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Frank W. Nelte

HOW MANY DAYS ARE THERE FROM THE EARLIEST SUNSET TO THE LATEST SUNSET?

In the calendar system recognized by God days start and end at sunset. But **sunset keeps moving** to a different time as the days pass. In general terms, as we go from winter towards summer, sunset occurs later; and as we go from summer towards winter, sunset occurs earlier.

Now God's annual Feasts and Holy Days are linked to the seasons in the Northern Hemisphere. So we might just consider an interesting set of two questions for both hemispheres:

1) How many days are there from the earliest sunset in the year until we get to the latest sunset in the year?

2) And how many days are there from the latest sunset in the year until we get back to the earliest sunset in the year?

Please note that the answers to these questions have no effect on how the calendar is to be established. They don't change anything. But they are nonetheless very interesting, and also quite surprising for many people who have never looked into this. So this is not information you need in order to make any decisions. It is purely something of interest.

The first response to these two questions is: the answers depend on whether you are looking at the Northern Hemisphere, or whether you are looking at the Southern Hemisphere.

Now we ourselves currently live here in East Texas in the Northern Hemisphere. But I have also lived for many years in Johannesburg, South Africa in the Southern Hemisphere. So I will consider those two locations in this short article.

Please understand that the number of days I will mention will be somewhat different for different geographic locations, applied to both hemispheres. And please also keep in mind that the date for the earliest sunset is not the same as the shortest day in the year; and the date for the latest sunset is not the same as the longest day in the year. That is because at the same time as sunset times change, so also do the times for sunrise change.

So I am not looking for the shortest and the longest days in the year. **I am only looking for the earliest and the latest sunset times**, because it is the sunset times that determine the start of a new day. Sunrise times, on the other hand, have nothing at all to do with when days start and end.

So let's start by looking at the seasons.

THE SEASONS

The four seasons start and end on the two solstice days and the two equinox days. Without worrying about small shifts (i.e. 1-day shifts due to leap years, etc.), because this is not a technical discussion, we can say that:

SPRING starts on March 20,

SUMMER starts on June 20 or 21,

AUTUMN starts on September 22 or 23,

WINTER starts on December 21 or 22.

In the Northern Hemisphere:

1) From the start of Spring to the end of Summer = March 20 - September 21. That amounts to **186 days**.

2) From the start of Autumn to the end of Winter = September 22 - March 19. That amounts to **179 days** (or 180 days in a leap year).

So for the Northern Hemisphere Spring + Summer is approximately **one week longer** than Autumn + Winter.

In the Southern Hemisphere:

1) From the start of Spring to the end of Summer = September 22 - March 19. That amounts to **179 days** (or 180 days in a leap year).

2) From the start of Autumn to the end of Winter = March 20 - September 21. That amounts to **186 days**.

So for the Southern Hemisphere Spring + Summer is approximately **one week shorter** than Autumn + Winter.

In our present system the four seasons are not of equal length. It seems that the Northern Hemisphere really needs more Spring + Summer, where the Southern Hemisphere can do with less Spring + Summer than the Northern Hemisphere. At any rate, that's how God organized it after the originally perfect cycles were corrupted.

Now let's look at the interesting sunset information.

SUNSETS IN THE NORTHERN HEMISPHERE

Here is some sunset information for our location here in East Texas. While the specific data will vary, the principles will hold true for most inhabited areas in the Northern Hemisphere (i.e. excluding the polar region).

In all of the following data I will ignore Daylight Saving Time (DST), so we can keep our comparisons realistic.

1) The **earliest sunset** here occurs at **5:16 p.m.**

2) On November 24 sunset is still at 5:17 p.m.

3) For **16 days** from November 25 - December 10 sunset is at 5:16 p.m.

4) On December 11 sunset is at 5:17 p.m., and from then onwards sunset moves to progressively later times.

5) So the first day of the earliest sunset is November 25.

6) And the last day of the earliest sunset is December 10.

1) The **latest sunset** here occurs at **7:33 p.m.** (ignoring DST).

2) On June 25 sunset is still at 7:32 p.m.

3) For **7 days** from June 26 - July 2 sunset is at 7:33 p.m.

4) On July 3 sunset is at 7:32 p.m., and from then onwards sunset moves to progressively earlier times.

5) So the first day of the latest sunset is June 26.

6) And the last day of the latest sunset is July 2.

Okay, so much for the data for the Northern Hemisphere. And as stated already, the dates will vary somewhat for different locations. But here is what we have for our specific location:

1) It takes only **146 days** to get from the latest sunset at 7:33 p.m. on July 2 to the earliest sunset at 5:16 p.m. on November 25. So in 146 days sunset moves **2 hours 17 minutes earlier**, from 7:33 p.m. on July 2 to 5:16 p.m. on November 25.

2) But it takes **198 days** to get from the earliest sunset at 5:16 p.m. on December 10 to the latest sunset at 7:33 p.m. on June 26. So in 198 days sunset moves **2 hours 17 minutes later**, from 5:16 p.m. on December 10 to 7:33 p.m. on June 26.

So in the Northern Hemisphere it takes **146 days** to get from the latest sunset to the earliest sunset. And it takes **198 days** to get from the earliest sunset back to the latest sunset. That is a difference of **more than 7 weeks**.

To be clear, this data does not apply to the shortest and longest days in the year, because we are not considering the times for sunrise. This data focuses purely on the earliest and the latest sunset times.

Okay, now let’s look at Johannesburg in the Southern Hemisphere.

SUNSETS IN THE SOUTHERN HEMISPHERE

Here is some sunset information for Johannesburg, South Africa. While the specific data will vary, the principles will hold true for most inhabited areas in the Southern Hemisphere.

1) The **earliest sunset** in Johannesburg (Jhb) occurs at **5:23 p.m.**

2) On May 29 sunset is still at 5:24 p.m.

3) For **20 days** from May 30 - June 18 sunset is at 5:23 p.m.

4) On June 19 sunset is at 5:24 p.m., and from then onwards sunset moves to progressively later times.

5) So the first day of the earliest sunset is May 30.

6) And the last day of the earliest sunset is June 18.

1) The **latest sunset** in Jhb occurs at **7:05 p.m.**

2) On January 8 sunset is still at 7:04 p.m.

3) For **7 days** from January 9 - January 15 sunset is at 7:05 p.m.

4) On January 16 sunset is at 7:04 p.m., and from then onwards sunset moves to progressively earlier times.

5) So the first day of the latest sunset is January 9.

6) And the last day of the latest sunset is January 15.

So here is an interesting fact, which applies to **the Southern Hemisphere**.

1) It takes only **136 days** to get from the latest sunset at 7:05 p.m. on January 15 to the earliest sunset at 5:16 p.m. on May 30 (ignoring leap years). So in 136 days sunset moves **1 hour 42 minutes earlier**, from 7:05 p.m. on January 15 to 5:23 p.m. on May 30.

2) But it takes **206 days** to get from the earliest sunset at 5:23 p.m. on June 18 to the latest sunset at 7:05 p.m. on January 9. So in 206 days sunset moves **1 hour 42 minutes later**, from 5:23 p.m. on June 18 to 7:05 p.m. on January 9.

So it takes **136 days** to get from the latest sunset to the earliest sunset.

And it takes **206 days** to get from the earliest sunset back to the latest sunset. That is a difference of **10 weeks**. The exact number of days will vary for other locations in the Southern Hemisphere. And for that matter, a discrepancy of a day or two is not important. It is the principle that holds true, that sunset times don’t necessarily move in harmony with the solstices.

As I said earlier, this information has no effect on the calendar. But I think it is rather interesting to be aware of the different number of days involved in this scenario. If you have access to sunset times for your local area, you can also easily determine the exact number of days involved for your particular area.

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