

Introduction

All Praise is due to Allah Who guided us to Islam and caused ritual prayer (*salah*) to be the pillar of our faith. Allah the Exalted says, "Truly the prayer is a scheduled injunction upon the believers." (Qur'an 4:103) I bear witness that there is no god but Allah and that Muhammad is His slave and messenger, may the mercy and peace of Allah be upon him, his family, and his companions.

The importance of ritual prayer in Islam cannot be overemphasized. While all other injunctions were revealed to the Prophet Muhammad (*sallallahu `alayhi wa sallam*) on Earth, the prescribed prayers were enjoined on his nation near the Farthest Lotus (*sidrat-ul-muntaha*), above the Seventh Heaven, in proximity of the Throne of The Compassionate. Prayer is the first of a person's actions for which he will be held accountable on the Day of Resurrection. Prayer is also the mainstay of Islam. Therefore, whoever establishes it establishes his religion and whoever dismantles it dismantles his religion. Prayer is the covenant between the individual and Allah. Whoever perfects his five daily prayers, Allah will assure him safety from torment. He who neglects his prayers has no such assurance -- Allah may torment him or forgive him. If there is one issue about which a person must be zealous, it is the soundness of his prayer. It is imperative that every adult Muslim studies and understands the requirements and obligations of prayer, as well as those matters that invalidate it.

There are six requirements for prayer: intention; ritual cleanliness (*wudoo'*); physical cleanliness of body, place, and clothing; facing the *qiblah*; covering legal nakedness (*`awrah*); and ensuring that the time for the prayer has arrived. For many Muslims in North America this last requirement is an obscurity. After all, Islamic organizations and mosques distribute prayer timetables, so why worry? The concern is that some of these timetables have been produced by people with only a rudimentary understanding of how to compute prayer times. I have even lived in a community where one of the brothers who witnessed the formation of the prayer timetable indicated that it was haphazardly thrown together. Although this brother has little confidence in the timetable, it is used throughout a city with over ten thousand Muslims. Offering a prayer before its prescribed time renders the prayer invalid. Eating after Fajr or before Maghrib while fasting invalidates the fast. The validity of two of the five pillars of Islam rests on properly identifying the prayer times.

The main part of this document is the translation of a decree from the Muslim World League regarding computing prayer times at extreme latitudes. Although the decree's main focus is prayers at extreme latitudes, it starts by describing prayer time computation for normal areas. Since the decree is concerned with practical matters

and is not a work of literature, I have given intended meanings a higher priority over literalism or eloquence. Some comments and notes follow the translation.

Translation of the Decree from the Muslim World League

In the Name of Allah, the Compassionate, the Merciful.

"Hold on altogether to the rope that Allah extends to you and do not disperse."

The Muslim World League
Secretariat General
Makkah Al-Mukarramah
Administration of the Fiqh Council
Ninth Session
1406 AH

The Eighth Decree Regarding Times for Prayers and Fasting at Extreme Latitudes

All praise is due to Allah alone, and may mercy and peace be upon he whom no prophet will postdate, our master and prophet, Muhammad, may the mercy and peace of Allah be upon him, his family, and companions.

In its ninth session, the Fiqh Council deliberated in the Muslim World League building in Makkah Al-Mukarramah between the dates of Saturday, 12 Rajab 1406 AH and Saturday, 19 Rajab 1406 AH regarding times for prayers and fasting at extreme latitudes.

In conformance with the lenient spirit of Islamic Law and the findings provided by the Council of Astronomers, the [Fiqh] Council decrees the following:

1. In order to avoid the confusion caused by multiple computational methods, each prayer time is described in two ways: the astronomical phenomenon specified in Islamic Law and the corresponding astronomical calculation. The latter is expressed in terms of the position of the sun above or below the horizon. Islamic scholars of prayer times determined the following:
 - a. Fajr corresponds to the first appearance of a white light that spreads laterally across the horizon. This is referred to as true dawn and corresponds to when the sun is 18 degrees below the eastern horizon.
 - b. Sunrise corresponds to the appearance of the highest point of the sun's disk on the eastern horizon, which corresponds to when the sun is $\frac{5}{6}$ of a degree below the horizon.

- c. Dhuhhr corresponds to the sun passing its zenith - the highest point it will reach that day. This corresponds to the shortest shadow of an object [for that day].
 - d. Asr corresponds to the position of the sun such that the length of the shadow of an object is equal to the length of the object plus the length of the object's shadow when the sun is at its zenith. The corresponding angle changes with respect to time and place.
 - e. Maghrib corresponds to the complete disappearance of the sun's disk below the western horizon. This corresponds to the sun being $5/6$ of a degree below the horizon.
 - f. Isha corresponds to the disappearance of red twilight. This corresponds to the sun being 17 degrees below the western horizon.
2. It is sufficient to add two [clock] minutes to the times of: Dhuhhr, Asr, Maghrib, and Isha, and to subtract two minutes from the times of Fajr and sunrise.
3. Extreme latitudes fall into three categories:
 - a. Region 1 is anywhere between latitudes of 45 to 48 degrees north or south. Whether drawn-out or shortened, all necessary astronomical phenomena occur within a 24 hour period in this region.
 - b. Region 2 is anywhere between latitudes of 48 to 66 degrees north or south. Some astronomical phenomena are non-existent during some days of the year in this region, such as the lingering of twilight through the start of Isha and the adjacency of the end of Maghrib time with the start of Fajr.
 - c. Region 3 is anywhere between the latitude of 66 north or south and the corresponding pole. The necessary astronomical phenomena are non-existent for large parts of the year.
4. The ruling regarding Region 1 is that its inhabitants must abide by the legally prescribed times for prayers and fast between the appearance of true dawn and sunset. This is in accordance with Islamic legal texts regarding prayer and fasting.
5. The ruling regarding Region 2 is that the times for Isha and Fajr should be determined by using the corresponding percentages for these prayers at the latitude of 45 degrees. For example, if Isha starts after one third of the night has passed at the latitude of 45 degrees, then relative to the length of the night at the desired location, Isha also starts after one third of it has passed. The same applies to Fajr.
6. The ruling regarding Region 3 is that the times for all prayers should be computed according to their analogues at a latitude of 45 degrees. The 24 hours in a day in this region should be divided up into the same proportions as it is at 45 degrees. For example, if the length of the night at 45 degrees is eight hours, the sun sets at 8:00 pm, and Isha is at 11:00 pm, then the equivalent should hold

for the desired location. If, for example, Fajr is at 2:00 am, then it is the same at the desired location. Fasting should start from this time until the proportioned Maghrib.

This conclusion is based on the analogous situation mentioned in the hadeeth pertaining to the *Dajjal* (False Christ),

We said, "Oh Messenger of Allah, how long will he remain on earth?" He said, "Forty days: a day like a year, then a day like a month, then a day like a week..." We said, "Oh Messenger of Allah, in the day that is like a year, will the prayer of a day be sufficient?" He said, "No, proportion out the time."
(It was narrated by Abu Dawood in the chapter on massacres.)

Allah is the Possessor of correctness.

May mercy and peace be upon our master Muhammad and all of his family and companions.

[Signed]

Dr. Abdullah Umar Naseef
Vice President

Abdulaziz ibn Abdullah ibn Baz
President of the Fiqh Council

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- Mustafa Ahmad Al-Zarqa'

[Handwritten note:] I opine that the extremes of day and night for different seasons in Hejaz or the entire Arabian Peninsula form a basis for measurement of prayer times at extreme latitudes.

- Muhammad Mahmood Al-Sawwaf
- Salih ibn Uthaymayn
- Muhammad Rasheed Kabbani
- Muhammad Al-Shathili Al-Nayfir
- Abu Bakr Joomy

- Dr. Ahmad Fahmy Abu Sinnah
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- Yusuf Al-Qaradhawi
- Muhammad Salim ibn Abdulwadood
- Abu Al-Hasan Ali Al-Hasani Al-Nadawi

From the Council of Astronomers:

- Prof. Dr. Mohammad Hawari

The following were absent from this session: his excellency Sheikh Abdulquddoos Al-Hashimi, his highness Marshal Mahmood Sheet Khattab, his excellency Sheikh Hasanayn Muhammad Makhloof, and his excellency Sheikh Mabrook Masood Al-Awadi.

Notes and Examples

1. The decree translated above is the result of a meeting between members of the Muslim World League's Fiqh Council and a committee of astronomers. The astronomers were headed by Dr. Mohammad Hawari, who has researched the methods of prayer computation for the past twenty-five years and feels that the methods outlined above are the only ones that are consistent with *fiqhi* principles and astronomical phenomena. The results of his research are soon to be published, *in sha' Allah*. For his contact information, see below.
2. Prayer times provided by astronomical calculations are only approximations. During a calculation, the minutes of a prayer time might be rounded up or down depending on the fraction that follows them. It is unwise to start or terminate praying or fasting at precisely the scheduled time. While the decree suggests a two-minute margin of safety, an additional few minutes would provide some insurance.
3. A prayer offered before its prescribed time does not count whereas a prayer offered, for example, ten minutes after the start of its time is valid. Erring on the side of slightly delaying a prayer is safer than starting it slightly early.
4. In terms of fasting, it is better to err on the side of slightly hastening the calculated time for Fajr and slightly delaying the time for Maghrib.
5. Prayer times change slightly from year to year. However, they do form a cycle as per leap years. The prayer times for a given year should be within a few minutes of those for any other year. Thus, when using a perpetual calendar (as opposed to one computed for a specific year), margins of safety should be slightly widened.

6. In general, it is best to offer prayers at their earliest possible times. When fasting, it is best to delay the pre-dawn meal and hasten breaking the fast. Unless there is a *fiqhi* reason to do otherwise, one should only depart from this practice if he fears invalidating his prayer or fast. Therefore, one should not use unrealistically large margins of safety.
7. Once the middle of the night has passed, the sun slowly approaches the eastern horizon. Thus, using a value smaller than 18 degrees will yield *later* times for Fajr since the sun will be closer to the horizon. By similar reasoning, using a value smaller than 17 degrees will yield *earlier* times for Isha.
8. The Islamic Society of North America (ISNA) endorses the view that both Fajr and Isha start when the sun is 15 degrees below the horizon. The Council of Astronomers who provided guidance for this decree feels that 15 degrees does not reflect reality. Allah knows best.
9. Many prayer timetables compute Isha as being 1.5 hours after Maghrib. While this is true in Mecca and some other areas, it is not a universal ruling.
10. The time for Asr according to the Hanafi school is when the shadow of an object is *twice* the length of the object plus the length of its shadow when the sun is at its zenith.
11. Many schedules provide the time for the sun's zenith and label it as Dhuhr. Praying while the sun is at its zenith is not permissible. Dhuhr begins when the sun has *passed* its zenith, at least two minutes later.
12. As an example of Region 2, Fort McMurray, Canada, is at (latitude) 56.65 degrees north, (longitude) 111.22 degrees west, and time zone GMT -7 hr. To compute the Fajr and Isha times for June 22, 1998, one first computes the times for sunrise (4:33 am) and Maghrib (10:21 pm). Since sunrise is 6 hours and 12 minutes after Maghrib, this is the length of the night at Fort McMurray. (Note: Technically, the calculation should use the times for Maghrib on June 22 and sunrise on June 23. However, using June 22 for both times makes programming this algorithm easier. At worst, it should only make a few minutes of difference and margins of safety should be used anyhow, as above.) One then computes the times for Fajr (3:05 am), sunrise (5:38 am), Maghrib (9:15 pm), and Isha (11:35 pm) at a reference point with the same longitude but with a latitude of 45 degrees north. The length of the night at the reference location is 8 hours and 23 minutes. Isha is 2 hours and 20 minutes after Maghrib, which corresponds to 27.83% of the night. Fajr is 5 hours and 50 minutes after Maghrib, which corresponds to 69.58% of the night. 27.83% of the night at Fort McMurray equals 1 hour and 44 minutes, so Isha is at 12:05 am. Similarly, Fajr is at 2:40 am.
13. Regarding Region 3, Dr. Hawari opines that further research is needed. He manually computes prayer times for these areas but suggests that it is premature to derive a fixed formula for such calculations.

14. Dr. Kamal Abdali wrote a program called 'praytimer' that computes prayer times. Waleed Muhanna improved the program's interface, error checking, and other usability features. The program can be found at <http://www.cob.ohio-state.edu/~wmuhanna/IslamicTimer.html>. The program only allows a user to specify a single angle of solar depression, which is used to compute both Isha and Fajr. The default value is 18 degrees, which conforms to the Muslim World League's value for Fajr but produces values for Isha that are slightly later (which is not a problem). The problem is that the program does not produce reasonable values for areas in Region 2 unless one uses a smaller solar depression angle. As mentioned above, ISNA endorses the use of 15 degrees while the Council of Astronomers rejects this. Dr. Abdali's program also allows one to specify the Hanafi or majority school for Asr. Unfortunately, the program mistakenly labels the sun's point of zenith as Dhuhr time. I have modified Dr. Abdali's program so that it accepts two different solar depression angles (for Fajr and Isha) and works in accordance with the above decree for places in Region 2. However, I have not changed the default behaviour of the program, so it is necessary to read the new documentation in order to achieve compatibility with the above decree.

See <http://www.geocities.com/Athens/8383/prayertimes.html>.

15. To request a prayer timetable for your location, E-mail me your city and country. If you live in Region 3 or if you have detailed astronomical questions, contact:

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From North America, dial: 011-49-241-889060.

Allah the Exalted knows best and is Most Wise.

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