

Precessional Age Structure and Great Pyramid Metrology: A Quantitative Analysis

Calc. by: JPL Horizons and SE
Extracted: 2025-11-23

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| No. | Date | UT | JD | Links | | Horizons Longitude | | SE Longitude | | Difference | |
|-----|-------------|--------------|-------------------|---------------------|--------------------|--------------------|--------------------|--------------|--------------------|------------|---------------|
| 1 | -4173-01-01 | 00:00:00.000 | 196869.5000000000 | HOR | SE | 6.1147654 | 6° Ari 06'53.155" | 6.5954405 | 6° Ari 35'43.586" | 0.4806751 | 0° 28'50.430" |
| 2 | -4168-11-07 | 03:44:57.655 | 199006.656222859 | HOR | SE | 97.6710526 | 7° Can 40'15.789" | 98.2013208 | 8° Can 12'04.755" | 0.5302682 | 0° 31'48.966" |
| 3 | -4043-01-01 | 00:00:00.000 | 244352.5000000000 | HOR | SE | 337.9461862 | 7° Pis 56'46.270" | 338.4536767 | 8° Pis 27'13.236" | 0.5074905 | 0° 30'26.966" |
| 4 | -3938-01-01 | 00:00:00.000 | 282703.5000000000 | HOR | SE | 227.8878044 | 17° Sco 53'16.096" | 228.3435053 | 18° Sco 20'36.619" | 0.4557009 | 0° 27'20.523" |
| 5 | -3848-01-01 | 00:00:00.000 | 315575.5000000000 | HOR | SE | 281.9016523 | 11° Cap 54'05.948" | 282.3235514 | 12° Cap 19'24.785" | 0.4218991 | 0° 25'18.837" |
| 6 | -3778-01-01 | 00:00:00.000 | 341143.5000000000 | HOR | SE | 219.5996393 | 9° Sco 35'58.701" | 220.0023604 | 10° Sco 00'08.497" | 0.4027211 | 0° 24'09.796" |
| 7 | -3713-01-01 | 00:00:00.000 | 364884.5000000000 | HOR | SE | 204.7032866 | 24° Lib 42'11.832" | 205.1588375 | 25° Lib 09'31.815" | 0.4555509 | 0° 27'19.983" |
| 8 | -3551-01-01 | 00:00:00.000 | 424055.5000000000 | HOR | SE | 99.0171502 | 9° Can 01'01.741" | 99.3798580 | 9° Can 22'47.489" | 0.3627078 | 0° 21'45.748" |
| 9 | -3486-01-01 | 00:00:00.000 | 447796.5000000000 | HOR | SE | 85.9128936 | 25° Gem 54'46.417" | 86.3464216 | 26° Gem 20'47.118" | 0.4335280 | 0° 26'00.701" |
| 10 | -3299-01-01 | 00:00:00.000 | 516098.5000000000 | HOR | SE | 51.2958790 | 21° Tau 17'45.164" | 51.7045489 | 21° Tau 42'16.376" | 0.4086699 | 0° 24'31.212" |
| 11 | -3243-01-01 | 00:00:00.000 | 536552.5000000000 | HOR | SE | 291.3707449 | 21° Cap 22'14.682" | 291.7320392 | 21° Cap 43'55.341" | 0.3612943 | 0° 21'40.659" |
| 12 | -3131-01-01 | 00:00:00.000 | 577460.5000000000 | HOR | SE | 17.7651297 | 17° Ari 45'54.467" | 18.1156001 | 18° Ari 06'56.160" | 0.3504704 | 0° 21'01.693" |
| 13 | -3119-01-01 | 00:00:00.000 | 581843.5000000000 | HOR | SE | 172.2569220 | 22° Vir 15'24.919" | 172.6053115 | 22° Vir 36'19.121" | 0.3483895 | 0° 20'54.202" |
| 14 | -3117-01-01 | 00:00:00.000 | 582573.5000000000 | HOR | SE | 78.4365882 | 18° Gem 26'11.718" | 78.7357559 | 18° Gem 44'08.721" | 0.2991677 | 0° 17'57.004" |
| 15 | -2647-06-23 | 22:46:42.240 | 754415.449100000 | HOR | SE | 287.9855857 | 17° Cap 59'08.109" | 288.2480583 | 18° Cap 14'53.010" | 0.2624726 | 0° 15'44.901" |
| 16 | -2619-01-01 | 00:00:00.000 | 764468.5000000000 | HOR | SE | 270.7254801 | 0° Cap 43'31.728" | 270.9610640 | 0° Cap 57'39.830" | 0.2355839 | 0° 14'08.102" |
| 17 | -2615-01-01 | 00:00:00.000 | 765929.5000000000 | HOR | SE | 81.3417906 | 21° Gem 20'30.446" | 81.5804323 | 21° Gem 34'49.556" | 0.2386417 | 0° 14'19.110" |
| 18 | -2612-01-01 | 00:00:00.000 | 767024.5000000000 | HOR | SE | 115.9364903 | 25° Can 56'11.365" | 116.1646394 | 26° Can 09'52.702" | 0.2281491 | 0° 13'41.337" |
| 19 | -2588-01-01 | 00:00:00.000 | 775790.5000000000 | HOR | SE | 56.8773271 | 26° Tau 52'38.378" | 57.1001765 | 27° Tau 06'00.635" | 0.2228494 | 0° 13'22.258" |
| 20 | -2565-01-01 | 00:00:00.000 | 784191.5000000000 | HOR | SE | 235.3250790 | 25° Sco 19'30.284" | 235.5412553 | 25° Sco 32'28.519" | 0.2161763 | 0° 12'58.235" |
| 21 | -2517-05-28 | 18:00:00.000 | 801871.2500000000 | HOR | SE | 273.0448954 | 3° Cap 02'41.623" | 273.3066658 | 3° Cap 18'23.997" | 0.2617704 | 0° 15'42.373" |
| 22 | -2515-01-01 | 00:00:00.000 | 802454.5000000000 | HOR | SE | 38.9396302 | 8° Tau 56'22.669" | 39.1708744 | 9° Tau 10'15.148" | 0.2312442 | 0° 13'52.479" |
| 23 | -2480-01-01 | 00:00:00.000 | 815237.5000000000 | HOR | SE | 353.7108868 | 23° Pis 42'39.192" | 353.9460261 | 23° Pis 56'45.694" | 0.2351393 | 0° 14'06.501" |
| 24 | -2450-01-01 | 00:00:00.000 | 826195.5000000000 | HOR | SE | 6.4977340 | 6° Ari 29'51.842" | 6.7297975 | 6° Ari 43'47.271" | 0.2320635 | 0° 13'55.429" |
| 25 | -2416-01-01 | 00:00:00.000 | 838613.5000000000 | HOR | SE | 199.0618304 | 19° Lib 03'42.589" | 199.2584799 | 19° Lib 15'30.528" | 0.1966495 | 0° 11'47.938" |
| 26 | -2386-01-01 | 00:00:00.000 | 849571.5000000000 | HOR | SE | 229.6584034 | 19° Sco 39'30.252" | 229.8811433 | 19° Sco 52'52.116" | 0.2227399 | 0° 13'21.864" |
| 27 | -2354-01-01 | 00:00:00.000 | 861259.5000000000 | HOR | SE | 156.1768012 | 6° Vir 10'36.484" | 156.3738730 | 6° Vir 22'25.943" | 0.1970718 | 0° 11'49.458" |
| 28 | -2324-01-01 | 00:00:00.000 | 872216.5000000000 | HOR | SE | 165.5743931 | 15° Vir 34'27.815" | 165.7976784 | 15° Vir 47'51.642" | 0.2232853 | 0° 13'23.827" |
| 29 | -2295-01-01 | 00:00:00.000 | 882809.5000000000 | HOR | SE | 64.2640745 | 4° Gem 15'50.668" | 64.4461629 | 4° Gem 26'46.186" | 0.1820884 | 0° 10'55.518" |
| 30 | -2225-01-01 | 00:00:00.000 | 908376.5000000000 | HOR | SE | 349.6952758 | 19° Pis 41'42.993" | 349.8781220 | 19° Pis 52'41.239" | 0.1828462 | 0° 10'58.246" |
| 31 | -2167-01-01 | 00:00:00.000 | 929561.5000000000 | HOR | SE | 131.2004648 | 11° Leo 12'01.673" | 131.4009691 | 11° Leo 24'03.489" | 0.2005043 | 0° 12'01.815" |
| 32 | -2166-01-01 | 00:00:00.000 | 929926.5000000000 | HOR | SE | 257.3064590 | 17° Sag 18'23.252" | 257.4756491 | 17° Sag 28'32.337" | 0.1691901 | 0° 10'09.084" |
| 33 | -2165-03-23 | 13:35:02.400 | 930373.0660000000 | HOR | SE | 14.7688250 | 14° Ari 46'07.770" | 14.9358639 | 14° Ari 56'09.110" | 0.1670389 | 0° 10'01.340" |
| 34 | -2154-01-01 | 00:00:00.000 | 934309.5000000000 | HOR | SE | 48.2062961 | 18° Tau 12'22.666" | 48.3705420 | 18° Tau 22'13.951" | 0.1642459 | 0° 09'51.285" |
| 35 | -2115-01-01 | 00:00:00.000 | 948554.5000000000 | HOR | SE | 187.0589817 | 7° Lib 03'32.334" | 187.2192036 | 7° Lib 13'09.133" | 0.1602219 | 0° 09'36.799" |
| 36 | -2090-01-01 | 00:00:00.000 | 957685.5000000000 | HOR | SE | 252.3554487 | 12° Sag 21'19.615" | 252.5419982 | 12° Sag 32'31.194" | 0.1865495 | 0° 11'11.578" |
| 37 | -2080-01-01 | 00:00:00.000 | 961337.5000000000 | HOR | SE | 143.0513801 | 23° Leo 03'04.968" | 143.2161413 | 23° Leo 12'58.109" | 0.1647612 | 0° 09'53.140" |
| 38 | -2066-01-01 | 00:00:00.000 | 966451.5000000000 | HOR | SE | 197.5341216 | 17° Lib 32'02.838" | 197.7216583 | 17° Lib 43'17.970" | 0.1875367 | 0° 11'15.132" |

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|----|-------------|--------------|-------------------|-----|----|-------------|--------------------|-------------|--------------------|------------|----------------|
| 39 | -2065-01-01 | 00:00:00.000 | 966816.500000000 | HOR | SE | 338.7128396 | 8° Pis 42'46.223" | 338.8892763 | 8° Pis 53'21.395" | 0.1764367 | 0° 10'35.172" |
| 40 | -2027-01-01 | 00:00:00.000 | 980696.500000000 | HOR | SE | 336.3813368 | 6° Pis 22'52.812" | 336.5585253 | 6° Pis 33'30.691" | 0.1771885 | 0° 10'37.879" |
| 41 | -2027-01-12 | 18:29:47.630 | 980708.270690162 | HOR | SE | 139.2474560 | 19° Leo 14'50.842" | 139.4070867 | 19° Leo 24'25.512" | 0.1596307 | 0° 09'34.671" |
| 42 | -2026-01-01 | 00:00:00.000 | 981061.500000000 | HOR | SE | 114.5790863 | 24° Can 34'44.711" | 114.7606855 | 24° Can 45'38.468" | 0.1815992 | 0° 10'53.757" |
| 43 | -2025-01-01 | 00:00:00.000 | 981426.500000000 | HOR | SE | 241.4178845 | 1° Sag 25'04.384" | 241.5682190 | 1° Sag 34'05.588" | 0.1503345 | 0° 09'01.204" |
| 44 | -2015-01-01 | 00:00:00.000 | 985079.500000000 | HOR | SE | 132.9801143 | 12° Leo 58'48.411" | 133.1641764 | 13° Leo 09'51.035" | 0.1840621 | 0° 11'02.624" |
| 45 | -2005-01-01 | 00:00:00.000 | 988731.500000000 | HOR | SE | 11.3658628 | 11° Ari 21'57.106" | 11.5126139 | 11° Ari 30'45.410" | 0.1467511 | 0° 08'48.304" |
| 46 | -1990-01-01 | 00:00:00.000 | 994210.500000000 | HOR | SE | 210.6418259 | 0° Sco 38'30.573" | 210.7899265 | 0° Sco 47'23.735" | 0.1481006 | 0° 08'53.162" |
| 47 | -1914-01-01 | 00:00:00.000 | 1021969.500000000 | HOR | SE | 201.2004419 | 21° Lib 12'01.591" | 201.3545506 | 21° Lib 21'16.382" | 0.1541087 | 0° 09'14.791" |
| 48 | -1907-01-01 | 00:00:00.000 | 1024526.500000000 | HOR | SE | 58.8103787 | 28° Tau 48'37.363" | 58.9485273 | 28° Tau 56'54.698" | 0.1381486 | 0° 08'17.335" |
| 49 | -1897-01-01 | 00:00:00.000 | 1028178.500000000 | HOR | SE | 306.3736322 | 6° Aqu 22'25.076" | 306.5396386 | 6° Aqu 32'22.699" | 0.1660064 | 0° 09'57.623" |
| 50 | -1885-01-01 | 00:00:00.000 | 1032561.500000000 | HOR | SE | 97.8658955 | 7° Can 51'57.224" | 98.0266790 | 8° Can 01'36.044" | 0.1607835 | 0° 09'38.821" |
| 51 | -1884-01-01 | 00:00:00.000 | 1032926.500000000 | HOR | SE | 225.4918186 | 15° Sco 29'30.547" | 225.6250954 | 15° Sco 37'30.343" | 0.1332768 | 0° 07'59.796" |
| 52 | -1878-01-01 | 00:00:00.000 | 1035118.500000000 | HOR | SE | 305.8960778 | 5° Aqu 53'45.880" | 306.0616974 | 6° Aqu 03'42.111" | 0.1656196 | 0° 09'56.231" |
| 53 | -1877-01-01 | 00:00:00.000 | 1035483.500000000 | HOR | SE | 79.0560215 | 19° Gem 03'21.677" | 79.2076350 | 19° Gem 12'27.486" | 0.1516135 | 0° 09'05.809" |
| 54 | -1876-01-01 | 00:00:00.000 | 1035848.500000000 | HOR | SE | 205.6609969 | 25° Lib 39'39.589" | 205.7926045 | 25° Lib 47'33.376" | 0.1316076 | 0° 07'53.787" |
| 55 | -1875-01-01 | 00:00:00.000 | 1036214.500000000 | HOR | SE | 339.1580992 | 9° Pis 09'29.157" | 339.3002535 | 9° Pis 18'00.913" | 0.1421543 | 0° 08'31.755" |
| 56 | -1858-01-01 | 00:00:00.000 | 1042423.500000000 | HOR | SE | 80.6203373 | 20° Gem 37'13.214" | 80.7850802 | 20° Gem 47'06.289" | 0.1647429 | 0° 09'53.074" |
| 57 | -1804-01-01 | 00:00:00.000 | 1062146.500000000 | HOR | SE | 29.9255987 | 29° Ari 55'32.155" | 30.0747119 | 0° Tau 04'28.963" | 0.1491132 | 0° 08'56.808" |
| 58 | -1560-01-01 | 00:00:00.000 | 1151267.500000000 | HOR | SE | 16.5688349 | 16° Ari 34'07.806" | 16.6772157 | 16° Ari 40'37.977" | 0.1083808 | 0° 06'30.171" |
| 59 | -1557-01-01 | 00:00:00.000 | 1152363.500000000 | HOR | SE | 48.0337026 | 18° Tau 02'01.329" | 48.1573566 | 18° Tau 09'26.484" | 0.1236540 | 0° 07'25.154" |
| 60 | -1516-01-01 | 00:00:00.000 | 1167338.500000000 | HOR | SE | 88.9932861 | 28° Gem 59'35.830" | 89.0874345 | 29° Gem 05'14.764" | 0.0941484 | 0° 05'38.934" |
| 61 | -1477-04-01 | 12:21:01.440 | 1181674.014600000 | HOR | SE | 332.6535078 | 2° Pis 39'12.628" | 332.7524271 | 2° Pis 45'08.738" | 0.0989193 | 0° 05'56.109" |
| 62 | -1477-04-18 | 22:00:00.000 | 1181691.416666670 | HOR | SE | 211.4698022 | 1° Sco 28'11.288" | 211.5651737 | 1° Sco 33'54.625" | 0.0953715 | 0° 05'43.337" |
| 63 | -1476-01-01 | 00:00:00.000 | 1181948.500000000 | HOR | SE | 348.2602560 | 18° Pis 15'36.922" | 348.3532310 | 18° Pis 21'11.632" | 0.0929750 | 0° 05'34.710" |
| 64 | -1437-01-01 | 00:00:00.000 | 1196193.500000000 | HOR | SE | 127.4958112 | 7° Leo 29'44.920" | 127.5836931 | 7° Leo 35'01.295" | 0.0878819 | 0° 05'16.375" |
| 65 | -1436-01-01 | 00:00:00.000 | 1196558.500000000 | HOR | SE | 257.7599474 | 17° Sag 45'35.811" | 257.8678504 | 17° Sag 52'04.261" | 0.1079030 | 0° 06'28.451" |
| 66 | -1073-01-01 | 00:00:00.000 | 1329144.500000000 | HOR | SE | 180.9875081 | 0° Lib 59'15.029" | 181.0407380 | 1° Lib 02'26.657" | 0.0532299 | 0° 03'11.628" |
| 67 | -1043-01-01 | 00:00:00.000 | 1340102.500000000 | HOR | SE | 219.4514271 | 9° Sco 27'05.138" | 219.5023604 | 9° Sco 30'08.497" | 0.0509333 | 0° 03'03.360" |
| 68 | -1001-01-01 | 00:00:00.000 | 1355442.500000000 | HOR | SE | 20.1562414 | 20° Ari 09'22.469" | 20.2104264 | 20° Ari 12'37.535" | 0.0541850 | 0° 03'15.066" |
| 69 | -0961-01-01 | 00:00:00.000 | 1370052.500000000 | HOR | SE | 292.0184284 | 22° Cap 01'06.342" | 292.0658558 | 22° Cap 03'57.081" | 0.0474274 | 0° 02'50.739" |
| 70 | -0957-04-30 | 00:00:00.000 | 1371632.500000000 | HOR | SE | 222.1269337 | 12° Sco 07'36.961" | 222.1692848 | 12° Sco 10'09.425" | 0.0423511 | 0° 02'32.464" |
| 71 | -0950-01-01 | 00:00:00.000 | 1374070.500000000 | HOR | SE | 314.0894298 | 14° Aqu 05'21.947" | 314.1403405 | 14° Aqu 08'25.226" | 0.0509107 | 0° 03'03.279" |
| 72 | -0921-01-01 | 00:00:00.000 | 1384662.500000000 | HOR | SE | 194.7182147 | 14° Lib 43'05.573" | 194.7570444 | 14° Lib 45'25.360" | 0.0388297 | 0° 02'19.787" |
| 73 | -0920-01-01 | 00:00:00.000 | 1385027.500000000 | HOR | SE | 316.8348588 | 16° Aqu 50'05.492" | 316.8760548 | 16° Aqu 52'33.797" | 0.0411960 | 0° 02'28.306" |
| 74 | -0721-01-01 | 00:00:00.000 | 1457712.500000000 | HOR | SE | 86.7094946 | 26° Gem 42'34.181" | 86.7325339 | 26° Gem 43'57.122" | 0.0230393 | 0° 01'22.941" |
| 75 | -0625-01-01 | 00:00:00.000 | 1492776.500000000 | HOR | SE | 228.6660506 | 18° Sco 39'57.782" | 228.6588846 | 18° Sco 39'31.985" | -0.0071660 | -0° 00'25.798" |
| 76 | -0585-07-17 | 15:39:01.440 | 1507584.152100000 | HOR | SE | 217.9465328 | 7° Sco 56'47.518" | 217.9332672 | 7° Sco 55'59.762" | -0.0132656 | -0° 00'47.756" |
| 77 | -0569-01-01 | 00:00:00.000 | 1513230.500000000 | HOR | SE | 98.4114342 | 8° Can 24'41.163" | 98.3957847 | 8° Can 23'44.825" | -0.0156495 | -0° 00'56.338" |
| 78 | -0514-02-09 | 15:39:01.440 | 1533359.152100000 | HOR | SE | 357.3822886 | 27° Pis 22'56.239" | 357.3573301 | 27° Pis 21'26.388" | -0.0249585 | -0° 01'29.851" |
| 79 | -0457-03-09 | 18:00:00.000 | 1554206.250000000 | HOR | SE | 8.1381871 | 8° Ari 08'17.474" | 8.1162860 | 8° Ari 06'58.630" | -0.0219011 | -0° 01'18.844" |
| 80 | -0457-07-05 | 15:39:01.440 | 1554324.152100000 | HOR | SE | 117.3428760 | 27° Can 20'34.354" | 117.3183172 | 27° Can 19'05.942" | -0.0245588 | -0° 01'28.412" |
| 81 | -0444-04-01 | 00:00:00.000 | 1558977.500000000 | HOR | SE | 231.1977922 | 21° Sco 11'52.052" | 231.1756484 | 21° Sco 10'32.334" | -0.0221438 | -0° 01'19.718" |
| 82 | -0026-09-16 | 01:05:22.315 | 1711819.545397160 | HOR | SE | 302.7719757 | 2° Aqu 46'19.113" | 302.7884483 | 2° Aqu 47'18.414" | 0.0164726 | 0° 00'59.301" |
| 83 | -0005-04-04 | 00:21:36.000 | 1719324.515000000 | HOR | SE | 188.6072256 | 8° Lib 36'26.012" | 188.6288016 | 8° Lib 37'43.686" | 0.0215760 | 0° 01'17.674" |

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|----|-------------|--------------|-------------------|-----|----|-------------|--------------------|-------------|--------------------|------------|----------------|
| 84 | -0003-03-30 | 00:00:00.000 | 1720050.500000000 | HOR | SE | 43.6501181 | 13° Tau 39'00.425" | 43.6699063 | 13° Tau 40'11.663" | 0.0197882 | 0° 01'11.238" |
| 85 | 0008-04-03 | 05:57:35.000 | 1724072.748321760 | HOR | SE | 123.1179086 | 3° Leo 07'04.471" | 123.1374718 | 3° Leo 08'14.898" | 0.0195632 | 0° 01'10.428" |
| 86 | 0033-04-03 | 11:40:18.912 | 1733203.986330000 | HOR | SE | 189.9458380 | 9° Lib 56'45.017" | 189.9651607 | 9° Lib 57'54.579" | 0.0193227 | 0° 01'09.562" |
| 87 | 0070-08-05 | 03:39:01.440 | 1746841.652100000 | HOR | SE | 247.2592186 | 7° Sag 15'33.187" | 247.2792878 | 7° Sag 16'45.436" | 0.0200692 | 0° 01'12.249" |
| 88 | 0074-04-16 | 12:00:00.000 | 1748192.000000000 | HOR | SE | 39.3274503 | 9° Tau 19'38.821" | 39.3474565 | 9° Tau 20'50.843" | 0.0200062 | 0° 01'12.022" |
| 89 | 1976-06-01 | 07:40:57.000 | 2442930.820104170 | HOR | SE | 108.6311460 | 18° Can 37'52.126" | 108.6311162 | 18° Can 37'52.018" | -0.0000298 | -0° 00'00.107" |