

The Autumnal Equinox is one of the 2 days when day and night are supposed to be exactly equal. When the sun rises, it rises perfectly east; when it sets, it sets perfectly west. This year, the Autumnal Equinox landed on Monday, September 22nd. During this experiment, I used tools such as my phone as a camera, a compass as a way to make sure I was standing and looking west, and lastly, I used Google Maps to help find a location where there might be a clear view.

I conducted research surrounding the sunset for the Autumnal Equinox. I took photos of the sun setting over 4 separate Mondays, all being within Boston, Massachusetts. These photos started on September 8th. With my first photo, I thought I had come up with a great location; however, it was not. As you can tell by the

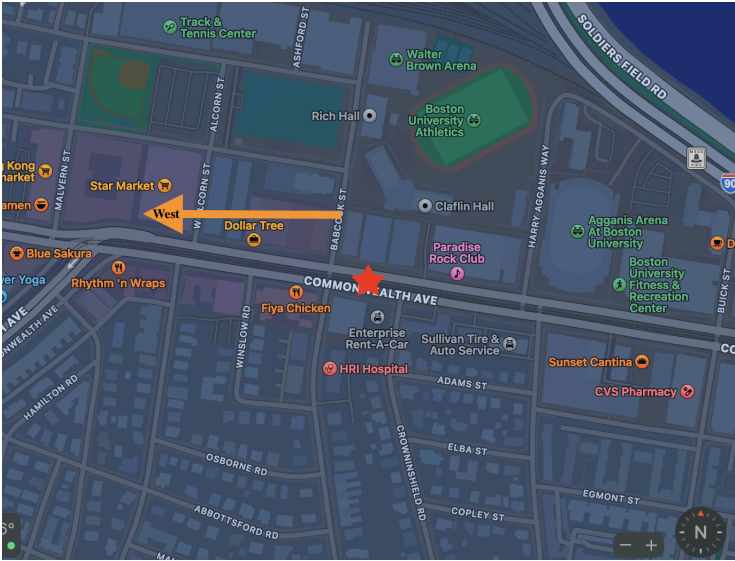


photo (attached to the side of this paragraph), the view is completely blocked by the trees. When I originally thought of the location, I was thinking that the other side (east side) was great, but the sun does not set in the east. With this new information, I decided to do some more research and made sure to give myself to have more time to find a good location to capture the sun. These results were by far the most helpful, as I was able to learn the most about what not to do in the next week's data collection.

On September 15th, I took my second set of data collection. This round was much more successful. I was still not able to see the sun due to a building obstructing the view, but you can see it actively setting based on the coloration occurring. This photo was taken at 260 degrees, just sort of exactly west, following the Boston College T tracks. This location was much better as you could see the change in coloration, and before the sun fully set, you could see it falling at a diagonal angle. This time I was located at the Babcock T stop



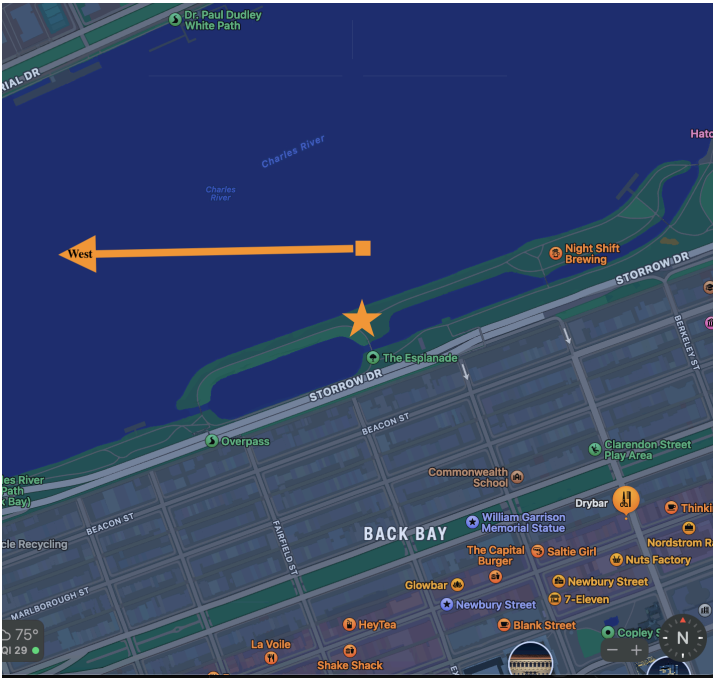
as a way to have a direct marker for myself. To the right is a map of my location for the second data collection, and which direction is west. In this one, I learned more as well. I decided that I either needed to be higher or I needed to be near the Charles River, where I could have a less obstructed view of the sunset.



After making these connections, I decided to test my thoughts on the last location.

Leading up to September 22nd, I asked a friend of mine from Boston where the best place is to see the sunset in the west. With her suggestion, I decided to head to the dock on the

Charles River near Newbury Street. My final attempt happened to be my best data collection. I had a clear, almost unobstructed view of the sun setting. While there were buildings on the horizon, none of the buildings were making enough of a difference to hide the sunset and affect my data collection. During this data collection, I went to the location early, as it was further from campus, and I would need to find another location if the view was obstructed. Once the sun started to set, I could tell that this location was great. One issue I did run into was the clouds. The photo above was taken a few minutes before the actual sunset time due to the clouds making it more difficult to see the sun. This location was also helpful as there were clear easy-to-identify horizons such as the BU CDS “Jenga Building” in the east and the MIT library in the west. The sun had set slightly diagonally, but not too noticeably.



When reviewing my experiment, I am proud of my last location as well as my ability to identify locational issues and find solutions to them. If I were to recreate this experiment again, I would most likely start at my last location and continue using said location for the duration of the

experiment. With my constant locational changes, I do feel that my data and how the sun sets differently could be affected by location. Overall, I do think that this experiment was successful in seeing the difference as the sunset gets closer to the autumnal equinox, and the only thing I would change and recommend would be staying in one consistent location to see the change more clearly.