



13th NEVER A FRIDAY Brij Calendar 'Gregorian 2007'

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Brij's Modified GREGORIAN WORLD

PERPETUAL CALENDAR

(13th NEVER A FRIDAY)

Leap SUNDAY 'every 4th year/skipp 128th-years'; Or use Div.6 Rule with Keplers' Leap Weeks

January							February							March						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
1	2	3	4	5	6	7	5	6	7	8	9	10	11	4	5	6	7	8	9	10
8	9	10	11	12	13	14	12	13	14	15	16	17	18	11	12	13	14	15	16	17
15	16	17	18	19	20	21	19	20	21	22	23	24	25	18	19	20	21	22	23	24
22	23	24	25	26	27	28	26	27	28	29	25	26	27	28	29	30	31			
29	30	31																		

April							May							June						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
1	2	3	4	5	6	7	6	7	8	9	10	11	12	3	4	5	6	7	8	9
8	9	10	11	12	13	14	13	14	15	16	17	18	19	10	11	12	13	14	15	16
15	16	17	18	19	20	21	20	21	22	23	24	25	26	17	18	19	20	21	22	23
22	23	24	25	26	27	28	27	28	29	30	31	24	25	26	27	28	29	30		
29	30												31 st LEAP SUNDAY							

July							August							September						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
1	2	3	4	5	6	7	6	7	8	9	10	11	12	3	4	5	6	7	8	9
8	9	10	11	12	13	14	13	14	15	16	17	18	19	10	11	12	13	14	15	16
15	16	17	18	19	20	21	20	21	22	23	24	25	26	17	18	19	20	21	22	23
22	23	24	25	26	27	28	27	28	29	30	31	24	25	26	27	28	29	30		
29	30																			

October							November							December						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
1	2	3	4	5	6	7	5	6	7	8	9	10	11	3	4	5	6	7	8	9
8	9	10	11	12	13	14	12	13	14	15	16	17	18	10	11	12	13	14	15	16
15	16	17	18	19	20	21	19	20	21	22	23	24	25	17	18	19	20	21	22	23
22	23	24	25	26	27	28	26	27	28	29	30	24	25	26	27	28	29	30		
29	30	31											31 st : World Peace Day							

Also refers to: http://www.brijvij.com/bbv_Modified-cal-fmt.pdf/

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 [see 'outlines' for Rules below]

RULES: Alternate World Calendar

- (a) The New Calendar shall have an 'improved Mean Year value' over Julian or running Gregorian calendar; and as far closer to current Average Astronomer's Mean Year Value;
- (b) Year format shall not be much different (for easy memorizing) months in the year, days in the month or cyclic days in the week – starting on Monday (01), Tuesday (02), Wednesday (03), Thursday (04), Friday (05), Saturday (06) and Sunday (07/00);
- (c) 12-months in the year shall have FOUR equal quarters & TWO equal half years (on inserting the Leap Day); OR have FOUR equal quarters with a Leap Week placed outside of the format, to account 'extra seven days' adjusting 1.242189669781 day over 364-day format, without causing any break in SABBATH cycle.
Leap Weeks: A year shall have the extra Leap Week, if and only if, year number is additionally divisible by SIX (6), unless it is one among the planned Additional Keplers' Leap Week of Year XXXX, as per cycle plan;
- (d) The 'new format' shall be easy to understand and follow, like the current popular calendars and cheap to implement;
- (e) Passage of Time count shall be linked to 'angular transit' of Sun-Moon-Earth in their orbital paths;
- (f) The calendar format shall basically be of SOLAR calendar, but also cater to LUNAR needs and used as 'lunisolar calendar'.

KEEPING THESE RULES IN MIND, FOLLOWING FORMAT OF A POSSIBLE WORLD CALENDAR IS SUGGESTED:

1. Format of this calendar NEVER has a 13th on Friday in any month; and starts on Sunday (00), Monday (01) thro Saturday (06) as week days, in continuation of Gregorian calendar – Monday, 2007 January 01 (JD 2454102).
2. Format of this calendar is made using 364-days in 12 months, with 4 EQUAL QUARTERS of 91-days (or 13 weeks) by shifting the day of July 31st to 'second month' i.e. February 29th during ALL years, leaving remaining 1.242189669781 days – to be accommodated as Leap Days or Leap Weeks.
3. 365th day of year (December 31st) is placed after December 30th but before January 01st of next year, as *World Peace Day*; A Leap Day is placed after June 30th but before July 01st once every four years, except the 128th – on modifying current Leap Day Rule *from div.4/skip100th/count 400th years TO div.4/ skip 128th* getting Mean Year = (365+31/128) days i.e. 365.2421875 days, from current values [Julian calendar= 365.25 days & Gregorian calendar =365.2425 days].
4. **Decimalisation of Time of the HOUR:** Distribution of time of the day in 24-hours *is retained*; instead the HOUR and the minute related to arc-angle are divided into 100 divisions (along with present 60) as: 24x60x60 (86400 second, s) =24x100x100 (240000 decimal second, (s_d) – the 'new time unit' – decimal second, s_d=36% of s and Arc-angles in a quadrant are likewise 'equated' as 90°x60'x60" =90°x100'-arcx100"-arc; bettering target resolution to 278%.
5. **Era and Keplers' Leap Weeks – "NEVER DID MAN INVENT A SYSTEM TO INSERT A LEAP WEEK USING Divide six (6) PLAN"** Era start is taken at {(Y2000 – 80) ± 128} ÷ 128} i.e. Year Zero '0000'. 15*128=Y1920, which make the "*first natural Added Keplers' Leap Week of Y2007*" after LY2004 & before LY2010, which being 'normal LWk years' divisible by SIX (6). Thus, YEARS DIVISIBLE BY SIX(6) shall have a Leap Week; and in addition Additional Keplers' Leap Week are inserted at intervals of 90 or 84 as per cycle plan, the first insertion being 3-years earlier i.e. 87th when using (3*896)=2688-year plan.
[Refer: http://www.brijvij.com/bbv_klwks_div.6.pdf]
6. Mean Year value is enhanced to (365+31/128) =365.2421875 days from current values [Julian calendar=365.25 days & Gregorian calendar =365.2425 days]. A 1200-years cycle uses 13 AKLWks to result in current Gregorian Mean Year of 365.2425 days, on using Div.six (6) plan.
7. Same Mean Year (365.2421875 days) value is obtained when used with 7*128 =896-years/159 (div. six + Addl. Keplers' Leap Weeks) LWks [7*(52+159/896)=365.2421875 days (365d 5h 48m 45s)]. Since 896-years is not divisible by six(6), 3*896=2688-yrs/477 (448+29) Leap Weeks give

$7*(52+1/6+29/2688)$ i.e. 29 Additional Keplers' Leap Weeks are needed, when symmetrically placed.

Please see: http://www.brijvij.com/bbv_Prop-8019-yrSaros.div6LWks-distr....pdf

8. The alternate cycle of 834-years/148 (139 div.six+9 AKLWks) results in, closer to tropical mean year value = $7*(52+1/6+9/834)$ days = 365.242206235012 days (365d 5h 48m 46s.6187).
9. **TITHI & LUNATION:** Using a 'new Tithi/Phase' value of ONE lunation/29 ½ 'tithi' make the lunar year = 354.0 Tithi. **This tithi/phase value is 1.00103690881356 day (24h 1m 29s.5889).** *This 'tithi value' reconcile, and I believe, was 'the possible' value used during Indus/Harappa civilisation.* Other values closer to THIS are: $966/965 = 1.001036269430052$ day (24h 1m 29s.5337) = 138week/965; 235 lunation/19-yrs = 1.0000125031132 day (24h 0m 1s.08027). Other values in common use –
 - (a) $1/30^{\text{th}}$ Lunation = 23h 37m 28s.0958, and
 - (b) $1/29^{\text{th}}$ Lunation = 24h 26m 20s.78873.
10. 19-years are closer to 235 lunation, distributed in $(5*47)$ lunation (1388 day) blocks, ignoring differential 'in excess of 2 h 4m 56s.636' – for estimating accurate new ***lunisolar cycles***, for continuous count of days/tithi. Apart from several cycles, which I listed:
http://www.brijvij.com/bb_harappaTithi-Cycles.pdf TWO cycles, apart from my $(7*128)$ = 896-years & 834-years, need special attention:
 - (a) 1730-yrs (1783 lunar years)/21397 lunation/631214½ tithi. Since 21397 lunation is short of THREE tithi (One tithi can be added symmetrically at intervals of 7132nd, 14265th & 21397th lunation). These added days/tithi 'automatically compensate' one lunation over 9 cycles of 1730-years (i.e. in 15570-years/192574 lunation). This is 812403 weeks.
Mean Year = $5686821/15570 = 365\text{d } 5\text{h } 48\text{m } 45\text{s}.78035$ and
Mean lunation = $5686821/192574 = 29\text{d } 12\text{h } 44\text{m } 1\text{s}.702$.
 - (b) 399-yrs/4935 lunation (411.24435 lunar years)/145580½ tithi. 4935 lunation is in excess of TWO tithi (One tithi need be symmetrically removed at intervals of 2475 lunation). This 'compensate' one lunation over 15 cycles of 399-yrs (i.e. in 5985-yrs/74024 lunation). This is 312282 weeks & (2183710 tithi).
Mean Year = $2185974/5985 = 365\text{d } 5\text{h } 48\text{m } 37\text{s}.8947$ and
Mean lunation = $2185974/74024 = 29\text{d } 12\text{h } 44\text{m } 4\text{s}.8503$.

ACHIEVING THESE VALUES, to me appear, fascinating and comparable to any modern 'calendar values' for Reform a futuristic Calendar.

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