

Astronomical Diaries and Related Texts from Babylonia

Diary No. –651 (652 BC)

Unlike other entries in the *Astronomical Diaries*, tablet No. –651 does not include a translation table linking dates in the Babylonian calendar to their Julian equivalent. The Babylonian calendar of 652 BC had not yet settled into a regular 19-year cycle, and several calendars were in use in the early 7th century. The work of Parker & Dubberstein that laid the foundation of the conventional Babylonian calendar covers only as far back as 626 BC. Consequently the Babylonian dates presented below may not correspond to a conventionally accepted Babylonian calendar.

	Babylonian Date		Julian Date		
Samassumukin	I	14	-651	Apr	5/6
	I	17			
	XII	5	-650	Feb	14/15
	XII	15			Feb
	XII	19		Mar	1/2
	XII	20		Mar	2/3

The above table provides Julian dates for 10 dated entries in Diary –651. The dates are astronomically valid. They fit the lunar year of 354 days from the full moon on Apr 5/6, -651 (both gods were seen) to the 12th full moon on Mar 25/26, -650.

The dating scheme fails twice:

Diary lines 10&11 indicate Mars became stationary around I 17 (Apr 8/9), but *TheSky* software has Mars in the middle of a retrograde period.

Line 13' states one god saw another on XII 15, and 4 days later the moon was observed next to Antares. *TheSky* has the two events separated by 5 days (Feb 24/25 to Mar 1/2). The following day, Mar 2/3, *TheSky* shows the moon next to Jupiter in Scorpio as stated in the Diary, again a day late.

The astronomical evidence supports the dates attributed to the inscriptions, but the dating of the tablet would be more difficult and less persuasive without the historical link discovered in the *Neo-Babylonian Chronicles*.