

# HALAKHA AND THE INTERNATIONAL DATELINE : A SURVEY

## I. The Problem

A prominent halakhic issue modern travel has posed may be described as follows: assume two people, starting from the same place at the same time, travel in opposite directions at the identical speed, one eastward and one westward. The one traveling eastward, against the sun's motion, would continuously change his time setting to a later time to reflect the fact that the "East" had the day sooner than the "West", as the sun always "travels" east to west. The westward traveler would continuously change his time setting to an earlier time, for the part of the day that had already been in the East is coming to the West - the West is "behind" the East. This phenomenon is reflected in the world's various time zones. When our two travelers meet at the exact opposite side of the earth from where they started, one would have adjusted his time setting forward 12 hours and the other 12 hours backward such that they both have the same time of day but consider it a different day of the week with a different date. Which day would be Shabbat for them? This question applies to all time-related misvot.

If our travelers continue in the same directions they had been traveling until they meet once again at the original starting point, the difference between them would be two days! Additionally, the one who traveled eastward would have a day and date one day earlier than the people living at the starting point and the one traveling westward a day and date one day later than them.

[As the sun "rotates" around the earth in 24 hours, and as the earth's circumference is almost 25,000 miles, the sun's movement at the equator is slightly swifter than 1,000 miles per hour. Somebody traveling westward at 1000 miles per hour would have the same time of day indefinitely, so how would he count days? What about space travel?]

The nations of the world addressed the basic problem in the 19th Century by establishing the International Dateline. Greenwich, England was chosen as the central point for time and date calculations, and exactly the other side of the world from Greenwich (180 degrees longitude or twelve hours) was set as the International Dateline. When passing this line traveling westward, one jumps a day forward, and when traveling eastward, one day backward.

A major consideration in setting Greenwich as the center was that the dateline thus fell in the Pacific Ocean, preventing the inconvenience of its crossing large landmasses. In those few areas where it would traverse a landmass, where practical, the line was slightly bent; thus it is bent to go through the Bering Straits dividing Siberia and Alaska.

## II. Proposed Halakhic Solutions

Most rabbinic authorities agree that logically there must be a halakhic dateline that governs day and date for calendar-related matters but that it is not the International Dateline, as that was merely an arbitrary decision of the nations of the world which has no authoritative standing in Halakha. Exactly where the Halakhic International Dateline falls has been a matter of dispute.

One opinion reasons as follows: Jerusalem, the capital of the land given to the nation of Israel, is considered the center of the world for Torah purposes. From there, ideally, authoritative religious and ritual instruction emanates to the world. The Midrash teaches that we should consider Creation as having proceeded from there. Thus, the Halakha Dateline would be located at the exact opposite side of the world from Jerusalem - 180 longitudinal degrees away. In this way all the Jewish people, wherever they are located, would observe at least twelve hours of Shabbat simultaneously with Israel.

As Jerusalem is 35 longitudinal degrees east of Greenwich, the Halakha Dateline would be 35 longitudinal degrees east of the International Dateline, i.e., 145 longitudinal degrees west of Greenwich. When passing 145 degrees west of Greenwich traveling westward we change the date one complete day forward and when traveling eastward, one complete day backward.

According to this view, the only area affected by the Halakha Dateline being different from the International Dateline is that between 145 West and 180, for at 180 the rest of the world changes its date and everything is equalized. A relatively small number of landmasses lie in this “variance zone” of 35 longitudinal degrees, as it mostly spans Pacific Ocean areas. However, two important landmasses do fall in this area: Hawaii and a significant part of Alaska.

The complete string of Hawaiian Islands - longitude 154 W - 178 W - lies in this zone. According to this view the day called Friday by the Hawaiians is to be observed as Shabbat and the day they call Saturday is Sunday in halakha and requires tefillin, etc. “Mareet ayin” compounds the problem.

For well over a century, many observant Jewish residents of and travelers to Australia, Japan and other countries of the Orient have relied on this opinion, thus avoiding any difficulty associated with observing Shabbat on a day different than the local Saturday. They were careful upon traveling to Hawaii not to contradict themselves, where they would have to consider the local Friday to be Shabbat. Some people, because of the difficulty in observing Shabbat on Friday and being concerned with the mareet ayin on Saturday, as the local Jews observed Shabbat on the civil Saturday, would leave Hawaii before Thursday night, which is Friday night according to their view. A difficult situation obtains with Anchorage, Alaska, a popular airline transit city, as it lies in the variance zone.

An important early work interpreted as propounding this view is Yesod Olam, written in 1310 by the Spanish rabbi and astronomer Isaac Israeli z”l, a student of the Rosh and the Tur. The famous English Sephardic rabbi, physician and astronomer David Nieto z”l, supported this view in his Matteh Dan (1714). One of the leading rabbinic authorities of the past century, Rabbi Yosef Eliyahu Henkin z”l, published a p’sak according to this view in 1925.

A different view is expressed in Sefer HaKuzari (ca. 1135), wherein Rabbi Yehudah Halevy z”l places the Halakha Dateline at the eastern tip of China. As the rabbi explains to the king, Israel is the center of the “inhabited” hemisphere, there being a quarter of the earth or six hours to its east and a quarter of the earth or six hours to its west. The other hemisphere, he explained, is considered “the other side” containing the “lands of the sea”, regardless of the size of those “lands”. The day begins from the East, or six hours east of Israel. The six hours of the west of

Israel and the twelve hours of “the other side” complete the day. The Halakha Dateline is the spot where the day begins, 90 degrees east of Jerusalem.

Rabbi Zerahya Halevy z”l, another 12th Century Sephardic luminary, also arrives at this dateline in his Baal Hamaor Talmudic commentary. The Talmud states that a day may be declared Rosh Hodesh only if the new moon appeared in Israel by noon of that day, i.e., at least 6 hours before day’s end (TB Rosh Hashanah 20b). This assures that there will be somewhere in the world that will have a full 24-hour day for Rosh Hodesh. (In days when establishment of the new month awaited proclamation of the Bet Din, which required sighting of the new moon, no place could have Rosh Hodesh before the proclamation.) He explains this to mean that the day begins 6 hours east of Jerusalem and the area just to its east are 24 hours behind it and 18 hours behind Jerusalem.

As Jerusalem’s longitude is 35 degrees east of Greenwich, the Halakha Dateline according to this view is 125 degrees east. At Jerusalem’s latitude - about 32 degrees north of the Equator - 125 degrees east is just a tiny bit east of the Asian coast, approximately at Shanghai’s eastern tip.

According to this view, there is no variance between the International Dateline and the Halakha Dateline as far as Hawaii and Alaska are concerned - both are well west of both datelines. However, those countries east of China and west of the world’s International Dateline would be in a “variance zone”. In Japan, Shabbat should be observed on the day the country calls Sunday and the day it calls Saturday is halakhically Friday and tefillin must be donned.

The Hazon Ish z”l (d. 1953), one of the leading rabbis of the past century, was a vigorous advocate of this latter view. He interpreted it as based on the geographic knowledge that six hours (90 degrees) east of Jerusalem coincides exactly with the eastern edge of the major land mass Israel is located on. In addition, he posited from logic that the Halakha Dateline must take into account the unity of the contiguous land mass Israel is a part of. Thus, it is not only the 90 degrees that is critical but also the end of the landmass at Jerusalem’s latitude. Accordingly, the complete land mass traversed by the Halakha Dateline would have the same day as their western, or Israel, side. Northeastern China, Korea, eastern Siberia and Australia would not be in what the other opinion considers a “variance zone” from the world’s dateline notwithstanding that the Halakha Dateline passes through them or west of them; they are part of the land mass that extends west of the Dateline and are thus incorporated into the Israel timeframe.

The fact that 90 degrees east of Jerusalem does not precisely coincide with the eastern edge of the land mass Israel is on but is slightly to the east of it, entering a bit into the Pacific Ocean, is a question on this interpretation. The Hazon Ish proposes several solutions: perhaps the six hours or 90 degrees spoken of by the early rabbis was only an approximation, there not having been a need in previous times to be exact on this matter. Or perhaps in olden days the eastern edge of Asia at Jerusalem’s latitude was exactly 90 degrees east but during the many intervening centuries the Pacific Ocean swallowed part of the land.

According to the Hazon Ish, the “variance zone” between the Halakha Dateline and the International Dateline includes Japan, New Zealand, New Guinea, the eastern Philippine Islands, eastern Indonesia, and numerous Pacific islands including those off Australia’s central and eastern coasts. In these lands one would observe Shabbat on the day the local population calls

Sunday. Hazon Ish followers in Australia are careful not to travel to many nearby islands on Sunday as they enter into Shabbat.

Another opinion regarding the Halakha Dateline, held by some rabbinic authorities, places the halakhic dateline between the Bering Straits and Alaska. This opinion considers such a line as the “natural” dividing line of the world, separating the earth into two hemispheres. According to this view the Halakha Dateline is very close to the International Dateline and only some relatively minor Pacific islands fall into a “variance zone.”

Rabbi Menahem M. Kasher z”l (d. 1983, compiler of the 45 volume Torah Shelemah anthology), has written that in a matter such as this, which in his opinion (notwithstanding the above) has no clear tradition or Talmudic source, contemporary rabbis are free to set the line wherever they see fit and for everyone’s convenience might as well choose the International Dateline. His opinion remains that of a minority of posqim.

Two prolific modern poskim have not written on the subject: Rabbi Moshe Feinstein z”l (d. 1986) and former Sephardic Chief Rabbi of Israel, Hakham Obadiah Yosef, shlita.

Former Sephardic Chief Rabbi of Israel Hakham Mordechi Eliyahu, shlita, ruled according to the opinion that bases the dateline 180 degrees from Jerusalem. He specifically stated: “this ruling is not merely to be mahmir (strict), but is to be followed even lequla (where it results in leniency).

Rabbi Ben Sion Aba Shaule z”l (Rosh Yeshivah of Porat Yosef) has written that one should consider this matter as unresolved between two major views and be strict on all Torah matters. According to him, in Japan, Hawaii and all locations that fall in the 90 longitudinal degrees that separate the two main views of the Halakha Dateline, one should refrain from work on Shabbat two days each week, fast two days Yom Kippur (eating less than a shiur to prevent danger to life), etc.

Others who also consider the matter unresolved with no established custom have (for the time being) deferred to the global following of the posqim involved and the difficulty of living without having a psaq and allowed the public to follow either of the two major opinions but to be careful not to contradict themselves. Not to adhere to one p’sak when traveling to country A and an opposing p’sak when traveling to country B. One who observes Shabbat on the local Saturday in Hawaii should observe Shabbat on the local Sunday when in Japan or New Zealand. One who observes Shabbat on the local Saturday in Japan, when in Hawaii should observe Shabbat on the local Friday. Travel plans must be made carefully.

### **III. Other Questions**

Regardless of where the Halakha Dateline is drawn, how should one conduct regarding Shabbat upon crossing the line in mid-day? Should time-related halakha practice suddenly change on the spot or should there be a carry-over until the conclusion of the individual’s 24-hour day? Although there has been much debate on this issue in recent generations, the majority today favors the view that the moment one crosses the Halakha Dateline, even if he remains on a moving boat or airplane, he becomes obligated in the halakha that applies to that spot exactly the

same as one who lives on the ground at that location. This position is articulated in Rabbi Ben Sion Aba Shaule's responsa (1988, v.1 #14 p. 40):

I have seen later authorities who state that one who crossed in mid-Shabbat from the western part of the world to the eastern part of the world [traveling westward] where the day is Sunday, as long as he remains on the ship should continue observing Shabbat according to the time of the place he departed from. [Some say] even if he disembarked and reached a settled area he should continue observing Shabbat until the conclusion of 24 hours from the spot he departed from. Although many later authorities of our time are of the opinion that if he remained on the ship he should continue observing Shabbat according to the time of the place he departed from, it is my humble opinion that even while still on the ship or airplane, when he crosses the Halakha Dateline it is permitted for him to end the Shabbat of the place from which he departed since he is now in a location where the day is Sunday and he is required to make habdala in mid-day, skipping the berakha on fire. It sometimes may be that a person will have Shabbat for only an hour, when he was near the Halakha Dateline at the commencement of Shabbat and crosses an hour later. He would have prayed Shabbat arbit and made kiddush on wine and the next hour pray Saturday night arbit and make habdala. He misses Shabbat shahrit, musaf and mincha prayers. In the reverse, when he left the East Saturday night after praying arbit and making habdala and an hour later finds he crossed the Halakha Dateline, he would once again pray all Shabbat prayers - arbit, shahrit, musaf and mincha and make kiddush even if still in transit. We don't say he should conduct according to the place he departed from. Think about it - if two people left together, one from the East and one from the West, and they met - is it conceivable that one would have a halakha different than the other?

(Others claim that his rhetorical question at the end of the above quotation doesn't apply to the people on the boat, who only temporarily have a halakha different than the local island inhabitants from whom they are in any event separated.)

Rabbi Aba Shaule continues:

The same principle applies to weekdays regarding prayers. One who departed from the western part of the world to the eastern part of the world must recite the same prayer a second time [as he hasn't recited the new day's prayers] even though in his eyes it appears to be the same day.

Some authorities have questioned this position and advised in such cases to recite the amida "on condition", as follows: if obligated it is a regular prayer, otherwise it is a "nedaba" (a donation). As weekday prayers are essentially the same one day to the next and the individual prayed the appropriate prayer for the time-of-day period he is in, he fulfilled his responsibility for that day. The technical alteration of which day it is should not necessarily re-obligate him. This would not apply when one of the weekdays has a special character, such as Rosh Hodesh or Hanukah. In such cases the halakha would be similar to the case of Shabbat prayers, which follow the day's character.

When traversing the dateline traveling eastward, where the traveler “returns” to the previous day, there is almost a consensus that he need not repeat the previous day’s prayer even though he is indeed in the previous day and will conduct in all halakhot as the previous day. Regarding prayer, he already recited the previous day’s prayer. The same can be said for tefillin - he already donned tefillin for this day and date when fulfilling his previous day’s obligation a short time before. However, regarding prohibitions arising from the nature of the day, such as Shabbat, he is obligated as on every Shabbat. (For mystical reasons only, Rabbi Aba Shaule advises that even regarding prayers in such cases to repeat the Amida on condition.)

If someone missed counting the Omer a complete 24-hour day while located to the west of the Dateline and shortly thereafter is located to its east where it is the day he missed, should he now count with a berakha for the previously missed day? In the present location he didn’t miss a day! The proper day for brit mila, pidyon haben, counting “seven clean days” and all day and date-related halakhot are affected.

Those planning to cross the dateline should familiarize themselves with the details involved preferably by discussing the subject with a competent authority.