

Refers to: Brij's Home Page at: <http://www.brijvij.com/>

On Exception & Mean Year Re: Hopkins's Leap Week Calendar

>5:40:400 gives a mean year of 365.2425 days as Gregorian

>5:40:400:20,000 would subtract 7/20,000 from that giving 365.24215 days.

>5:40:400:20,000:200,000 would add 7/200,000 to that giving 365.242185 days as reckoned by Robert.

"My working has been on 128-year base cycle to give: $(365+31/128)=365.2421875$ days; and its further extension to apply for Leap Weeks on *divide by six(6) with added Keplers' Leap Weeks – when symmetrically placed*. This can be obtained: $[3*(7*128)\text{-years}/477\text{ LWks}]$ to give: Mean Year $=[7*(52+1/6+29/2688)]=365.2421875$ days. I developed a $33*27*9=8019$ -year 'saros' linked to 128-year cycle getting Mean Year $=365+31/128$ days; also resolving CE 'zero year' BC/AD Era count". Please, see my distributions of Years from YEAR ZERO +/- 128-year cycle, at:

http://www.brijvij.com/brij8019_ln-yr.pdf

It is the simplicity of Calendar Reform to achieve an *Easiest, Surest and Cheapest* transition between Gregorian to the *New & promising World Calendar for All Ages*. Please also see my: Distribution for 400-year/71 Leap Weeks as shown at:

http://www.brijvij.com/bb_div.6vshecade400-yr.LWks-distr.pdf

If I had any say in Reform of Gregorian Calendar, I would OPT for *exceptions of Leap Day ONCE every 128-years* as at: http://www.brijvij.com/bbv_Gen8Cal.doc OR alternately resort to Leap Weeks using $3*896\text{-years}/477$ Leap Weeks that give Mean Year $=365.2421875$ days".

"My proposal in brief revolves around DUAL use of (24hx100mx100 second) & (24hx100mdx100sd) clocks; and the 364-day World Calendar (with or without Leap Weeks), using LWks or Leap days - to be used as World Peace Weeks/Days - when inserted; retaining the 'general' distribution of days during the years as per Keplers' Planetary Laws & 7-day week cycle. My approach to Reform of the Calendar is to 'satisfy the impacts feared towards COST that may need be incurred' if and when the change need be brought about:

1. No change to 7-day Sabbath cycle;
2. No change to 12/24-hour clock face;
3. No/or minimal change to Gregorian calendar format;
4. No major change to mathematical/trigonometric functions; and
5. To find the most easily adaptable scheme with least possible changes – to get a **surest, easiest and cheapest** transitional proposal, at '*little or NO cost to tax-payer*'.

http://www.brijvij.com/bb_CalRhyme.jpg

<http://www.brijvij.com/synopsis-n-364d-options.doc>

<http://homepage.ntlworld.com/calendar.creations/BRIJ'S~2.PPT>

My contribution: The Metric Second (1973 April) touched this aspect, to the extent that I suggested a minor correction 'required for the present Length unit - Metre'. If time unit, metric second (sm), and length unit - metre (m) were linked - as I did during 1971-1973; and later modified during 1990's to <http://www.brijvij.com/clockface-n-earth.doc>, there would NEVER have been the dilemma that SI-metric Units confront today. It is therefore time that SI-units be granted a fresh look in totality, rather than 'find evasive routes' to divert/delay the ongoing process to Metrication/Decimalisation of Time of the Hour in relation to arc-length on Earth surface - via 36% of SI-atomic second & $1/10^5$ th of arc-angle $\text{Pi}/180$ (1-degree).

The Gregorian Calendar features 12 months of variable length, between 28 and 31 days each. The month lengths are 31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31 (and are named ...as we know), except that an extra day is added at the end of the second month (February) every four years, except in century years (1900, 2000, 2100, etc.) OTHER than in years whose number is divisible by 400 (1600, 2000...).

My Gregorian Rhyme Calendar http://www.brijvij.com/bb_Modified-Cal-fmt.pdf features 12 months 'generally' retaining Keplers' Planetary Laws, with days between 29 and 31. The month lengths are: 31, 29, 31, 30, 31, 30, 30, 31, 30, 31, 30, 30 (PLUS World Peace Day) as:

Jan:31; Feb:29; Mar:31; Apr:30; May:31; Jun:30

Jul:30; Aug:31; Sep:30; Oct:31; Nov:30; Dec:30

(365th day of Year is World Peace Day, placed after December 30th and before January 1st of NEXT year; Leap Day 'once every 4th year/skipped during 128th years', is however, placed between June 30 & July 01); unless Leap Weeks plan is considered, to account for 1.242189669781 days for the calendar format. Other than my 'Div.6 scheme' for $3*(7*128)=2688$ -years/477 LWks that result in a Mean Year of $7*(52+1/6 +29/2688 =365.2421875$ days; my later working (during 2002) demonstrates 834-years/148 LWks to give, Mean Year value of $7*(52+1/6+9/834) =365.242206235012$ days. This definitely is an equally better & closer approximation to actual Vernal Equinox tropical year. A general comparison with other 'discussed calendars' can be seen at:

http://www.brijvij.com/bbv_cal-reform-anewWrlld-calendar.pdf

The main objection to calendar reform, as Peter Meyer and Lance Latham point in their (mail 20070129) clearly, is the cost of software conversion, and how the advantages of a new calendar would not be sufficient to justify this cost.

“Those businesses and other organizations (universities?), who are currently using the ISO 8601 Calendar perceive a benefit. And they don't do it all with pencil and paper, so they have presumably paid programmers to write the necessary software. This could be seen as incremental conversion to a new calendar, since it is not being done all within a year or two. (I am not, however, suggesting that the ISO 8601 Week Calendar is best candidate in the quest for a better calendar)”.

May I recall my mail of (Monday, January 22, 2007 12:36 PM) on Descending Order Date Writing & Event Expression? In my approach for A World Calendar for All Ages, I have retained all (or most) parameters already in use and known to the common man. Cost factor is natural to increase by:

- (a) delays in adoption;
- (b) software's needing more changes; and
- (c) the cost of teaching aids, down to common man.

Lance may have his reasons to 'convey' the sense that *calendar reform* is a dead issue since 1930's. If this were so, was there a need to examine the Proposal of World Calendar Association of Elizabeth Achilles that India proposed at United Nations, but United Nations was forced to 'adjourn' the calendar question, UNRESOLVED, by an American VETO - in the hope - there shall be a better proposal in due time'. YES, the impossible situation, to me appears getting resolved; and, we HIS (God's) CHILDREN expect HIM to turn his face away.

QUESTION: Is there a father (among we humns), who may not want his children to outshine him? HE may not want his children to go astray and/or drain his hard earned reputation/resources – BUT a PROUD parent would watch him grow, to see fruits of his achievement.

Cardinal Points:

Since my calendar format does NOT differ much from the Gregorian calendar 2007; *except that July 31st is shifted to February 29th* - the differential shall 'generally fall on the SAME day and may be +/- ONE day' as at: <http://scienceworld.wolfram.com/astronomy/TropicalYear.html>
Vernal Equinox: [Wednesday, March 20] Wednesday, 2007 March 21/00h: 08m (MJD 2,454,181.0056)
Northern (Summer) Solstice: [Thursday, June 20] Thursday, 2007 June 21/18h: 11m (MJD 2,454,273.7576)
Autumn Equinox: [Sun. Sept.09] Sunday, 2007 September 09/09h: 51m (MJD 2,454,353.4104)
Southern (Winter) Solstice: [Sat. December 22] Sat., 2007 December 22/06h: 09m (MJD 2,454,457.2563).
History of calendar reform has undergone a 400-year period; and without reaching a format for an 'Easiest, Surest and Cheapest' possibility of A World Calendar - like shifting July 31 to February 29.

Do obstacles deter research? What attributes?

All along EXPERTS have talked to overcome 'blank days'. My divide by six(6) plan using $[3*(7*128)]$ -years/(3*159)=477 LWks to get: Mean Year = $7*(52+1/6+29/2688)=365.2421875$ days. perpetuality of calendar format can be achieved by keeping 'World Peace Day - 365th day) and Leap Sunday - once every four years (except during div.128th years)' OUTSIDE of the calendar format BUT within the year of occurrence - to get: Mean Year = $(365+31/128)= 365.2421875$ days. In the format for Year 2007 Reformed format at my Home Page: <http://www.brijvij.com/> the year start is on MONDAY (01) thro Sunday (00/07) in 52 weeks(364-days) of 4 equal quarters (91-

days or 13-weeks) BUT keeping 365th (World Peace Day) & 366th (Leap Sunday) outside of calendar format. There is NO CHANGE to month names for easy & cheapest adaption/adoption by shifting only ONE day July 31st to February 29th; in rhym with known number of days during each month of Gregorian calendar, causing minimal changes to the Gregorian calendar. The name & number of days during 12-months are: Jan:31; Feb:29; Mar:31; Apr:30; May:31; Jun:30 and Leap Sunday (once every four years); Jul:30; Aug:31; Sep:30; Oct:31; Nov:30; Dec:30 and (365th day of Year is World Day).

I show several IMPORTANT cycles at: http://www.brijvij.com/brij8019_in-yr.pdf

896-yr/11082 lunation & 2688-yr/33246 lunation with Mean Year =365.24328704511156 days; and 8019-year/99181 lunation with Mean Year =365.24261129817 days.

A pure luni-solar 1021-years/12628 lunation cycle has 372912.275652846401 days (not a multiple of 7-day week cycle) gives Mean Year =372912/1021 =365.241919686582 days – pretty close to my 128-year solar cycle (Mean Year = (365+31/128) days. 1021-year make a good choice [26*19+33+26*19]. Added advantage of my [33*27*9 =8019-year cycle [77*(19+33)+11+77*(33+19)] year distribution; is an improvement over 28*19*15 =7980-year Julian cycle].

Planning Exceptions (Re: Hopkins's Leap Week Calendar), my response dated 2007 Feb. 23 is placed below:

Karl, Robert sirs:

If one did need to correct the 5:40:400 cycle one could do it by postponing the 400-year exceptions to exceptions by 40 years. This would achieve the same mean year of 365.242185 days if done 9 times in 40,000 years.

If I had any say in Reform of Gregorian Calendar, I would OPT for *exceptions of Leap Day ONCE every 128-years* as at: http://www.brijvij.com/bbv_Gen8Cal.doc OR alternately resort to Leap Weeks using 3*896-years/477 Leap Weeks that give Mean Year =365.2421875 days.

My working has been on 128-year base cycle to give: (365+31/128) =365.2421875 days; and its further extension to apply for Leap Weeks on *divide by six(6) with added Keplers' Leap Weeks - symmetrically placed*. This can be obtained: [3*(7*128)-years/477 LWks] to give:

Mean Year =[7*(52+1/6+29/2688)]=365.2421875 days. It is the simplicity of Calendar Reform to achieve an *Easiest, Surest and Cheapest* transition between Gregorian to the *New & promising World Calendar for All Ages*. Please see: http://www.brijvij.com/brij8019_in-yr.pdf

Distribution for 400-year/71 Leap Weeks is shown at:

http://www.brijvij.com/bb_div.6vshexade400-yr.LWks-distr..pdf

ON DEFINING DECIMAL SECOND (d_s), using constant day length

If the Average Mean Atomic-year length were (constant) at 365.2421875 days, the day duration for 'constant atomic-day length' as at: [Y₂₀₀₀=365.242189669781 days] would be: 86400*1.00000005941 =86400.00051 32733425 atomic-second, equated to 24*100*100 (i.e. 240000 bits or atomic-decimal seconds), as related to clocks on Earth. THIS interval is: 86400.0005132733425*9192631770 =794243389646333 cycles of Cs-133 atoms at rest [defined hyperfine levels]. Thus, decimal second, s_d =3309347457 cycles of Cs-133 atom (3309347456.85972083...3); also linked to year as: 1/290091193041841516.2734375th of Atomic Mean Year of (365+31/128) days.

LUNAR Compromise:

Lunar Year =12*29.53058881 =354.36706572 days; Solar Calendar Year =365.242189669781 days.

This difference =365.242189669781 – 354.36706572 =10.875123949781 days. In 19-years, these accumulate to 206.627355045839 days (6 lunation 29d 10h.651732460136). Thus, 7-lunation are added ONCE around every (867 days i.e.2y 137d) or during 30th, 59th, 89th, 118th, 147th, 177th and 206th lunation. Thus, during 29th, 57th, 86th, 114th, 143rd, 171st, 200th months, a lunation can be inserted.

My luniSolar calculations revolve around 5*47=235 lunation/19-year solar cycle in relation to *ratio Tithi of 138W/965* - in close relation with ratio 961/960 (inter-conversion between atomic days & ratio tithi). THIS value for a 'tithi or phase' is in close approximation with 19-years/6932.5 and/or 235-lunation/ 6932.5; and the 2-hour excess 'adjusted' by dropping ONE day in 219-years, as also discussed during my postings to Calndr-L.

This may be interesting to observe that Dark Moon (Amavasya on 2007 February 17th — MJD 2454150) falls in line with Hindu Kali Era, 5108 years ago $[(133*19+ 18)+18+(133*19+18)]$, when the new 19-year cycle starts; alongwith introducing the 'Easiest, Surest & Cheapest Reform of the Gregorian Calendar', as suggested by me. The table below, may deviate by 'one or two' days from actual dates of Dark Moons since NOT attributed to: http://www.brijvij.com/bbv_cal-reform-anewWrld-calendar.pdf

Kindly review this BRIEF exposition for Reform of the Gregorian Calendar, in the light of: http://www.brijvij.com/bb-ESR_div6-Cal.Reform.pdf

AMAVASYA (DARK MOONS) – Gregorian Nineteen Year Cycle (2007 thro 2025)

YEAR	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Jan	19	08	26	15	04	23	11	01/30	20	10	28	17	06	24	13	02	21	11	29
Feb	17	07	25	14	03	21	10	X	18	08	26	15	04	23	11	01	20	09	28
Mar	19	07	26	15	04	22	11	01/30	20	09	28	17	06	24	13	02	21	10	29
Apr	17	06	25	14	03	21	10	29	18	07	26	16	05	23	12	01/30	20	08	27
May	16	05	24	14	03	20	10	28	18	06	25	15	04	22	11	30	19	08	27
Jun	16	03	22	12	01	19	08	27	16	05	24	13	03	21	10	29	18	06	25
July	14	03	22	11	01/30	19	08	26	16	04	23	13	02	20	10	28	17	05	24
Aug	12	01/30	20	10	29	17	06	25	14	02	21	11	01/30	19	08	27	16	04	23
Sep	11	29	18	08	27	16	05	24	13	01	20	09	28	17	07	25	15	03	21
Oct	11	28	18	07	26	15	05	23	13	01/30	19	09	28	16	06	25	14	02	21
Nov	09	27	16	06	25	13	03	22	11	29	18	07	26	15	04	23	13	01	20
Dec	09	27	16	05	24	13	03	22	11	29	18	07	26	14	04	23	12	01/30	20

Amavasya (Dark Moon) next is on Sunday, 2026 January 18 (CJD 2461059.8276).

BRIJ BHUSHAN VIJ, Author

20070229

From : Brij Bhushan Vij <metricvij@hotmail.com>

Sent : Wednesday, March 14, 2007 10:33 AM

To : CALNDR-L@LISTSERV.ECU.EDU, TWCA@TheWorldCalendar.org

Subject : AMAt-Year RE: DST and Constant-Length Hours RE: Countdown to Y2K7



Karl, Joe & calendar people:

While scrapping DST, in favour of Internet 'computer time' usage is likely to go a long way; I recall my suggestion to use *International Date Line* for day change, and further divided into 24-hoursx100mdx100sd i.e. 240000 'decimal seconds' to atomic day. Please see:

<http://www.brijvij.com/clockface-n-earth.doc>

This can easily be read & understood by 'common man on street', alongwith 24X60X60 clock work. Since each day is of varied duration, the Mean solar day of yester-years; may take the form of *Average Mean atomic day* that is currently placed at 86400 SI-atomic seconds be the 'guideline'. Efforts by 'astronomy/scientist community' can then be directed to get Average Mean Atomic Year, for Y2000 (or Y2K7) =365.2421875 days.

Computing past records, may perhaps be asking for trouble. BUT, equating Y2000=365.242189 669781

days =Y2000 (or Y2K7) =365.2421875 days; can be controlled using the conversion factor,
Y*1.0252637180142539967981753985833 (1.025263718 for routine work).

To me this appears a workable situation!

Brij Bhushan Vij

(MJD 2454102)/630+D-001 G (Monday, 2007 January 01 H(decimal) IST

Aa Nau Bhadra Kritvo Yantu Vishwatah -Rg Veda

Jan:31; Feb:29; Mar:31; Apr:30; May:31; Jun:30

Jul:30; Aug:31; Sep:30; Oct:31; Nov:30; Dec:30

(365th day of Year is World Day)

HOME PAGE: <http://www.brijvij.com/>

*****As per Kali V-GRhymeCalendaar*****

"Koi bhi cheshtha vayarth nahin hoti, purshaarth karne mein hai"

Contact # 011-9818775933 (M)

001(201)675-8548(when in US)

From: "Palmen, KEV (Karl)" <K.E.V.Palmen@RL.AC.UK>

Reply-To: East Carolina University Calendar discussion List
L@LISTSERV.ECU.EDU>

<CALNDR-

To: CALNDR-L@LISTSERV.ECU.EDU

Subject: DST and Constant-Length Hours RE: Countdown to Y2K7

Date: Wed, 14 Mar 2007 12:42:59 -0000

Dear Joe and Calendar People

I think there was a time just a few hundred years ago when people divided the daylight into 12 hours and the night-time into 12 hours regardless of the length of daylight. So the daylight hours were not usually the same length as the night-time hours and varied in length throughout the year. People could get up at the same hour each day without wasting daylight in the summer or getting up long before dawn in the winter.

Then some time we changed to constant length hours. This had many advantages, but one disadvantage is that people who got up at the same hour throughout the year, would either waste daylight in the summer or get up well before dawn in winter. I see DST as an attempt to remedy this disadvantage.

In a British humour magazine called Punch I saw another such attempt. It was called Glorytime. In Spring for 12 weeks the clocks would be turned forward 15 minutes each Sunday and in the autumn for 12 weeks the clocks would be turned back 15 minutes each Sunday. Glorytime was intended for Britain. For the U.S.A., 10 minutes might be appropriate.

The 12 weeks might have been 13 weeks. A Global Glorytime would cause the time zones to slope \\ near June and slope // near December, like the sunrise terminator.

Karl

08(13(26

-----Original Message-----

From: East Carolina University Calendar discussion List

[<mailto:CALNDR-L@LISTSERV.ECU.EDU>]On Behalf Of Philip DeRosa

Sent: 14 March 2007 00:51
To: CALNDR-L@LISTSERV.ECU.EDU
Subject: Re: Countdown to Y2K7

Joe Kress correctly points out that Ben Franklin did not propose a clock changing DST nor did he publish a paper in support of clock change. In his letter to the editor of The Journal of Paris published in 1784 he advocated that we just go to bed and wake up earlier every day to better take advantage of any available daylight. Without saying so in so many words he suggested we use MIDNIGHT as the pivotal point of our sleep time and noon, MIDDAY as the corresponding focal point of our awake hours. His words were

"Oblige a man to rise at four in the morning, and it is more than probable that he will go willingly to bed at eight in the evening; and, having had eight hours sleep, he will rise more willingly at four in the morning following". *This is what our ancestors did until relatively recently.*

We have to discard the awkward, disruptive, time falsifying DST which is the wrong vehicle to use to get more use of daylight. All we have to do is reset our alarms just once to get up about two hours earlier all year long to take advantage of whatever daylight is available. No more clock changing, no twice yearly reprinting of time schedules, and no life style changes as everything is just advanced by two hours.

Without DST everyone living along the same meridian both north and south of the equator will be on the same time with the only difference being the seasons. We will be left with only the current east/west time zones which can't be avoided as long as the Sun rises in the east and sets in the west.

Franklin did have a sense of humor but his was a serious proposal. He was a brilliant scientist, innovator, and inventor and it would have been interesting to know what he would have come up with if he had applied his genius to calendar reform. We can learn from him, by looking outside the box of what was and is to see what could and should be when it comes to calendar change. Hopefully List people will check out Franklin's essay posted by Joe Kress. Thank you Joe, would you please contact me at pderosa7@shaw.ca

----- Original Message -----

From: "Joe Kress" <joekress@ARCZIP.COM>
To: <CALNDR-L@LISTSERV.ECU.EDU>
Sent: Monday, March 12, 2007 4:58 PM
Subject: Re: Countdown to Y2K7

> Franklin's letter
> <http://webexhibits.org/daylightsaving/franklin3.html>
> does not propose that clock time be changed, only that people's habits be
> changed to use the available sunlight. Thus Franklin did not publish any
> proposal, serious or not, for Daylight Saving TIME.

>
> Joe Kress

>
> ----- Original Message -----

> From: "John Hynes" <john@HYNES.NET>
> To: <CALNDR-L@LISTSERV.ECU.EDU>
> Sent: Thursday, March 08, 2007 8:05 PM
> Subject: Re: Countdown to Y2K7

>
>
>> John Hynes wrote:
>>>
>>> Which was about 100 years after Benjamin Franklin published
>>> his first serious proposal for DST. :)
>>>
>> Actually, 123 years.
>>
>> <http://webexhibits.org/daylightsaving/franklin.html>
>>
>> John Hynes
>> www.decimaltime.org
>> 2007 Mar. 9.003 UT
>> --
>> View this message in context:
>> <http://www.nabble.com/Countdown-to-Y2K7-tf3367935.html#a9381639>
>> Sent from the Calndr-L mailing list archive at Nabble.com.
>>
>>