

The Problem of Date Conversions in Sikh History

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The importance of correctness of dates in history can never be overstated. Without dates history changes into mythology and incorrect dates could cause a complete mess of sequence of events.

Some of the most learned authors and scholars have made glaring errors of calendar conversions from Bikarami and Hijri eras to the Common Era. In one case a date has been assigned to an astronomical event which could not possibly have occurred on that date. The errors in dates are of the following types:

1. The elements contained in the date are self contradictory eg the week day or *tithi* (lunar day) or nakshatra (lunar mansion) not in agreement with other elements of the date.

2. The conversion to the Common Era date is wrong.

3. Printing errors. Indian authors and printers in general have shown wanton carelessness in this respect.

4. Different dates for the same event given in the same work or in different works by the same author.

5. Disagreement between historians on the original date, eg birth date of Guru Nanak Dev Ji.

The dates recorded in original documents may be in any of the following:

- (a) Bikarami Samvat (BK)
- (b) Hijri Era (AH)
- (c) Julian or Gregorian calendar (Christian Era or Common Era), CE.

The interpretation and/or conversion of dates in each case has its own unique problems. A brief information about these eras is provided here because it is necessary to help understand the problems of date conversions.

BIKARAMI SAMVAT

Bikarami Samvat is luni-solar and its year begins on *Chet sudi 1*.

The names of the months for both lunar and solar years are the same viz *Chet, Vaisakh, Jeth, Harh, Sawan, Bhadon, Asu, Katik, Maghar, Poh, Magh, and Phagun*. However, the first month in the case of solar year is *Vaisakh*.

In the period 1469 CE to 2000 CE the earliest date for *Chet Sudi 1* was 27th February and latest 14th April according to the Common Era.

Period Range of CE dates for Chet sudi 1

1469 - 1752 CE Feb 27 - Mar 29 Julian

1753 - 2000 CE Mar 11 - Apr 14 Gregorian.

From the date of start of a Bikarami year to 31st December the Bikarami Era is ahead of the Common Era by 57 years, but from 1st January to the last date of the Bikarami year the difference is 56 years.

The lunar year begins on *Chet sudi 1*, the first day after the new moon in the month of *Chet*. The lunar year is approximately 11 days shorter than the solar year. This results in the beginning of the next lunar year about 11 days earlier in relation to the Common Era year. However, when two new moons (*amavasyas*) occur in the same Bikarami solar month then an extra lunar month of the same name is added to that lunar year. The extra month is called *adhika mas or mal mas* (intercalary month). Whenever in a year *mal mas* occurs, the beginning of the next lunar year happens 18 or 19 days later. This ensures that the same lunar date will fluctuate back and forth within a month, but will never deviate beyond that. This way lunar year stays in step with the solar year. On the average there are 7 *adhika* months in a period of 19 years. Example of *mal mas* is the month of *Bhadon* in 2050 BK (1993-94 CE).

Rarely it happens that there is no *amavasya* (new moon) in a Bikarami solar month. In that case that lunar month is dropped, and it is called a *khshya* month. This would give 11 lunar months in that year, but when this happens there is invariably an *adhika* (intercalary) month too in the same year, so that the total months in such a year still remain 12.

The lunar month is divided into two halves, the bright half and the dark half. When the moon waxes from new moon to full moon, it is known as *sudi or shukla* fortnight. There are 15 *sudis* (lunar days) from *sudi 1 to sudi 15*. *Sudi 15* is the full moon day or the *pooranmashi*. After full moon the dark fortnight, called the *vadi or krishna* fortnight, begins. There are 15 *vadis* (lunar days). *Vadi 15* is the *amavasya* day (new moon). Each of the lunar days is called *tithi*. Only the *tithi* which is current at the time of sunrise is associated with that day. Duration of a *tithi* varies from 20 hours 15 minutes to 26 hours 47 minutes. Therefore, occasionally same *tithi* may be current at two consecutive sunrises. In that case that *tithi* will be associated with 2 consecutive dates. Also, a *tithi* may begin just after sunrise and end just before next sunrise. In this case that *tithi* is not current at any sunrise and is not shown, and is

called *khshya* or dropped *tithi*. In fact both the *tithis* are assigned to the same date.

The solar year begins on 1st of *Vaisakh* when the sun completes its annual journey of the Indian fixed zodiac and enters the first sign *Mekh* (Aries). The new month starts on the day on which the sun moves from one sign of the zodiac to the next. If this event happens after midnight, even though the CE date has changed, it is still considered to have occurred on the previous CE date because of sunrise to sunrise definition of day. The beginning of the Bikarami solar year (*Vaisakhi* or *the 1st of Vaisakh*) in CE dates for some periods are as follows:

1469	CE to 1752 CE (Julian)	27 March to 30 March
1753	CE to 1970 CE (Gregorian)	9 April to 13 April
1971	CE to 2000 CE (Gregorian)	13 April to 14 April.

Now let us examine a few dates.

1. Prof Sahib Singh in his book *Jeevan Britant Guru Nanak Dev Ji (Punjabi)* writes on page 242: "The month of Rajab of the Hijri year occurred in May 1530 AD. Guru Nanak Dev Ji went to the *Shivaratri fair* in March 1530." The dates are totally wrong. Neither the fair was in March 1530 AD, nor the month of Rajab occurred in May 1530 AD. *Shivaratri* fair occurred on January 28 in that year and the months of Ramzan and Shawwal were current in May of the same year. This is not all. The same author in his book *Sidha Gost Steek* on page 12 gives "Phagun Samvat 1587 (March 1530)" as the date for the same event. *Phagun 1587 BK* converts to January/February 1531 AD and the fair was on 14th February of that year. Learned professor's conversion of that date is out by 1 year. That is not the end of the story. In the same book on page 36 he writes "*It appears that the Gost with the Sidhas took place in February/March in 1539 AD*". The fair in 1539 AD was on 17th February. Here he differs from himself by 9 years!

The same author gives the date of visit to Kurukshetra by Guru Nanak Dev Ji on the solar eclipse fair as 14th September 1515 AD. **But there was no solar eclipse on that date.** The solar eclipse in August of that year was not visible in India. The book *Jeevan Britant Guru Nanak Dev Ji* is full of such mistakes.

2. Birthday of Guru Hargobind Ji by most authors is given as Harh vadi 1, 1652 BK (lunar), 21 Harh (solar) 1652 BK. There is contradiction in this date. Harh vadi 1 was on 14 Harh and not 21 Harh, and on 21 Harh it was Harh vadi 7. The equivalent CE date for 21 Harh/Harh vadi 7 is 19 June 1595 CE, and for 14 Harh/Harh vadi 1 it is 12 June 1595. Dr Ganda Singh in his *Nanak Shahi Jantri (Urdu)* gives correctly

19 June as the birth date of Guru Ji but the same author with Principal Teja Singh in their book *Sikh Itihas* (Punjabi translation by Dr Bhagat Singh) give 14 June 1595 CE as the birth date. This date converted to indigenous calendar date becomes 16 Harh/Harh vadi 3 which is completely out of tune with dates given by all other writers. **Historians will have to decide which date to accept as correct: whether 21 Harh or Harh vadi 1.**

3. Guru Gobind Singh Ji the tenth guru left the fortress of Chamkaur Sahib on 8th Poh 1761 BK. Anniversary of this event is celebrated on 8 Poh in Chamkaur Sahib. Most authors give equivalent date as 22 December 1704 CE (Julian). But the correct conversion of this date is 7 December 1704 CE, a difference of 15 days. This difference is very significant. Guru Ji in his account of the battle as mentioned in *Zafar Namah* (letter written in Persian and addressed to Aurangzeb the Mogul Emperor) says:

*"Chiraghe jahane shudah burqah posh
Shabe shah braamad hamah jalwah josh*

*Nah pecheedah mooye nah ranjeedah tan
Ke beroon khud aaward dushman shikan"*

Translation: "When the lamp of the world put veil on its face (implying when the sun had set), and the king of night (moon) came out with glory ----- not a hair (on my person) got bent and (my) body did not receive any injury, because the Destroyer of Enemies Himself brought (me) outside".

Now, on 22 December moon set time was at about midnight while on 7 December 1704 CE the time of moon rise was at about midnight. The historians say that Guru Ji left the fortress at about 2 am (night of 22 and 23 December) in the dark when moon had set. But according to Guru Ji's own account he left the fortress when moon was up. This date corresponds with 7 December, 1704 AD or Poh 8, 1761 BK.

It must be noted here that authors are divided on the year of this event. Some give 1761 BK while others give 1762 BK, but most agree on Poh 8. The date 8 Poh 1762 BK converts to 7 December, 1705, Friday, Poh Sudi 2. On Sudi 2 moon is usually very thin crescent. This does not agree with the text of *Zafarnama*.

The times of rising and setting of the sun and the moon on the above two dates for the latitude and longitude of Chamkaur Sahib, in Indian Standard Time are as under:

sunrise - 7 December, 1704	7:17 am
sunset - 7 Decmeber, 1704	5:26 pm
moonrise -7 December, 1704	11:43 pm

sunrise - 7 December, 1705 7:17 am
 sunset - 7 December, 1705 5:26 pm
 moonset - 7 December, 1705 7:28 pm

The date of 8 Poh 1761 Bk introduces another variable into the picture. It makes an extra year available for the historians to account for Guruji's sojourns in the Malwa Desh.. Perhaps, he stayed 1 year and 9 months in Talwandi Sabo (Damdama Sahib) in stead of the usual 9 months that is mentioned. But this is for the historians to look into, and is not in my domain.

4. The date of creation of the Khalsa is given by most authors as *Vaisakh 1, 1756 BK*. The corresponding CE date is given as 30 March, 1699 CE. The correct CE date is 29 March, 1699, CE (Julian), Wednesday. Bhangu Ratan Singh gives the day as Wednesday but the year given by him as 1752 BK is incorrect (as quoted in *Sri Gur Sobha by Sainapat - Edited by Dr Ganda Singh*).

5. The problem of *gata varsha* (completed year) and *vartman* (current) year.

In some *Janam Sakhis* birth year and *Jyoti Jot* (merging into Eternal Light) year of Guru Nanak Dev Ji are given as 1525 BK and 1595 BK respectively. These years converted to CE become 1468 and 1538 respectively. The historians interpret 1525 BK and 1595 BK as completed years rather than the current years. As a result, they argue that, in the current mode of recording the date, the years would be 1526 BK and 1596 BK converting to 1469 CE and 1539 CE respectively. But the question is, is this the only date recorded in *gat* format? The answer must be no. Many other dates have to be looked from that angle.

6. In *Sri Gur Sobha by Sainapat (Edited by Dr Ganda Singh)* on page 35 the date of Hussaini battle is given as *23 Phagun 1752 BK (20 March 1696)*. The date converts to 19 February 1696 CE and is out by one month. On the previous page he gives the date of the Hussaini Yuddh as *22 Chet 1747 BK, 20 March, 1691*. The conflict between the two conversions is obvious. It cannot be 20 March for *Phagan 23* in one year and for *Chet 22* in another.

7 (a). *On page 158 of Sri Gur Sobha by Sainapat* edited by Dr Ganda Singh the Hijri date 12 Safar 1094 AH is converted to 3 January 1683. The correct conversion is 31 January 1683. An expert in history could notice such mistakes, but for a layman sometimes it might be impossible. How can one read "31" in place of "3 " where " 1" possibly got omitted in the print?

(b). In *Hukamnameh* (Punjabi) edited by DR Ganda Singh on page 47 the date for *Hukamnamah 41* is given as 'Asu vadi 10 samvat 1749 BK; 9 Oct 1792 AD' and on page 141 for the same *Hukamnamah* the date is given as 'Asu vadi 10 samvat 1749 BK; 25 December 1692 AD'. *The copy has not been checked properly for printing errors, and even in subsequent edition the error has not been rectified.*

There are too many things wrong here. The year 1792 in the first date is out by 100, probably printing or typographical error; but Oct 9 is definitely wrong. Then in the second set, if December is changed to September the conversion becomes correct. Probably this is also a typo error. The correct conversion of Asu vadi 10, 1749 BK to Common Era is 25 September, 1692.

The note by the Vice-chancellor about the second edition "--- Second edition of this (book) is being printed by photo offset process so that no room is left for error" makes interesting reading, but what about all those mistakes which were there in the first edition.

HIJRI CALENDAR

The Hijri calendar is purely a lunar calendar. The era commenced on 16 July 622 CE. This calendar is in use in muslim countries along with the Common Era calendar. There are no intercalary months introduced to keep it in step with the seasons. The 12 months in the year may each have 29 or 30 days. No month can have less than 29 or greater than 30 days. The lunar month begins, for religious purposes, at the moment of the first visibility of the moon after new moon in the evening sky. However, the first day of the month is considered to start from the next morning.

Because Hijri year is purely a lunar one, its year is shorter than the CE year by 10 to 12 days. Therefore, festival dates that are fixed according to this calendar fall earlier by 10 to 12 days in each succeeding year of the Common Era. Beginning day of the Hijri year makes a complete circle of the Common Era year in 33 CE years, so that there are approximately 34 Hijri years in 33 CE years.

There is also another type of Hijri calendar in use based on average length of the month rather than the first visibility of moon. This has fixed number of days in each month. Starting from Muharram, the first month, months have alternately 30 and 29 days. This gives 354 days to the year. Last month may have 30 days in Hijri leap years. There are 11 leap years in a cycle of 30 years. Leap years have 355 days each. This makes 10631 days in 30 Hijri years. Use of this scheme would result in the calendar being out of step with the crescent moon by 1 day in about 2500 years. **Historians use this calendar for**

conversion of dates to the Common Era. If conversion is done correctly it could be out by 1 day or 2 days at the most. However, if the week day is also given in the original date then converted date could be adjusted accordingly to arrive at the correct date.

Now let us look at 2 dates converted from Hijri to Common Era. The source is *Ma'asire Alamgiri (Persian) by Must'aad Khan* edited by Fauja Singh translated into Punjabi by Darshan Singh Awara:

1. Page 6 "-- the astrologers had predicted Friday, 1 Zilqadah 1068 AH (21 July 1658-- as an auspicious day---". On 21 July 1658 CE (Julian) it was Wednesday, therefore, the correct date is 23 July 1658 CEJ.

2. Page 476 gives the date of death of Aurangzeb as Friday, 28 Zilqadah 1118 AH (20 February 1707 CEJ). It was Thursday on 20 February 1707 CEJ. Therefore the correct date is 21 February 1707 CEJ. Obviously the person who did the original conversion did not perform the check for week day.

The date of 20 February is very commonly quoted by Indian writers, perhaps its source is Jadu Nath Sarkar. The Oxford History of India, Vincent Smith, correctly gives 21 February.

COMMON ERA

The Christian Era abbreviated as AD or BC, now a days is more commonly known as Common Era abbreviated as CE or BCE, as the case may be, since the adoption or parallel use of its calendar in most countries of the world. Prior to 1582 CE the leap year rule was: if a year was divisible by 4 without remainder it was a leap year. This gave an average length of 365.25 days in a year. This length is a little more than the length of the solar year which is 365.2422 days. Therefore, the beginning of the year in the Julian Calendar, as it was called, occurred a little later every year in relation to the spring equinox. In the year 325 CE the spring equinox (day and night equal) had occurred on 21 March but because of gradual advance of the beginning of Julian year spring equinox occurred on 11 March, 1582 CE. Calendar was getting out of tune with the seasons.

Pope Gregory on the recommendation of his astronomer introduced the reform to the Julian calendar, removing this discrepancy and altering the leap year rule. The Pope ordained that 5th October 1582 be designated as 15th October (losing 10 days from the calendar), and that the years completely divisible by 4 be leap years with the proviso that century years be leap years only if completely divisible by 400. The new calendar was called the Gregorian calendar. This change was implemented by some countries immediately. England and the United States continued using Julian calendar. They switched to the Gregorian calendar in September 1752 when the difference between the two calendars had become 11 days, designating 3rd September 1752 as 14th, thus dropping 11 days. With the reformed Gregorian calendar there will be an error of 1 day in approximately 3300 years in relation to the true solar year.

Because of the change over from Julian to Gregorian calendar the beginning of the years of other eras started occurring 10 or 11 days later in relation to the Common Era after the change.

Most Indian historians have been converting dates using change over in 1752 CE while others use change over in 1582 CE. So the dates given by two historians for the same event (for the period 5 Oct 1582 CE (Julian) to 2 September 1752 CE (Julian) may differ by 10 or 11 days if one chooses the change over in 1582 CE and the other 1752 CE. To avoid confusion, for dates between the two change overs, 'old style (os)' or 'new style (ns)' is given along with the date by some authors.

THE CAUSES OF THE PROBLEM

The main reason for these errors was lack of availability of detailed almanacs (*jantris*) for earlier period. Historians and scholars had to work their way from scanty information available regarding the beginning of the Bikarami and Hijri years in relation to the Christian calendar. With good knowledge of the Bikarami and Christian calendars one could convert the dates of one into the other with an accuracy of one day. However, in the case of lunar dates of the Bikarami Era the problem gets compounded by the *adhika masas or malmasas or laund months* - intercalary months. If the correct intercalary month is not known, when it occurs in a particular year, the conversion could be easily out by a month.

Dr Ganda Singh, realising these problems, while working on his research projects in Sikh history, made noteworthy effort by way of calculating the beginning of the solar Bikarami years in relation to the Christian calendar. For these dates he gave the Hijri calendar dates and the *tithis* (lunar dates) of the lunar months of the Bikarami Era. He published his tables called "Mukhtasir Nanak Shahi Jantri" in Urdu language. In

this almanac he also gave a table of intercalary months. It would suffice here to say that there are inaccuracies in the main table, and the table of intercalary months is not very accurate. Moreover, since the corresponding dates for *Vaisakh 1* (*beginning of the Bikarami solar year*) only are given for each year, the *Jantri* cannot be of much help to researchers working with wide spectrum of dates.

The Five Hundred Year Almanac for 1469 CE to 1968 CE (Bikarami 1525/26 to Bikarami 2024/25, Hijri 873/74 to 1387/88), by the author of this paper, calculated according to *Surya Sidhanta* on daily basis would provide in one volume the facility to convert dates of calendars from one era to another without any calculation at all. Almanac is also provided for 1960 CE to 2000 CE calculated according to modern methods.

This work could prove very useful to researchers, historians, students, speakers and laymen to fix date of a particular event in any of the given eras.

CONCLUSIONS

The problem of accurate conversion and of checking the accuracy of original dates given in Bikarami and Hijri eras was due to lack of availability of detailed almanacs and lack of expertise in this field by historians, and to certain extent due to the carelessness by the authors while working with the dates. This author's *Jantri 500* could be of great help in solving this problem for the period 1469 CE onwards.

Notes:

1. All Common Era dates up to 2 September 1752 are in Julian calendar.
2. CEJ denotes Common Era Julian.
3. BK stands for Bikarami Samvat.
4. AH for Hijri Era

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