**Mauritius Island, on April 04 th, 2012**

**1 - Go to the IMCCE Server** [**http://www.imcce.fr/fr/ephemerides/formulaire/form\_ephepos.php**](http://www.imcce.fr/fr/ephemerides/formulaire/form_ephepos.php)

**1a - Compute the Sun Positions as followswith IMCCE Server in Mean Ecliptic of Date**

Planete 11 Soleil , Theorie planetaire DE406/LE406 **, Coordonnees Moyennes de la date**

Centre du repere : geocentre , Coordonnees ecliptiques (lambda, beta)

**Date TT Long. λ Lat. β Distance ρ V.Mag Phase Elong.**

 **h m s o ' " o ' " ua. o o**

22 05 -95 04 50 00.00 057 03 30.1592 **- 00 00 01.7892** 1.017304435 -26.70 169.50 0.00

04 06 -95 04 50 00.00 069 26 04.5467 **- 00 00 02.8576** 1.017504080 -26.70 179.32 0.00

18 06 -95 04 50 00.00 082 45 53.8098 **- 00 00 01.5812** 1.016889584 -26.70 012.80 0.00

 **h m s o ' " o ' " ua. o o**

15 11 -95 04 50 00.00 230 36 14.7218 **+00 00 01.7128** 0.983194116 -26.78 147.21 0.00

28 11 -95 04 50 00.00 243 52 12.2279 **+00 00 02.8662** 0.982473737 -26.78 159.12 0.00

12 12 -95 04 50 00.00 258 09 32.0937 **+00 00 01.5943** 0.982818494 -26.78 008.08 0.00

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**1b - Compute the Sun Positions as follows in Mean Ecliptic J2000**

Planete 11 Soleil , Theorie planetaire DE406/LE406 **, Coordonnees Moyennes J 2000**

Centre du repere : geocentre , Coordonnees ecliptiques (lambda, beta)

**Date TT Long. λ Lat. β Distance ρ V.Mag Phase Elong.**

 **h m s o ' " o ' " ua. o o**

22 05 -95 04 50 00.00 086 11 01.0351 +00 16 36.1182 1.017304435 -26.70 169.50 0.00

04 06 -95 04 50 00.00 098 33 34.1643 +00 16 25.8954 1.017504080 -26.70 179.32 0.00

18 06 -95 04 50 00.00 111 53 21.9980 +00 15 25.9706 1.016889584 -26.70 012.80 0.00

 **h m s o ' " o ' " ua. o o**

15 11 -95 04 50 00.00 259 43 21.1880 - 00 16 22.2510 0.983194116 -26.78 147.21 0.00

28 11 -95 04 50 00.00 272 59 17.4701 - 00 16 35.5266 0.982473737 -26.78 159.12 0.00

12 12 -95 04 50 00.00 287 16 35.9850 - 00 15 52.7800 0.982818494 -26.78 008.08 0.00

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**2 - Transform data 1b hereabove from Mean Ecliptic 2000 into Mean Ecliptic of Date with the P03 Precession model**

**Date TT Long. λ Lat. β Distance ρ V.Mag Phase Elong.**

 h m s o ' " **o ' "** ua. o o

22 05 -95 04 50 00.00 057 03 28.9906 **+00 00 00.2518** 1.017304435 -26.70 169.50 0.00

04 06 -95 04 50 00.00 069 26 03.3784 **- 00 00 00.8347** 1.017504080 -26.70 179.32 0.00

18 06 -95 04 50 00.00 082 45 52.6419 **+00 00 00.3179** 1.016889584 -26.70 012.80 0.00

 h m s o ' " **o ' "** ua. o o

15 11 -95 04 50 00.00 230 36 13.557 **- 00 00 00.2979** 0.983194116 -26.78 147.21 0.00

28 11 -95 04 50 00.00 243 52 11.063 +**00 00 00.8249** 0.982473737 -26.78 159.12 0.00

12 12 -95 04 50 00.00 258 09 30.929 **- 00 00 00.3581** 0.982818494 -26.78 008.08 0.00

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**Remarks**

1 - Values computed for **Lat. β** in 1a here-above for Year -95 seem unusual when compared to our Epoch values :

1a - They change sign only twice a year (*Check this through computing Sun Ecliptic Latitude of date over 400 days),* and

1b - they reach unusual values close to 3” in absolute values (04 Jun -95 and 28 Nov. -95)

2 - Once Precession P03 (the best Precession Model currently available) in performed from Ecliptic 2000 into Ecliptic of date (see results in 2 here-above), then **Lat. β** “recovers” values much closer from contemporary values : its changes of sign become monthly again, and extreme values remain confined within the usual [-1” , +1”] interval. This is explained by the fact that the Moon Mean Orbital Plan is forced by Gravitation to coincide with Mean Ecliptic of Date, which was certainly so 2100 years ago.

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Accordingly the question I raised in Early March 2011 with IMCCE / Bureau des Longitudes was “ ***What is the Precession Model currently used on the IMCCE sever ?***”. I had a phone conversation with an Astronomer there one year ago who did acknowledge that some closer look from their part was necessary here. But no firther reply since, and - as of last week - the “strange results” mentioned in 1a here-above always show up unchanged.

Kermit

Antoine M. Couëtte