November 30			
a_0	331.7796 964+	16.7852 099-	0.9304 1978+	62.1472 498+	19.4829 355+	0.9078 1295+
a_1	12.4031 204+	3.9965 532+	0.0123 9562-	12.3168 848+	3.2821 197+	0.0045 7162+
a_2	4272 084-	3175 857+	11 8577+	3135 868+	3987 151-	5 7183+
a_3	295 189+	421 620-	6555+	36 931+	342 577-	3390-
a_4	30 092+	21 739+	1110-	42 897-	204+	344+
a_5	4 195-	594-		1 443-	2 527+	

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
December 1			December 9			
a_0	74.7769 805 +	22.3323 554 +	0.9129 2594 +	182.0556 296 +	4.7911 089 +	0.9848 1221 +
a_1	12.9372 613 +	2.3832 617 +	0.0056 2735 +	12.8485 667 +	5.8200 297 -	0.0106 7552 +
a_2	2974 738 +	4988 328 -	4 9071 +	350 074 +	1853 362 -	3 9912 -
a_3	147 189 -	316 274 -	1987 -	398 740 +	473 190 +	1 5499 -
a_4	50 876 -	13 272 +	329 +	15 313 +	18 702 +	735 -
a_5	1 873 +	2 935 +		3 406 -	967 +	
December 2			December 10			
a_0	87.9920 964 +	24.1867 777 +	0.9190 2741 +	194.9802 684 +	1.1649 710 -	0.9949 2628 +
a_1	13.4686 426 +	1.2974 893 +	0.0065 6233 +	13.0426 237 +	6.0407 819 -	0.0093 8285 +
a_2	2246 697 +	5828 079 -	4 5050 +	1604 184 +	311 818 -	9 0573 -
a_3	329 732 -	234 356 -	641 -	424 972 +	556 940 +	1 8569 -
a_4	41 158 -	28 530 +	223 +	1 207 -	24 130 +	51 +
a_5	5 848 +	2 028 +		5 064 -	276 -	
December 3			December 11			
a_0	101.6489 044 +	24.8810 792 +	0.9260 3606 +	208.2251 807 +	7.1788 553 -	1.0032 1823 +
a_1	13.8055 245 +	0.0739 901 +	0.0074 5304 +	13.4879 350 +	5.9265 528 -	0.0070 1632 +
a_2	1069 260 +	6339 662 -	4 4405 +	2821 207 +	1501 108 +	14 5640 -
a_3	435 080 -	101 075 -	281 +	368 212 +	649 103 +	1 8419 -
a_4	10 327 -	38 881 +	25 +	26 617 -	23 349 +	1142 +
a_5	7 297 +	57 +		7 407 -	3 033 -	
December 4			December 12			
a_0	115.5175 439 +	24.3148 893 +	0.9339 3621 +	222.0286 551 +	12.8883 553 -	1.0086 0538 +
a_1	13.8883 674 +	1.2086 859 -	0.0083 5059 +	14.1482 899 +	5.4237 811 -	0.0035 9667 +
a_2	224 778 -	6409 089 -	4 5313 +	3691 792 +	3558 189 +	19 3728 -
a_3	404 777 -	54 038 +	403 +	187 779 +	710 095 +	1 3756 -
a_4	27 493 +	38 769 +	251 -	65 569 -	8 214 +	2179 +
a_5	4 850 +	1 672 -		7 467 -	6 703 -	
December 5			December 13			
a_0	129.3461 900 +	22.4744 080 +	0.9427 4144 +	236.5575 985 +	17.8851 571 -	1.0101 4901 +
a_1	13.7353 961 +	2.4596 215 -	0.0092 5891 +	14.9130 293 +	4.4991 831 -	0.0006 0328 -
a_2	1225 660 -	6031 176 -	4 4918 +	3786 533 +	5670 509 +	22 1766 -
a_3	248 602 -	192 157 +	592 -	145 057 -	674 845 +	4810 -
a_4	51 697 +	29 792 +	572 -	106 460 -	26 770 -	2693 +
a_5	782 +	2 063 -		436 -	8 724 -	
December 6			December 14			
a_0	142.9394 078 +	19.4336 575 +	0.9524 3790 +	251.8240 858 +	21.7533 542 -	1.0073 0690 +
a_1	13.4367 500 +	3.5973 235 -	0.0101 1662 +	15.5840 311 +	3.1776 940 -	0.0050 7504 -
a_2	1653 588 -	5296 636 -	3 9612 +	2708 172 +	7446 807 +	22 0120 -
a_3	35 616 -	291 167 +	2896 -	567 974 -	482 435 +	6219 +
a_4	54 766 +	19 124 +	885 -	109 164 -	72 992 -	2419 +
a_5	2 014 -	1 212 -		12 677 +	5 444 -	
December 7			December 15			
a_0	156.2125 126 +	15.3375 783 +	0.9629 1284 +	267.6124 880 +	24.1459 676 -	1.0001 1702 +
a_1	13.1162 458 +	4.5622 554 -	0.0107 8658 +	15.9179 524 +	1.5755 119 -	0.0091 9405 -
a_2	1452 073 -	4320 507 -	2 5550 +	476 872 +	8401 604 +	18 7234 -
a_3	162 763 +	356 258 +	6484 -	874 450 -	140 523 +	1 6041 +
a_4	44 070 +	13 077 +	1101 -	39 953 -	101 034 -	1494 +
a_5	2 891 -	45 +		18 970 +	2 598 +	
December 8			December 16			
a_0	169.2039 453 +	10.3802 102 +	0.9738 7907 +	283.4885 843 +	24.8771 102 -	0.9892 2598 +
a_1	12.8908 423 +	5.3142 254 -	0.0110 5897 +	15.7444 862 +	0.1078 582 +	0.0123 9773 -
a_2	728 286 -	3172 787 -	505 -	2195 791 -	8243 281 +	13 0495 -
a_3	310 076 +	409 524 +	1 0981 -	849 253 -	234 227 -	2 2009 +
a_4	29 557 +	13 565 +	1096 -	59 812 +	85 767 -	356 +
a_5	2 926 -	940 +		10 344 +	8 642 +	

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			December 25			
a_0	298.9355 816+	23.9760 591-	0.9757 4693+	35.3242 850+	10.2220 109+	0.9024 5731+
a_1	15.0796 346+	1.6562 603+	0.0143 3319-	11.0790 928+	4.5847 899+	0.0007 9467+
a_2	4281 469-	7112 768+	6 2621-	1811 267+	1786 310-	12 5511+
a_3	513 626-	490 977-	2 3319+	331 155+	265 768-	5364-
a_4	109 956+	40 139-	574-	13 448-	9 934-	378-
a_5	2 283-	8 313+		2 153-	331-	
December 18			December 26			
a_0	313.5464 739+	21.6608 022-	0.9610 1498+	46.6160 598+	14.6005 665+	0.9044 4967+
a_1	14.1120 875+	2.9196 175+	0.0149 0907-	11.5342 358+	4.1436 598+	0.0031 2885+
a_2	5185 947-	5482 210+	3727+	2702 483+	2646 556-	10 7195+
a_3	99 806-	570 601-	2 0890+	255 287+	308 138-	6884-
a_4	95 032+	1 926+	1102-	24 416-	11 786-	236-
a_5	7 632-	4 354+		3 137-	828+	
December 19			December 27			
a_0	327.1387 261+	18.2493 959-	0.9463 4105+	58.4433 172+	18.4476 612+	0.9085 7928+
a_1	13.0791 540+	3.8478 224+	0.0142 5197-	12.1399 837+	3.5176 087+	0.0050 5680+
a_2	4991 728-	3825 410+	5 9734+	3290 357+	3633 415-	8 5181+
a_3	204 514+	521 418-	1 6383+	126 418+	346 116-	7836-
a_4	55 291+	23 068+	1260-	40 904-	7 724-	68-
a_5	6 521-	779+		2 915-	2 368+	
December 20			December 28			
a_0	339.7440 358+	14.0687 897-	0.9328 3765+	70.9205 964+	21.5667 812+	0.9144 0886+
a_1	12.1610 218+	4.4660 932+	0.0126 1622-	12.8181 645+	2.6851 869+	0.0065 2261+
a_2	4111 649-	2407 254+	10 1346+	3394 860+	4694 377-	6 1322+
a_3	362 060+	422 473-	1 1293+	64 716-	352 610-	8113-
a_4	22 699+	26 303+	1183-	56 689-	4 438+	121+
a_5	3 695-	1 104-		110-	3 655+	
December 21			December 29			
a_0	351.5319 990+	9.4016 984-	0.9213 3599+	84.0660 955+	23.7480 789+	0.9214 6477+
a_1	11.4545 443+	4.8307 706+	0.0102 9785-	13.4549 969+	1.6441 314+	0.0075 1052+
a_2	2926 162-	1286 559+	12 8180+	2859 425+	5688 910-	3 7768+
a_3	417 123+	328 680-	6545+	289 719-	298 390-	7620-
a_4	4 687+	20 416+	1007-	57 638-	23 503+	306+
a_5	1 594-	1 723-		4 939+	3 540+	
December 22			December 30			
a_0	2.7359 486+	4.4732 706-	0.9123 7532+	97.7727 932+	24.7961 848+	0.9292 7984+
a_1	10.9955 276+	4.9967 834+	0.0075 7817-	13.9193 848+	0.4280 017+	0.0080 4955+
a_2	1662 552-	405 764+	14 1834+	1694 053+	6407 555-	1 6786+
a_3	420 508+	264 257-	2523+	468 814-	170 153-	6372-
a_4	2 864-	11 650+	816-	31 434-	41 899+	440+
a_5	613-	1 728-		8 656+	1 463+	
December 23			December 31			
a_0	13.6069 241+	0.5386 557+	0.9062 3257+	111.8124 241+	24.5707 518+	0.9374 3794+
a_1	10.7877 175+	5.0024 555+	0.0046 9843-	14.1093 044+	0.8870 674-	0.0082 1174+
a_2	424 297-	334 394-	14 4558+	185 886+	6652 011-	322+
a_3	402 978+	234 790-	733-	508 660-	10 464+	4573-
a_4	5 617-	2 941+	650-	14 027+	49 093+	475+
a_5	526-	1 478-		7 437+	1 386-	
December 24			December 32			
a_0	24.3918 953+	5.4843 390+	0.9029 6589+	125.8915 975+	23.0243 003+	0.9456 1192+
a_1	10.8212 406+	4.8655 774+	0.0018 5526-	14.0032 074+	2.1953 884-	0.0081 0002+
a_2	745 704+	1035 914-	13 8504+	1181 472-	6340 039-	1 0577-
a_3	374 909+	237 555-	3326-	380 917-	192 036+	2630-
a_4	8 012-	4 536-	509-	51 833+	41 382+	379+
a_5	1 111-	1 049-		2 538+	3 020-	

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