"What was *that?*"

OBSERVERS:
Thomas Parker Williams
Mary Agnes Williams

DATE:
May 16, 2020

TIME:
Approx. 8:05 pm EDT

DURATION:
<4 seconds

COORDINATES:
40.027, -75.224

After watching day turn to night from our patio vantage point since 1995, on May 16, 2020 we were surprised by something in the sky we could not identify. Shining in the last rays of the setting sun, it moved extremely quickly from point to point, hovering and changing direction twice. There was no sound, and no acceleration or de-acceleration. It disappeared after 4 seconds.

In an effort to understand this unusual object, Thomas Parker Williams compiled data from various sources* and used AutoCAD to draw a master 3D model of the area in accurate scale.

This enabled him to establish sight lines, demonstrate the object's trajectory, and propose two possible flight paths. He then calculated the object's position above sea level, distance from the vantage point, travel distance between points A and B, and speed for the two possible paths.

* Data compiled from an accurate scale 3D model produced with AutoCAD 2000 software using sunset, elevation and map data: www.freemaptools.com/elevation-finder.htm; Google maps; www.timeanddate.com/sun/usa/philadelphia?month=5&year=2020

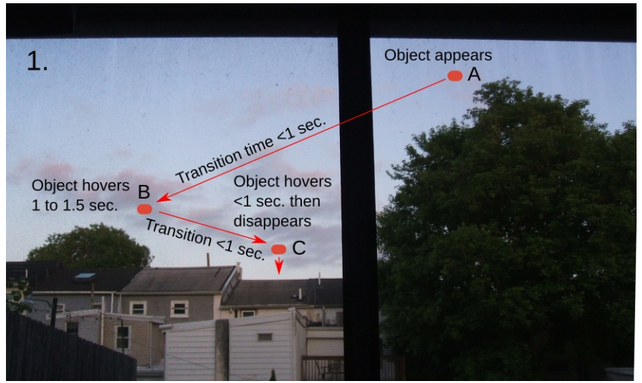


Fig. 1
Photo taken from the vantage point a few days after the event at the same time of day to preserve the memory of what we observed. The trajectory of the object is superimposed.

Fig. 2 + 3
The exact vantage point in the enclosed patio is the eye level of Thomas Parker Williams when he observed the object, which was continuously illuminated by the sun. Houses and trees were in shadow.

Fig. 4 + 5
Both views delineate two possible paths for the object. Possible Path 1 shows the object closer to the vantage point than possible Path 2.

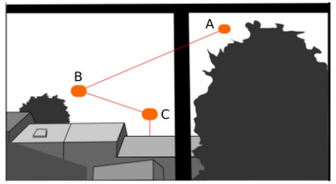
Fig. 4 illustrates the possible paths from an aerial perspective. It establishes the position of the setting sun as blocked by nearby hills, casting the neighborhood into complete shadow. The object, as noted, was brightly illuminated by the sun.

Fig. 5 illustrates the same possible flight paths from a side view. For each possible path, this view shows the calculated distance from the vantage point to point A, the travel distance between points A and B, and the calculated speed, assuming a maximum travel time of 1 second. Given that the object was continuously lit by direct sunlight, the lowest location possible of Path 1 was 300 ft. above sea level, with the object traveling a calculated speed of 475 mph. Possible Path 2 shows a calculated speed of 951 mph.

Green - Sight Lines
Red - Possible Path 1
Blue - Possible Path 2

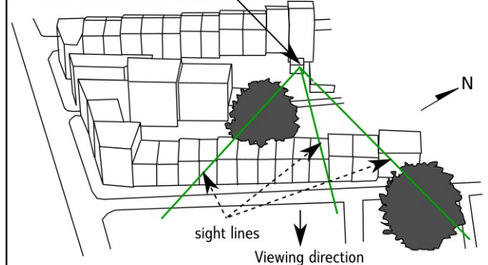
2. Vantage Point View

View from vantage point created by CAD software to establish sight lines.

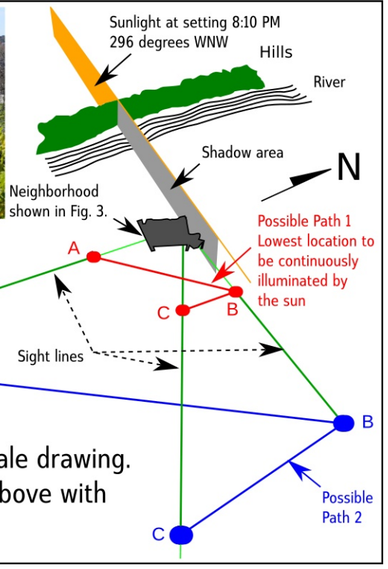


3. Sight Lines

The vantage point is 86.6 ft. above sea level and the origin of the 3 sight lines which correspond to the 3 points of observation noted above.



Aerial view of neighborhood



View of hills in the direction of the setting sun. Minimum ground elevation 300 ft above sea level with additional tree height.

4. Aerial perspective scale drawing. View of the area from above with possible flight paths.

5. Side view facing north

Speed was calculated assuming a maximum travel time of 1 second. Actual travel time may have been faster.
No sound or sonic booms were heard.