The Use of Ihtiyat Data in Prayer Time
Hisab: Perspectives on Islamic Law

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Abstract

Kata Kunci: Ihtiyat, Hukum Islam, Waktu Salat, Hisab

The Salat in Islam cannot be separated from the time of Salat. Although the procedure for determining Salat times is not explained detailly in the Qur'an, doing Salat should not be arbitrary, especially regarding time. One of the important elements in determining Salat times, one of which is data of ihtiyat. Addition the data of ihtiyat is purpose the calculation results can cover the areas around the markaz. This study reveals a perspective of Islamic law on the addition the data of ihtiyat in determining the initial Salat time. The use of ihtiyat time is very important for anyone who does the reckoning at the time of Salat. However, in Islamic law, there is no legal certainty and there are no scholars who specifically discuss this matter. In a review of Islamic law, the time of ihtiyat in a review of Islamic law can be categorized as wasilah for the purpose that it is a condition of Salat. And it is knowing the time of Salat. Therefore, using ihtiyat time can be categorized in mandatory law because it is a means of something that is obligatory while there is no specific argument for its use. The use of ihtiyat time is in order to accommodate the interests of Muslims who are in certain areas that have a relatively wide expanse.

Keywords: Ihtiyat, Islamic Law, Salat Times, Hisab
Introduction

Prayer is the second pillar of Islam after the creed. It is also the foundation of this noble religion, as many have explained in the hadiths of the Prophet Muhammad. Even some scholars argue that prayer is the most important physical worship or physical worship. In addition, it is explained that there are no pillars of Islam which, if left for reasons of laziness, then the perpetrator will be sentenced to be killed except for praying. Seeing this explanation, we can see how important the position of prayer is in the Shari’a of the Prophet Muhammad.

Prayer cannot be separated from the time to carry it out. Although the procedure for determining prayer times is not explained in detail in the Qur’an, prayers should not be arbitrary, especially regarding time. This is in accordance with the verse of the Qur’an letter an-Nisa’: 103.

فَأَقِيمُوا الصَّلاةَ إِنَّ الصَّلاةَ كَانَتْ عَلَى الْمُؤْمِنِينَ كِتَاباً مَوْقُوتاً (النساء: ١٠٣)

"So establish prayer, indeed prayer is an obligation that has been determined for the time of the believers".

The verse can be interpreted that a person is not allowed to delay or perform prayers outside the specified time. Scholars agree (ittifaq) that there are five obligatory prayers, zuhur, ashr, maghrib, isya and subuh (fajr prayer). Each of these prayers has a beginning and an end when it is performed. Therefore, knowing the time of the fard prayer is a condition for the validity of the prayer. This means that if a Muslim is going to perform the fard prayer, then he is obliged to know the prayer times.

Then the legal basis for the five daily prayers is the letter ar-Rum verses 17-18 and Qof verses 39-40, namely:

فَسُبْحَانَ اللَّهِ حِينَ تُُْسُونَ وَحِينَ تُصْبِحُونَ وَلَهُ الَْْمْدُ فِِ السَّمَوَاتِ وَالأرْضِ وَعَشِیًّا وَحِینَ تُظْهِرُونَ

"So glorify Allah when you are in the evening and when you are at dawn. And to Him belongs all praise in the heavens and the earth

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1 Hasan bin Ahmad al-Kaff, Al-Taqrirat Al-Sadidah Fi Al-Masail Al-Mufidah (Surabaya: Darul Ulum Islamiah, 2004), h. 180.
2 This opinion is explained in the books of the Shafi’iyah scholars. Meanwhile, according to Imam Abu Hanifah, it is explained that a person who leaves prayer because he is lazy, then he must be sentenced to prison until he declares his ability to perform the prayer again. Look in Muhammad bin Ahmad al-Syathiri, Al-Thoriqoh Al-Haditsah Li Tadris Fi-Kitab Al-Yaqut Al-Nafis (Lebanon: Darul Minhaj, 2007), 123.
3 Al-Qur’an Dan Terjemahnya, (Surabaya: CV. Pustaka Agung Harapan, 2006), h. 125.
4 Ahmad Ghozali Muhammad Fathullah, Irsyadul Murid Ila Ma’rifati Ilmi Falak Ala Rasdil Jadid (Sampang: PP. Al Mubarok Lanbulan, 2005), h. 27.
5 Muhammad bin Qosim al-Ghuzzi, Fathul Qorib Mujib Fi Syarh Alfadz Taqrib (Jakarta: Darul Kutub Islamiyah, 2003), h. 22.
and when you are in the evening and when you are at the time of Zuhr.\textsuperscript{9} QS. Ar-Rum: 17-18.

According to Ibn Abbas ra. argues about this verse حِينَ تُُْسُوْ نَ that what is meant by is the time for Maghrib and Isha' prayers, حِینَ تُصْبِحُون is the time for the Fajr prayer, حِینَ تُظْهِرُونَ is the time for the Asr prayer, and حِینَ تُصْبِحُون is the time for the Zuhur prayer.\textsuperscript{6}

In this verse what is meant by قبل طلوع شمس is the time for the Fajr prayer,\textsuperscript{7} قبل طلوع الشمس by قبل طلوع آسمس is the time for the Zuhur and Asr prayers, and من آتيني حسبه is the time for the Maghrib and Isya prayers.\textsuperscript{8}

When knowing prayer times is a condition for the validity of prayers, it becomes important to know the method for knowing the times of fard prayers. Ahmad Ghozali Muhammad Fathullah revealed that there are 3 methods to determine prayer times, including:\textsuperscript{9}

1. Knowing the time for fard prayers by observing natural signs;
2. Knowing the time of the fard prayer with ijtihad, such as doing astronomical reckoning or time research; and
3. Knowing the time of the fard prayer with taqlid or following the opinions of experts in the field of astronomy.

Competence in determining prayer times using the field of astronomy is a special competence that is not possessed by everyone. In determining prayer times, an astronomer requires 3 (three) steps to be taken, namely: a) providing the astronomical data needed for reckoning (input), b) performing the reckoning process (process), and c) knowing the reckoning results. outputs. After the results of the reckoning are known, according to Muhyiddin Khazin, it is necessary to add or subtract a few minutes or better known as ihtiyat. The purpose of this ihtiyat is so that the calculation results can cover the areas around the markaz\textsuperscript{10} as well as to

\textsuperscript{6} Mujiruddin Al-Hanbali, \textit{Fathi Ar-Rahman Fi Tafsir Al-Qur'an} (Líbanon: Dar an-Nawadir, 2009).

\textsuperscript{7} The beginning of the dawn prayer time used in Indonesia is at dawn (dawn sidiq) with a sun height of -20°. The sun’s altitude of -20 which is the initial benchmark for the time for Fajr prayer is then evaluated by some Muslims in Indonesia to be -18°. Mustamar Iqbal Siregar, “Reevaluasi Kriteria Perhitungan Awal Waktu Salat Di Indonesia,” \textit{Jurnal At-Tafkir X}, no. 1 (2017): 38–63.

\textsuperscript{8} Muhammad bin Jarir at-Thobari, \textit{Tafsir At-Thobari} (Lebanon: Darul Kutub Ilmiah, 2006), Jilid 25, h. 215.

\textsuperscript{9} Ahmad Ghozali Muhammad Fathullah, \textit{Irsyadul Murid Ila Ma'rifati Ilmi Falak Ala Rasidil Jadid}, h. 27-28.

\textsuperscript{10} Markaz is a coordinate point (latitude and longitude of a place) that is used as a reference for reckoning.
provide corrections if there are errors in the reckoning, and to increase confidence that the prayer time has actually entered.

Muhammad Hidayat recommended through his research that a good prayer time schedule is a prayer time schedule that is calculated specifically for a particular city. When the initial prayer time schedule used is the prayer schedule with reference to other cities and with adjustments using data tables in the regional correction schedule, the results become less accurate. In line with Muhammad Hidayat, in determining the beginning of prayer times, it is necessary to determine the center coordinates of a city area.

Departing from this, it can be understood that the use of ihtiyat time is very important for anyone who does the reckoning during prayer. But this step, according to the author, if this is done in Islamic law, there is no legal certainty and there are no scholars who specifically discuss this. Therefore, the authors are interested in discussing the legal certainty of using ihtiyat data in calculating prayer times so that in using the resulting prayer times it will increase the confidence of every Muslim.

Overview of Prayer Times

The use of reckoning in calculating prayer times through 3 steps, namely:
1. Provide the necessary astronomical data in reckoning (input);
2. Perform calculations with astronomical formulas (process); and
3. The final result (output).

Astronomical data that needs to be prepared in the reckoning of prayer times are as follows:

a. Latitude of Place ($\phi$)

This term in Arabic is called عرض البلد, which is the angle value formed from being drawn somewhere to the center of the earth then to the equator in one longitude. For places that are north of the equator are given a positive (+) sign, while those that are south of the equator are given a negative sign (-). This data can be obtained using GPS (Global Position System), encharta software, google earth software, maps, as well as latitude data in other astronomy books. See the image below:

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13 Muhyiddin Khazin, Kamus Ilmu Falak (Yogyakarta: Buana Pustaka, 2005)
14 Ahmad Izzuddin, Ilmu Falak Praktis (Metode Hisab-Rukyat Praktis Dan Solusi Permasalahannya) (Semarang: PT. Pustaka Rizki Putra, 2022), h. 83-84.
b. Longitude of Place ($\lambda_x$)

This term in Arabic is called طول البلد, which is the angle measured parallel to the equator starting from the city of Greenwich to a certain place. For places in the western hemisphere, the longitude of Greenwich is called western longitude and astronomers usually put a sign (+), but if it is in the eastern hemisphere it is called eastern longitude and astronomers usually put a sign (-). This data can be obtained using GPS (Global Position System), Encharta software, Google Earth software, maps, and latitude data in other astronomy books.  

See the image below:

![Picture 2: Longitude of Place](image)

*Picture 2: Longitude of Place*


16 Muhyiddin Khazin, *Kamus Ilmu Falak* (Yogyakarta: Buana Pustaka, 2005), h. 84.


c. Regional Longitude ($\lambda_d$)

Longitude is used to unite an area so that it is uniform in its use of time. In Indonesia, places that use WIT uses a longitude of 105° as a benchmark, while WITA uses a longitude of 120° and WIT uses a longitude of 135°. See the image below:
d. Place Height (ST)

The height of the place in question is the height of a place calculated from sea level. The height of this place is in meters. This data can be obtained by GPS or altimeter.

e. Sun’s Declination (δ)

This term in Arabic is called ميل الشمس, is the distance along the declination circle is calculated from the equator to the sun. If the position of the sun is in the northern hemisphere of the equator it has a positive value (+), but if the position of the sun is in the southern hemisphere of the equator it has a negative value (-). The solar declination data used in calculating prayer times must be really accurate because it affects the accuracy of the resulting prayer times. This data can be obtained from existing software, for example Winhisab, or an existing sun declination data table. Here is a picture of the sun’s declination:

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18 “Indonesian Astronomical Location,” n.d.
19 The height of the place is an important component in the reckoning of prayer times. Research results Encep et al. mentions that the difference in the time for the Maghrib prayer from the reckoning with the use of altitude data and without the use of this data causes a time difference of about 3 minutes. Encep Abdul Rojak, Amrullah Hayatudin, and Muhammad Yunus, “SALAT: Analisis Jadwal Waktu Salat Kota Bandung,” Al-Hikam 27, no. 2 (2017): 241–66.
20 The relative elevation of the earth’s surface varies so that it affects the horizon reference of each place. M. Sayuthi Ali, Ilmu Falak I (Jakarta: Raja Grafindo Persada, 1997), 41.
21 Declination is defined as an arc on the circle of time measured from the point of intersection between the circle of time and the circle of the equator to the north or south to the center of the celestial body. Susiknan Azhari, Ensiklopedi Hisab Rukyat (Yogyakarta: Pustaka Pelajar, 2012), 53.
22 Khazin, Kamus Ilmu Falak.
24 A. Jamil, Ilmu Falak (Teori Dan Aplikasi) (Jakarta: Amzah, 2009), h. 15.
f. Equation of Time (e)

This term in Arabic is called تعدل الزمان, which is the time difference between the actual solar time and the average solar time.\(^{26}\) This data can be obtained from existing software, for example Winhisab, or an existing sun declination data table.\(^{27}\)

![Graph of the Equation of Time](image)

Picture 5: Equation of Time\(^{28}\)

After the prayer time reckoning data has been known, the calculation process is carried out, namely:

a. Zawal Time (Z)

What is meant by zawal time is the culmination time or the time when the sun is between the north and south points where at that time the sun’s shadow is the shortest shadow on that day.

The formula is:

\[
Zawal = 12 - e + (\lambda.d - \lambda.x) + 15
\]

b. Sun Height (hº)

Each prayer time has a different sun height. The following is the height of the sun at each prayer time.

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\(^{26}\) Azhari, Ensiklopedi Hisab Rukyat, 62.

\(^{27}\) Slamet Hambali, Ilmu Falak I (Semarang: Pascasarjana IAIN Walisongo Semarang, 2002), h. 142.

\(^{28}\) “Equation of Time,” n.d.
1) Sun Height Ashr Time (ho Ashr)
   The indication that the time of ashr has entered is if the length of the shadows is equal to the length of the stick plus the length of the shadows of the zawal time. Because the length of the shadow of the time of zawal each day is not the same, the height of the sun at the time of ashr must be calculated every day. There are steps in determining the height of the sun at ashr time, namely:

   \[ Z_m = |\delta - \phi| \]
   \[ \text{Cotan } h^\circ \text{ Asar} = \tan Z_m + 1 \]

2) Sun Height Sunrise/Sunset (ho Sunrise/Sunset)
   The height of the sun is used to determine the time of sunset and sunrise. The height of this sun somewhere has a fixed value. The steps in determining it are:

   \[ \text{dip} = 0^\circ 1,76' \sqrt{T}T \]
   \[ h^\circ \text{ sunrise/sunset} = -(\text{refraction} + \text{semi diameter} + \text{dip}) \]
   \[ = -(0^\circ 34' 30'' + 0^\circ 16' + \text{dip}) \]

3) The height of the sun at Isya time (ho Isya)
   The height of the sun in one area has a constant value. The formula is:

   \[ h^\circ \text{ Isya'} = -17^\circ + h \text{ sunrise/sunset} \]

4) Sun Height at Fajr Time (ho Fajr)
   The height of the sun in one area has a constant value. The formula is:

   \[ h^\circ \text{ shubuh} = -19^\circ + h \text{ sunrise/sunset} \]

5) High Sun Time Dhuha (ho Dhuha)
   The height of this sun has a constant value of 4° 30'.

c. Sun Time Angle (to)
   This term in Arabic is called نصف قوس النهار, which is an arc along the daily circle of a celestial body between the zawal time and the desired time. The formula is:

   \[ \cos to = \sin ho + \cos \phi + \cos \delta - \tan \phi \times \tan \delta \]

   The calculation results from the above formula are still in degrees. To proceed to the next process, the value must first be converted into hours by dividing the value by 15.

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29 Departemen Agama RI, Almanak Hisab Rukyat (Jakarta: Badan Hisab&Rukyat Depag RI, 1981), h. 88-89.
The final result (output) of the above process can be formulated as follows:

1. Zuhur = Zawal + Ihtiyat
2. Asar = Zawal + to asar + Ihtiyat
3. Maghrib = Zawal + to rise/sunset + Ihtiyat
4. Isha = Zawal + to isya + Ihtiyat
5. Fajr = Zawal - to dawn + Ihtiyat
6. Imsak = Fajr – 13 minutes
7. Rising = Zawal - to sunrise/sunset – Ihtiyat
8. Duha = Zawal - to dhuha + Ihtiyat

**Ihtiyat in Prayer Times**

There are many definitions of ihtiyat prayer times, among them, according to the Reckoning and Rukyat Agency of the Ministry of Religion of the Republic of Indonesia, ihtiyat is a safety measure, so that the western part of the city does not precede the beginning of time or the eastern part of the city does not exceed the deadline due to the determination of the latitude and longitude of the place. usually centered in the city. 30 The same thing was conveyed by Muhyiddin Khazin, namely ihtiyat is a safety in calculating prayer times by increasing or decreasing the actual prayer times. 31 According to Slamet Hambali, interpreting Ihtiyat as an additional minute of prayer time as a result of reckoning for worship purposes. 32 Encup Supriatna defines Ihtiyat as a prayer time safety by adding at the time of Zuhur, Asr, Maghrib, Isha, and Fajr or subtracting the time for sunrise / syuruq so that the prayer time schedule does not precede or exceed the end of time. 33 Of all the definitions of ihtiyat, according to the author, even though it is presented in a different language style, the essence is the same, namely ihtiyat is a safety measure by increasing or decreasing the actual prayer time.

This ihtiyat is given for the following reasons:

1. Security due to roundings in the collection of reckoning data;
2. Determination of coordinate data is usually at a point around the city center, ihtiyat time is needed to anticipate areas to the west of that point (because the area east of the coordinate point will enter prayer times earlier than those to the west);
3. Accommodating areas that have extreme altitudes.

In giving the amount of ihtiyat value during prayer, there are differences among astronomers. The difference can be seen as follows:

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30 Departemen Agama RI, h. 90.
31 Muhyiddin Khazin, Kamus Ilmu Falak, h. 82.
32 Slamet Hambali, Ilmu Falak I, h. 143.
33 Encup Supriatna, Hisab Rukyat Dan Aplikasinya (Bandung: Refika Aditama, 2007), h. 17.
1. The Ministry of Religion of the Republic of Indonesia, the amount of *Ihtiyat* is 1 to 2 minutes, Imsak is Fajr -10 minutes;
2. Zubair Umar Al-Jaelani, using ihtiyat 4 minutes for the Indonesian region and 8 minutes for the Makkah Saudi Arabia region;
3. Noor Ahmad SS, using *Ihtiyat* 3 minutes except for the zuhur time using 4 minutes and the Imsak time being Fajr -13 minutes;
4. Slamet Hambali added 2 minutes to the actual prayer time except for sunrise minus 2 minutes, Zuhur time added 3 minutes and Imsak is Fajr – 10 minutes;
5. Ahmad Ghozali Muhammad Fathullah, the amount of time for ihtiyat is 2 minutes and imsak is dawn -10 minutes;
6. Abdul Moeid, using *Ihtiyat* for 2 minutes, except for zuhur which is 4 minutes and imsak is -10 minutes.

**Review of Islamic Law on the Use of *Ihtiyat* in Reckoning Prayer Times**

Experts in astronomy, mostly add *Ihtiyat* in prayer times. The addition of *Ihtiyat* in prayer times is an effort to accommodate an area that has a wide expanse and in calculating prayer times, the markaz used tends to use a point in the center of the area.

In the discipline of ushul fiqh, it is known as the following rules:

لِلْوُسَائِلِ ْحُكْمَ الْمُقَاصِدِ

"Wasilah or legal means are the same as the goal".  

Other scholars explain these rules in other languages, namely:

الأَمْرُ بِالشَّيْءِ يَشَاءُ مَا يَشَاءُ إِلَّاَّ الْعَلَيْشَةُ

"The command of something includes everything that can perfect that thing".

In the book of Syarh Mandzumah Qowaid Fiqhiyah, Sheikh Abdurrohman As-Sa’dy says that:

بِرَادِ يُوسَائِلَ الْأَمْرَ الْعَلَيْشَةُ إِلَى الْمُقَاصِدِ هَذَا هُوَ الْمُرَادُ بِالْوُسَائِلِ وَالْمُقَاصِدِ هُنَّ الْغَايَاتُ وَالأَمْرُ الْمُرَادُ وَالْمُتَلَوْلَةُ

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34 Ahmad Ghozali Muhammad Fathullah, *Tsamaratul Fikr* (Sampang: PP. AlMubarok, 2008), h. 8.
35 Abdurrohman bin Nahir As-Sa’idy, “Mandzumah Qowaid Fiqhiyah” (Lebanon: Darul Kutub Ilmiah, 2005), Jilid 3, h. 11.
36 Muhammad bin Hasan Al-Badakhshyi, “Syarh Al-Badakhshyi” (Lebanon: Darul Kutub Ilmiah, 2009), Jilid 1, h. 128.
“What is meant by wasail (plural wasilah) is a means or a way that can convey to the goal, while what is meant by the goal (maqashid) is the purpose of the act in question”.

In the context of determining prayer times, ihtiyat time can be classified as wasilah or a means that can be used to achieve goals. The purpose in question is the prayer time which is a condition for every Muslim to know. Therefore, the use of ihtiyat is important because ihtiyat is a means to achieve an important goal, namely prayer times.

More clearly, Abdurrahman as-Sa’idy revealed that if there is no argument that specifically explains wasilah / facilities, then the provisions related to wasilah / facilities are divided into 3 (three) kinds. First, a definite wasilah that can convey to the purpose of the act, then this wasilah is judged according to its actions, and the ushul experts say that when it comes to matters that are obligatory with qaidah:

\[
\text{ما لا يَنْتَمُونّ الْواجِبَ يَلْفُهُ وَأَجِبَبُ}
\]

“Something that will not be perfect is an obligatory case except by doing something, then the law is also obligatory”.

For example, washing the feet when performing ablution, while washing the feet is not perfect unless you have to wash part of the calf (lower leg above the ankle), then washing part of the calf is obligatory.

The development of this rule is when wasilah relates to things that are haram:

\[
\text{ما لا يَنْتَمُونّ الجِبَّانَبِ الحَزَام إِلَّا بِالجِبَانَبِ فَهُوَ حَزَامٌ}
\]

This means that if you can’t stay away from something that is haram unless you have to stay away from its ingredients, then the means becomes haram. For example, if a woman mixes (ikhtilat) with a foreign man (not her mahram), while the man is haram for her, because there is no marriage bond and it is not permissible to touch him (jima’), and there is no brotherly bond, then it is not perfect to stay away from foreign men. Which is forbidden for him except by avoiding ikhilat (gathering). In conclusion, ikhilat becomes haram.

Second, wasilah or the means used to achieve naming purposes are very rarely used (not common). This kind of wasilah is not punished like a goal. Usually, this applies to something that has nothing to do with the Shari’a. For example, growing grapes is wasilah in the production of liquor. If examined, wine can indeed be used as one of the raw materials for liquor. But on the other hand, grapes are also an edible fruit. Making the activity of growing grapes as a wasilah

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37 Abdurrohman bin Nahir As-Sa’idy, “Mandzumah Qowaid Fiqhiyah.” h. 12.
38 Ibnu Taimiah, Shofwah Ahli Ushul (Lebanon: Darul Kutub Ilmiah, 2001), h. 112.
39 Abdurrohman bin Nahir As-Sa’idy, “Mandzumah Qowaid Fiqhiyah.”h. 12.
for the production of liquor is something that rarely happens. Therefore, growing grapes is not as legally enforceable as the production of liquor.

Third, wasilah/means used for a purpose and its use is rather vague.\textsuperscript{40} For example, the activity of selling wine to a liquor company. In general, it is not clear the use of the wine. However, there is a tendency to use the wine for liquor production. Another example is selling swords to warring parties.

Regarding the legal provisions of this third type of wasilah, Fiqh scholars differ as follows:

1. The Dzahiri School, some Syafiiyah Scholars and some Hanafiyah Scholars are of the opinion that such wasilah is not haram. The original activity in the example above is a pure buying and selling activity. Therefore, it is considered lawful and is not affected by the law of its purpose.

2. Jumhur Ulama are of the opinion that such wasilah can follow the law of its purpose. As dzari’ah is closed in terms of reproaching the Lord of the polytheists because it can cause the reproach of Allah SWT.\textsuperscript{41}

The discussion is returned to the discussion of the use of ihtiyat in prayer times. If detailed, the use of ihtiyat data is something new in the formulation of prayer times for which there is no specific argument that discusses this. While the position of ihtiyat is wasilah so that prayer times can accommodate Muslims in an area that is quite wide. The main purpose of course is prayer time. Thus, the use of ihtiyat in determining prayer times can be categorized as wasilah which does not have a specific argument and is definitely a means to an important goal, namely prayer times.

**Conclusion**

In general, it is known by Muslims that one of the conditions for a valid prayer is knowing the time of prayer. The determination of prayer times which in the fiqh book is associated with several celestial bodies, automatically requires a reckoning process by a competent person. In its development, to determine prayer times in certain areas, it takes time of ihtiyat whose numbers vary according to astronomers. Ihtiyat time in a review of Islamic law can be categorized as wasilah for the purpose that is a valid condition for prayer, namely knowing prayer times. Therefore, using ihtiyat time can be categorized in mandatory law because it is a means of something that is obligatory while there is no specific argument for its use. The use of ihtiyat time is in order to accommodate the interests of Muslims who are in certain areas that have a relatively wide expanse.

**Bibliography**


\textsuperscript{40} Abdurrohman bin Nahir As-Sa’diy.

\textsuperscript{41} Abdurrohman bin Nahir As-Sa’diy.
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“Equation of Time,” n.d.


“Letak Astronomis Indonesia,” n.d.


