

The Eastbank Esplanade Cigar-Shaped UFO

An Oregon MUFON Case Study

by

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Abstract

Keywords: Daylight Sighting—Cigar Shape—Video—Photography—Multiple Witnesses

Description	A dark, cigar-shaped UFO is seen, photographed, and videotaped against gray, overcast clouds.
Witness(es)	Sheila Woolcott (pseudonym) and friend Alexandra Miller (pseudonym).
Date and Time	May 15, 2004 at about 1:15 to 1:25 PM.
Place	Downtown Portland, Oregon, right on the east side of the Willamette River at the north end of the Eastbank Esplanade.
Weather	Gray, overcast, low clouds with occasional light rain; winds out of the north at 4.6 mph; visibility 10 miles; about 55.9° F.
Duration	About ten minutes.

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INTRODUCTION

This case is a good one because we have two witnesses, three photographs, and a good clear, daytime video. We were also lucky enough to interview the witnesses at the exact site of the sighting. For about ten minutes, they both clearly saw a cigar-shaped, dark UFO move along in the sky coming closer to them and then more or less retracing its flight path against the prevailing winds.

In addition, the primary witness was astute enough to include a foreground object in a photograph of the UFO. This coupled with the elevation of the cloud base on the day of the sighting enabled us to calculate an absolute size for the UFO. Beyond a reasonable doubt, the UFO in question was 30 feet long plus or minus five feet. It could also have been closer because we took the highest cloud layer base as our conservative estimate of the altitude of the UFO.

This case also includes some statements by the primary witness about feeling aware that the cigar-shaped craft was somehow aware of the two of them looking at the UFO. The witness also had some misgivings about whether she should be photographing and video-recording the UFO. This attitude is not at all uncommon among many witnesses who have an encounter that is rather close as this one was.

Acknowledgements

Oregon MUFON would like to thank witnesses Sheila Woolcott (pseudonym) and Alexandra Miller (pseudonym) for allowing us to interview them. They were both fully cooperative in our investigation. Not a few “good” UFO cases go by the boards because the witnesses for one reason or another fail to help us document their sightings. But we understand this because of the sensitive nature of UFO encounters—especially the closer ones like this one. Thanks again to Sheila Woolcott and Alexandra Miller.

Oregon MUFON would also like to thank Peter Davenport for cooperating with us by giving us the witnesses’ names and contact information. Sheila first reported her sighting at the National UFO Reporting Center. Peter is the director of NUFORC, a very fine place to report sightings for the record and an equally good place to find out what is going on around us UFO-wise. Thanks, Peter.

SIGHTING ACCOUNT

On May 15, 2004, a Saturday, in Portland, Oregon, Sheila Woolcott (pseudonym) and her neighbor friend, Alexandra Miller (pseudonym), decided to go bicycling near the Willamette River just across the river from downtown Portland. The day was cloudy and lightly raining off and on. As luck would have it, she had her camera with her that day because she wanted to photograph some of the many bridges on the Willamette River in the downtown area. These photos were intended for her grandfather who is a retired civil engineer. See *Figure 1, Portland Bridges and Willamette River*.

Sheila and Alexandra were traveling north along the Eastbank Esplanade on the pier just north of the Burnside Bridge at around 1:15 PM when Alexandra first spotted a strange object in the sky and immediately stopped her bicycle.



Source: Sheila Woolcott

Figure 1. Portland Bridges and Willamette River

Sheila took photos of the many bridges across the Willamette River viewable from this Eastbank Esplanade location because her grandfather is a retired engineer and she intended to give them to him. Note the gray, overcast day.

A Metallic “Pipe” in the Sky

Sheila said, “I thought that something was wrong with [Alexandra’s] bike at first because she stopped so abruptly. I came to a stop behind her and looked up to where she was looking. We both saw what seemed to be a huge metallic pipe floating in the sky.” And she continued, “The pipe was moving slowly from the north in and out of the clouds and then began moving south parallel with I-5, but more so above the east side of Portland.”

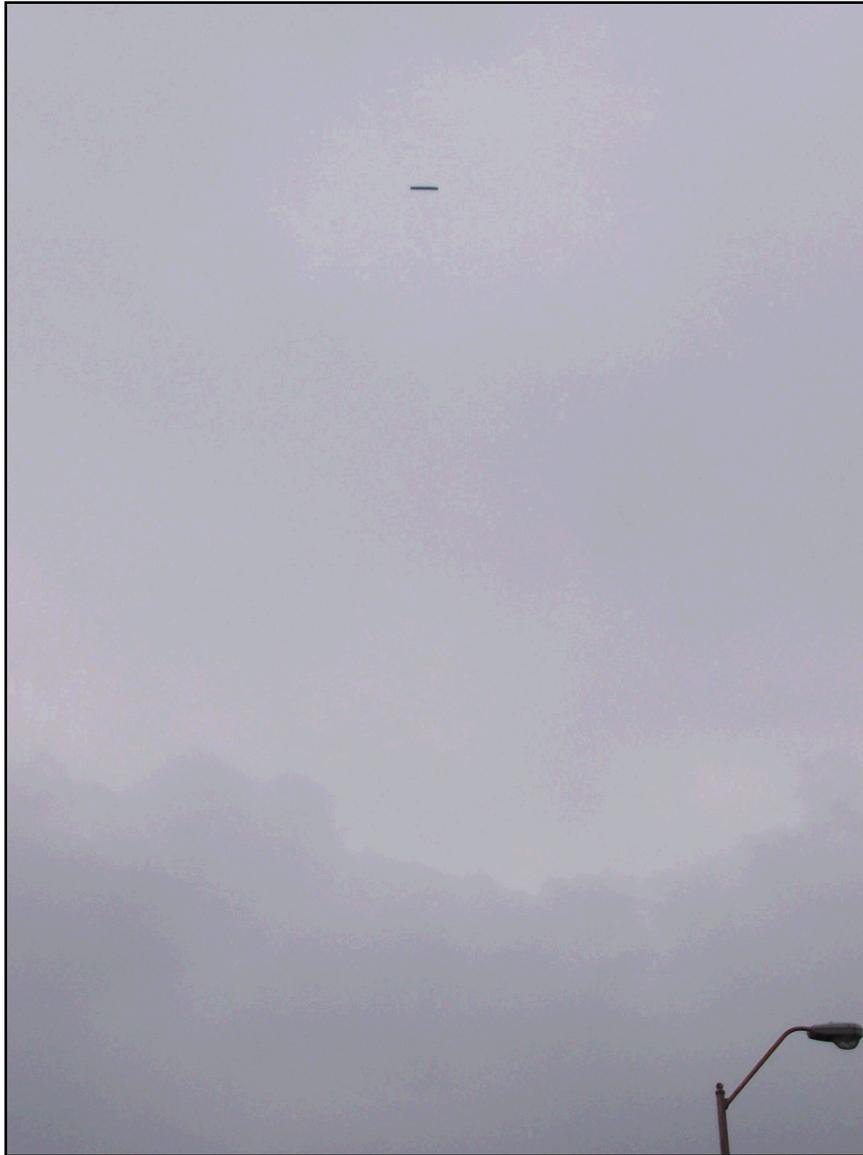
The dark, pipe-shaped object was off to the north/northwest about 40 degrees off the horizon and it was moving towards them. Then she remembered she had her camera with her. “[I] scrambled to pull it out of

my bike bag [and] I began to photograph the object in the sky.” See *Figure 2, Woolcott’s UFO with Freeway Light Fixture*.

Photographing the Object Coming Closer

“Once I started taking pictures, the object leveled out, flattened, and moved slowly towards us. I took [a] picture and looked around to see if anyone else noticed this thing. I was surprised when I realized that virtually no one else was out on the dock that afternoon. There was one runner, a woman, [who] glanced up and over her shoulder when she ran by to see what we were staring at. She did not stop to look and I doubt that she saw the object from the angle at which she turned her head. We did not say anything to [her] because we were completely stunned by what we thought we were experiencing.”

Sheila went on, “The object remained flat and continued to hover above us. I took a couple more pictures and then I got a really weird feeling that I should not be taking these photos. I put my camera down out of respect for the object. I don’t know why.” See *Figure 3, Woolcott’s Full Frame (Digital) Zoomed In Photo*.



Source: Sheila Woolcott

Figure 2. Woolcott's UFO with Freeway Light Fixture

Sheila took four photos of the UFO before she decided to switch to the movie mode of her point and shoot Kodak CX6330 digital camera. Luckily one of the photos has a known object in the photo at a known distance. See the Analysis section of this report for a calculation of the probable dimensions of the UFO.

A Close Look at the Object

When the object was at its closest to the witnesses, many more observations were made. Sheila continued with her account. “[My friend Alexandra] and I just stared at the pipe/disk. [It] looked more like a pipe/disk the closer it came because I could see a slight bend at each corner. I [could] not tell if it was my eyes playing tricks on me or the pipe [was] emanating energy towards us. It looked like a shifting aura or something that was pulsing towards us[,] something like a light or [like] small sunbeams that break through clouds. But it was not very bright and rather bluish-white-grayish.”

After taking three photos and marveling at the strange object hovering in the sky not far from them, Sheila's thoughts turned back toward her camera. This time she thought of its movie-making capability.

Video Recording the Object

Sheila said, "I then decided to use [the] video mode on [my] digital camera because I knew [another friend they had visited earlier on their bicycle ride] would not believe what I had seen if I did not have moving footage. . . . I began to film the object and it began to move away from us heading east. [During the video recording of the UFO], I filmed the I-5 [freeway structure in front of us] and then [went] back to the sky to put the event in perspective. The object continued to move away and then turned slightly to the left/ north. It began to move further away and I stopped filming because I was frightened."

Should I Have Made the Photos and Video?

As Sheila thought about this, she said that strangely, "When the object was close, I was not scared but more in awe of the event; however, when the object moved away, I began to panic because I felt I had seen something I should not have. (Again, I don't know why.) I felt that the object was still watching us even though [it was] now behind the clouds. I also felt that the object could hear us or knew what we were thinking."

With these thoughts and feelings, Sheila then said, " I turned to [Alexandra] and made her promise that we would not tell anyone, out of respect towards whatever that was. We expressly agreed with a hand shake—in my head I figured that 'they' needed to see this—and [we] got back on our bikes and headed north towards the Steel Bridge slowly. We could still see the object, but I just wanted to get out of there. The object dipped back down out of the clouds and then went up and slightly towards to the north [and went] out of sight."



Source: Sheila Woolcott

Figure 3. Woolcott's Full Frame Zoomed In Photo

Sheila took three photos of the UFO. This is the photo showing the largest image size for the UFO. However, the photo was taken with the digital zoom function turned on meaning that the photo is slightly enlarged via digital enlargement enhancement. This does not provide any more inherent information than an optical only photo at the maximum extent of zoom than is enlarged after the fact in a good photo editor.

Object Gone Now

"While we were riding away, I checked to see if [Alexandra] was all right. I felt funky through my entire body and pretty confused (not to the point of disorientation though). She asked me why I wanted to know if she was all right. I did not answer her and continued to ride across the bridge. We barely said a word to each other for the rest of the ride, only a 'what the hell was that' every now and then."

Sharing the Evidence

Sheila went on, "When I got home I put the pictures in my computer and I was surprised to see that the camera picked up the object on video. I showed [Alexandra] and we really didn't talk about it much until later that night after we had a couple beers. We totally broke our earlier agreement because the excitement of what had happened earlier hit us after a few beers."

"We decided to show the photos only to people that we thought could appreciate them. The more we showed the photos, the more we wanted to continue to show the photos. Many of our friends say that they got chills when they viewed the pictures on my computer. It really was exciting for everyone and I am glad to a certain extent that we broke the agreement to not tell anyone."

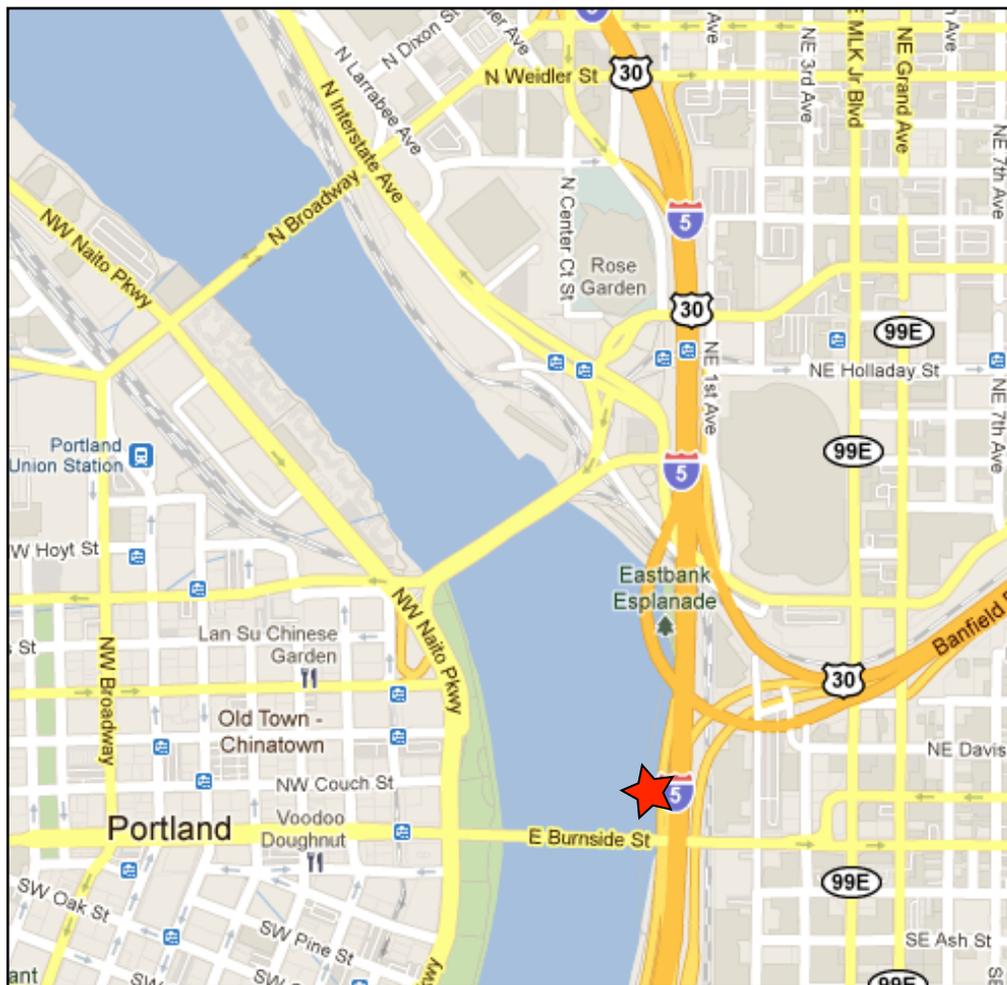
Summing Up

The whole sighting lasted around ten minutes or so. The object made a smooth path in the sky going south to their right till it reached a position more or less due east. It seemed to stay near them for a bit.

Then it curved back and more or less disappeared where it first appeared. The UFO was visible at almost all times during the sighting except when it was obscured by the lower clouds.

ENVIRONMENT

The environment for this case is a large city—Portland, Oregon. In fact, the environment is practically in the heart of Portland. Downtown Portland is on the west bank of the Willamette River, which flows through the city. The sighting spot is immediately adjacent to the east bank of the Willamette River. See *Figure 4, Downtown Portland with Willamette River and Eastbank Esplanade*. This bank has been renovated in recent years and made into a pleasant walkway extending from the south of downtown to the north of downtown. It is named the Eastbank Esplanade. Portlanders love to walk and bicycle this broad walkway. Woolcott and her friend were doing exactly that on the sighting day.



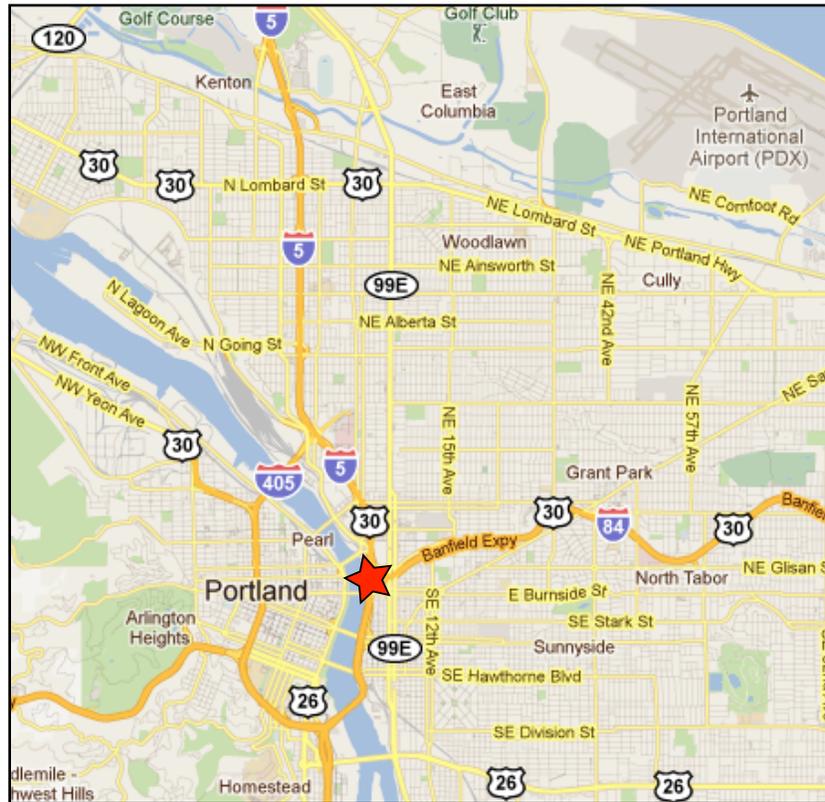
Source: Google Maps

Figure 4. Downtown Portland with Willamette River and Eastbank Esplanade

Downtown Portland is on the left. The Eastbank Esplanade walkway is situated over the east side of the Willamette River, which is in the center. The star marks the sighting location.

Neighborhood

The sighting neighborhood is the Eastbank Esplanade walkway, the I-5 freeway, and a mixed older light industry and small business neighborhood. The UFO was seen to the north, northeast, and east as it traveled a basic loop and disappeared back into the north. Assuming the UFO was no more than a mile or two away, the UFO traveled over residences, light industrial companies, and small businesses in close-in Portland. See *Figure 5, Close-in Northeast Portland*.



Source: Google Maps

Figure 5. Close-in Northeast Portland

This smaller scale map shows the greater northeast Portland environs of the sighting area. This map shows the part of NE Portland that the UFO was traveling over in its looping path. The star marks the sighting location. Note that the Portland International Airport is close by to the northeast—about three miles or so.

Weather

It was typical spring weather for Portland, OR, on May 15, 2004. At about 1:15 PM, it was 55.9° F with light rain but not even a hundredth of an inch. Surface winds were out of the NW about 4.6 mph. This is perfectly in accord with the witness's UFO photos and video. See *Table 1. Weather on May 15, 2004, in Portland, Oregon.*

Table 1. Weather on May 15, 2004, in Portland, Oregon

Event Date	Event Time	Temp (F)	Visibility (miles)	Wind Direction	Wind Speed (mph)	Conditions
5/15/2004	About 1:15 PM	55.9°	10	Out of the NW	4.6	Light Rain

EVIDENCE

The evidence in this case consists of the following:

- Sheila Woolcott's interview testimony with Oregon MUFON.
- Alexandra Miller's interview testimony with Oregon MUFON.
- Sheila Woolcott's written description of the sighting for the National UFO Reporting Center.
- Sheila Woolcott's three digital photos of the UFO.
- Sheila Woolcott's digital camera-produced, one minute and 12 seconds video of the UFO.

This amount of evidence and its nature makes this a strong case. The fact that both witnesses cooperated fully with our investigation gives us no reason to suspect any hoaxing intent at all. Examination of the UFO photos and videos corroborates this.

Today, the primary witness, Sheila Woolcott, is a young professional woman employed by a Portland firm.

Face-to-Face Interviews and On-Site Investigations

On Saturday, June 12, 2004, I (Keith Rowell, Assistant State Director of Oregon MUFON) went down to the Portland Eastbank Esplanade at 1 PM to meet up with Tom Bowden, Oregon State Director, and the two UFO witnesses in this case, Sheila Woolcott and Alexandra Miller. Woolcott and Miller were in their 20s and about the same age. They were friends and lived next door to each other in Portland.

We interviewed the witnesses and let them walk us through their UFO sighting event. I took some photos and we both took notes and asked questions of Woolcott and Miller to clarify the event. They took us to the spot where they remembered stopping their bicycles and viewing the UFO. We took a few measurements, but mostly got a feel for the event and its environment.

On Saturday, July 3, 2004, from 1:30 PM to 3:00 PM, Tom and I went back to the Eastbank Esplanade sighting spot to take some more measurements. I took along a compass with a built-in inclinometer and we used that to get an angle of about 35 degrees for the freeway lighting fixture that shows up in Woolcott's UFO photo. See *Figure 2, Woolcott's UFO with Freeway Light Fixture*. We also tried to use a simple optical range finder to get a distance to the freeway lighting fixture (luminaire). However, the street light is too close (within 50 yards) so we couldn't use this. (However, today in 2011, we can use Google Earth to get an accurate measurement.)

Photos and Video of UFO

During the sighting, Woolcott finally thought of the Kodak Easyshare CX6330 camera she was carrying and began taking some photos. She ended up taking three photos and a one minute and 12 second video clip of the UFO.

The Photos

Woolcott took three photos of the UFO before she realized she could use the video capability to capture a little video clip of the event. All the photos are the same resolution, aperture, shutter speed, digital zoom ratio, focal length, ISO (100), etc. They only differ in the amount of digital zoom ratio. See *Table 2, Woolcott Photo Data*.

An Aside. The digital zoom ratio number has to do with the amount of software enlarging that has been applied to a photo image to enlarge (magnify) it more than the inherent resolution of the digital sensor as a result of the optical lens zoom system. *This camera-applied software enlarging does not add any more information content to the image data of the photo.* The same enlargement can be done better in software like Photoshop after the image has been transferred to a computer.

We counsel UFO witnesses to turn **off** digital zoom enlargement in their cameras and video recorders because if this software enlargement is turned on, *you can end up losing valuable information if the dynamic zooming process proceeds too far.*

Advanced Digital Zoom is the name of the software zooming feature in Woolcott’s Kodak Easyshare CX6330 camera. Other cameras call this feature by other names. This software zooming feature is different from the *optical* zoom limit. So, with this feature on, you begin zooming in the optical range and when the optical limit is reached you just continue “zooming” with the software zoom which is just enlarging the pixels in the image. You are not “getting closer” to the scene being recorded. This *software* zoom feature usually has to be turned on in the menu system by the user. By default, it seems to be turned off in most cameras.

Moral of the story: Turn **off** the software zoom feature (digital software enlarging) in your camera and enlarge the image afterward on your computer with Photoshop or other photo (or video) editing software.

Table 2. Woolcott Photo Data

Photo Name	Resolution (pixels)	Aperture	Shutter Speed (sec)	Digital Zoom Ratio	Focal Length (mm)	ISO	Reference
100_0908	1524 X 2032	f10.0	1/180	2.6	16.8	100	Similar to Figure 3
100_0909	1524 X 2032	f10.0	1/180	3.3	16.8	100	See Figure 3
100_0910	1524 X 2032	f10.0	1/180	0.0	16.8	100	See Figure 2

The Video

Woolcott also took one video clip of the UFO along with her three photos. The video is right at one minute and 12 seconds long. From beginning to end, it shows a cigar- or rod-shaped UFO continuously visible in an almost featureless, cloudy gray sky except for about five seconds. This five seconds, I believe, was an attempt by the astute witness to get a familiar foreground feature in the frame at the same time as the UFO. (She failed in this unfortunately, however, because at no time do we see the UFO in anything but the gray, cloudy sky. Her intention is laudable, however.)

We see the camera viewpoint shift downward in a bobbing motion twice within the five seconds. During this time we see the structure of the I-5 freeway bridges at the sighting location. We also see the all important freeway street fixtures that play a role in the analysis below. See *Appendix B, The Woolcott UFO Video*. Woolcott did this dipping down motion because she knew her camera did not allow zooming in movie mode. (Only today (2011) do some consumer grade cameras allow zooming of the lens in movie mode. This, of course, contrasts with *video camcorders* which have always allowed zooming while making video recordings.)

A “Bonus” UFO Sighting?

While Tom and I were visiting the location of the sighting the second time (Saturday, July 3, 2004), we may have seen a small white, orb-type UFO.

Oddly, at about 2:30 PM when we were both looking in the direction of the light fixture Woolcott had photographed (which we were doing a lot of off and on, of course), a small ball of somewhat flickering/

shining white light appeared up among the fair weather cumulus clouds. This orb UFO was very small—of angular size 1/10 or 1/20 the size of the full moon, which is about 0.5°. This UFO traveled west to east and soon disappeared in a nearby cloud.

I saw it first for a total of around 10 seconds. I started calling Tom's attention to it immediately. We were standing next to each other, and he spotted it about two to three seconds before it disappeared into the cloud. Tom's sighting was so brief that he is not sure what it was. I am suspicious that it was a genuine UFO and not, perhaps, a silvery balloon, which, however, it could have been. (There have been other times when I've been investigating a UFO sighting and another UFO seems to show up!)

ANALYSIS

We use the evidence and some analysis and calculations with reasonable assumptions to see what we can determine about the following:

- UFO colors and shape.
- UFO distance.
- UFO size.
- UFO path.
- UFO speed.

It turns out in this case that we can determine some pretty good values especially for the UFO distance and size because of the following circumstances:

- *Overcast Cloud Base Height.* We can obtain the height above the ground that the UFO was because the witnesses said they saw the UFO traveling along in and out of the apparent main cloud base at the time. The UFO video submitted as evidence also confirms this fact.
- *UFO and a Freeway Light Fixture.* We also have one photo showing the UFO and also a known object fixed to the earth: a freeway light fixture. This ends up giving us a good way to measure the angle of elevation above the horizon the UFO was when it was very near its closest approach to the witnesses.

UFO Just Under Overcast Cloud Base

Figure 2, Woolcott's UFO with Freeway Light Fixture shows an obviously cloudy day and this is consistent with witness testimony. Other photos show a similarly cloudy day. This is also consistent with the archived weather observation data that we retrieved from the Internet. See *Appendix A: Weather Data for Portland, Oregon, May 15, 2004*. According to the weather data, there were actually two different layers of clouds at the time in question (we take the 12:55 PM time as the closest to 1:15 PM):

- Scattered clouds at 2100 feet.
- Solid overcast at 3800 feet.

During the interviewing of both witnesses, they both said that the UFO was continuously visible as it moved along in the sky until the end when it disappeared in the clouds. Additionally, the UFO is clearly visible in the digital camera video record that Woolcott made of the middle part of the whole sighting.

They also both said that the UFO appeared to be just below the cloud base. Only very occasionally did the UFO become somewhat obscured by the unevenness of the cloud base. The UFO video clearly shows this. (However, another interpretation could be that the UFO itself was becoming less visible inherently somehow as it moved along in the sky. This interpretation will be ignored here.)

We have decided here to take the average of the 2100 and 3800 feet cloud bases as the height of the UFO during the UFO's closest approach to the witnesses. This average is about 3000 feet above the ground at the Portland International Airport (PDX). The sighting location does not differ more than 50 feet from PDX. Thus, the UFO height above the ground will be taken as 3000 feet.

UFO and a Freeway Light Fixture

Woolcott took three photos of the UFO at the time of the sighting. Fortunately, one of the three shows the UFO and a part of a typical freeway light fixture. As *Figure 2, Woolcott's UFO with Freeway Light Fixture* shows, we see the UFO in the central part of the photo and the light fixture in the lower right corner.

Figure 6, Witnesses Re-enacting Their Viewing of the UFO shows the setting with the light fixture and freeway bridge structure at the sighting location. There are a number of light fixtures at the sighting location, so we took care that we found the exact light fixture in question. Fortunately, there was just enough witness testimony and photographic and video evidence for us to be quite certain that we could locate the sighting spot within ten feet or so on the Eastbank Esplanade walkway on the Willamette River.



Source: Keith Rowell

Figure 6. Witnesses Re-enacting Their Viewing of the UFO

We interviewed the two witnesses at the location of their viewing of the UFO as it traveled its looping course in the sky. They are indicating an angle of elevation above the horizon of about 45° to 50°. (It was actually cloudy and gray the day of the sighting.)

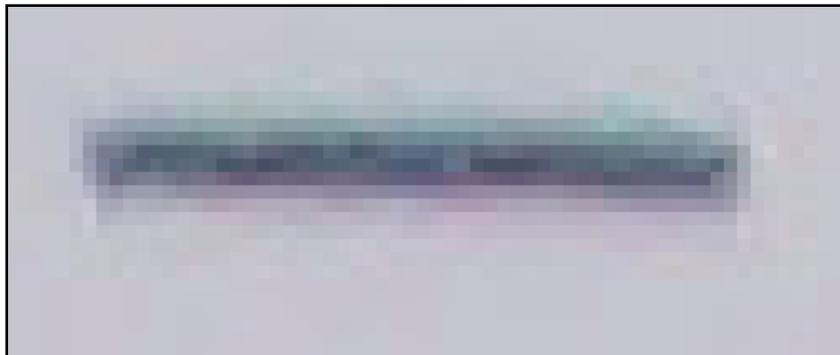
UFO Shape and Color

The color and shape of this UFO are self-evident from looking at the photos of the moderate resolution digital photos. See *Figure 7, Enlargement of UFO from Figure 2*.

Shape

The general shape of the UFO is very long compared to its thickness (height). The length-to-height proportion is about 8 by 50—rather long and oddly shaped for just about any kind of airborne object. (However, the UFO literature has a sub-category of cigar-shaped craft of various sizes over the 60 odd year history of the cataloguing of UFO events.)

Of note is the extremely linear shape of the UFO. It is very little curved if at all. If this were a bunch of balloons tied together, as is sometimes done for special occasions, and filled with helium or hydrogen for buoyancy in air, this “raft” of balloons would be somewhat curved or otherwise bulbous you would think. That doesn’t show up here. The UFO seemed to be rigid for the entire ten minutes of viewing.



Source: Keith Rowell and Sheila Woolcott

Figure 7. Enlargement of UFO from Figure 2

This extreme blow up of the UFO only shows an essentially very linear, dark object of an approximately 8 by 50 pixel dimension from a photo of 1524 by 2032 pixels.

Color

The color of this UFO is essentially a very dark gray and looks almost black against the middle gray of the overcast cloud conditions. Note that the greenish color above and magenta color below are *artifacts* of the Kodak Easyshare’s digital image processing software. This means that the green and magenta are not colors inherent in the UFO.

This false color “fringing” effect in digital camera processing appears especially prominent in areas of a digital image where contrast is high, which it is here where the tones go from middle gray to very dark in a few pixels. (This Kodak camera is an inexpensive one and was made early in the evolution of digital cameras, so image processing was not what it is today (2011)—much better even for low end cameras like this one was.)

One aspect of the image that may be inherent to the actual object is the transitions from light to dark to light pixels as the distance along the object is traversed. As is usual with the normally very small pixel area sizes of UFO images, discerning details inside a UFO image with any confidence is difficult.

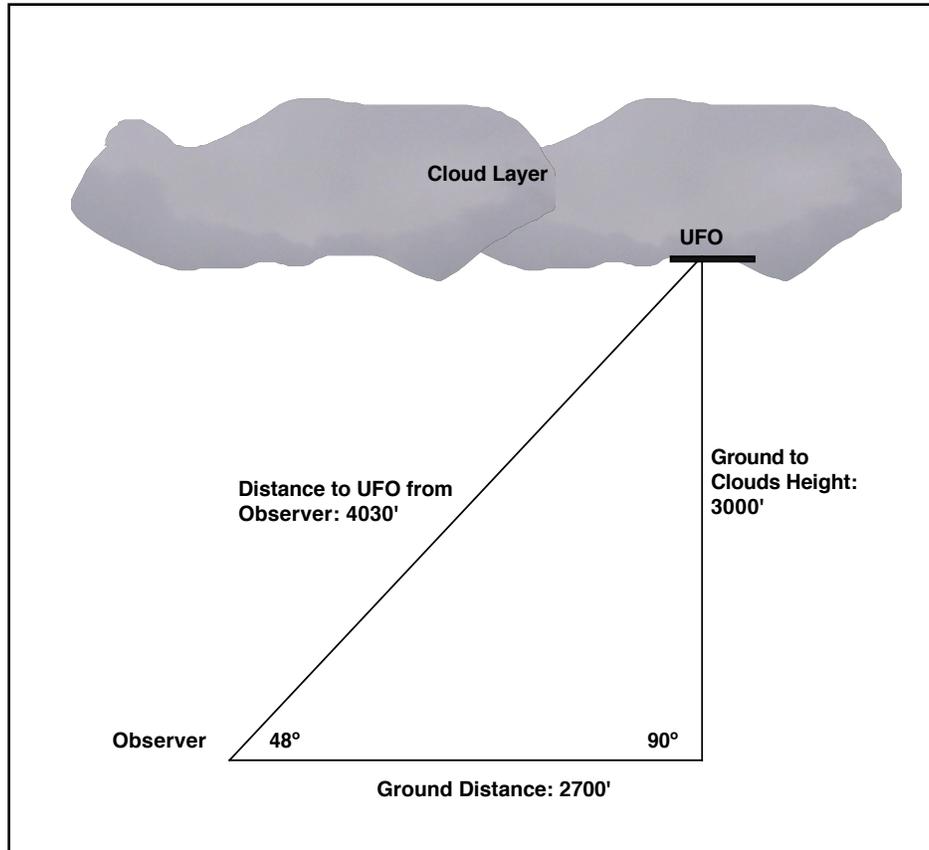
UFO Distance

To calculate the distance to the UFO, we can use *Figure 2, Woolcott’s UFO with Freeway Light Fixture*, that shows the UFO and a fixed, identifiable object.

From the Kodak EasyShare’s manual and the EXIF data of the photo, we know that the lens was zoomed to its maximum extent when the photo was taken and this is the equivalent of a 111mm 35 mm camera lens. Using a calculator on the Internet (<http://www.mat.uc.pt/~rps/photos/angles.html>) to get the angle of view, we have 18.4° in the vertical dimension of this photo. Comparing the distance of the freeway lamp fixture to the UFO and the vertical dimension of the photo (which has the angle of view of the lens of 18.4°), we have an angular distance of the UFO from the lamp fixture of 13.1°.

But we still need the angle of elevation of the freeway lamp fixture above the horizon. When Tom Bowden and I visited the spot of the sighting, we were able to measured this as around 35°. We can add these two values together now to get a reasonable estimate of the angle above the horizon at which the witnesses saw the UFO during its closest approach to them. This angle of elevation is about 48°.

Using this angle (48°) and the cloud height distance ($3000'$), we can calculate with a little trigonometry the distance away that the UFO was near its closest approach to the witnesses. This turns out to be around 4030 feet as the diagram in *Figure 8, Distance from Witnesses to UFO* shows. See also *Figure 6, Witnesses Re-enacting Their Viewing of the UFO*.



Source: Keith Rowell

Figure 8. Distance from Witnesses to UFO

The witnesses saw the UFO traveling just below the clouds at 3000 feet altitude at an angle of elevation above the ground of about 48° . So, the UFO was about 4030 feet from them at its closest approach.

UFO Size

To figure a UFO size, we can use the data developed above under *UFO Distance*. We know that the vertical dimension of *Figure 2, Woolcott's UFO with Freeway Light Fixture* is 18.4° . And we know that the UFO image is 50 pixels on its long dimension. We can combine this with the 2032 pixel vertical dimension of the photo and do a ratio and proportion to get the angular size of the UFO as about 0.45° . This means that the UFO was almost the size of the full moon in the sky. This is actually a pretty big UFO! It is no wonder that the witnesses were pretty awestruck by this ten minute sighting!

Now with the angular size of the UFO, we can calculate the actual size since we know its approximate distance (4030 feet) from the analysis under *UFO Distance* above. This trigonometric calculation yields a UFO size of 31 feet. Let's call it 30 feet. So, the UFO they saw is around the length of a small plane such as a Cessna 172 Skyhawk, which is 27 feet long.

Using this very approximate path of around five miles and the ten minutes duration of the sighting, we can estimate a very approximate speed of about 30 mph. This accords well with the witnesses' impression that the UFO was just "taking its time moving along in the sky." It didn't seem to be in a hurry!

However, this calculated speed of 30 mph does not accord well with the speed at the ground of 4.6 mph, but speeds aloft are generally higher than speeds at the ground though 4.6 mph to 30 mph is probably a bit of a stretch. Regardless, the UFO doubling back on itself in its path would preclude the object being wind borne. Additionally, the 30 mph speed does not accord well with an airplane, but it might describe the speed of a helicopter. But, here again, the shape is inconsistent with any known aircraft.

CONCLUSION

In this case, there were two witnesses, three photos, and one low resolution, digital camera video. So, the case is rich in detail making the conclusion of genuine UFO relatively easy.

Identification Candidates

The candidates for identification for this relatively low-level, dark, cigar-shaped UFO are the following:

- **Secret U.S. military or foreign power aircraft.** This explanation, of course, can never be completely ruled out by anyone except for the very few within the bowels of our deep black military and corporate contractor world who would also have access to all the on-going projects. This list of people is exceedingly small (perhaps only 100?!) because of the "need to know" and compartmentation of military secrets. However, verified reports of this kind of object (obviously advanced, experimental aircraft) over populated areas in the U.S. are far fewer than "standard" UFOs. It is highly unlikely that human-designed, "conventional" secret aircraft would be tested at low level over a major population center. The flight characteristics of the UFO are well within normal aircraft characteristics, but the shape is not at all. *Thus, this identification candidate is rejected.*
- **Police surveillance UAV.** No city police or county sheriff's departments in the Willamette Valley area have any operational police surveillance UAVs, much less any that fit the description of this UFO. The photo and video evidence does not match the police surveillance UAV identification. *Thus, this identification candidate is rejected.*
- **Airplane.** No conventional airplane, military or civilian, looks like this UFO. The witnesses did not think for even a few seconds that they were looking at an airplane somehow obscured by the rainy, cloudy conditions that day. The photo and video evidence does not match the airplane identification. Also, the calculated speed of the UFO is too low for it to be any conventional aircraft. *Thus, this identification candidate is rejected.*
- **Helicopter.** No helicopter, military or civilian, looks like this UFO. The witnesses did not think for even a few seconds that they were looking at a helicopter somehow obscured by the rainy, cloudy conditions that day. The photo and video evidence does not match the helicopter identification. *Thus, this identification candidate is rejected.*
- **Blimp.** No blimp, military or civilian, has the proportions and shape of this UFO. The witnesses did consider a blimp (or dirigible) but rejected this because of shape. No blimps (or dirigibles) were reported by media in Portland on this day. *Thus, this identification candidate is rejected.*
- **Ultralight.** No ultralight looks like this UFO. The witnesses did not think of an ultralight for even a few seconds as they observed the UFO. The photo and video evidence does not match the ultralight identification. *Thus, this identification candidate is rejected.*
- **Remote-controlled model aircraft.** No RC model aircraft looks like this UFO. The witnesses did not think they were seeing an RC model aircraft for even a few seconds. The photo and video evidence does not match the RC model aircraft identification. *Thus, this identification candidate is rejected.*

- **Balloon.** A large balloon or balloon train is the most similar, ordinary object that this UFO might be. However, a number of facts make this identification highly unlikely.
 1. The sighting lasted around ten minutes and the winds at that time were around 4.6 mph at the ground. But the average speed of the UFO is calculated at around 30 mph. Winds aloft are generally stronger than ground level, but 4.6 mph compared to 30 mph is a bit of a jump from near the ground to even around 3000 feet.
 2. But even if the speed agreed with the wind speed and direction readings from PDX, the winds, even at 3000 feet, could not have shifted themselves to be 180° opposite in ten minutes' time. The winds at the ground level from the half hour before and after were from the N and NNW and the UFO during the second half of its flight path moved back toward the north against the prevailing winds.
 3. The length of this UFO is calculated at 31 feet long. A balloon train that long would likely bend and flex in the wind as it moved along. This UFO hardly even shows a hint of not being perfectly straight in the video. It is as the witnesses said, "like a pipe."
 4. This hypothesis does not account for the odd, hard-to-judge light and "energy" effects that Woolcott described when the UFO was closest to them.
 5. And, of course, the witnesses did not believe at any time after a few tens of seconds of viewing that they were looking at some sort of unusually long and dark balloon or balloon train.

Thus, this identification candidate is rejected.

- **Kite.** No kites look like this UFO and the witnesses did not think for even a few tens of seconds that they were looking at a kite. The photo and video evidence does not match the kite identification. *Thus, this identification candidate is rejected.*
- **Hoax.** Neither of the witnesses' responses during the course of this case investigation nor the evidence in the photos and video supports a hoaxed case. *Thus, this identification candidate is rejected.*

Since the identification candidates fail for the reasons stated, the UFO evidence in the submitted video and photos and the witness's additional testimony make this a true UFO, a MUFON UAV.

Appendix A: Weather Data for Portland, Oregon, May 15, 2004

The interpreted weather and METAR data below in *Table A-1, Portland, Oregon, Weather on May 15, 2004*, shows the conditions at the time of the sighting on May 15, 2004. The METAR data concerning cloud cover and height is the pertinent data for this UFO sighting. Taking the readings at 12:55 PM as being closest to the time of the sighting at 1:15 PM, we see that the cloud conditions at the time show scattered clouds at 2100 feet and solid overcast at 3800 feet. Since the witnesses said the UFO seemed to go in and out of the clouds during the approximately 10 minutes of sighting time, we will take the average of the scattered and overcast (about 3000 feet) as the basic height of the UFO when it was at its closest approach to the witnesses.

Table A-1. Portland, Oregon, Weather on May 15, 2004

Time (PDT)	Temp.	Dew Point	Humidity	Sea Level Pressure	Visibility	Wind Dir	Wind Speed	Gust Speed	Precip.	Events	Conditions
12:55 PM	55.9 °F	53.1 °F	90%	30.05 in	10.0 mi	NW	4.6 mph	-	0.0 in.	Rain	Light Rain
METAR KPDX 151955Z 32004KT 10SM -RA BKN021 OVC038 13/12 A3006 RMK AO2 RAB35 SLP176 P0000 T01330117											
1:55 PM	55.9 °F	53.1 °F	90%	30.05 in	8.0 mi	North	6.9 mph	-	0.0 in.	Rain	Light Rain
METAR KPDX 152055Z 35006KT 8SM -RA BKN014 BKN027 OVC044 13/12 A3005 RMK AO2 SLP176 P0000 60000 T01330117 50001											

Appendix B: The Woolcott UFO Video

Sheila Woolcott managed to record a minute and almost 13 seconds of video on her Kodak EasyShare CX6330 digital camera. This camera is a lower end, consumer grade digital camera capable of three megapixel photos and low resolution movie clips of 15 fps at a resolution of 320 X 240 pixels.

In Table B-1, we have selected a frame every five seconds to give an idea of what the video is like. Most of it is simply the UFO in the midst of overcast clouds. The frames are all full frame and the UFO is pretty small.

A careful comparison of the various frames of the video reveals that against the background of the not quite uniform mass of clouds, the UFO is very slowly moving along in the sky (to the south/southeast). This is admittedly hard to tell at the lower resolution and fewer frames to examine in Table B-1 compared to the video itself.

Table B-1. Some Significant Frames From the Woolcott Video

Frame Number	Image	Comment
00:00;00		First frame where UFO is faintly visible here in the center.
00:05;00		The camera has adjusted its exposure to an average exposure for the cloud of about "neutral gray." UFO in center.

00:10;00		<p>Woolcott thinks about the freeway and light fixtures below the UFO and now dips the camera briefly down to see if she can capture both the UFO and some part of the freeway and light fixtures but this is not possible given the angle of view. The UFO is actually positioned at about a fifth to a third the height of the whole vertical part of the frame above the top part of the frame at this point. <i>So, no UFO is visible.</i></p>
00:15;00		<p>Woolcott has now raised the camera back up to find and center the UFO in the viewfinder.</p>
00:20;00		<p>UFO in the clouds.</p>

00:25:00		UFO more centered.
00:30:00		UFO is centered. Woolcott is just following the slow-going UFO.
00:35:00		Same as above.

00:40;00		Same as above.
00:45;00		Same as above.
00:50;00		Same as above.

00:55:00		Same as above.
01:00:00		Same as above.
01:05:00		Same as above.

01:10;00		Same as above.
01:12;14		Last frame in the video.
00:00;00		