UNDERSTANDING
Mool Nanakshahi Calendar

Before deciding whether Nanakshahi Calendar is good or bad, let us understand some of the basic Calendar fundamentals.

1. Any Calendar is nothing but a system by which the beginning, length, and subdivisions of a particular time period are fixed, and then those subdivisions are counted and printed; nothing more, nothing less.
2. Historically, when there was no electricity, no mass scale education, or any convenient sources of light; then what gave us, the humans any sense of realization of time, were the rising and setting of the two bright objects in the sky; the **Sun** and the **Moon**.
3. Wherein, for planning our **short term events**, we slowly learnt to count the number of **Solar days** of the **Moon** on our fingers from the day of the **FULL** Moon, or **NO** Moon; culminating into what we call as a **lunar month;** that consists of (**29+a fraction**) of **Solar days** (not Lunar days, because days are always Solar).
4. Then, moving forward, for planning our **long term events**, we slowly realized a connection between the changes of the seasons, that were/are connected with the **Sun**, and its very slow but varying length of its days/nights and the locations of its sunrise and sunset in the sky; culminating into what we call as a **solar year.** Which in turn = (**365+a fraction**) of **solar** days (wherein a solar day in fact = a day+ a night). Then for a calendar, such solar year stands subdivided into **solar months**, solar **days**, hours, minutes, seconds, milliseconds, and microseconds etc.

Thus, both the above phenomenon of the cyclic motion of the Sun, of **approximately** 365+ a fraction of days, and the cyclic motion of the moon of **approximately** 29+a fraction of days, run strictly according to the **laws of nature**. Meaning, that they are completely independent, and are totally unaffected by what anyone of us thinks about them.

It is absolutely of no consequence; whether any of our such thoughts come from a Christian Pope, a Hindu Maha-Pundit, a Mohammedan Mega-Kazi, a Jewish Rabi, some Ghant (ਘੋਂਟ) Dera boss, or an arrogant Sikh Jathedar.

Thus given that, what is a better way to decipher, the above naturally occurring phenomenon, to the best of our advantage, is the question that we need to answer. For which, any system of calculations; that bring us more and more closer to the real situation, and then demands a minimal amount of tweaking to get closer to the reality, is the way to go. That is all.

Hence, before moving forward, let us acknowledge that all of our forefathers (of Eastern as well as Western regions), with their limited tools of observations, and calculations, did a fantastic job on the Calendar ideas that they came up with. Therefore

all of their Calendar ideas and recordings as the building blocks of a modern day Calendar are worthy of respect.

With that in mind let us explore the very basic questions, as to;

a) What are the basic elements of any calendar?
b) What are the different types of calendars in vogue?
c) What is the best choice?

Required Basic elements for any calendar; Solar or Lunar:

Knowledge about the type, nature, and magnitude of the precise motion of elements like Sun, Moon, and Earth; the nature of their motions - circular or elliptical; location of its center – Sun, Moon, or Earth?; nature of the center point – stable or movable, and if movable then at what speed, direction, and the body that effects it?; Starting point of counting of time – Tip, center, or bottom of the object? Or, is it average of Sunrise and Sunset? i.e. midnight or noon? In case of the Sun/Earth relationship, for calculation purposes – Is the Sun revolving around the earth? Or is the Earth revolving around the Sun? Should the starting point of the motion cycle, be Sun? Or, is it some distant Star? For any set of calculations, is the time under consideration some standard time? Or, is it the local time? Etc. etc.

Thus, we can see that the phenomenon is not that simple, as some of us perceive it to be. Therefore given the above kind of situation, just by observing the motions of the Sun and the Moon in the sky, our forefathers did come pretty close to the exact situation for observing and designing their systems; but not quite there.

For the Sun: observing the constantly changing relationships between its cycle of sunrises and sunsets to the different seasons and constellations in the sky our Eastern, as well as Western forefathers divided the zodiac/Solar path into 12 equal divisions, giving rise to 12 months in a year of 365+a fraction of days, with a slight difference in their selection of the starting points, and hence a slight difference in the fractional duration of the cycle.

Furthermore, for the sake of predicting the seasonal changes, and their astrological forecasts, the starting/ending point of the cycle, the Eastern forefather in India picked up a constellation of stars, up in the sky that gave birth to a **sidereal yearly cycle** of 365.256363 (mean sidereal solar days). The time measurements based upon that system being called as **sidereal time**.

While, for starting/ending point of the cycle, **for the same Globally accepted time scale** the Western forefather picked up the **vernal equinox** of the Sun; that gave birth to a **Tropical yearly cycle** of 365.242190 (mean Tropical solar days). The time measurements based upon that system being called as **Tropical time**.

In India: The said one solar year is divided into 12 months; named as Chet, Vaisakh, Jeth, Asarh, Sawan, Bhadon, Asoo, Katak, Maghar Poh, and Phagan.

On the surface both the annual number of mean sidereal solar days/year and the mean Tropical solar days/year look pretty close. Hence the difference does not seem to be of much consequence.

However when one understands the long-term consequences of the difference; then one finds, that the time scale based upon the sidereal time, slowly gets out of step with the seasons; whereas, the Tropical time scale being directly connected with the Sun (and hence seasons), does not. The reason being, that the sidereal time is not directly connected with the Sun like the Tropical time, but instead is indirectly connected through an inter-mediatory in the zodiac.

To be exact: the slide of the seasons is as follows;

Slide/year = (mean sidereal days – mean Tropical days) /year
= 365.256363 - 365.242190 = 0.014173 days
= 0.340152 Hours/year
= 20.40912 Minutes/year

Therefore, years needed for a slide in seasons of;
1 Hour = 60/20.40912 = 2.9398 . . = 3 years approx
24 Hours = 24*2.9398 = 70.556 . . = 71 years approx

For a slide in seasons of 6 month duration = 182.5 days;
(For a change from a complete winter >> to complete summer);
= 182.5 * 70.556 = 12876.6 years = 13000 years approx.

NOTE: This is the phenomenon, that will ultimately turn "ਬਾਰਹ ਮਾਹਾ ਮਾਝ ਮਹਲਾ ੫" of Sri Guru Granth Sahib upside down if not taken care of now by adopting the Mool Nanakshahi Calendar. As result of which, all of its weather related statements like "ਆਸਾੜੁ ਤਪੰਦਾ ਤਿਸੁ ਲਗੈ ਹਰਿ ਨਾਹੁ ਨ ਜਿੰਨਾ ਪਾਸਿ ॥" Assarh, the hottest month of June-July in Punjab will shift by six month to the winter weather of Poh, i.e. Dec –Jan in approx. 13000 years.

Which in turn will leave it open for anyone to raise the question, stating; didn't Guru Arjan Sahib, the writer of 'Barah Maha' even know, that in Punjab, it is never hot in the winter month of **Asarh**? Unfortunately, by then, there will be nobody left, to even remember the cause of this disparity (emanating from the dereliction of duty by the present day Sikhs to put their calendar on the right track, at the right time) that took place 13000 year ago, let alone being able to explain the discrepancy.

This slide in seasons is a non-stop, ongoing phenomenon of nature. For example;

The extent of seasonal slide so far, since Guru Nanak Sahib's birth;
= 550/70.556 = 7.795 days

NOTE: Mool Nanakshahi Calendar being a purely Tropical Calendar, from its very year of inception of 1469 CE, is the only calendar that is capable of

eliminating all the past as well as the future errors of slide in seasons. Nobody else is going to do it for us: neither Bikrami, nor Gregorian. No matter how much begging or pleading we do.

Next, for the Moon: observing its complete **cycle** of 29+a fraction of Solar days to move through the complete zodiac, found it useful for fixing the immediate monthly kind of affairs, and called it a **Lunar month**. However they gave this Lunar month the subservient name of its corresponding Solar month; even though it was not quite equal to its corresponding solar month.

Thus naturally, the number of days in a Lunar year of approximately 354+a fraction, in12 month of a Lunar year, does not quite jive with the corresponding number of 365+a fraction of days in a Solar year. Which, having created an error of approximately 365-354=11 days/year accumulates to approximately a month (11*3 =33 days) every three years. Which in turn necessitates an adjustment of a **fictitious Lunar month** approximately every 4th year. For which there is no consistent standard way of doing it, because it varies from area to area depending upon the local traditions.

Therefore it is always better to stay in the domain of Solar years, built with solar days, and solar months; instead of getting confused with the use of Lunar years with, Lunar/Solar months, Solar days.

For dates of Sikh History or any other occasion, that is, what Nanakshahi Calendar does.

Synopsis of Indian Calendars:

India is an old civilization. Wherein depending upon the area, language, and cultures, there are very wide variations in the type of calendars in vogue. Still they can be divided into the following broad categories;

a) **Solar Calendar:** like the **Bikrami & Mool Nanakshahi Calendars**; with the following main features;
   - Object of observation: **Sun**.
   - Months in a year =12 in number, Named; Chet, Vaisakh, Jeth . . . etc. starting with 1st day of Chet, and ending at the last day of Phagun.

   - **For Bikrami** Calendar, Start/End point: Constellation of **Aries**,
   - Length of the year: **365+a fraction of sidereal days**.
   - Duration of each month: varies as per Sun's stay in each constellation.
   - Movement scale of observation: **Sidereal**.
   - Time units: (Hours, minutes, seconds) **Tropical**.
   - 1st Day of the month called – Sangrand.

   - **For Nanakshahi**, Calendar Start/End point: **vernal equinox**
   - Length of the year: **365+a fraction of Tropical days**.
   - Duration of each month: varies as per number of days assigned to each month.

- Movement scale of observation: **Tropical**.
- Time units: (Hours, minutes, seconds) **Tropical**.
- 1st Day of the month – 1st Day of the month.

b) **Lunar Calendar:**
- Object of observation: **Moon**.
- Start/End point: **New Moon** to **No Moon**
- Important names: Masyaa, Punyaa, Vadee, & Sudee
- Months: No months of it's own. Its months are subservient to the12 Solar Months Named; Chet, Vaisakh, Jeth . . . etc. Therefore, no starting or ending dates.
- Length of the year: **356+a fraction of Solar days**.
- Duration of each month: 29+a fraction of Solar days.
- Movement scale of observation: **Sidereal**.
- Time units: (Hours, minutes, seconds) **Tropical**.

c) Lunisolar Calendar:
- Object of observation: Motion of **Moon** & **Sun** both.
- Start/End point: Nothing specific to come up with any repeatable results.
- Months: **No months of it's own**. Subservient to the12 Solar Months, Named; Chet, Vaisakh, Jeth . . . etc.
- **Length of the year**: employing a calendar year divided according to the phases of the moon, but adjusted in average length to fit the length of the solar cycle. . . . How? . . . Hard to say.
- Duration of each month: nothing specific.
- Movement observation: **Sidereal**.
- Time units: (Hours, minutes, seconds) **Tropical**.
- **Good Feature:** In case any Lunisolar record provides, just its Lunar information in terms of its location, and its Solar days counted from its Masya or Punyaa; and also provides the name of its Solar month as well as the year. Then from such information, its Solar date (year, date, time) of the event can be calculated for its future use.

Summation:

For Time measurement;
- Objects of interest: Sun and Moon.
- Systems: Sidereal and Tropical.
- Calendar types:
  - **SOLAR**:
  - **Bikarami** – Sidereal: Location-Sidereal: Time-Tropical
  - **Mool Nanakshahi** – Tropical: Location-Tropical, Time– Tropical
  - **Gregorian** - Tropical: Location-Tropical, Time– Tropical

  - **Lunar** –Sidereal: Reference – Zodiac locations, Time-Tropical

- **Lunisolar** – Combination of; Solar-Bikrami, Lunar-Sidreal/Tropical

Q: Which system to pick?
A: Any system of calculations; that bring us more and more closer to the real situation, and then demands a minimal amount of tweaking to get closer to the reality. That is all.

History of Calendars:
An amazing step by Pope Gregory:

a) The team of our Western Scholars of the 16th century deserves our biggest applause possible for the display of their wisdom, and ability to detect an error, of mere 0.0069 days/year shift in their seasons; and demand a correction in their Tropical Calendar to bring it in sync with seasons. A feat that they achieved with their very ordinary instruments.
b) Then, the next person in line for a bouquet of flowers is Pope Gregory; . . . a) for his **wisdom** to be able to comprehend the seriousness of the issue of seasons getting out of step with the calendar, and, . . . b) for his **boldness** to approve such a valiant correction in the calendar, despite him being surrounded by some very backward looking clergy (like our's); that did not let this change to get implemented for another 70 years.
c) Today, is it any different for the Sikhs? Wherein now, they, like the Christian experience of the 16th century, find themselves in the clutches of their illiterate, regressive, and politically controlled present day clergy; that is busy trying its best to keep the Sikhs in the dark for eternity, by throwing every possible roadblock in their way, to keep them ignorant and confused.

   Isn't it a natural style for any clergy to control its herds, to carry on its business of broad day robbing and looting of its clientele, by keeping them confused and disoriented?

Now for Sikhs; is it the turn of **their clergy** now, to create a dust storm on their Mool Nanakshahi Calendar by raising the following issues? Let us examine;

Objections and Answers;

Mool Nanakshahi Calendar, nothing, but an exercise of;

a) **Picking Pope Gregory over the Guru.**
   Ans: **Not True**: This comment comes from someone's hasty miscomprehension, resulting from one's inability to completely comprehend the reason of Pope Gregory's decision; Wherein 13 days of the month of September 1752 were eliminated from the month to get the Western Calendar back, in complete sync with the seasons. It was a commutative error of 13 days of Calendar dates having gotten 'out of step' with seasons; that developed over a period of 1752 years of the Western Calendar's existence.

This action of Pope Gregory does not effect the dates of Sikh History in any way, shape or form, because most of the recorded Sikh dates of that era are exclusively recorded in the Indian Calendars, and not in the Western.

O yes, if someone needs to convert a date, from an Indian Calendar to a Western date even of that era, then he/she will have to stay mindful of taking care of the above fact of dropping of the 13 day from the Western calendar, into calculations.

Question: Is the abovementioned kind of error correction, an oddity in the domain of calendars?
The answer, is **NO**, it is not. Elimination of an error of a **month** is done in the Indian Lunar Calendar pretty much every 4th year, to keep it in step with the months of the Solar Bikrami Calendar.

Thus date conversions from one calendar to another, is just a technical issue that has nothing do with the Guru, or Pope Gregory.

b) Picking Pope Gregory over Bikram-Adytia.
Ans: Not True; See a) above.

c) Creating a disconnection, with the dates of the Guru era.
Ans: Not True; See a) above.

d) Making Bikarmi calendar doubtful.
Ans: Not True; See a) above.

e) Guru Nanak Sahib's birthday:
Objection: Mool Nanakshahi Calendar does not recognize Katak Puranmashi of Guru Nanak birthday.
Answer: Why should anyone? Let alone Mool Nanakshahi Calendar recognize a wrong birthday date of Guru Nanak Sahib on Katak-Puranmashi; when his real birth date works out to be Vaisakh 1, Mool Nanakshahi year 1; that happened to be a Puranmashi (though of not of any importance). Its equivalent Gregorian year works out to be, 1469.

Please look below for the history of the Katak Vs Vaisakh Puranmashi.

Macauliffe writes: *"All the jandali and modern janamsakhis give Kartik as the month in which Baba Nanak was born. (But) in Mani Singh's and all the old janamsakhis, the Guru's natal month is given as Baisakh."* The following is the manner in which Kartik began to be considered as the Guru's natal month: *There lived in the time of Maharaja Ranjit Singh, at Amritsar, Bhai Sant Singh Gyani, who was held in high estimation by that monarch. Some five miles from Amritsar is an ancient tank called Ram Tirath, or place of pilgrimage of the Hindu God Ram. At that place a Hindu fair was and is still held at the time of the full moon in the month of Kartik. The spot is essentially Hindu, and it had the further demerit in the eyes of the Bhai of having been repaired by Lakhpat, the prime minister of Zakaria Khan Bahadur, the inhuman prosecutor of the Sikhs. Bhai Sant Singh desired to establish an opposition fair in Amritsar on the same*

date, and thus prevent the Sikhs from making the Hindu pilgrimage to Ram Tirath. He gravely adopted the Handali date of Guru Nanak's birth, and proclaimed that his new fair at Amritsar at the full moon in the month of Kartik was in honour of the nativity of the founder of the religion.

Though there is no doubt that Guru Nanak was born in Baisakh, and this explains the reason for celebration of gurupurab on a first full moon day in November (Kartik) in accordance with Hindu Lunar Calendar as opposed to April 15 (Baisakh) in accordance with Solar Calendar.

f) Guru Gobind Singh Ji's birthday:

Objection: Mool Nanakshahi Calendar does not recognize Poh-sudi 7 as Guru Gobind Singh Jee'e birthday.

Answer: It is a **Wrong objection;** Mool Nanakshahi Calendar recognizes this date as Poh 23, 198 Nanakshahi; the date that does not keep dancing all over the place anymore, the way any Lunar Sudi does; On the Gregorian Calendar, lead by the Nanakshahi Calendar, it works to be Jan 5; good for ever.

g) Thithan, Varan, Sangrand, Masya, Punya, etc.

Objection: Mool Nanakshahi does not recognize Thithan, Vaar, Masya, Punya, Sangrand etc.

Answer: True; because of the following Guru advice on such celebration,

That states; . . . Idiots and Fools celebrate days like Thithan (days counted from a New Moon), and Vaar (solar days) etc.

ਥਿਤੀ ਵਾਰ ਸੇਵਹਿ ਮੁਗਧ ਗਵਾਰ ॥ ਨਾਨਕ ਗੁਰਮੁਖਿ ਬੂਝੈ ਸੋਝੀ ਪਾਇ ॥ ਇਕਤੁ ਨਾਮਿ ਸਦਾ ਰਹਿਆ ਸਮਾਇ ॥੧੦॥੩॥ . . . (SGGS: Page 843)

CONCLUSION:

Defying a popular piece of logical wisdom that states; "a **square peg** never fits into a **round hole**". And, if one tries to force them to fit, then, either the hole, or the peg, or both end up getting messed up. Therefore, to avoid any kind of grief, it is always advisable to fit a square peg into a square hole, and a round peg into a round hole.

Fortunately or unfortunately, the phenomenon of, attempting to fit elements of a Tropical Calendars into a Sidereal Calendars or vice versa, is nothing but an attempt, that is quite similar to the attempt, to fit a square peg into a round hole.

In case of the present day Sikh settings; the proverbial hole/peg are their **Tropical** "Historical Sikh dates" being defined by the **Sidereal** "astrological Bikrami Calendar"; where, in the short run, the error created by such an exercise being small, the combo seem to fit, but in the long run it is definite to fall apart, big time.

To solve their/everyone else's such **Tropical** problems, now the Sikhs do have their perfectly fitting **Tropical** "Mool Nanakshahi Calendar" to help. However they have yet to go a long ways to understand the complexity of the situation.

Therefore, only time will tell, whether, in the collective **decision** making by the **Sikhs**, on this very complex issue; ultimately, a pinch of wisdom and boldness prevails, or not.

Kirpal Singh Nijher, USA.

Just s friendly JIBE (ਹੁੱਝ) :

As an individual; are you one of those decision making Sikhs, who, like Pope Gregory do possess that pinch of wisdom and boldness to uphold and promote this timely historic moment of Sikh History; for preserving an accurate, and authentic record of Sikh events and philosophy through the most modern and clear-cut Nanakshahi Calendar?

Or

The one, who doesn't want to be disturbed; and hence, wishes to stay in a status quo comfort zone of our historic Brahaminical masters' servitude, like a faithful lover! . . . KSN.