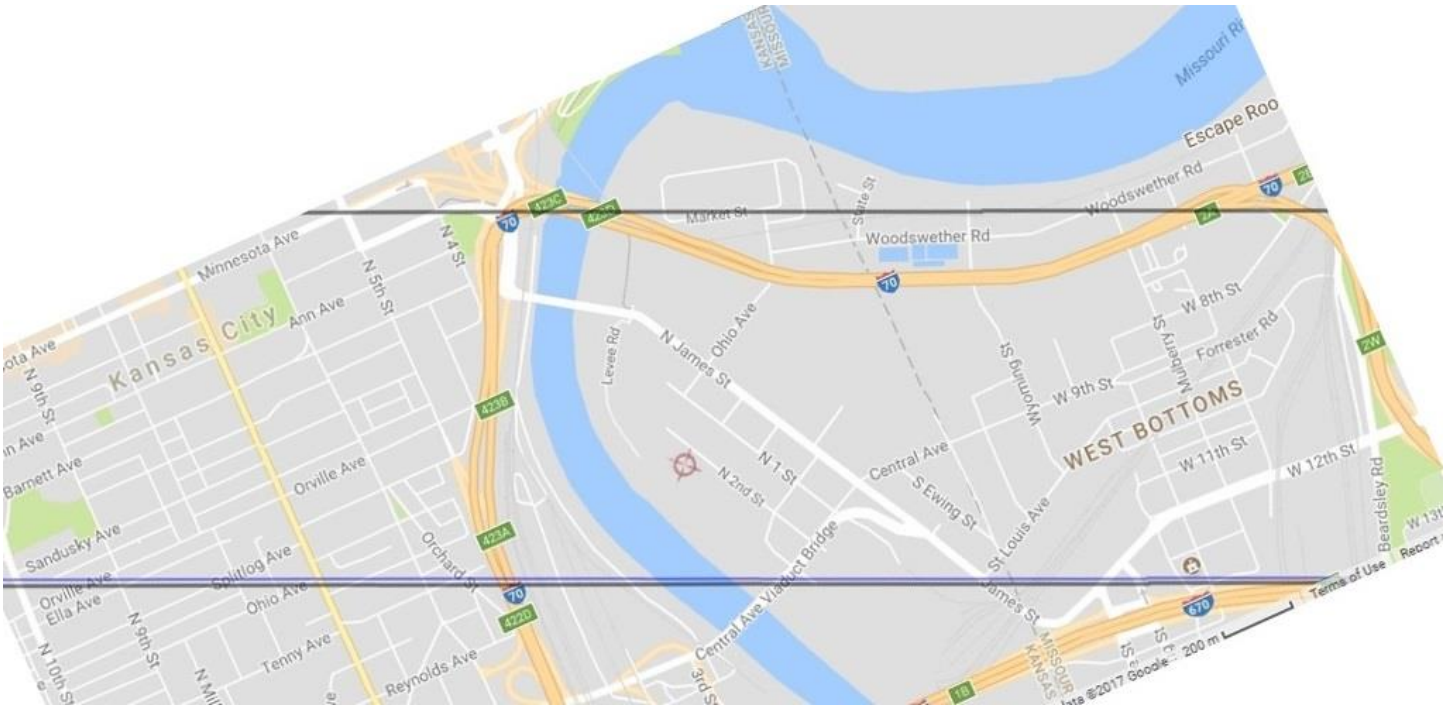
The Southern Eclipse Graze Zone across the Kansas City Area – p. 1 of 4

The Graze Zone is between the 2 dark gray lines plotted. Ignore the blue line & the red circle with “crosshairs”.

Northwest of Kansas City, Kansas; at map center, central eclipse is at 1:08:31 pm CDT (18:08:31 UT)

North

Most of Kansas City, KS and some n.w. suburbs; at map center, central eclipse is at 1:08:42 pm CDT (18:08:42 UT)



Low area, eastern Kansas City, KS and the West Bottoms; central eclipse is at 1:08:49 pm CDT (18:08:49 UT)

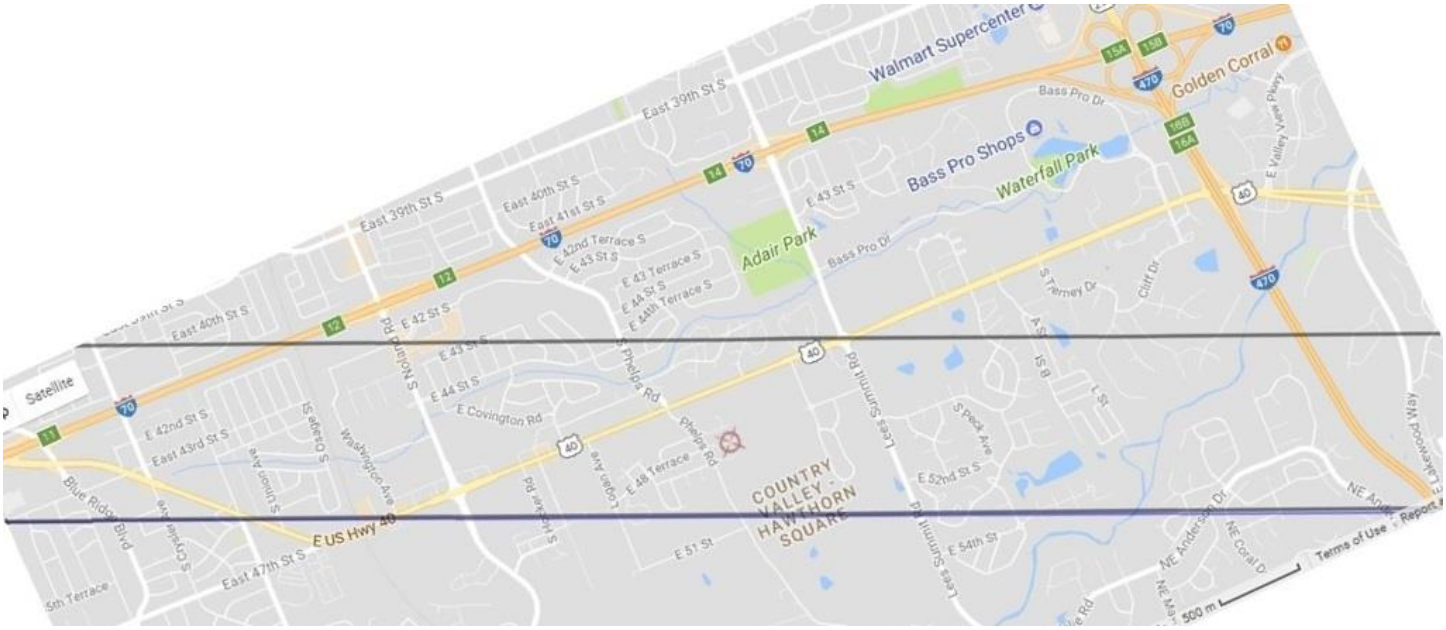
The Southern Eclipse Graze Zone across the Kansas City Area – p. 2 of 4

The Graze Zone is between the 2 dark gray lines plotted. Ignore the blue line & the red circle with “crosshairs”.

Main Kansas City, Missouri; at map center, central eclipse is at 1:08:58 pm CDT (18:08:58 UT)

North

Southeast suburbs of Kansas City; at map center, central eclipse is at 1:09:08 pm CDT (18:09:08 UT)



South of Independence, Missouri; at map center, central eclipse is at 1:09:19 pm CDT (18:09:19 UT)

The Graze Zone is between the 2 dark gray lines plotted. Ignore the blue line & the red circle with “crosshairs”.

Blue Springs Lake (Low), at map center, central eclipse is at 1:09:30 pm CDT (18:09:30 UT)

North

Blue Springs, Missouri region; at map center, central eclipse is at 1:09:37 pm CDT (18:09:37 UT)

Note that the intensity of the part of the Sun that remains visible at central eclipse will change considerably across the graze zone; that’s what we want to measure! South of the south edge of the graze zone, the remaining piece of the Sun will be very bright, and it is recommended that observers there use eclipse glasses the whole time. Those in the graze zone, and farther north, should look for the splendor of totality, but use the eclipse glasses when the Sun is too bright to comfortably look at without them.

Few amateur astronomers will be observing from the graze zone since most of them will travel deeper into the path of totality. If you live in or near the graze zone, and are content to observe there (the Baily's beads and diamond ring last longer and are more spectacular in the graze zone than in other parts of the path of totality), and if you have a small telescope, and/or a DSLR camera, you can make observations of even more value. Information about these more sophisticated observations are given at https://eclipsemega.movie/megamovie (one of their goals is to obtain images of Baily's beads and the diamond ring), some at IOTA's site at http://occultations.org/eclipse2017/ , and at general sites such as http://www.eclipse2017.org/2017/photographing.HTM (but note that in the graze zone, the best images will be of Baily's beads and the diamond ring, NOT of the corona). Those using smart phones should see IOTA's eclipse Web site at http://occultations.org/eclipse2017/ .

More detailed maps can be generated using IOTA's interactive Google Map at http://www.poyntsource.com/New/Google/Total__Eclipse__of__2017_Aug_21.htm . For the 280-m (920-ft.) average elevation above sea level of the Kansas City region, the values for the offsets (specified in two boxes above the Google Map) to generate the gray-line boundaries of the northern-limit graze zone are 55.652 and 56.652. These will generate the boundaries to under 20m (50 ft.) accuracy across the region, good enough for specifying the graze zone. For low areas (elevation around 230m or 750 ft., better offset values are 55.614 and 56.614. IOTA seeks those who live in or near the graze zone, to make cell-phone recordings of the eclipse using the techniques described at http://occultations.org/eclipse2017/ . This Web site will be updated periodically with more detailed information about how to make and report the observations. We are especially interested if you might be able to organize two-person teams that can be positioned across the graze zone; write to David Dunham at dunham@starpower.net, to volunteer for this activity.

David Dunham, dunham@starpower.net, phone 301-526-5590, 2017 August 16 pm