

The Dynamics of Imkan ar-Rukyat Criteria in Indonesia: Comparing Muhammad Mansur's Thought in Kitab Mizan al-I'tidal with the Neo-MABIMS Criteria

Mohammad Roihan Dliya'ul Haq¹, Ahmad Adib Rofiuddin²

¹Roihandliya.38@gmail.com, ²adibudin08@walisongo.ac.id

^{1,2} Universitas Islam Negeri Walisongo Semarang

ARTICLE INFO

Article history:

Submitted Dec 13, 2025

Accepted Jun 12, 2026

Published Jun 30, 2026

Keywords:

*Imkan ar-rukyat,
Neo-MABIMS,
Mizan al-I'tidal,
Muhammad Mansur,
Crescent visibility*

This is an open-access article under the CC-BY-SA License.



ABSTRACT

Crucial differences in determining the beginning of the Hijri months, such as Ramadan, Shawwal, and Dhu al-Hijjah in Indonesia, are often triggered by a methodological dichotomy among Islamic organizations. This divergence is distinctly evident between the rukyat (lunar observation) method guided by Nahdlatul Ulama and the hisab (astronomical calculation) method adopted by Muhammadiyah. As an integrative solution, the concept of imkan ar-rukyat (possibility of sighting) emerges to bridge these two approaches through scientific lunar visibility criteria. Based on this reality, this study aims to conduct an in-depth examination of the dynamics of the imkan ar-rukyat criteria in Indonesia by comparing Muhammad Mansur's thoughts in the Kitab Mizan al-I'tidal with the neo-MABIMS criteria. This research employs a library research method utilizing a historical-comparative approach and descriptive analysis techniques. Primary data were extracted from the Kitab Mizan al-I'tidal, while secondary data were sourced from official MABIMS policy documents and Ministry of Religious Affairs regulations. The results reveal that Muhammad Mansur strongly rejected the rigid establishment of a lunar altitude threshold, such as at 7 degrees. Instead, he viewed imkan al-ru'yah as a dynamic and naturalistic concept grounded in continuous empirical observation,

evidenced by testimonies of lunar sightings below 7° in various regions of Java. This dynamic paradigm aligns with the adaptive nature of the MABIMS criteria, which evolved from the old standard (altitude 2° , elongation 3° , moon age 8 hours) to the neo-MABIMS criteria (altitude 3° and elongation 6.4°) implemented since 2022. The government, through the Ministry of Religious Affairs, optimizes these criteria as a unifying instrument for the Muslim community. In conclusion, there is a paradigmatic continuity between the Nusantara astronomical turats (heritage) and contemporary criteria, affirming that lunar visibility standards remain open to revision in line with advancements in science and technology.

ABSTRAK

Perbedaan penetapan awal bulan Hijriah yang krusial, seperti Ramadan, Syawal, dan Zulhijah di Indonesia, sering kali dipicu oleh dikotomi metode antarorganisasi Islam. Perbedaan ini tampak jelas antara metode rukyat yang dipedomani oleh Nahdlatul Ulama dan metode hisab oleh Muhammadiyah. Sebagai solusi integratif, konsep imkan ar-rukyat hadir menjembatani kedua pendekatan tersebut melalui kriteria visibilitas hilal yang saintifik. Berangkat dari realitas tersebut, penelitian ini bertujuan untuk mengkaji secara mendalam dinamika kriteria imkan ar-rukyat di Indonesia dengan membandingkan pemikiran Muhammad Mansur dalam Kitab Mizan al-I'tidal dan kriteria neo-MABIMS. Penelitian ini menggunakan metode studi kepustakaan (library research) melalui pendekatan historis-komparatif dan teknik analisis deskriptif. Data primer digali dari Kitab Mizan al-I'tidal, sedangkan data sekunder bersumber dari dokumen kebijakan resmi MABIMS serta regulasi Kementerian Agama. Hasil penelitian mengungkapkan bahwa Muhammad Mansur menolak keras penetapan ambang batas ketinggian hilal secara kaku, seperti pada 7

derajat. Ia justru memandang imkan al-ru'yah sebagai konsep dinamis dan naturalistik yang berpijak pada observasi empiris berkelanjutan, dibuktikan dengan kesaksian terlihatnya hilal di bawah 7° di berbagai wilayah Jawa. Paradigma dinamis ini selaras dengan sifat adaptif kriteria MABIMS yang berevolusi dari standar lama (tinggi 2°, elongasi 3°, umur bulan 8 jam) menuju kriteria neo-MABIMS (tinggi 3° dan elongasi 6,4°) yang diberlakukan sejak 2022. Pemerintah, melalui Kementerian Agama, mengoptimalkan kriteria ini sebagai instrumen pemersatu umat. Kesimpulannya, terdapat kesinambungan paradigma antara turats falak Nusantara dengan kriteria mutakhir, yang menegaskan bahwa standar visibilitas hilal selalu terbuka untuk diperbarui seiring kemajuan sains dan teknologi.

INTRODUCTION

The unification of the Islamic calendar across Southeast Asian countries remains one of the most critical and challenging issues in contemporary Islamic discourse. As a regional platform for religious cooperation, the Brunei, Indonesia, Malaysia, and Singapore Religious Ministers' Meeting (MABIMS) has consistently pursued the harmonization of the determination of the beginning of the Hijri months, particularly Ramaḍān, Shawwāl, and Dhū al-Ḥijjah, with the objective of minimizing fragmentation among Muslim communities.

This strategic initiative has been implemented through the adoption of the *imkān al-ru'yah* method, a moderate approach that seeks to reconcile the precision of astronomical calculation (*hisāb*) with the spiritual and cultural dimensions of physical crescent observation (*ru'yah*). Through the Neo-MABIMS consensus, a new minimum crescent visibility criterion was established, requiring the Moon to attain an

altitude of 3° above the horizon and a Moon–Sun elongation of 6.4° at the time of sunset.¹

However, the implementation of these criteria within Indonesia has encountered deeply rooted methodological polarization among the country's largest Islamic organizations. Nahdlatul Ulama (NU) consistently upholds the tradition of *ru'yat al-hilāl* as the primary authority for determining the beginning of the Hijri month based on the prophetic traditions (*ḥadīth*) of Prophet Muḥammad, while *hisāb* is regarded merely as a predictive and confirmatory instrument.

In contrast, Muhammadiyah has historically adhered to the *hisāb wujūd al-hilāl* (WH) method and has recently adopted the Global Unified Hijri Calendar (Kalender Hijriah Global Tunggal, KHGT). This astronomical-mathematical approach determines the commencement of a new Hijri month immediately after the agreed astronomical criteria have been fulfilled, without requiring the physical visibility of the lunar crescent. These contrasting epistemological perspectives have frequently resulted in differences in determining Islamic religious observances in Indonesia, highlighting the urgent need for an integrative framework capable of bridging these methodological differences.

Globally, the search for a robust *imkān al-ru'yah* formula has involved numerous prominent Muslim astronomers, including Mohammad Shawkat Odeh, Mohammad Ilyas, and Jamaludin Abdul Razik. Nevertheless, these theoretical models often encounter practical limitations when applied to Indonesia, whose geographical characteristics along the equatorial region present distinctive observational conditions. One of the most widely debated universal astronomical references is the Danjon Limit, which postulates that the lunar crescent cannot be observed with the naked eye when the Moon–Sun elongation is

¹Maskufa Maskufa et al., "Implementation of the New MABIMS Crescent Visibility Criteria: Efforts to Unite the Hijriyah Calendar in the Southeast Asian Region," *AHKAM: Jurnal Ilmu Syariah* 22, no. 1 (June 30, 2022), <https://doi.org/10.15408/ajis.v22i1.22275>.

less than 7° , owing to the limitations of human visual sensitivity to atmospheric light scattering near the western horizon.²

The uncertainty surrounding crescent visibility parameters is reflected in the historical evolution of crescent visibility criteria in Indonesia. The initial MABIMS agreement, which adopted the criteria of 2° lunar altitude, 3° elongation, and/or a minimum lunar age of 8 hours, received considerable criticism from both national and international astronomical scholars. The empirical shortcomings of these earlier criteria became particularly evident during the controversial observations of 29 June 1984, when crescent sighting claims from Jakarta, Pelabuhan Ratu, and Parepare were officially accepted, despite subsequent astronomical evaluations indicating that the reported crescent was located in close proximity to two bright celestial objects, namely Venus and Mercury.

Although the Neo-MABIMS criteria of 3° lunar altitude and 6.4° elongation have been extensively examined from the perspectives of modern astronomy and socio-political policy, a significant research gap remains regarding the historical roots of comparable methodologies within the indigenous tradition of *Ilmu Falak* (Islamic astronomy) in the Malay-Indonesian world. Contemporary discussions often portray numerical crescent visibility thresholds—particularly those below 7° —as relatively recent debates emerging exclusively from modern scientific developments.

In fact, long before the formulation of the MABIMS criteria, discussions concerning the validity of observing the lunar crescent below the Danjon Limit (sub- 7° elongation) had already been anticipated by scholars of the Nusantara Islamic astronomical tradition through classical scholarly works. One such indigenous text is *Mîzān al-I'tidāl*, authored by

²Mohd Saiful Anwar Mohd Nawawi et al., "Hijri Month Determination in Southeast Asia: An Illustration Between Religion, Science, and Cultural Background," *Heliyon* 10, no. 20 (October 2024): e38668, <https://doi.org/10.1016/j.heliyon.2024.e38668>.

Muḥammad Maṣṣūr ibn ‘Abd al-Ḥamīd (widely known as Guru Mansur Jembatan Lima), a distinguished Betawi scholar who successfully integrated the scholarly tradition of Makkah with the contemporary astronomical data of his time, particularly the *Zij Ulugh Beg*, transmitted by ‘Abd al-Raḥmān al-Miṣrī.

In *Mîzān al-I’tidāl*, Guru Mansur presents a detailed examination of the methodological disagreement between Shaykh Yusuf, who accepted the validity of crescent observations below 7°, and Sayyid Usman, whose position—based on *Taqrīb al-Istidlāl*—rejected the validity of such observations. Guru Mansur subsequently proposed a scholarly resolution by validating the empirical crescent sighting report marking the beginning of Dhū al-Ḥijjah 1350 AH from the residents of Tangkiran at a lunar altitude of 5°, corroborated by additional observations from Tangerang and Semarang within the 3°–7° altitude range. This historical validation of sub-7° crescent observations demonstrates that the indigenous concept of *imkān al-ru’yah* had already achieved considerable methodological sophistication, one that resonates with the reconciliatory spirit embodied in the contemporary Neo-MABIMS criteria.³

The novelty of this study lies in its effort to position *Mîzān al-I’tidāl* not merely as a historical artifact but as a source of traditional epistemological legitimacy capable of bridging the longstanding deadlock between advocates of exclusive crescent observation (*ru’yah*) and proponents of contemporary *hisāb*-based criteria represented by Neo-MABIMS. While modern science proposes the numerical thresholds of 3° lunar altitude and 6.4° elongation, this classical local text provides jurisprudential confirmation that flexibility in accepting crescent visibility below 7° is both legally justifiable and

³Shofwatul Aini, “A Discourse of Mabims New Criteria: Reading Difference Frequency Between Wujud Al-Hilal and Imkan Ar-Rukyat,” *Justicia Islamica* 19, no. 1 (June 28, 2022): 113–31, <https://doi.org/10.21154/justicia.v19i1.3394>.

historically supported by empirical observations in the Indonesian archipelago.

Based on this background, the present study aims to comprehensively analyze the methodological convergence between Guru Mansur's jurisprudential-astronomical thought as articulated in *Mîzān al-I'tidāl* and the contemporary Neo-MABIMS crescent visibility criteria implemented in Indonesia. Through this analysis, the study seeks to formulate a conceptual reconstruction that strengthens the academic and religious foundations for achieving a unified and universally applicable Islamic calendar throughout Southeast Asia.

METHOD

This study employed a library research method using a descriptive analytical approach. In addition, a comparative historical approach was adopted to examine the historical development of the implementation of *imkān al-ru'yah* within the MABIMS member countries, with particular emphasis on Indonesia.

The analysis subsequently focused on the perspective presented in *Mîzān al-I'tidāl* in order to establish an appropriate comparative framework for understanding the historical application of *imkān al-ru'yah* within the MABIMS region, especially in Indonesia.

The research proceeded by identifying both primary and secondary sources. The collected sources were subsequently evaluated and selected based on their credibility and relevance through comparison with other authoritative references. Finally, the selected data were analyzed descriptively to interpret the historical development of *imkān al-ru'yah* and its methodological relevance to the contemporary Neo-MABIMS crescent visibility criteria.

RESULTS AND DISCUSSIONS

Definition of *Imkān al-Ru'yah*

The term *imkān* is derived from the Arabic verb *amkana*, which denotes "possibility" or "capability," while *al-ru'yah* originates from the verb *ra'ā*, which, in its transitive form (*muta'addī*) with a physical object, means "to see with the naked eye." Accordingly, *imkān al-ru'yah* refers to an astronomical calculation (*hisāb*) that determines whether the lunar crescent (*hilāl*) is in a position where it is potentially observable. In other words, *imkān al-ru'yah* signifies "the possibility of observing the lunar crescent" or "the minimum visibility threshold of the lunar crescent," namely an astronomical condition in which, based on empirical observational experience, the *hilāl* can be sighted with the naked eye. In modern astronomy, this concept is commonly referred to as crescent visibility.

The *ru'yah* (crescent observation) method is the earliest approach employed by Muslims to determine the beginning of the Hijri month. This method was practiced by Prophet Muḥammad ﷺ in establishing the commencement of lunar months.⁴ During the Prophet's lifetime, *ru'yah* was adopted because astronomical calculations for determining the beginning of lunar months had not yet developed into a systematic scientific discipline.

The *ru'yah*, or observational, method possesses several advantages. First, it is the method practiced by Prophet Muḥammad ﷺ in determining the beginning of the Hijri month; consequently, from the perspective of Islamic law (*Sharī'ah*), its legal validity is generally accepted with minimal controversy. Second, *ru'yah* represents an accurate scientific method based on direct observation. This is reflected in the remarkable development of astronomy (*ʿIlm al-Falak*) during the Islamic Golden Age, when Muslim astronomers conducted systematic and continuous observations that produced astronomical tables

⁴Amrin et al., "Reconceptualizing Islamic Calendar Determination," *Al-Ahkam: Jurnal Ilmu Syari'ah Dan Hukum* 11, no. 1 (May 4, 2026): 67–84, <https://doi.org/10.22515/alahkam.v11i1.11345>.

and datasets, many of which continue to serve as important references today.⁵

Nevertheless, the *ru'yah* method also encounters several limitations that hinder the visual observation of the lunar crescent. First, adverse weather conditions, including cloud cover and overcast skies, may obstruct visibility. The atmosphere contains numerous suspended particles, such as fog, mist, rain droplets, dust, and smoke, all of which reduce visual clarity. Second, the Earth's atmosphere scatters sunlight, causing residual twilight illumination to remain visible even after sunset. Third, the altitude of the lunar crescent and its angular separation from the Sun significantly influence its observability.⁶

The concept of *imkān al-ru'yah* therefore considers not only the existence of the lunar crescent above the horizon but also additional factors that determine whether it can actually be observed. Besides lunar altitude, sufficient angular separation between the Moon and the Sun constitutes an essential criterion. The *imkān al-ru'yah* hypothesis also incorporates statistical analyses of successful and unsuccessful crescent observations. As a continuously developing branch of astronomical studies, *imkān al-ru'yah* functions as an important method for determining the beginning of the Hijri month. Two principal factors influence crescent visibility: the physical characteristics of the lunar crescent, particularly its degree of illumination, and the brightness of the background sky resulting from atmospheric scattering of sunlight. These factors are further affected by the relative positions of the Moon, the Sun, and the observer.

⁵Abdul Helim, "Hamka's Legal Methodology on Hisab-Ru'yah in His Book 'Saya Kembali Ke Ru'yah,'" *JURIS (Jurnal Ilmiah Syariah)* 23, no. 2 (July 12, 2024): 215, <https://doi.org/10.31958/juris.v23i2.11952>.

⁶Muh. Arif Royyani et al., "Shahadah 'Ilmy; Integrating Fiqh and Astronomy Paradigm in Determining The Arrival of Lunar Months in Indonesia," *AL-IHKAM: Jurnal Hukum & Pranata Sosial* 16, no. 2 (January 4, 2022): 503–24, <https://doi.org/10.19105/al-lhkam.v16i2.5320>.

Several astronomical parameters commonly employed in crescent visibility calculations include:

- a. Moon's Age (Age): the elapsed time between conjunction (*ijtimā`*) and the time of observation.
- b. Moon's Lag Time (Lag): the time interval between sunset and moonset, or between sunrise and moonrise.
- c. Lunar Altitude: the altitude of the lunar crescent above the horizon at the time of observation.
- d. Arc of Light (ARCL): the angular distance between the Moon and the Sun.
- e. Arc of Vision (ARCV) **or** Arc of Difference (aD): the difference in altitude between the Moon and the Sun.
- f. Difference in Azimuth (DAZ): the angular difference in azimuth between the Moon and the Sun.
- g. Crescent Width: the apparent illuminated width of the lunar crescent.

These parameters are interrelated and collectively constitute the scientific basis for assessing the probability of lunar crescent visibility.⁷

MABIMS *Imkān al-Ru'yah*

The history of *imkān al-ru'yah* dates back to the early period of Islam, when the beginning of each lunar month was determined through direct observation of the lunar crescent (*hilāl*). During the lifetime of Prophet Muḥammad ﷺ, crescent observation (*ru'yah*) was regularly practiced and played a central role in determining the beginning of lunar months, particularly Ramaḍān and Shawwāl. As scientific knowledge and astronomical technology advanced, scholarly debates gradually emerged concerning the respective roles of astronomical calculations and direct observations in determining the beginning of the lunar month.⁸

⁷Azizah Fatmawati, "Implementasi Taqvim Standar Indonesia Sebagai Pemersatu Kalender Masyarakat Indonesia," *AL - AFAQ: Jurnal Ilmu Falak Dan Astronomi* 4, no. 2 (December 11, 2022): 157–80, <https://doi.org/10.20414/afaq.v4i2.4166>.

⁸Muhammad Khalil Mubarraḡ, Ismail Ismail, and Laiyina Ukhti, "Pluralisme Hukum Dalam Penentuan Ramadan: Otoritas Kitab Matla'ul

MABIMS is an acronym for the Meeting of the Ministers of Religious Affairs of Brunei Darussalam, Indonesia, Malaysia, and Singapore. It refers to the regular ministerial meeting of the officials responsible for religious affairs in the four member states. The primary objective of this cooperation is to promote the welfare and unity of Muslim communities without interfering in the political affairs of the participating countries. Initially convened annually, the meeting is currently held biennially.⁹

MABIMS was first established in 1989 in Brunei Darussalam. One of its principal agendas has been the unification of the Islamic calendar within the region. This issue is addressed by the Committee for the Coordination of Crescent Observation and the Islamic Calendar (Jawatankuasa Penyelarasan Rukyat dan Taqwim Islam). The committee's first meeting was held in Penang, Malaysia, in 1991 CE/1412 AH, while one of its later meetings took place in Bali, Indonesia, in 2012 CE. One of the committee's most significant resolutions concerned the formulation of a crescent visibility criterion, which subsequently became known as the MABIMS Crescent Visibility Criterion. According to this criterion, the lunar crescent is considered potentially visible when it satisfies a minimum lunar altitude of 2°, a minimum Moon-Sun elongation of 3°, and a minimum lunar age of 8 hours.¹⁰

Accordingly, the MABIMS *imkān al-ru'yah* criterion refers to the Hijri calendar criterion officially adopted by the

Badrayn Sebagai Living Law Di Masyarakat Indonesia,” QISTHOSIA : Jurnal Syariah Dan Hukum 7, no. 1 (June 30, 2026): 1-12, <https://doi.org/10.46870/JHKL.V7I1.2121>.

⁹Li'izza Diana Manzil, “Korelasi Historisitas Ilmu Hisab Rukyat Dengan Perkembangan Peradaban Islam,” *Al-Istinbath : Jurnal Hukum Islam* 3, no. 2 (December 29, 2018): 185, <https://doi.org/10.29240/jhi.v3i2.432>.

¹⁰Ismail Ismail, Ikhsan Kamilan Latif, and Indah Sari, “Reconstructing the Concept of Hilal Matla' in Determining the Beginning of the Hijri Month : A Jurisprudential Perspective,” *Al-Mizan: Jurnal Hukum Ismal Dan Ekonomi Syariah* 13, no. 1 (2026): 29-43, <https://doi.org/https://doi.org/10.54621/jiam.v13i1.1203>.

governments of Brunei Darussalam, Indonesia, Malaysia, and Singapore for determining the beginning of Hijri months. According to this criterion, a new Hijri month begins when the following conditions are fulfilled:

- a. At sunset, the Moon has a minimum altitude of 2° above the horizon.
- b. The minimum Moon-Sun elongation is 3° .
- c. At moonset, the Moon is at least 8 hours old, calculated from the time of conjunction (*ijtimā'*).¹¹

The introduction of the MABIMS crescent visibility criterion represented an important milestone in promoting regional uniformity in determining Islamic religious observances. Nevertheless, with continuing advances in astronomical research, proposals to revise the 2° - 3° -8-hour criterion emerged in 2017 through the Jakarta Recommendation. Following extensive observational and scientific studies, MABIMS eventually adopted revised criteria requiring a minimum lunar altitude of 3° and a minimum Moon-Sun elongation of 6.4° , which have since 2002 been implemented in Indonesia as the official standard for determining the beginning of Hijri months.¹²

The Implementation of *Imkān al-Ru'yah* in Indonesia

The determination of the beginning of the Hijri month in Indonesia entered a new phase with the adoption of the revised MABIMS criteria. The *imkān al-ru'yah* criterion is topocentric, meaning that the visibility of the lunar crescent (*hilāl*) at one location may differ from that at another; consequently, crescent visibility is inherently local. The revised criterion requires a minimum lunar altitude of 3° and a minimum Moon-Sun elongation of 6.4° . The implementation of the revised MABIMS criterion in Indonesia was officially initiated through Circular

¹¹Susiknan Azhari, "Neo-Visibilitas Hilal MABIMS: Antara Idealita Dan Realita," Times.ID, 2022.

¹²Achmad Mulyadi, Sharia Faculty, and Iain Madura, "Non-Astronomical Aspects of the Success of Rukyatul Hilal in East Java," *Samarah: Jurnal Hukum Keluarga Dan Hukum Islam* 8, no. 3 (November 16, 2024): 1859–80, <https://doi.org/10.22373/SJHK.V8I3.25258>.

Letter No. B-79/DJ.III/HM.00/02/2022, issued by the Directorate General of Islamic Community Guidance of the Ministry of Religious Affairs, which stipulated that the revised *imkān al-ru'yah* criterion would be implemented nationally beginning in 2022.

The successful implementation of the Neo-MABIMS visibility criterion in Indonesia depends upon a shared commitment among proponents of both *ru'yah* and *hisāb*. Advocates of *hisāb* are expected to use astronomical calculations not only to predict but also to verify the results of crescent observations, since astronomical calculation alone cannot determine the beginning of a Hijri month without an agreed visibility criterion. Likewise, proponents of *ru'yah* should not automatically complete the current lunar month (*istikmāl*) without first considering astronomical calculations indicating whether the Moon has risen above the horizon. In situations where crescent observation is hindered by unfavorable weather conditions, preventing the lunar crescent from being sighted, the revised criterion recommends referring to the astronomical calculations to determine whether the crescent has fulfilled the visibility thresholds of 3° lunar altitude and 6.4° elongation. If these criteria have been satisfied, the following day is recognized as the beginning of the new Hijri month, even in the absence of a successful visual observation.¹³

The determination of the beginning of Ramaḍān and Shawwāl 1443 AH represented a significant milestone, as it marked the first official implementation of the revised MABIMS criteria. Indonesia declared 1 Shawwāl 1443 AH to fall on Monday, 2 May 2022, based on the decision of the *isbāt* meeting convened by the government on 1 May 2022. The decision was reached after astronomical calculations demonstrated that both the lunar altitude and elongation exceeded the prescribed

¹³Jaenal Arifin, "Fiqih Hisab Rukyah Di Indonesia (Telaah Sistem Penetapan Awal Bulan Qamariyyah)," *Yudisia* Vol5,No2, no. Disember (2014): 402-22, <https://doi.org/https://doi.org/10.21043/YUDISIA.V5I2.704>.

minimum thresholds. According to the presentation delivered by the Ministry of Religious Affairs' Hijri Calendar Unification Team, the lunar altitude throughout Indonesia ranged from 4°00.59' to 5°33.57'. The geocentric elongation ranged between 5.2° and 7.2°, while the topocentric elongation ranged from 4.9° to 6.4°. In addition, the Ministry conducted crescent observations (*ru'yat al-hilāl*) at 99 observation sites distributed across 34 provinces.¹⁴

In Indonesia, several major Islamic organizations employ different approaches to determining the beginning of the Hijri month, particularly with respect to Ramaḍān, Shawwāl, and Dhū al-Ḥijjah. These differences primarily concern the respective roles of *ru'yah*, *hisāb*, or a combination of both methods.

The country's two largest Islamic organizations, Nahdlatul Ulama (NU) and Muhammadiyah, represent distinct methodological perspectives. Nahdlatul Ulama, which emphasizes the preservation of traditional Islamic practices, prioritizes direct crescent observation (*ru'yah*) in determining the beginning of the Hijri month. NU maintains that *ru'yah* is the method prescribed by Prophet Muḥammad ﷺ and therefore should remain the primary basis for determining the commencement of lunar months. Consequently, observations conducted at multiple locations throughout Indonesia serve as the principal reference for the organization. Although NU acknowledges the usefulness of *hisāb* as a supporting instrument, the official determination ultimately depends upon verified crescent observations.¹⁵

In contrast, Muhammadiyah adopts an approach based primarily on astronomical calculation (*hisāb*). According to

¹⁴Taufik Maulana, Sitti Mawar, and Riza Afrian Mustaqim, "Kontroversi Kesaksian Rukyat Hilal Non-Lokal Di Aceh: Tinjauan Yuridis Empiris Terhadap Putusan Mahkamah Syar'iyah Jantho," *As-Siyadah* 6, no. 1 (March 2, 2026): 129–43, <https://doi.org/10.22373/as-siyadah.v6i1.8354>.

¹⁵Taufiqurachman Taufiqurachman et al., "Analisis Perbandingan Antara Metode Hisab Dan Rukyat Dalam Menentukan Awal Bulan Ramadhan Di Indonesia," *JlIP - Jurnal Ilmiah Ilmu Pendidikan* 7, no. 11 (November 1, 2024): 12473–81, <https://doi.org/10.54371/jiip.v7i11.6203>.

Muhammadiyah, astronomical computation provides a more accurate and predictable basis for determining the beginning of the Hijri month. Under the *hisāb wujūd al-hilāl* method, a new month begins once the Moon is astronomically above the horizon, regardless of whether the lunar crescent is physically observable. Muhammadiyah argues that modern astronomical techniques enable highly precise calculations of the Moon's position, thereby eliminating the necessity of waiting for direct observations, which may be affected by weather or other environmental conditions.¹⁶ Consequently, Muhammadiyah often determines the beginning of a Hijri month earlier than Nahdlatul Ulama whenever the crescent is considered to have "come into existence" (*wujūd al-hilāl*) according to astronomical calculations, even if it cannot yet be visually observed.

The diversity of approaches to determining the beginning of the Hijri month in Indonesia cannot be fully reconciled without the existence of a single authoritative institution whose decisions are accepted by all parties. In the Indonesian context, this authority is exercised by the government through the Ministry of Religious Affairs. Accordingly, differences among various methodologies should be addressed through concrete efforts aimed at fostering unity among Indonesian Muslims. To this end, the government officially employs the *imkān al-ru'yah* criterion as the basis for determining the beginning of the Hijri month.

As the legitimate public authority (*ulī al-amr*), the government possesses the authority to determine the beginning of Ramaḍān, ʿĪd al-Fiṭr, and other Hijri months for Muslims in Indonesia. Government decisions should therefore be respected and followed by the wider Muslim community, as they provide a practical means of minimizing differences of opinion. These policies are intended to promote the common good (*maṣlaḥah*)

¹⁶Miftahul Ulum, "Fatwa Ulama NU (Nahdlatul Ulama) Dan Muhammadiyah Jawa Timur Tentang Hisab Rukyat," *Jurnal Keislaman* 1, no. 2 (October 28, 2021): 244-72, <https://doi.org/10.54298/jk.v1i2.3369>.

because the determination of the beginning of the Hijri month is reached through consultation involving representatives from various Islamic organizations and relevant stakeholders. Adherence to these official decisions is therefore expected to contribute significantly to greater unity in determining the Islamic calendar in Indonesia.

Imkān al-Ru'yah in Mîzān al-I'tidāl

Mîzān al-I'tidāl begins its discussion of the limits of *imkān al-ru'yah* by focusing on the capability of the naked eye to observe a lunar crescent (*hilāl*) positioned below 7° above the horizon. Several later Muslim scholars (*muta'akhkhirūn*) expressed differing views on this issue, including Yusuf in *Kusyūfāt al-Adillah*, which discusses eclipse phenomena; Aḥmad Mūsā al-Zarqāwī in *Zīj Mālīkī*; and Muṣṭafā al-Falakī in *Minhāj* and *Tawārīkh Falakiyyah*. In addition, Shaykh Maḥmūd Afandī, in *Muḥarrar Hukāmah*, maintained that a lunar crescent below 7° could still be observed. Muḥammad Maṣṣūr summarized these scholarly opinions on *imkān al-ru'yah* as follows:

- a. Maḥmūd Afandī: The minimum threshold for *imkān al-ru'yah* is a *hilāl* with a *mukth* (*mukūs*), namely the duration for which the crescent remains above the horizon after sunset, of 8 minutes, equivalent to a lunar altitude of approximately 2°. However, the visibility of the crescent under these conditions remains uncertain. If the *mukth* reaches 15 minutes (approximately 3° altitude), the crescent is more likely to be visible, provided that no observational obstructions exist. When the *mukth* exceeds 15 minutes, the crescent is expected to be clearly visible.
- b. Muṣṭafā al-Falakī: In *Tawārīkh Falakiyyah*, he argues that a crescent with a *mukth* of 15 minutes, or a lunar altitude of approximately 3°, should be observable.
- c. Shaykh al-Ṭanṭāwī: He maintains that a *mukth* of 16 minutes, corresponding to a lunar altitude of approximately 4°, is sufficient to ensure the visibility of the lunar crescent.

These views demonstrate the diversity of minimum *imkān al-ru'yah* criteria, which depend upon both the duration of the Moon's presence above the horizon and its altitude. They further reinforce the understanding that crescent visibility is strongly influenced by astronomical as well as physical observational conditions.¹⁷

In contrast, Sayyid Usman established 7° as the minimum lunar altitude at which the crescent could be observed and, under certain circumstances, even required a higher altitude. His position was based on the opinion of Shaykh 'Alī ibn Qāḍī in *Taqrīb al-Istidlāl*, as cited by Sayyid Usman in *Iqāz al-Niyām fī Mā Yata'allaq bi al-Ahillah wa al-Ṣiyām*. According to Shaykh 'Alī, the lowest altitude at which the crescent could be observed was 7°, although under less favorable conditions the crescent might only become visible at 8° or higher, depending on the prevailing observational circumstances.

Muḥammad Manṣūr, who carefully examined the opinions of numerous authorities on *imkān al-ru'yah*, recorded the testimony of two of his students from Tangkiran concerning their observation of the Dhū al-Ḥijjah 1350 AH crescent. They reported observing the crescent on Thursday evening after sunset when its altitude was only 5°. This testimony contradicted the prevailing assumption that a crescent below 7° could not be observed. Muḥammad Manṣūr accepted the validity of their testimony and argued that the minimum altitude required for crescent visibility, whether above or below 7°, is not fixed but rather dynamic, depending upon technological developments and the availability of reliable scientific evidence.¹⁸

¹⁷Ahmad Ainul Yaqin, "Pemikiran Imkān Al-Rukyah Ahmad Marzuqi Al-Batāwi Dalam Kitab Faḍlu Al-Raḥman" (Universitas Islam Negeri Walisongo, 2019).

¹⁸Mohd Saiful Anwar Mohd Nawawi et al., "Pemikiran Imam Taqi Al-Din Al-Subki (683/1284-756/1355) Berkaitan Kriteria Kenampakan Anak

He further emphasized that crescent visibility is an empirical phenomenon that evolves over time. Consequently, the minimum visibility threshold can only be established through continuous observation. To support this position, Muḥammad Manṣūr documented additional reports of successful crescent observations below 7° from several locations in Java, including observations of the Dhū al-Ḥijjah 1350 AH crescent on Thursday evening and the Shawwāl 1351 AH crescent on Friday evening. He also cited the opinion of his father, ‘Abd al-Ḥamīd al-Batawī, who maintained that crescent visibility is influenced by scientific progress and the continuous improvement of observational methods. According to the established *imkān al-ru’yah* criteria, a *mukth* of 15 minutes corresponds to a lunar altitude of approximately 3°, whereas an altitude of 7° corresponds to a *mukth* of approximately 28 minutes. The substantial difference between these two criteria illustrates the significant divergence of scholarly opinion on the minimum threshold for crescent visibility.

Muḥammad Manṣūr therefore concluded that the limits of *imkān al-ru’yah* cannot be defined absolutely, whether at 7° or above, or below 7°. He rejected Sayyid Usman's assertion that a lunar altitude of at least 7° is an indispensable requirement for visibility, citing documented testimonies of successful observations below this threshold. These reports included observations of the Dhū al-Ḥijjah 1350 AH crescent on Thursday evening and the Shawwāl 1351 AH crescent on Friday evening. Based on these empirical observations, Muḥammad Manṣūr argued that the *imkān al-ru’yah* criterion should remain adaptable, evolving in accordance with continuous observations, scientific accountability, and scholarly consensus.

Regarding the scholarly debate on crescent observation, Muḥammad Manṣūr maintained that observing the lunar crescent at altitudes between 3° and below 7° is both possible and may even be regarded as a matter of *ḥukm ḍarūrī* (an evident and well-established ruling), particularly when

supported by repeated and consistent observations. He referred to reports of the Dhū al-Ḥijjah 1350 AH crescent observed at locations such as Tangkiran, Semarang, and Serang, where astronomical calculations indicated lunar altitudes below 7°, yet the crescent was reportedly observed. These cases reinforce his argument that the *imkān al-ru'yah* criterion is not immutable but should be continuously refined in light of advances in scientific knowledge and observational technology.¹⁹

ʿAbd al-Raḥmān al-Miṣrī played a pivotal role in the development of Islamic astronomy (*ʿIlm al-Falak*) in Batavia (Betawi) and was warmly received by the local scholarly community. His presence significantly influenced the development of Islamic astronomy throughout the Indonesian archipelago. Many Betawi scholars studied under him and subsequently transmitted his knowledge to later generations. One of his most important contributions was the adaptation of the Zīj Ulugh Beg from the longitude of Samarkand to that of Batavia, accompanied by corrections to several astronomical parameters considered insufficiently accurate. Muḥammad Maṣṣūr's conception of *imkān al-ru'yah* was profoundly influenced by his father, ʿAbd al-Ḥamīd, as well as by his scholarly experiences in the Arabian Peninsula, particularly in Makkah and Madinah. The Zīj Ulugh Beg, introduced by ʿAbd al-Raḥmān al-Miṣrī and later summarized by ʿAbd al-Ḥamīd, became one of the principal foundations upon which Muḥammad Maṣṣūr developed Islamic astronomy in the Indonesian archipelago. His intellectual journey ultimately produced several important astronomical works, including *Sullam al-Nayyirain* and *Mîzān al-ʿIṭidāl*.

Muḥammad Maṣṣūr's scholarly journey to the Holy Cities greatly enriched his intellectual perspective, particularly in the field of Islamic scholarship. During his stay, he interacted

¹⁹Muhamad Syazwan Faiz et al., "Islamic Historical Review on Middle Age Lunar Crescent Visibility Criterion," *Journal of Al-Tamaddun* 17, no. 1 (June 30, 2022): 109–25, <https://doi.org/10.22452/JAT.vol17no1.9>.

with numerous distinguished scholars who deepened his understanding of Islamic astronomy. These intellectual experiences were subsequently reflected in several of his written works. Among his most influential contributions is *Mîzān al-I'tidāl*, in which he integrates Islamic jurisprudence (*fiqh*) and Islamic astronomy (*ʿIlm al-Falak*), two disciplines that he regarded as fundamentally interconnected. His approach consistently placed the opinions of jurists at the center of discussions concerning astronomical issues. Consequently, Muḥammad Maṣṣūr's understanding of *imkān al-ru'yah* was strongly shaped by his scholarly genealogy, rooted in the teachings of his father, ʿAbd al-Ḥamīd, and indirectly influenced by ʿAbd al-Raḥmān al-Miṣrī. This intellectual lineage distinguished his thought from that of many other Betawi scholars of his time.²⁰

According to Muḥammad Maṣṣūr's records, one of the major controversies surrounding *imkān al-ru'yah* in Batavia arose from the testimony of two individuals who claimed to have observed the Shawwāl 1351 AH crescent. Their testimony was rejected because astronomical calculations indicated that the lunar altitude at the time was only 6°, whereas the prevailing opinion among scholars in Java, including Batavia, established 7° as the minimum threshold for crescent visibility. Their testimony was even dismissed as frivolous (*ʿabath*). Nevertheless, calculations based on the *Sullam al-Nayyirain* method using the Batavia reference coordinates (5°19'12" S; 106°22'42" E) supported Muḥammad Maṣṣūr's position, demonstrating that the application of *imkān al-ru'yah* criteria remained open to empirical reassessment. The reported observation of the 1351 AH crescent consequently generated considerable debate within the Betawi community.²¹

²⁰Hendri Hendri et al., "Tokoh Falak Minangkabau (Studi Pemikiran Saadoeddin Djambek Dan Tahir Jalaluddin)," *Islam Transformatif: Journal of Islamic Studies* 3, no. 1 (2019): 89, <https://doi.org/10.30983/it.v3i1.1157>.

²¹Pepe Puad Muslim, Tatang Farhanul Hakim, and Suparman Jassin, "Dinamika Dan Perkembangan Ilmu Falak Dari Era Pra Islam Hingga Era Kontemporer," *Al-Tsaqafa: Jurnal Ilmiah Peradaban Islam* 20, no. 1 (July 17, 2023): 14–28, <https://doi.org/10.15575/al-tsaqafa.v20i1.27243>.

Some groups openly criticized those who held different views, including Muḥammad Maṣṣūr, regarding the minimum *imkān al-ru'yah* threshold in Batavia. For many members of the Betawi community, religious truth was perceived as belonging exclusively to a particular group, often without careful consideration of the available empirical evidence. This situation prompted several community members to request Muḥammad Maṣṣūr's intervention. In response, he sought to challenge the prevailing intellectual dominance through the composition of *Mîzān al-I'tidāl*, with the aim of encouraging a more critical and evidence-based understanding among the Betawi Muslim community.

In *Mîzān al-I'tidāl*, Muḥammad Maṣṣūr begins his argument by stating that neither 'Abd al-Raḥmān al-Miṣrī nor his students had ever taught that observing a lunar crescent below 7° was categorically impossible. Nevertheless, he acknowledged that observing such a crescent with the naked eye is indeed extremely difficult. As supporting evidence, he referred to the accepted testimony of the Ramaḍān 1299 AH crescent observation, which was officially recognized by the Batavia Sharī'ah Court on Sunday evening. Astronomical calculations indicated that the lunar altitude at that time was only 2.5°. The Chief Judge of the Batavia Sharī'ah Court was Muḥammad Ṣāliḥ ibn Syarbīnī, who was himself a student of 'Abd al-Raḥmān al-Miṣrī.²²

Muḥammad Maṣṣūr firmly rejected the view that the minimum *imkān al-ru'yah* threshold should be fixed at 7°. He based his position on the legal opinion (*fatwā*) of his father, 'Abd al-Ḥamīd, who argued that the limits of *imkān al-ru'yah* naturally evolve in response to changing circumstances and scientific developments. In *Mîzān al-I'tidāl*, Muḥammad Maṣṣūr explains that progress in Islamic astronomy depends upon two

²²La Ilhami and Zul Efendi, "Proporsionalitas Dalam Hisab: Pembacaan Terhadap Fatwa Yusuf Al-Qaradhawi," *Astroislamica: Journal of Islamic Astronomy* 4, no. 1 (June 1, 2025): 1-24, <https://doi.org/10.47766/ASTROISLAMICA.V4I1.3350>.

essential principles: first, continuous scholarly investigation accompanied by critical evaluation of existing knowledge; and second, sustained astronomical observation, since the motions and apparent positions of celestial bodies continually change.

Muḥammad Manṣūr's discussion of *imkān al-ru'yah* at specific lunar altitudes was ultimately intended to challenge blind imitation (*taqlīd*) and sectarian fanaticism that had become deeply rooted within the Betawi community, where many insisted upon an immutable 7° visibility threshold while claiming exclusive possession of religious truth. According to him, such attitudes generated unnecessary discord among Muslims in Batavia. Based on the empirical evidence that he compiled, Muḥammad Manṣūr concluded that there is no valid scientific or jurisprudential basis for categorically asserting that a lunar crescent below 7° can never be observed.

CONCLUSION

The advancement of Islamic astronomy (*ilm al-falak*) in Batavia was significantly influenced by the scholarly contributions of 'Abd al-Raḥmān al-Miṣrī, who refined and taught the *Zij Ulugh Beg* together with his student 'Abd al-Ḥamīd al-Damīrī. This scholarly lineage, combined with the intellectual experiences gained in Makkah and Madinah, profoundly shaped the astronomical thought of Muḥammad Manṣūr, the son of 'Abd al-Ḥamīd, whose ideas were systematically articulated in *Mīzān al-I'tidāl*. Unlike Sayyid Usman, who advocated a fixed numerical threshold for *imkān al-ru'yah*, Muḥammad Manṣūr advanced a dynamic and empirically grounded approach. He maintained that astronomical science should continuously evolve in response to ongoing observational evidence and advances in scientific knowledge rather than remain constrained by rigid numerical criteria.

Meanwhile, the methodology for determining the beginning of the Hijri month has evolved globally from direct naked-eye crescent observation (*ru'yah*) during the Prophetic era to a standardized framework informed by modern astronomical science through the regional cooperation of

MABIMS since 1989. In pursuit of a unified Islamic calendar across Southeast Asia, MABIMS initially adopted crescent visibility criteria consisting of a minimum lunar altitude of 2° , a minimum elongation of 3° , and a lunar age of at least 8 hours. Following extensive scientific evaluation, these criteria were revised and officially implemented in Indonesia in 2022, establishing more stringent requirements of a minimum lunar altitude of 3° and a minimum elongation of 6.4° . This historical development demonstrates that *ilm al-falak* is a dynamic scientific discipline that continues to evolve alongside advances in astronomy and observational technology. It also underscores the importance of international scientific consensus as a fundamental mechanism for promoting the unification of the Islamic calendar and strengthening communal harmony in the observance of Islamic religious occasions.

BIBLIOGRAPHY

- Aini, Shofwatul. "A Discourse of Mabims New Criteria: Reading Difference Frequency Between Wujud Al-Hilal and Imkan Ar-Rukyat." *Justicia Islamica* 19, no. 1 (June 28, 2022): 113–31.
<https://doi.org/10.21154/justicia.v19i1.3394>.
- Amrin, Muhammad Dwi Fajri, Eman Suherman, Mas'udatul Fitriyah, and Ishma Amelia. "Reconceptualizing Islamic Calendar Determination." *Al-Ahkam: Jurnal Ilmu Syari'ah Dan Hukum* 11, no. 1 (May 4, 2026): 67–84.
<https://doi.org/10.22515/alahkam.v11i1.11345>.
- Arifin, Jaenal. "Fiqih Hisab Rukyah Di Indonesia (Telaah Sistem Penetapan Awal Bulan Qamariyyah)." *Yudisia* Vol5,No2, no. Disember (2014): 402–22.
<https://doi.org/https://doi.org/10.21043/YUDISIA.V5I2.704>.
- Azhari, Susiknan. "Neo-Visibilitas Hilal MABIMS: Antara Idealita Dan Realita." Times.ID, 2022.
- Faid, Muhamad Syazwan, Mohd Saiful Anwar Mohd Nawawi (Corresponding Author), Mohd Hafiz Mohd Saadon,

- Nazhatulshima Ahmad, and Aizan Ali @ Mat Zin. "Islamic Historical Review on Middle Age Lunar Crescent Visibility Criterion." *Journal of Al-Tamaddun* 17, no. 1 (June 30, 2022): 109–25. <https://doi.org/10.22452/JAT.vol17no1.9>.
- Fatmawati, Azizah. "Implementasi Taqwim Standar Indonesia Sebagai Pemersatu Kalender Masyarakat Indonesia." *AL - AFAQ: Jurnal Ilmu Falak Dan Astronomi* 4, no. 2 (December 11, 2022): 157–80. <https://doi.org/10.20414/afaq.v4i2.4166>.
- Helim, Abdul. "Hamka's Legal Methodology on Hisab–Ru'yah in His Book 'Saya Kembali Ke Ru'yah.'" *JURIS (Jurnal Ilmiah Syariah)* 23, no. 2 (July 12, 2024): 215. <https://doi.org/10.31958/juris.v23i2.11952>.
- Hendri, Hendri, Fajrul Wadi, Saiful Amin, Andriyaldi Andriyaldi, and Fahmil Samiran. "Tokoh Falak Minangkabau (Studi Pemikiran Saadoeddin Djambek Dan Tahir Jalaluddin)." *Islam Transformatif: Journal of Islamic Studies* 3, no. 1 (2019): 89. <https://doi.org/10.30983/it.v3i1.1157>.
- Ilhami, La, and Zul Efendi. "Proporsionalitas Dalam Hisab: Pembacaan Terhadap Fatwa Yusuf Al-Qaradhawi." *Astroislamica: Journal of Islamic Astronomy* 4, no. 1 (June 1, 2025): 1–24. <https://doi.org/10.47766/ASTROISLAMICA.V4I1.3350>.
- Ismail, Ismail, Ikhsan Kamilan Latif, and Indah Sari. "Reconstructing the Concept of Hilal Matla' in Determining the Beginning of the Hijri Month: A Jurisprudential Perspective." *Al-Mizan: Jurnal Hukum Islam Dan Ekonomi Syariah* 13, no. 1 (2026): 29–43. <https://doi.org/https://doi.org/10.54621/jiam.v13i1.1203>.
- Khalil Mubarraaq, Muhammad, Ismail Ismail, and Laiyina Ukhti. "Pluralisme Hukum Dalam Penentuan Ramadan: Otoritas Kitab Matla'ul Badrayn Sebagai Living Law Di Masyarakat Indonesia." *QISTHOSIA: Jurnal Syariah Dan Hukum* 7, no. 1 (June 30, 2026): 1–12. <https://doi.org/10.46870/JHKI.V7I1.2121>.
- Manzil, Li'izza Diana. "Korelasi Historisitas Ilmu Hisab Rukyat Dengan Perkembangan Peradaban Islam." *Al-Istinbath*:

- Jurnal Hukum Islam* 3, no. 2 (December 29, 2018): 185.
<https://doi.org/10.29240/jhi.v3i2.432>.
- Maskufa, Maskufa, Sopa Sopa, Sri Hidayati, and Adi Damanhuri. "Implementation of the New MABIMS Crescent Visibility Criteria: Efforts to Unite the Hijriyah Calendar in the Southeast Asian Region." *AHKAM: Jurnal Ilmu Syariah* 22, no. 1 (June 30, 2022).
<https://doi.org/10.15408/ajis.v22i1.22275>.
- Mohd Nawawi, Mohd Saiful Anwar, Muhamad Syazwan Faid, Mohd Hafiz Mohd Saadon, Raihana Abdul Wahab, and Nazhatulshima Ahmad. "Hijri Month Determination in Southeast Asia: An Illustration Between Religion, Science, and Cultural Background." *Heliyon* 10, no. 20 (October 2024): e38668.
<https://doi.org/10.1016/j.heliyon.2024.e38668>.
- Mohd Nawawi, Mohd Saiful Anwar, Khairussaadah Wahid, Saadan Man, Nazhatulshima Ahmad, and Mohammaddin Abdul Niri. "Pemikiran Imam Taqi Al-Din Al-Subki (683/1284-756/1355) Berkaitan Kriteria Kenampakan Anak Bulan." *Jurnal Syariah* 28, no. 1 (April 30, 2020): 1–30.
<https://doi.org/10.22452/js.vol28no1.1>.
- Muh. Arif Royyani, Abdul Mufid, M. Ihtirozun Ni'am, Alfian Qodri Azizi, and Achmad Azis Abidin. "Shahadah 'Ilmy; Integrating Fiqh and Astronomy Paradigm in Determining The Arrival of Lunar Months in Indonesia." *AL-IHKAM: Jurnal Hukum & Pranata Sosial* 16, no. 2 (January 4, 2022): 503–24. <https://doi.org/10.19105/al-lhkam.v16i2.5320>.
- Mulyadi, Achmad, Sharia Faculty, and Iain Madura. "Non-Astronomical Aspects of the Success of Rukyatul Hilal in East Java." *Samarah: Jurnal Hukum Keluarga Dan Hukum Islam* 8, no. 3 (November 16, 2024): 1859–80.
<https://doi.org/10.22373/SJHK.V8I3.25258>.
- Muslim, Pepep Puad, Tatang Farhanul Hakim, and Superman Jassin. "Dinamika Dan Perkembangan Ilmu Falak Dari Era Pra Islam Hingga Era Kontemporer." *Al-Tsaqafa: Jurnal Ilmiah Peradaban Islam* 20, no. 1 (July 17, 2023): 14–28.

<https://doi.org/10.15575/al-tsaqafa.v20i1.27243>.

- Taufik Maulana, Sitti Mawar, and Riza Afrian Mustaqim. "Kontroversi Kesaksian Rukyat Hilal Non-Lokal Di Aceh: Tinjauan Yuridis Empiris Terhadap Putusan Mahkamah Syar'iyah Jantho." *As-Siyadah* 6, no. 1 (March 2, 2026): 129-43. <https://doi.org/10.22373/as-siyadah.v6i1.8354>.
- Taufiqurachman, Taufiqurachman, Wilda Nurmadhan, Bilat Nur Islami, Ath Thaariq Nurul Fatah, and Annisa Azzahra. "Analisis Perbandingan Antara Metode Hisab Dan Rukyat Dalam Menentukan Awal Bulan Ramadhan Di Indonesia." *JIIIP - Jurnal Ilmiah Ilmu Pendidikan* 7, no. 11 (November 1, 2024): 12473-81. <https://doi.org/10.54371/jiip.v7i11.6203>.
- Ulum, Miftahul. "Fatwa Ulama NU (Nahdlatul Ulama) Dan Muhammadiyah Jawa Timur Tentang Hisab Rukyat." *Jurnal Keislaman* 1, no. 2 (October 28, 2021): 244-72. <https://doi.org/10.54298/jk.v1i2.3369>.
- Yaqin, Ahmad Ainul. "Pemikiran Imkân Al-Rukyah Ahmad Marzuqi Al-Batāwi Dalam Kitab Faḍlu Al-Raḥman." Universitas Islam Negeri Walisongo, 2019.