

## *Deconstructing the Lunar Calendar*

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### **Introduction**

The Jewish lunar calendar in use today is based on specific rules outlined in Rambam's *Yad HaChazakah*.<sup>1</sup> In this calendar, 10 of the 12 months in every regular year and 11 out of the 13 months in every leap year have a preset fixed number of days. During the times of the Mishnah and Gemara until the days of Abaya and Rava the calendar was based on lunar sightings and, depending on visibility, any month could be either 29 or 30 days. Rambam asserts that the sighting system is the one prescribed in the Torah and that our current calendar is a default mode to be used in the absence of a duly constituted Sanhedrin in Eretz Yisrael.<sup>2</sup> Rabbeinu Bachya (R"b), in his commentary on Chumash citing also Rabbeinu Chananel, takes the exactly opposite position, i.e., the preferred system is: על פי החשבון (by calculation) and only during a relatively short period of time in history was the sighting system in effect.<sup>3</sup> Rambam is so convinced that he is right that he refuses to accept that Rabbeinu Chananel believed what he wrote, and assumes he only said it because he was in disputations with others (i.e., Karaites) and could only win the debate if he "fudged" the truth on this matter.<sup>4</sup> While there is evidence that indeed the proponents of the "fixed calendar first" view did present their position in the period of disputes with the Karaites,<sup>5</sup> there seems to be no evidence

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<sup>1</sup> All Rambam references are in Appendix A.

<sup>2</sup> ה: א – ג.

<sup>3</sup> See Appendix B (1) for the full quote.

<sup>4</sup> פירוש המשניות ר"ה ב:ו ואני מתפלא על אדם שמכחיש ומתוכח בדבר הברור ואומר שדת היהודים אינו בנוי על ראיית החדש אלא על החשבון בלבדו הוא מאמין בכל הלשונות האלה ואיני חושב שהאומר כן מאמין בכך אלא היתה מטרתו בדבר זה לנגח את יריבו באיזו צורה שתהיה שלא בצדק או בצדק כיון שלא מצא מפלט מלחץ הוכחה.

<sup>5</sup> See Appendix B (2).

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that they did not believe what they said. Since they preserved their position on this topic in their writing, if they really did not believe it, one would expect to find somewhere at least a hint to that effect. In this paper we will review the underpinnings of the current calendar and offer what we think is the “hint.”

### **Basic Fixed Calendar Rules**

Rambam in *Mishnah Torah, Hilchos Kiddush HaChodesh*, outlines the rules for constructing the Jewish lunar calendar. The key rules are:

1. Rosh Hashanah cannot be Sunday, Wednesday or Friday (לא אדו - ADU) – א:ז
2. If *Molad* Tishrei is on a non-ADU day before noon, R”H starts on that day. – ב:ז
3. If *Molad* Tishrei is on ADU, or after noon on any other day, R”H is deferred to the next non-ADU day. – ג:ז
4. The month of Tishrei always has 30 days. The other months alternate between 30 days and 29 days with the exception of the months of MarCheshvan (MC) and Kislev (K). They can: i) both be 29, ii) MC 29 followed by K 30, iii) both be 30. ד-ה:ז
5. The calendar includes plain years (i.e., 12 months) and leap years (13 months). The extra month in a leap year, Adar Aleph, is 30 days and follows Shevat. – ו:ז

Rules 4 and 5 are summarized in **Table 1** below: