

**DISPARITIES IN GLOBAL HIJRI CALENDARS:
A COMPARATIVE STUDY OF MUHAMMADIYAH'S
KHGT AND DIYANET TÜRKIYE DURING THE
PERIOD 1447–1457 AH**

JOURNAL



Authored By:

RAYHAN ILMAN

NIM. 20221551028

**BACHELOR'S STUDY PROGRAM IN ISLAMIC FAMILY LAW
FACULTY OF ISLAMIC STUDIES AND CIVILIZATION
MUHAMMADIYAH UNIVERSITY OF SURABAYA**

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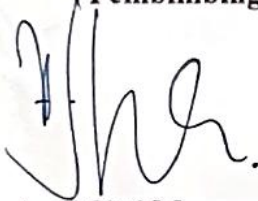
Artikel Jurnal oleh:

Nama : Rayhan Ilman
NIM : 202215510
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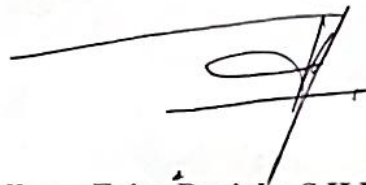
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Andi Sitti Marvam, M.Si.
NIDN. 713107904

Pembimbing II



Gandhung Fajar Panjalu, S.H.I, M.H.I
NIDN. 0728019002

Mengetahui,

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UMSurabaya



Dr. Mohammad Ikhwannuddin, M.H.I
NIDN. 0711098602

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Journal article authored by:

Name : Rayhan Ilman

NIM : 20221551041

Title : Disparities in Global Hijri Calendars: A Comparative Study of Muhammadiyah's KHGT and Diyanet Türkiye during the Period 1447–1457 AH

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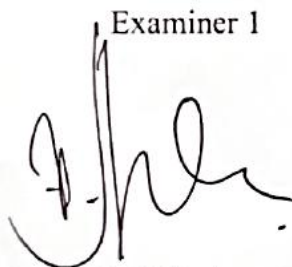
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Examiner 1



Andi Sitti Mariyam, S.Si.,
M.Si.
NIDN. 0713107904

Examiner 2



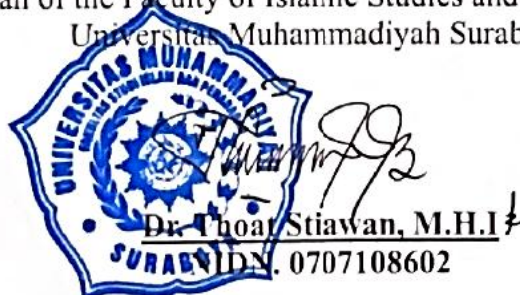
Saiful Ibnu Hamzah, M.A.
NIDK. 0715117103

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Dr. Thoat Stiawan, M.H.I.
NIDN. 0707108602

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DISPARITIES IN GLOBAL HIJRI CALENDARS: A COMPARATIVE STUDY OF MUHAMMADIYAH'S KHGT AND DIYANET TÜRKIYE DURING THE PERIOD 1447–1457 AH

Rayhan Ilman^{a,1,*}, Andi Sitti Mariyam^{a,2}, Gandhung Fajar Panjalu^{a,3}

^a Family Law Study Program, Faculty of Islamic Studies and Civilization, Universitas Muhammadiyah Surabaya, Indonesia

¹ rayhanilman99@gmail.com, ² andisitti@um-surabaya.ac.id, ³ gfpanjalu@um-surabaya.ac.id

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Abstract: This study compares the Muhammadiyah Unified Global Hijri Calendar (KHGT) and Diyanet Türkiye, two global calendar systems that both refer to the 2016 International Hijri Calendar Unity Congress in Istanbul but result in different date determinations in several cases. This study employed a qualitative approach using a comparative-documentary method to analyze official documents from both institutions, crescent (hila) visibility maps, and institutional correspondence between Muhammadiyah and Diyanet. Of the 131 first-of-the-month dates that could be compared during the period 1447–1457 AH, 129 cases (98.5%) yielded identical dates, while differences occurred in 2 cases (1.5%), namely Ramadan 1447 AH and Rabi' al-Awwal 1455 AH. The analysis shows that these differences do not arise from different astronomical threshold criteria, but rather from differences in the type of crescent altitude parameter used: KHGT uses a geocentric parameter consistent with the objective-universal *hisab* tradition, whereas the operational application of Diyanet's visibility criteria in this study is interpreted as a topocentric approach that reflects the actual visibility of the crescent from the Earth's surface. This difference shifts the position of the "first visibility" boundary curve on Diyanet's map westward, such that the first point at which the parameters are met is located at a different location from that of KHGT, significantly affecting date determination in cases involving astronomical boundaries. These findings indicate that the differences between the two calendars ultimately lead to a question that has not been explicitly addressed in the KHGT documents: whether the $5^{\circ}/8^{\circ}$ parameters are intended as objective geocentric astronomical conditions or as an analogy to *imkanurukyat*, which astronomically requires a topocentric approach.

Keywords: KHGT, Turkish Diyanet, Global Hijri Calendar, Geocentric, Topocentric

A. Introduction

The determination of the beginning of the Hijri month often produces differences among Muslim communities in various countries. These differences affect not only the designation of religious holidays, but also the coordination of Islamic activities from regional to transnational levels. Even within a single country, different Muslim groups may celebrate religious festivals on different days. This lack of uniformity arises from differences in fiqh approaches, variations in astronomical criteria, and institutional policies.

One response to these differences is the idea of a Global Hijri Calendar, namely a calendar that is not merely local or national in scope, but is designed to be used uniformly by Muslims across the globe. Musyafa and Qulub found that the unification of the Global Hijri



Calendar is important because differences in the determination of the beginning of the month still have the potential to create discrepancies in the timing of worship and Islamic holy days.¹

In an effort to unify the calendar system for Muslims throughout the world, the International Hijri Calendar Unification Congress, or Mütamar Tevhîdüt-Takvîmî'l-Hicriyyi'd-Devlî, was held on 28-30 May 2016 in Istanbul at the invitation of Diyanet İşleri Başkanlığı (the Presidency of Religious Affairs) of the Republic of Türkiye.² This congress became one of the important milestones because it discussed the single global calendar model and the bizonal calendar model. The voting results at the congress show that the 2016 Istanbul Congress gave majority support to the single calendar model.³ However, the discussion in the congress focused more on the choice of calendar model, while several technical terms and operational parameters that determine its implementation were not explained in detail.

Turkey's Presidency of Religious Affairs (Diyanet İşleri Başkanlığı) plays a key role in the discourse on the Global Hijri Calendar, as it served as the initiator and organizer of the 2016 Istanbul Congress and routinely publishes calendars and lists of religious holidays. In the Diyanet system, the determination of the beginning of the month is linked to the principle of crescent visibility, with criteria of a minimum elongation of 8° and a minimum lunar altitude of 5° above the horizon at sunset.⁴ Thus, Diyanet not only displays calendar dates but also uses visibility maps to indicate when and in which regions the crescent is likely to be first visible.

In Indonesia, Muhammadiyah responded to the idea of a global calendar by adopting the Single Global Hijri Calendar (KHGT) at the 32nd National Conference (Munas) of the Muhammadiyah Tarjih Council at Muhammadiyah University of Pekajangan in Pekalongan on 13–15 Sha'ban 1445 H, corresponding to February 23–25, 2024, which was subsequently ratified and began to be implemented internally on 1 Muharram 1447 H, coinciding with June 26, 2025.⁵ The KHGT developed the Global Calendar Parameters (PKG) based on the 2016 Turkish Congress model, namely the principle of “one day, one date” globally using specific astronomical criteria.⁶

¹ M A Musyafa and S T Qulub, “Urgensi Penyatuan Kalender Hijriyah Global,” *El-Falaky: Jurnal Ilmu Falak* 5, no. 2 (2021): 256–264.

² Diyanet İşleri Başkanlığı, “Mü'tamar Tawhîd Al-Taqwîm Al-Hijrî Al-Mûhad: Prosiding Kongres Unifikasi Kalender Hijriyah Internasional, Istanbul 21–23 Sya'ban 1437 H/28–30 Mei 2016 M” (Ankara: Diyanet İşleri Başkanlığı, 2016). 400–402

³ Syamsul Anwar, “Unified Islamic Calendar in the Perspective of Islamic Legal Philosophy,” *Al-Jami'ah: Journal of Islamic Studies* 54, no. 1 (2016): 203–247, <https://doi.org/10.14421/ajis.2016.541.203-247>.

⁴ Presidency of Religious Affairs, “Explanation of Lunar Month Start Calculations and Maps,” Presidency of Religious Affairs of the Republic of Turkey - Prayer Time Calculator, accessed June 11, 2026, <https://vakithesaplama.diyaret.gov.tr/haritalar.php>.

⁵ Muhammadiyah Central Leadership, “Decision of the 32nd National Tarjih Council of Muhammadiyah Regarding the Single Global Hijri Calendar” (Yogyakarta: Muhammadiyah Central Leadership, 2025). 4–6

⁶ Muhammadiyah Central Leadership, “Official Muhammadiyah Bulletin No. 05/2022–2027/Zulkaidah 1446 H/May 2025 CE: Implementation of the Single Global Hijri Calendar (KHGT)” (Yogyakarta: Muhammadiyah Central Leadership, 2025). 21–22



In its implementation, KHGT applies the outcomes of the 2016 Istanbul Congress by using a global matla' approach, in which the entire surface of the earth is regarded as a single reference unit in determining the beginning of the month. Matla' is a region or geographical boundary used as a reference in determining the beginning of the month based on crescent visibility; in falak literature it is divided into ikhtilaf al-matla' (local matla') and ittihad al-matla' (global matla').⁷ Meanwhile, although Türkiye played a role in organizing the congress and both calendars are described as global calendars, Turkish Diyanet and KHGT still differ in determining the beginning of the Hijri month, as seen in the calculation of Ramadhan 1447 H, when Diyanet set the date as 19 February 2026 (Diyanet İşleri Başkanlığı, 2026), while KHGT set it as 18 February 2026.

A number of previous studies have shown that the issue of unifying the Global Hijri Calendar encompasses five interrelated aspects: astronomy (consensus on criteria for crescent visibility, elongation, and calculation models),^{8,9} acceptance (the need for the calendar to be accepted by Muslim communities accustomed to diverse methods and authorities),¹⁰ fiqh (debates surrounding the foundations of hisab, rukyat, matla', and arguments regarding the public interest),¹¹ institutional matters (the need for cross-organizational and cross-national authorities capable of building consensus, as the calendar concerns religious legitimacy),¹² as well as operational-technical aspects reflected in the consistency between astronomical criteria, the official calendar, crescent visibility maps, and the determination mechanisms as implemented in the Muhammadiyah KHGT system and Turkish Diyanet practice¹³

Although previous research has discussed the urgency of calendar unification, the methodological foundations of Tarjih, and the application of astronomical algorithms in the KHGT, studies that systematically compare the textual formulations of criteria and the results of new moon determinations between the Muhammadiyah KHGT and Turkish Diyanet for the period 1447–1457 H remain limited. Based on this background, this study aims to compare the

⁷ Izza Nur Fitrotun Nisa and Mochamad Ulinnuha, "Ittihad and Ikhtilaf Al-Mathla," *Al-Hilal: Journal of Islamic Astronomy* 3, no. 2 (2021): 20–43, <https://journal.walisongo.ac.id/index.php/al-hilal/article/download/8120/3964>.

⁸ Mursyid Fikri et al., "Harmonizing the Hijri Calendar: A Comparative Analysis of Indonesia's Imkan Al-Ru'yah Crescent Visibility Criteria with Those of Malaysia and Saudi Arabia," *Mazahibuna: Journal of Comparative Madhhabs* 7, no. 1 (2025): 38–53, <https://doi.org/10.24252/mazahibuna.vi.51264>.

⁹ Eza Budi Perkasa, Syafrul Irawadi, and Tri Sugihartono, "Application of Jean Meeus's Astronomical Algorithms in Formulating a Unified Global Hijri Calendar," *Al-Marshad: Journal of Islamic Astronomy and Related Sciences* 11, no. 2 (2025): 145–56, <https://doi.org/10.30596/jam.v11i2.26386>.

¹⁰ Nurul Wasilah Wahidin, "The Problem of Unifying the Hijri Calendar," *AL-AFAQ: Journal of Islamic Astronomy and Related Sciences* 4, no. 2 (2022): 275–283, <https://doi.org/10.20414/afaq.v4i2.5761>.

¹¹ M Yusal et al., "Kalender Hijriah Global Dan Pengaruhnya Terhadap Penetapan Waktu Ibadah: Pendekatan Manhaj Tarjih Muhammadiyah," *Makkah: Journal of Islamic Studies* 1, no. 2 (2025): 23–34.

¹² Muhammad Arafat and Anisah Budiwati, "Syamsul Anwar's Vision: Establishing a Unified Global Islamic Calendar," *AL-AFAQ: Journal of Islamic Astronomy and Astrophysics* 7, no. 1 (2025): 67–83, <https://doi.org/10.20414/afaq.v7i1.11438>.

¹³ Sandika Alfalaah, "A Single Global Hijri Calendar from the Muhammadiyah Perspective: Integration of Hisab, Rukyat, and Date Unification," *Al-Hisab: Journal of Islamic Astronomy* 2, no. 3 (2025): 181–191, <https://doi.org/10.33096/jah.v2i3.26668>.



formulation of criteria in both calendars, identify similarities and differences in the determination of the beginning of the month during that period, and analyze the characteristics of cases of disagreement supported by adequate documentation.

B. Research Method

This study employs a qualitative approach using a comparative-documentary method. This approach was chosen because the objects of study consist of normative and technical texts from two different religious authorities (Muhammadiyah and Diyanet İşleri Başkanlığı), thus requiring a careful side-by-side analysis of the formulation of criteria, terminology, and the results of their application, rather than merely collecting field data.

The primary data sources consist of:

1. The Decision of the 32nd National Tarjih Council of Muhammadiyah regarding the Single Global Hijri Calendar (KHGT), which was ratified by the Central Leadership of Muhammadiyah and took effect on 1 Muharram 1447 H/June 26, 2025 CE;
2. The official proceedings of the International Hijri Calendar Unification Congress (Mü'temar Tawhîd al-Taqwîm al-Hijrî al-Mûḥad), Istanbul, 21–23 Sha'ban 1437 H/May 28–30, 2016 CE;
3. Official announcement by the Presidency of Religious Affairs (Diyanet İşleri Başkanlığı) regarding the beginning of the lunar month of Ramadan in the year 1447 (2026), dated February 18, 2026;
4. A copy of a letter from the Embassy of the Republic of Türkiye in Jakarta dated May 19, 2025, signed by Abdulhamid Eşmeli, Counsellor for Religious Affairs, containing an official excerpt from the explanation by the Presidency of Religious Affairs.

Meanwhile, supporting data sources consist of:

1. Announcement of the Tarjih and Tajdid Council of the Muhammadiyah Central Leadership, No. 01/MLM/I.1/B/2025: *Explanation Regarding the Adjustment of the Determination of the First Day of Ramadan 1447 Hijri and Its Scientific Explanation*;
2. Crescent visibility maps, lists of religious holidays, and Diyanet calendar data for the period 1447–1457 H published on the official Diyanet website;
3. Crescent visibility maps and the KHGT calendar published on the official HisabMu website;
4. Stellarium version 26.1.0, used as an astronomical verification tool.

The period of 1447–1457 H was selected because 1447 H marks the first official implementation of the Muhammadiyah Single Global Hijri Calendar (KHGT). The upper limit of 1457 H was determined by the availability of official Diyanet data through the annual *Dini Günler Listesi*, which were available up to Dhu al-Qa'dah 1457 H. Therefore, Dhu al-Hijjah 1457 H was excluded because the official Diyanet data had not yet been published.



The data were extracted by compiling the officially published beginning dates of each Hijri month from the KHGT and Diyanet calendars, then comparing the corresponding months to identify similarities and discrepancies. Cases of disagreement were further examined using official documents, institutional explanations, and crescent visibility maps to determine whether the differences resulted from textual formulations or operational implementation.

Astronomical verification was performed using Stellarium version 26.1.0 solely as a data triangulation tool rather than as the primary calculation source. The software was operated using its default settings and built-in ephemeris. Coordinate verification referred to the official documentary evidence of each institution, namely the KHGT visibility maps and the locations specified in Diyanet's official explanation, particularly the Aleutian and Fox Islands region in the North Pacific (approximately 51°–55° N and 163°–172° W).

The data were analyzed in three stages. First, the wording, terminology, and parameter structures of the KHGT and Diyanet documents were compared. Second, all comparable Hijri month beginnings during 1447–1457 H were systematically compared. Third, cases of discrepancy were analyzed using the primary and supporting data sources. When inconsistencies occurred between the official calendar and the visibility map, the official calendar or announcement was treated as the primary reference, while the visibility map and Stellarium verification were used to interpret the underlying astronomical factors.

C. Results and Discussion

1. Comparison of the Text, Terms, and Parameter Structure of Muhammadiyah's KHGT and Turkish Diyanet's Hijri Month-Beginning Data

In the first stage, the comparison focused on the wording of the criteria in both systems' texts without first linking them to the results of the determination of a specific month. The texts compared were drawn from (1) the Decision of the 32nd National Tarjih Council of Muhammadiyah regarding the Single Global Hijri Calendar; (2) the official proceedings of the 2016 Istanbul Congress; (3) the official announcement by Diyanet dated February 18, 2026; (4) a copy of a letter dated May 19, 2025, from Abdulhamid Eşmeli, Counselor for Religious Affairs at the Embassy of the Republic of Türkiye in Jakarta.

Both the KHGT and Turkish Diyanet refer to the 2016 Istanbul Congress, although their institutional pathways and implementation patterns differ. The Muhammadiyah KHGT has been implemented internally since 1 Muharram 1447 H/June 26, 2025 CE, based on the Decision of the 32nd National Tarjih Council of Muhammadiyah, which was subsequently ratified by the Central Leadership of Muhammadiyah.¹⁴ Meanwhile, Diyanet's month-beginning determination criteria are a continuation of the criteria that have been in use since the 1978 Istanbul Rukyatul Hilal Conference and were reaffirmed at the 2016 Istanbul

¹⁴ Muhammadiyah Central Leadership, "Official Muhammadiyah Announcement No. 05/2022–2027/Zulkaidah 1446 H/May 2025 CE: Implementation of the Single Global Hijri Calendar (KHGT)." 12–13



Congress. Thus, Diyanet does not recognize a “new implementation” point as the KHGT does, but rather the continuity of the criteria that have been in place.¹⁵

The KHGT has principles, requirements, and criteria as set forth in the document of the 32nd National Tarjih Conference of Muhammadiyah regarding the Single Global Hijri Calendar, specifically in Section C, “Principles, Requirements, and Parameters of the KHGT,” which details the parameters of the global calendar (PKG).¹⁶ Meanwhile, Turkish Diyanet's Hijri month-beginning data are officially published in the announcement document 1447 (2026) Yılı Ramazan Ayı Başlangıcına İlişkin Açıklama, published by the Presidency of Religious Affairs () of the Republic of Turkey on February 18, 2026, which contains the criteria for determining the start of the lunar month, astronomical data for Ramadan 1447 H, and an official response to differing announcements from other countries.¹⁷

The KHGT of Muhammadiyah and Turkish Diyanet share common ground on the basic astronomical thresholds, namely a minimum elongation of 8° and a minimum crescent altitude of 5° , hereinafter referred to as the $5^\circ/8^\circ$ criteria. Both also place imkanurrukyat (crescent visibility) within a framework that goes beyond local sightings and is oriented toward broader calendar implementation. However, there is a slight difference in how the global $5^\circ/8^\circ$ imkanurrukyat (crescent visibility) criteria are referenced in the two texts. The KHGT specifically mentions geocentric terminology regarding the coordinate parameters of the moon's elongation and altitude, whereas the explanation of Turkish Diyanet's implementation does not specifically mention these coordinate parameters.

Geocentric celestial coordinates mean that the position of a celestial body is calculated using the center of the Earth as the coordinate origin or primary reference point, without considering the observer's position on the Earth's surface. Topocentric coordinates, on the other hand, refer to calculations based on the observer's actual position on the Earth's surface, where the Moon's position is influenced by horizon parallax, which can cause a shift in the calculation results of up to approximately 1° .¹⁸

In the explanation of the Turkish Diyanet's crescent visibility map on the website <https://vakithesaplama.diyamet.gov.tr/haritalar.php>, it is stated that the criteria for determining the start of the lunar month are based on the criteria set forth in the Decision of the Ru'yet-i Hilal Conference held in Istanbul in 1978. Based on these criteria, for the crescent moon to be visible to the naked eye, the angular distance (elongation) between the Sun and the Moon after conjunction must be at least 8° , and the crescent's elevation above the horizon at sunset must be at least 5° . Furthermore, it was decided that if the crescent has been sighted in any part of the world, this is sufficient to validly establish the beginning of the new lunar month globally.

¹⁵ Presidency of Religious Affairs (<https://vakithesaplama.diyamet.gov.tr/haritalar.php>).

¹⁶ Muhammadiyah Central Leadership, “Decision of the 32nd Muhammadiyah Tarjih National Conference Regarding the Single Global Hijri Calendar.” 23-28

¹⁷ Presidency of Religious Affairs, “Statement Regarding the Start of the Month of Ramadan in the Year 1447 (2026),” accessed June, 2026, <https://kurul.diyamet.gov.tr/duyuru/2026-ramazan/019c7121-78c4-775c-964e-e581a8efa2c8>.

¹⁸ A. E. Roy and D. Clarke, *Astronomy: Principles and Practice*, 4th ed. (CRC Press, 2003). pp . 68–70



The determination of “*first visibility*” is carried out through periodic monitoring to identify the time when the 5°/8° criteria are first met following the moment of conjunction. This determined time contains information regarding the geographic location, date, and time when the crescent moon can first be seen by the human eye.

Although the Diyanet documents examined in this study do not explicitly specify whether the astronomical coordinates are geocentric or topocentric, they clearly state that the 5°/8° criteria are intended to represent the first possible naked-eye visibility of the crescent. Since actual crescent visibility is evaluated from the observer's position on the Earth's surface, this study interprets the operational application of the Diyanet criteria as being consistent with a topocentric perspective. This interpretation is made by the author based on the visibility requirement and should not be understood as an explicit statement contained in the official Diyanet documents.

The official Diyanet documents examined in this study do not publish the exact geographic coordinates of the first visibility point. Instead, they identify only the relevant geographical region, such as the Aleutian and Fox Islands for the Ramadan 1447 H case. Consequently, this study does not assign a precise coordinate to Diyanet beyond what is officially documented. Coordinate-level analysis is therefore limited to the KHGT data, for which the first qualifying point is explicitly identified in the official visibility map.

In the KHGT document, the 5°/8° criterion is operationalized through the Global Calendar Parameters (PKG). PKG 1 applies if the crescent's elongation and altitude meet the threshold before 24:00 UTC. If the criteria are met after 24:00 UTC, PKG 2 requires that the conjunction in New Zealand occur before dawn and that the astronomical parameters be met over the mainland of the Americas.¹⁹ Meanwhile, the Diyanet document uses the term “*first visibility of the new moon*” to describe the place and time when the crescent moon is first likely to be visible based on the thresholds of 8° elongation and 5° altitude, which are also required to occur on the mainland of the Americas (North and South), and the conjunction in the world's easternmost region (Wellington, New Zealand) must take place before dawn.²⁰

Fundamentally, these two additional requirements—the American mainland and dawn in New Zealand—are identical between KHGT and Diyanet; however, the general Diyanet document analyzed does not use the PKG 1 and PKG 2 nomenclature as KHGT does, but rather describes them as two sequential requirements without formal labels. Thus, the differences at the textual level primarily lie in terminology, the structure of the wording, and the level of detail in the operational rules, while their implications for calendar dates are discussed in the application section.

¹⁹ Muhammadiyah Central Leadership, “Decision of the 32nd National Tarjih Council of Muhammadiyah Regarding the Single Global Hijri Calendar.” 28

²⁰ Presidency of Religious Affairs <https://kurul.diyamet.gov.tr/tr/duyuru/2026-ramazan/019c7121-78c4-775c-964e-e581a8efa2c8>.



Table 1. Comparison of the Text, Terms, and Parameter Structure of Muhammadiyah's KHGT and Turkish Diyanet's Hijri Month-Beginning Data

No.	Comparison Aspect	KHGT Muhammadiyah	Turkish Diyanet's Hijri Month-Beginning Data
1	Institutional Basis / Reference Document	Decision of the 32nd National Tarjih Conference of Muhammadiyah on the Unified Global Hijri Calendar, promulgated by the Central Board of Muhammadiyah.	Official announcement of Diyanet İşleri Başkanlığı (Presidency of Religious Affairs of the Republic of Türkiye), in the “Açıklama” series issued at the beginning of each lunar month, for example: 1447 (2026) Yılı Ramazan Ayı Başlangıcına İlişkin Açıklama.
2	International Forum/Reference	Refers to the results of the International Hijri Calendar Unification Congress, Istanbul, 21-23 Sha'ban 1437 H/28-30 May 2016 CE, as well as Muhammadiyah's internal study process since the 47th Mukhtar (2015) and the 48th Mukhtar (2022).	Refers to the 1978 Istanbul Ru'yet-i Hilâl Conference as the basis of the criteria, which were later confirmed/reaffirmed at the 2016 Istanbul Congress as organizer and initiator of the congress.
3	Date/Status of Implementation	Applied internally by Muhammadiyah beginning 1 Muharram 1447 H, corresponding to 26 June 2025 CE, based on the Decision of Munas XXXII Tarjih (23-25 February 2024 CE).	There is no new implementation date; the criteria represent continuity of Diyanet practice since 1978 and were confirmed in 2016, being applied routinely in each determination of the beginning of the month (e.g., the 18 February 2026 announcement for Ramadhan 1447 H).
4	Basic Astronomical Threshold Criterion) (5°/8°	Minimum elongation of 8° and minimum crescent altitude of 5° (geocentric), analogized with the global imkanu rukyat criterion.	Minimum angular distance between the Moon and Sun of 8° and minimum lunar altitude above the horizon at sunset of 5°, as an astronomical visibility (ru'yet) requirement for the crescent.
5	Nomenclature/ Technical Terms	Uses the formal term “Global Calendar Parameter (PKG)” with two schemes: PKG 1 and PKG 2.	Does not use the terms PKG 1/PKG 2; explains the provisions as two sequential requirements without formal labels, using the terms first visibility of new moon / ru'yet.
6	Parameter Scheme (PKG 1 & 2)	PKG 1: applies when the elongation and crescent altitude meet the 5°/8° threshold anywhere on earth before 24.00 GMT/UTC. PKG 2: if the threshold is newly met after 24.00 GMT/UTC, the new month still begins provided that conjunction in Wellington (New	1. The new month begins when the 5°/8° criteria (ru'yet/visibility) are fulfilled anywhere on earth, without being tied to a particular place (ihtilafü'l-metâli'e itibar olunmaz). 2. If visibility has not been achieved before the time limit, the following are required: (a) ru'yet occurs on the mainland of the



No.	Comparison Aspect	KHGT Muhammadiyah	Turkish Diyanet's Hijri Month-Beginning Data
		Zealand) occurs before dawn, and that the 5°/8° parameters have been fulfilled on the landmass of the American continent.	American continent (North and South America); and (b) conjunction in the easternmost region of the world (Wellington, New Zealand) occurs before dawn.
7	Requirement of the American Continental Landmass & Dawn Requirement in New Zealand (Wellington)	- Explicitly part of PKG 2: the 5°/8° parameters must reach the landmass of the American continent, not merely oceanic/water areas. - Conjunction (ijtimak) in New Zealand is required to have occurred before dawn as part of PKG 2.	- Explicitly required: ru'yet must occur on the mainland of North and South America; visibility over oceans/seas (e.g., the Pacific Ocean) is explicitly considered insufficient, as illustrated in the Ramadhan 1447/2026 case. - Conjunction in the easternmost region of the world (Wellington, New Zealand) is required to occur before dawn so that the new month can begin globally.
8	Concept of Matla'	Rejects local rukyat (ikhtilaf al-matholi') as the basis; the whole world is considered one global matla' unit.	It is affirmed that no particular place is required for rukyat; crescent visibility anywhere on earth can serve as the basis for the beginning of the lunar month.
9	Standard Time Reference	Generally mentions UTC, but in the technical parameter formulation (points b and c) still uses the terms GMT/24.00, so inconsistency is found in the use of UTC vs GMT in the official text.	The calculation is explicitly stated as using Greenwich/UTC without switching terms; mention of local time (e.g., Türkiye time) is emphasized only as a technical reference, not as a determinant of regional applicability.
10	Verification/Response to Claims by Other Countries	The general KHGT document analyzed does not contain an official rebuttal mechanism for determinations by other countries.	The announcement of 18 February 2026 explicitly evaluates rukyat claims by other countries (e.g., Saudi Arabia, the Fiqh Council of North America), along with comparative astronomical data and observation results.

Table 1 shows that the differences between the KHGT and Turkish Diyanet's official announcements can be summarized into three main aspects. First, terminology differs, as KHGT formally uses the terms *Global Calendar Parameters (PKG 1 and PKG 2)*, whereas Diyanet describes the same provisions without employing this nomenclature. Second, the coordinate model differs in its textual formulation: the KHGT document explicitly specifies geocentric coordinates, while the Diyanet documents examined in this study do not explicitly state whether the astronomical coordinates are geocentric or topocentric. Third, operational interpretation differs in the way the criteria are presented and implemented, although both systems refer to the same 5°/8° visibility threshold. The practical implications of these



differences are examined in the following section through a comparison of the official calendar results.

2. Comparison of the Application of Muhammadiyah's KHGT and Turkish Diyanet's Hijri Month-Beginning Data in 1447-1457 H

After the textual comparison was conducted without linking it to specific cases, this section compares the application results of the two calendars in the 1447-1457 H period to answer the second research question. The comparison covers all beginnings of Hijri months, from Muharram to Zulhijah, across eleven calendar years (1447-1457 H), so that there are 132 potential month beginnings to be compared. KHGT data were taken from the official KHGT calendar, while Diyanet data were taken from the available list of religious days and Diyanet calendar data. The following table presents the final date determinations in the official calendars, not the entire hisab process behind them.

Table 2. Comparison of Hijri Month Beginnings between KHGT and Diyanet in 1447-1457 H²¹

Category	Number of Cases	Percentage (%)	Description	Of Total	Status
Same date	129	98,5%	Both calendars determine identical beginning-of-month dates	129 of 131	✓ Aligned
Difference found	2	1,5%	There is a date difference between the KHGT and Diyanet determinations	2 of 131	✗ Different
Data not yet available	1	-	Zulhijah 1457 H, Diyanet data not yet available at the time of the study	1 of 132	Not yet comparable

Based on Table 2, of the 132 potential Hijri month beginnings within the 1447–1457 H study period, 131 could be directly compared because official calendar data from both KHGT and Diyanet were available. Among these 131 comparable cases, 129 showed identical beginning-of-month dates, while two cases—Ramadan 1447 H and Rabiulawal 1455 H—displayed differences between the two calendars. The remaining case, Zulhijah 1457 H, was excluded from the comparison because the official Diyanet data had not yet been published in the annual *Dini Günler Listesi* at the time of this study. No projected or reconstructed dates were used. Consequently, the level of agreement between the two calendars reached approximately 98.5% (129 of 131 comparable cases), while differences occurred in approximately 1.5% of the comparable cases.

3. Analysis of Cases of Difference in the Application of KHGT and Diyanet's Hijri Month-Beginning Data

a. Case of 1 Ramadhan 1447 H

The case of 1 Ramadhan 1447 H has the strongest documentary support among the cases analyzed, because the date difference appears not only in the calendar and the global parameter fulfillment map or crescent visibility map, but can also be explained through the

²¹ From the KHGT Calendar 1447-1457 H (<https://tarjih.or.id>), Diyanet religious-day lists, the Hicri Takvim page (<https://hicritakvim.org>), and the available visibility maps.



Muhammadiyah notice and institutional correspondence between Muhammadiyah and the Turkish Diyanet. Thus, Ramadhan 1447 H is the main case for reading the operational difference between Muhammadiyah's KHGT and Turkish Diyanet.

KHGT determined 1 Ramadhan 1447 H as 18 February 2026 (see Figure 1a). This determination followed a two-stage parameter test. First, Global Calendar Parameter 1 (PKG 1) was tested, namely whether the parameters of elongation $\geq 8^\circ$ and crescent altitude $\geq 5^\circ$ had been fulfilled anywhere on the earth before 00.00 UTC.²² The PKG 1 test showed that no location on the earth's surface met the threshold before the 00.00 UTC deadline. Since PKG 1 was not fulfilled, the next step was to test Global Calendar Parameter 2 (PKG 2). PKG 2 was considered fulfilled through a point on American land, namely in southwestern Alaska, at latitude $56^\circ 48' 49''$ N and longitude $158^\circ 51' 44''$ W (see Figure 1a). In addition to fulfillment of the parameter on American land, PKG 2 also requires that conjunction occur before dawn in New Zealand, which was also fulfilled because conjunction occurred on 17 February 2026 at 12.01 UTC, far before dawn time in Wellington. Based on the fulfillment of PKG 2, KHGT determined that 1 Ramadhan 1447 H fell on 18 February 2026.

In contrast to the KHGT, the Turkish Diyanet has determined that the first day of Ramadan 1447 H falls on February 19, 2026 (Figure 1b). The Turkish Diyanet's official announcement dated February 18, 2026, states that the astronomical parameters—namely, an elongation of $\geq 8^\circ$ and a crescent moon altitude of $\geq 5^\circ$ —were first met astronomically on February 18, 2026, at 03:42 UTC over the Aleutian and Fox Islands in the Pacific Ocean. However, the Diyanet considers that visibility in that region cannot be counted as fulfilling the requirements, since it did not occur on the mainland of the American continent (neither North America nor South America). Therefore, the necessary conditions were only considered met when, on February 18, 2026, the crescent's parameters had reached the American mainland, and thus the first day of Ramadan was set to begin on February 19, 2026.²³

Source of the difference: explanation through institutional correspondence

The Muhammadiyah statement explains that, following communication with Diyanet, the Turkish side views the areas meeting the $5^\circ/8^\circ$ parameters on February 18 as being located in the Aleutian and Fox Islands in the Pacific Ocean, and thus not counted as part of the main landmass of the Americas. The statement also cites the low population density in the disputed area as an additional reason.²⁴

Supporting documentation for this case is reinforced by a copy of a reply letter from Abdulhamid Eşmeli, *Religious Affairs Counselor* at the Turkish Embassy in Jakarta, dated May

²² The official KHGT document uses the term '24.00 GMT'; in this article, '00.00 UTC' is used as an equivalent.

²³ Presidency of Religious Affairs <https://kurul.diyaret.gov.tr/tr/duyuru/2026-ramazan/019c7121-78c4-775c-964e-e581a8efa2c8>.

²⁴ The Tarjih and Tajdid Council of the Muhammadiyah Central Executive Board, "Announcement No. 01/MLM/I.1/B/2025: Explanation Regarding the Adjustment of the Determination of the First Day of Ramadan 1447 Hijri and Its Scientific Rationale" (Yogyakarta: Tarjih and Tajdid Council of the Muhammadiyah Central Executive Board, 2025).

19, 2025.²⁵ The letter explains the basis for determining the first day of Ramadan 1447 H according to Turkish Diyanet's data, which falls on February 19, 2026: namely, that the criteria of a crescent moon elevation of 5° and an elongation of 8° must be met on the mainland of the

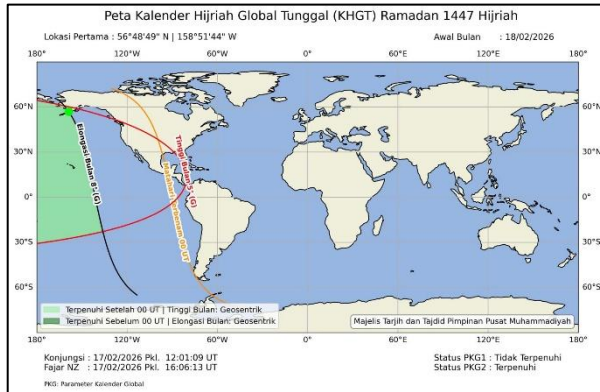


Figure 1a. KHGT PKG Fulfillment Map for Ramadhan 1447 H
(source: <https://tarjih.or.id>)

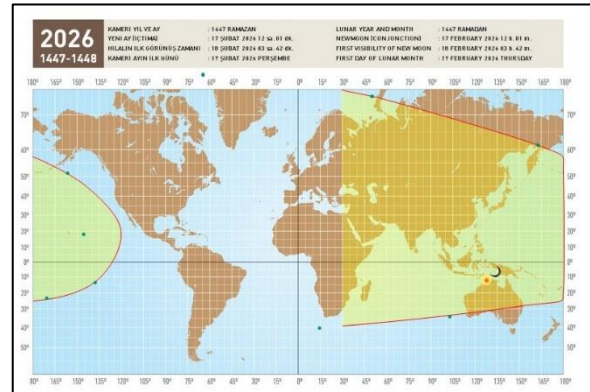


Figure 1b. Crescent Visibility Map of the Diyanet Calendar for
Ramadhan 1447 H (source:
<https://vakithesaplama.diyagnet.gov.tr/haritalar.php>)

American continent, while visibility in oceanic regions and on islands separated from the mainland is not taken into account. Thus, the disparity regarding Ramadan 1447 H does not lie in the $5^\circ/8^\circ$ threshold criteria themselves, but rather in the operational interpretation of what constitutes the mainland of the Americas.

If we examine in more detail the coordinates on Earth that first meet the $5^\circ/8^\circ$ threshold according to each calendar, we will find differences in how the point in question is determined. KHGT refers to a point on the American mainland, specifically at latitude $56^\circ48'49''$ N and longitude $158^\circ51'44''$ W, in southwestern Alaska. This point is not part of the Aleutian Islands chain but is located in the southern part of the Alaska Peninsula. Meanwhile, according to the official explanation communicated by Diyanet through its correspondence with Muhammadiyah, the first fulfillment of the $5^\circ/8^\circ$ criteria occurred in the Aleutian and Fox Islands region in the Pacific Ocean. Neither the official announcement nor the institutional correspondence provides the exact geographic coordinates of this first-visibility point. Accordingly, this study refers to the officially identified region rather than reconstructing a specific coordinate that is not explicitly stated in the primary sources. Diyanet nevertheless excludes this region because it is not regarded as part of the American mainland.

Diyanet's calculation methodology: a precise point, not a regional representation

The official explanation of how Diyanet actually determines the first point at which the $5^\circ/8^\circ$ parameters are fulfilled can be found in the technical explanation accompanying the monthly Diyanet visibility maps available on Diyanet's official website.²⁶ Based on that official technical explanation, the method used is as follows: from the moment of conjunction, the

²⁵ Abdulhamid Eşmeli, "Regarding Your Consultation, Meeting Request, and Invitation to the Hijri Calendar Launch Event" (Jakarta: Embassy of the Republic of Türkiye, 2025).

²⁶ Diyanet İşleri Başkanlığı, "Kamerî Ay Başları Hesap ve Haritalarının Açıklaması." <https://vakithesaplama.diyagnet.gov.tr/haritalar.php>.



coordinates of the Moon and the Sun are continuously traced until the first moment at which both parameters are fulfilled simultaneously is found. At that moment, the date, UTC time, and coordinates of the point on earth where the crescent can first be seen by the human eye are obtained. Diyanet's explanation explicitly uses the phrase 'ilk defa insan gözü ile görülebileceği yer' (the place where the crescent can first be seen by the human eye), which is a strong indication that the parameter used is topocentric, namely calculated from the earth's surface, because "seeing" is an act of an observer located on the surface, not at the center of the earth. Thus, the mention of the "Aleutian and Fox Islands" in the Muhammadiyah-Diyanet correspondence is a geographical description of the precise coordinates generated by the Diyanet algorithm. Diyanet also works with a precise point, as KHGT does.

Table 3. Comparison of parameters for 1 Ramadhan 1447 H between KHGT and the Turkish Diyanet²⁷

Parameter	KHGT	Turkish Diyanet
Coordinates of the location that first meets the $5^{\circ}/8^{\circ}$ threshold	$56^{\circ}48'49''$ N, $158^{\circ}51'44''$ W Southwestern Alaska, not included in the Aleutian Islands region.	Aleutian and Fox Islands region, Pacific Ocean (exact coordinates not specified in the official Diyanet documents). ²⁸
Position of the visibility boundary curve on the map	Touches the Alaska Peninsula mainland ($\sim 158^{\circ}$ W), the geocentric 5° lunar altitude curve	Shifted westward compared with KHGT; does not touch the Alaska Peninsula mainland (see Figures 1a and 1b)
UTC time at which the parameter is first fulfilled (sunset at the location point)	03.42 UTC	03.42 UTC
Geocentric Elongation & Lunar Altitude	Elongation $8^{\circ} 0' 11''$ Altitude $+5^{\circ} 23' 35''$	Not used; Diyanet uses topocentric altitude (calculated from the earth's surface; the point sought is the place where the crescent is first visible to the human eye)
Topocentric Elongation & Lunar Altitude	Not used; KHGT uses geocentric altitude (calculated from the center of the earth)	Elongation and altitude meet $5^{\circ}/8^{\circ}$ so that it can be observed with the naked eye
Fulfillment status of the "American landmass" requirement	Fulfilled: the coordinate point is located on the Alaska Peninsula mainland	Not fulfilled: the coordinate point is located on islands considered not to be part of the American mainland

²⁷ The values for each parameter are based on the information shown in the KHGT map and the Diyanet visibility map (tarjih.or.id for KHGT, vakithesaplama.diyane.gov.tr for Diyanet).

²⁸ Liu C, Yang A Q, and Hu W Y, "Aleutian Islands," *Journal of Global Change Data & Discovery* 2, no. 1 (2018): 109–114, <https://doi.org/10.3974/geodp.2018.01.18>.



Determination of 1 Ramadhan 1447 H	18 February 2026	19 February 2026
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Geocentric (KHGT) vs. Topocentric (Diyanet): visual evidence from map comparison

KHGT explicitly uses elongation and geocentric altitude (calculated from the center of the Earth), as stated in the footnote of the official KHGT document. Diyanet, on the other hand, uses topocentric parameters (calculated from the Earth's surface) in accordance with the definition that the point being sought is the location where the crescent moon can first be seen by the human eye on the Earth's surface.

This difference has a tangible impact on the position of the visibility boundary line on a map of the Earth, and this impact can be visually confirmed by comparing Figure 1a (KHGT map) and Figure 1b (Diyanet map). On the KHGT map, the “5° Geocentric Lunar Height” curve, depicted as a red line, intersects the “8° Lunar Elongation” curve at approximately longitude $\sim 158^\circ\text{W}$ and directly touches the tip of the Alaskan Peninsula, resulting in the first point where the parameters are met at coordinates $56^\circ 48' 49''\text{N}$, $158^\circ 51' 44''\text{W}$, which is still on the continental landmass. On the Diyanet map, the red line marking the first visibility boundary (*the “first visibility”* curve, i.e., the outermost boundary where both an elongation of $\geq 8^\circ$ and an altitude of $\geq 5^\circ$ are simultaneously met in a geocentric system) appears to shift consistently westward and slightly southward: its northern end falls around longitude $165^\circ\text{--}170^\circ\text{W}$ at latitudes $\sim 52^\circ\text{--}55^\circ\text{N}$, namely the Aleutian Islands region in the Pacific Ocean. Most significantly, the Diyanet red line does not touch the Alaskan Peninsula at its closest point, unlike the KHGT geocentric curve, which precisely touches that landmass.

Astronomically, this shift can be explained by the Moon's horizontal parallax, which is approximately $\sim 1^\circ$. At high latitudes ($\sim 52^\circ\text{--}57^\circ\text{N}$) in February, the Moon is relatively low above the horizon at sunset. Under these conditions, the topocentric correction tends to reduce the altitude value compared to the geocentric value, because an observer on the Earth's surface “sees” the Moon from a slightly lower angle than what is calculated from the center of the Earth. As a result, the 5° topocentric altitude threshold is only reached at locations further west, where the Moon has been above the horizon longer and its elongation has increased more significantly, compared to the point calculated using geocentric values. The shift in the curve visible on both maps is a visual representation of this mechanism.

Thus, the first KHGT point (mainland Alaska) and the first Diyanet point (Aleutian Islands) differ in location due to the different types of parameters used, even though their numerical thresholds are identical (5° altitude, 8° elongation). This shift is also the root cause of the differing geographical interpretations: the geocentric KHGT point precisely touches the Alaskan mainland, whereas the topocentric Diyanet point has shifted westward into an archipelago whose status is subsequently disputed. The Muhammadiyah–Diyanet correspondence highlighted a juridical-geographical disagreement over the meaning of the American continental landmass. However, the analysis indicates that this disagreement originated from different astronomical calculation methods, which produced different

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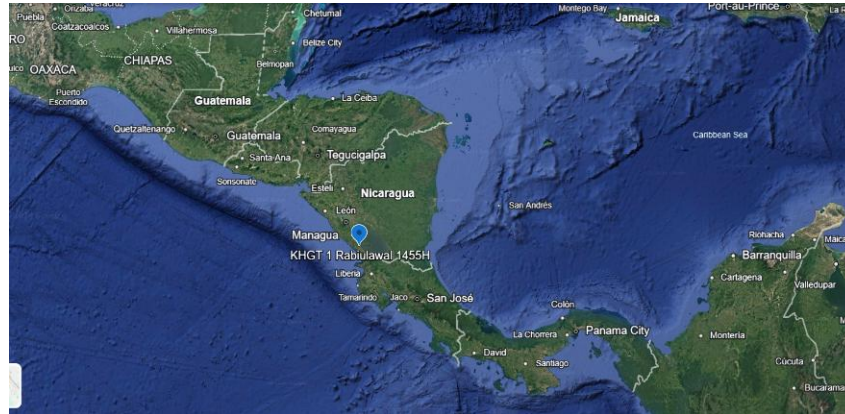


Figure 3. Coordinates of KHGT Global Parameter Fulfillment for 1 Rabiulawal 1455 H, in Tronco Solo, Rivas, Nicaragua. (source: earth.google.com)

Comparison with the Diyanet map (Figure 2b) reveals a pattern consistent with the Ramadhan 1447 H case. The Diyanet map records that the topocentric parameter was first fulfilled on 29 May 2033 at 00.03 UTC, differing by only 1 minute from KHGT. According to the published Diyanet visibility map, the first-visibility boundary at 00:03 UTC still lay over the Pacific Ocean and had not yet reached the American continental landmass. This is visually confirmed: the red line (topocentric first visibility curve) on the Diyanet map appears shifted westward compared with the KHGT geocentric curve, with the endpoint of the curve falling in Pacific waters west of Central America, far from the Nicaraguan coordinates. Because the requirement of the “American continental landmass” had not yet been fulfilled topocentrically on 29 May, Diyanet determined 1 Rabiulawal 1455 H as 30 May 2033.

This case provides important independent confirmation. Unlike Ramadhan 1447 H, where the geographical difference (mainland vs. islands) briefly became the main argument, in the Rabiulawal 1455 H case the initial KHGT coordinate point is clearly located on a densely populated continental landmass, so there is no geographical or demographic basis for disputing it.²⁹ The only consistent explanation is the geocentric-topocentric difference. Stellarium data show that the topocentric parameters at the Rivas coordinates themselves do not meet the threshold (topocentric elongation $7^{\circ}13'8'' < 8^{\circ}$; topocentric altitude $+4^{\circ}59'21'' < 5^{\circ}$), so from Diyanet's perspective the Rivas point is not yet considered a location where the crescent can actually be observed. Thus, this case strengthens the conclusion that the difference between KHGT and Diyanet stems from the type of parameter used. This difference in parameter type also explains why the Ramadhan 1447 H case ultimately led to a geographical debate (mainland vs. islands), because different methods produced different location points.

²⁹ “Rivas (Department, Nicaragua) - Population Statistics, Charts, Map and Location,” accessed June 25, 2026, https://www.citypopulation.de/en/nicaragua/admin/80_rivas/.



D. Conclusion

This study compares Muhammadiyah's KHGT and Turkish Diyanet through three stages of analysis: comparison of the criteria text, comparison of implementation results in the 1447-1457 H period, and in-depth analysis of cases with differing dates. Based on this analysis, three main conclusions are obtained.

First, at the level of textual formulation, KHGT and Turkish Diyanet have substantially identical astronomical criteria: both require a minimum elongation of 8° and a minimum crescent altitude of 5° at sunset, apply the principle of global matla', require fulfillment on the American continental landmass if the parameter is newly fulfilled after the time limit, and require conjunction in the easternmost region of the world (Wellington, New Zealand) to occur before dawn. Differences at the textual level mainly lie in nomenclature, the degree of operational detail, and, most technically significant, how the type of coordinate parameter used is stated. KHGT explicitly states that the elongation and crescent altitude used are geocentric parameters (calculated from the center of the earth), whereas Diyanet documents do not explicitly state the coordinate type, although operationally they refer to the point where the crescent can “first be seen by the human eye,” which, from an astronomical perspective, is consistent with the use of topocentric parameters (calculated from the earth's surface).

Second, of the 131 Hijri month beginnings that could be compared in the 1447-1457 H period, 129 cases (98.5%) produced the same date determination between KHGT and Diyanet. Differences occurred in only 2 cases (1.5%), namely 1 Ramadhan 1447 H and 1 Rabiulawal 1455 H. This very high level of agreement shows that the two calendars operate within essentially the same criteria framework. Differences arise only in borderline cases, namely astronomical situations in which the $5^\circ/8^\circ$ parameter is first fulfilled in high-latitude regions or near transition zones between land and ocean, where the geocentric-topocentric difference produces a sufficiently large effect to shift the first location point across the relevant geographical boundary.

Third, the case analysis reveals that the root of the difference between KHGT and Diyanet does not lie in different astronomical threshold criteria (both use 5° and 8°), but in the different type of parameter used to calculate crescent altitude. In the Ramadhan 1447 H case, the geocentric-topocentric difference shifts the visibility boundary curve (first visibility) on the Diyanet map westward compared with the KHGT geocentric curve, so that the first point in KHGT falls on the Alaska Peninsula mainland, while the first point in Diyanet falls in the Aleutian Islands, whose status then becomes disputed. In other words, the juridical-geographical debate over the status of “the American continental landmass” in the Muhammadiyah-Diyanet correspondence actually originates from the difference in astronomical methods that produced different location points, not the reverse. The Rabiulawal 1455 H case independently strengthens this conclusion: the first point according to KHGT is located in Rivas, Nicaragua (a densely populated continental landmass that cannot be questioned geographically or demographically), yet the determination still differs because the topocentric data at the same coordinates do not meet the threshold (topocentric elongation



$7^{\circ}13'8'' < 8^{\circ}$ and topocentric altitude $+4^{\circ}59'21'' < 5^{\circ}$), so from Diyanet's perspective the crescent in Rivas has not yet met the visibility requirement.

These findings have important implications for efforts to harmonize the global Islamic calendar, while also opening the door to a more comprehensive understanding of the differences between KHGT and Diyanet. These differences are not caused by divergent visions or fundamental principles, but rather by a specific, identifiable technical discrepancy: the choice between geocentric and topocentric parameters in calculating the altitude of the crescent moon. KHGT's choice of geocentric parameters is not without basis; it reflects the continuity of the Muhammadiyah hisab tradition, which has never regarded visibility (*imkanurukyat*) as an absolute requirement for determining the start of the month, but rather relies on objective astronomical conditions that are global in nature and uniformly applicable across the entire Earth's surface. Meanwhile, the operational implementation of Diyanet's visibility criteria is interpreted in this study as being consistent with a topocentric approach, which better reflects the reality of visibility on the Earth's surface and is consistent with Diyanet's orientation toward the rukyat tradition. The tension between these two approaches actually reflects a deeper tension between two epistemological traditions in astronomy: *hisab*, which is objective and universal on the one hand, and *imkanurukyat*, which is observational and local on the other. This technical discrepancy only affects cases involving astronomical thresholds, but in such cases, its impact is determinative of the calendar dates. Thus, the source of the discrepancy between the two calendars ultimately points to an epistemological question that has not been explicitly addressed in the KHGT document: whether the $5^{\circ}/8^{\circ}$ parameter is intended as an objective, geocentric astronomical condition, or as an *imkanurukyat* analogy that, from an astronomical perspective, requires a topocentric approach.

E. Declaration

The authors used artificial intelligence (AI)-assisted tools solely to support language refinement, improve clarity, and enhance readability, while all research ideas, data collection, analysis, interpretation, and conclusions were conducted and verified by the authors. The first author, Rayhan Ilman, contributed to data collection, processing, and original draft writing. The second author, Andi Sitti Mariyam, contributed to research design, data validation, and analysis. The third author, Gandhung Fajar Panjalu, contributed to methodology refinement and final editing. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. The authors also declare that there is no financial, professional, or personal conflict of interest that could influence the research process or its findings.

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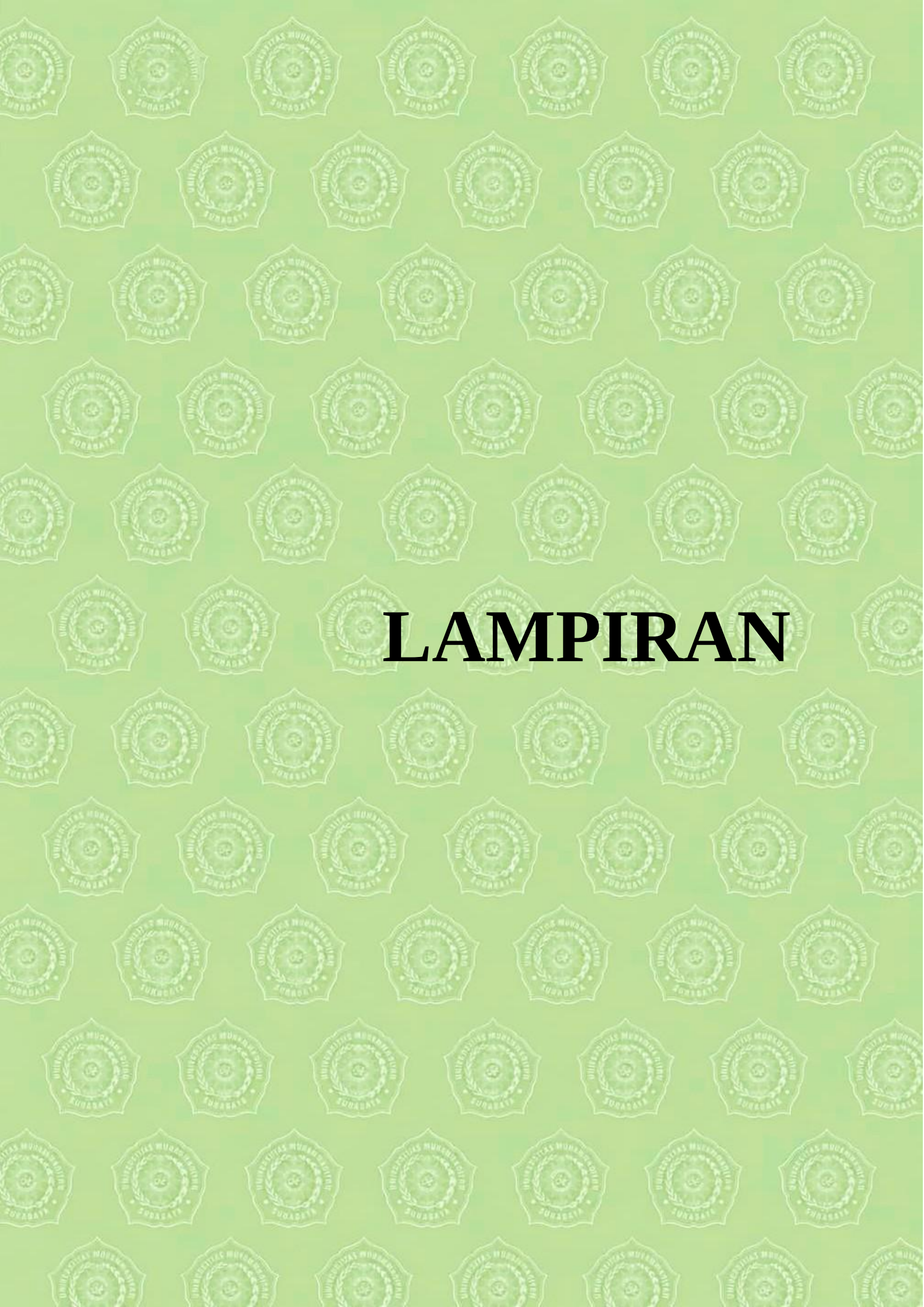
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LAMPIRAN



LETTER OF ACCEPTANCE

Vol. 8, No. 2, 2026

Mataram, 02 July 2026

Dear Rayhan Ilman

Assalamualaikum warahmatullahi wabarakatuh.

We are pleased to inform you that your manuscript submitted to Al-Afaq: Jurnal Ilmu Falak dan Astronomi has successfully passed our double-blind peer review process and has been officially accepted for publication.

The details of your accepted article are as follows:

Title:

“DISPARITAS KALENDER HIJRIYAH GLOBAL: STUDI KOMPARATIF KHGT MUHAMMADIYAH DAN KALENDER DIYANET TURKI DALAM RENTANG 1447–1457 H”

Author(s):

Rayhan Ilman, Andi Sitti Mariyam, Gandhung Fajar Panjalu

Your paper will be published in:

Al-Afaq: Jurnal Ilmu Falak dan Astronomi

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p-ISSN: 2685-0176

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Accredited by SINTA 3 (Science and Technology Index)

Congratulations on your acceptance. We highly appreciate your contribution to the development of scholarly work in the field of Islamic Astronomy, and we look forward to your future submissions to our journal.

Wassalamualaikum warahmatullahi wabarakatuh.

Best Regards,



Muhamad Saleh Sofyan, M.H.
Editor in Chief



ENDORSEMENT LETTER

1041/PB-UMS/EL/IX/2026

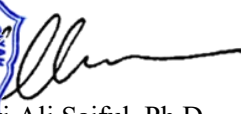
This letter is to certify that the abstract of the thesis below

Title : Disparities in Global Hijri Calendars: A Comparative Study of Muhammadiyah's KHGT and Diyanet Türkiye during the Period 1447–1457 AH
Name : Rayhan Ilman
Student ID Number : 20221551041
Department : Islamic Family Law, Bachelor program, Faculty of Islamic Studies and Civilization, Muhammadiyah University of Surabaya, Indonesia

has been endorsed by Language Center of Muhammadiyah University of Surabaya for further approval by the examining committee of the faculty.

Surabaya, 14 September 2026

Chairperson,



Jepri Ali Saiful, Ph.D.



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