

Modoc Road UFO in the Clouds

An Oregon MUFON Case Study

by

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Abstract

Keywords: Clouds—Illumination—Oblong UFO—Videotape—Slow-moving UFO

Description	An oblong, variously illuminated UFO moved slowly among clouds while the witness videotaped it with a Sony camcorder.
Witnesses	Karen and Richard Brown (pseudonyms).
Date and Time	March 20, 2007, at about 11 AM PDT.
Place	From a car moving at highway speeds along Modoc Road near Medford, Oregon.
Weather	Thick nimbo-cumulus clouds with light rain earlier and then some clearing during the UFO sighting.
Duration	About 5 minutes of intermittent sighting of the UFO with 9.63 seconds of videotape at the very end of the sighting.

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INTRODUCTION

This case is a daylight disk with videotape backing up the witness's testimony. The UFO does not appear to have exhibited any particularly startling maneuvering, shape-changing, or color-changing behavior, although the UFO did change its brightness levels along its length. The UFO incident and evidence is degraded somewhat because the sighting and videotaping took place from a moving vehicle along a country road.

Some interest is added to the case because the witness also videotaped an airplane landing at a local airport. The analysis includes some comparative observations which allow us to get a little better feel for the viewing and videotaping circumstances of the UFO.

I would like to thank the witness, Karen Brown (pseudonym), for being pro-actively cooperative in this investigation. She went out of her way to provide extra photos of the videotaping environment so that I could better understand the general circumstances of the sighting. Thank you, Karen!

SIGHTING NARRATIVE

On Tuesday, March 20, 2007, around 11 AM, Karen Brown and her husband Richard were driving their vehicle southwest along State Highway 62 near Medford, Oregon, when she spotted a very shiny dot in some clouds above the mountains off to the southeast. The UFO was hard to keep track of because it seemed to be alternating from dark to very bright as they moved along the road. Sometimes they lost sight of it. They then turned west onto State Highway 234 and then south onto Modoc Road toward Medford.

Videotaped UFO

They kept looking for the UFO and eventually saw it again when they were about halfway down Modoc Road going toward Table Rock Road. See *Figure 1, UFO Videotaping Spot Along Modoc Road*. Richard was driving and Karen was sitting in the passenger's seat. Karen was using her Sony DCR-HC38 camcorder to videotape things along their drive into Medford and had it handy to videotape the UFO. She now began videotaping across her driving husband and out through the closed driver side door window.



Source: Karen Brown

Figure 1. UFO Videotaping Spot on Modoc Road

Karen later retraced her route along Modoc Road and took this photo in the same basic direction of her videotaping of the UFO. The UFO would have appeared about half way up in the sky above the light colored roof on the left side of the photo.

She continued to videotape the UFO as the car drove along. She was zoomed out to the maximum extent of 40X when she started the videotaping. She struggled to keep the camcorder from bouncing as the vehicle continued to move along the road. She managed to get about 9.5 seconds of the UFO. After she quit videotaping the UFO, they continued to drive south down Modoc Road and went on about their business of the day. See *Figure 2, UFO From Videotape*.



Source: Karen Brown

Figure 2. UFO From Videotape

This is an enlargement from one of the clearer frames on the videotape supplied by Karen. The sharpness and quality would be a bit higher if Karen had kept the original images on the miniDV tape and not transferred it immediately to a DVD, which degrades the image somewhat.

Videotaped Landing Airplane

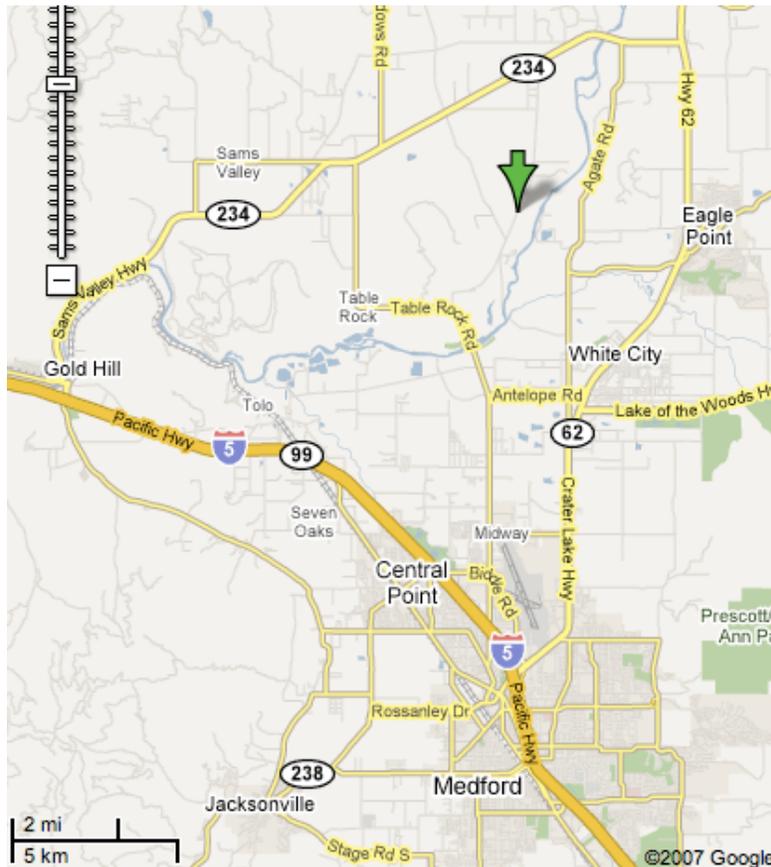
Also, during that day, Karen spotted and videotaped a low-flying airplane apparently landing at the Medford Airport while they were driving along Modoc Road. She videotaped the landing airplane out of her passenger side closed window. She videotaped about xxx seconds of the airplane. Analysis of the airplane images allow us to do some interesting speculation about the UFO later in this report.

Aftermath

After Karen got home, she captured the videotape images on their Magnavox MWR 10D6 DVD player/recorder. While she was viewing the UFO, she decided that this object was quite strange and then proceeded to eventually report her sighting and videotaped UFO to various Internet UFO reporting services such as MUFON's, Peter Davenport's NUFORC, YouTube, and Google Videos. Various UFO informational services such as About.com picked up the report and pulled some still images from her uploaded UFO video.

ENVIRONMENT

The environment for this UFO sighting is somewhat important because of the slightly earlier videotaping of a landing airplane at the Rogue Valley International Medford Airport, which is south of both the landing airplane and UFO sighting spots on Modoc Road. The landing airplane figures in the analysis of the UFO videotape, allowing us to get a feeling for the size of the UFO. See *Figure 3, Medford/White City, Oregon, Area*.



Source: Google Maps

Figure 3. Medford/White City, Oregon, Area

Karen videotaped her UFO very near the (green) arrow on Modoc Road about five miles north of Medford, Oregon. Note especially the runway of the Rogue Valley International Medford Airport. It is just above the I-5 sign in north Medford. Karen videotaped the UFO looking off to the ESE and the landing airplane off to the SW.

Neighborhood

Modoc Road is the site of both Karen's landing airplane and UFO videotaping. She was in the passenger's front seat and videotaped the landing airplane from her window and the UFO through her husband's window on the driver's side. They did not stop the car as she videotaped, but they were certainly thinking about pulling over when she started videotaping the UFO. See *Figure 4, Modoc Road Near White City, Oregon*.

Modoc Road is a rural Oregon road with scattered houses and farming concerns here and there along the road from State Highway 234 (The Rogue-Umpqua Scenic Byway) at the north end to Table Rock Road

at the south end. Karen did the videotaping of both the landing airplane and UFO about in the middle of Modoc Road very near Rogue Woods Dr. for the landing airplane and about a quarter to a half mile south for the UFO. See *Figure 5, Topo Map of White City and Eagle Point, Oregon*.

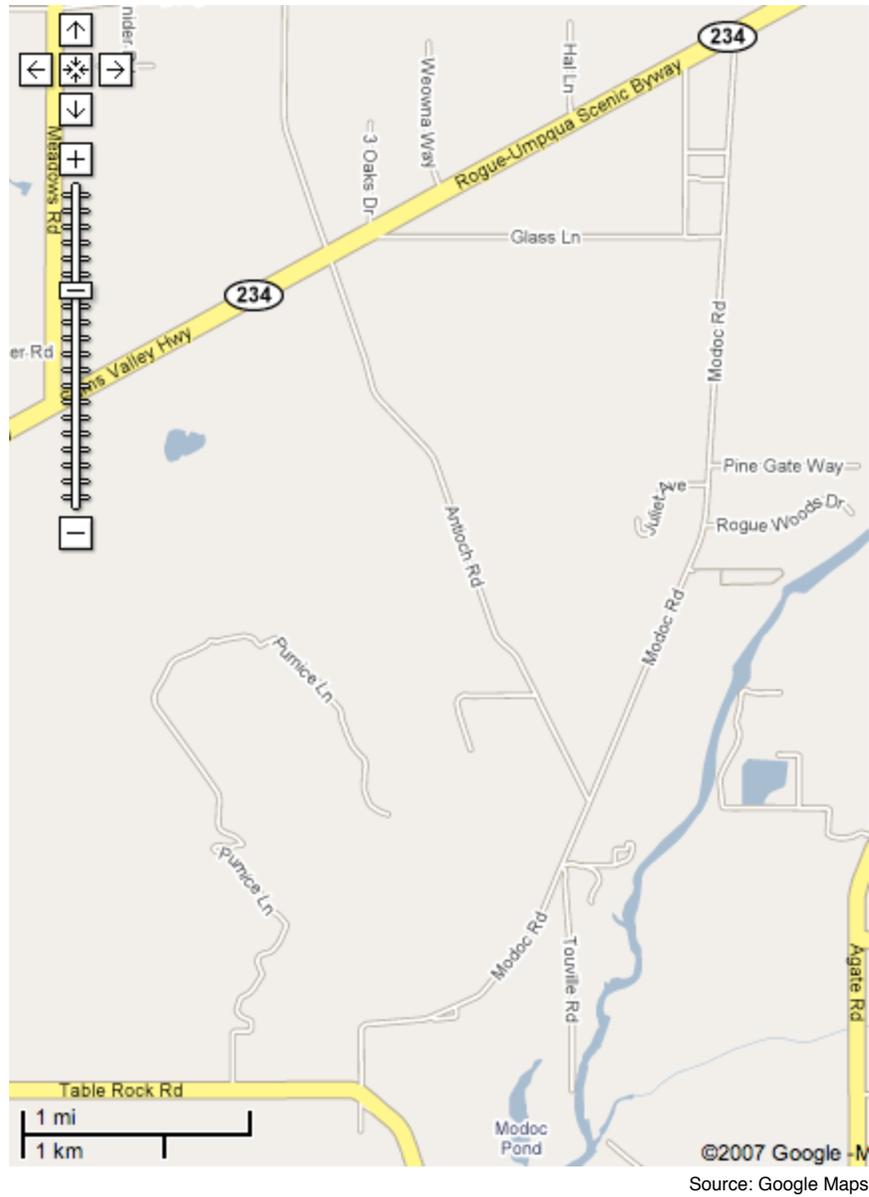
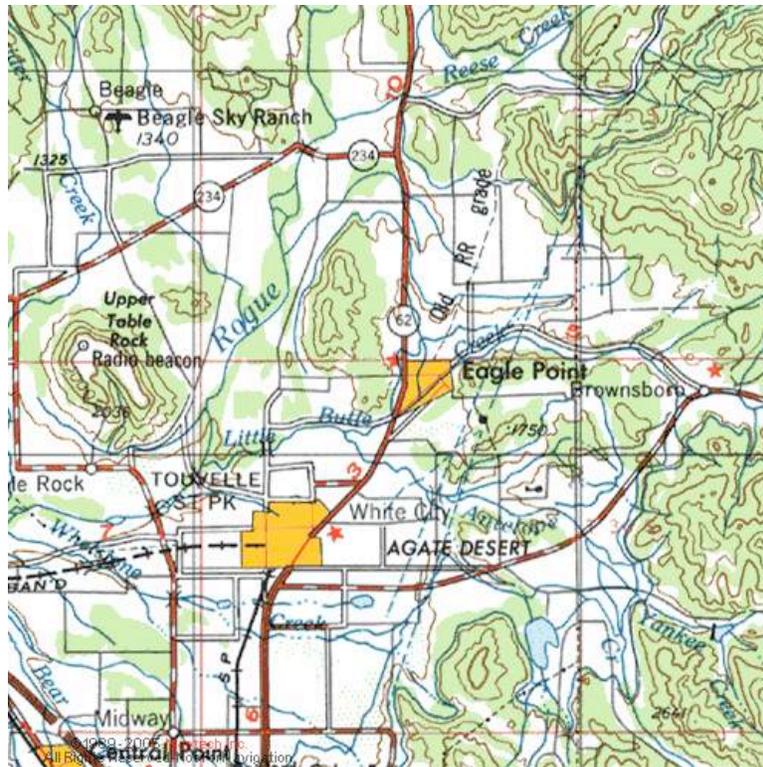


Figure 4. Modoc Road Near White City, Oregon

Karen videotaped the UFO off to the E to ESE about a quarter to a half mile south of Rogue Woods Drive on Modoc Road.



Source: Maptech

Figure 5. Topo Map of White City and Eagle Point, Oregon

Modoc Road on this topographic map is just to the left of the word "Rogue." Karen videotaped the UFO from a spot along the road about where the "R" in "Rogue" is. The hills to the east are around 1600 feet elevation and Upper Table Rock over which Karen videotaped the landing airplane is about 2000 feet. The videotaping spot along Modoc Road is about 1300 feet.

Weather

On March 20, 2007, the weather in the Medford, Oregon, area was overcast with a small amount of precipitation. The winds were calm to five to ten mph and the clouds were mostly cloudy to overcast during the morning hours of the videotaping of the UFO. Clouds are very evident in the videotape of the landing airplane and UFO. See *Figure 6, Landing Airplane* and *Figure 8, Early Frame of UFO (0:29:07)*.

EVIDENCE

The evidence in this case consists primarily of the following:

- Witness Karen Brown's testimony.
- Just at 9.63 seconds of Sony camcorder video that Karen took of the UFO.

Testimony

Karen Brown is an articulate witness, which shows in her CMS report, in her other Internet descriptions, and in her private emails with me. She has readily cooperated with me and has even gone out of her way to provide me with extra videotape evidence over and above what she uploaded to various Internet websites. Her descriptions of her UFO sighting are especially clear and well thought out. I have no reason to doubt the truth of any of her communications with me or to the Internet. She is simply being honest and straightforward about a puzzling experience. And she has the videotape evidence to back it up!

Videotape

While driving south along Modoc Road with her husband, Karen took 9.63 seconds of videotape showing a UFO as it moved very slowly in the clouds. Karen and her husband, Richard, were engaged in their work which sometimes involves driving roads in and around Medford and Ashland, Oregon. It was during one of these work sessions that Karen was practicing using a newly bought Sony DCR-HC38 camcorder. During the same work session, she videotaped a number of things among which were:

- Driving by Lost Creek Reservoir.
- An airplane landing at Medford Airport.
- A UFO moving slowly in some clouds.

After viewing Karen's UFO video on Google Videos and YouTube, which Karen had put up on these sites, I looked up her MUFON CMS report, which also included a clip of her UFO video. This clip was in Microsoft's WMV video format. During email exchanges with Karen, I explained that MUFON needed the best, highest quality of her UFO videotape images and that this was on the original miniDV tape made by her Sony camcorder. In the process of these email exchanges, I learned that she had, unfortunately, already written over her UFO videotape footage.

However, she had previously written the miniDV UFO videotape from her camcorder to her Magnavox MWR 10D6 DVD player/recorder, which created a DVD recording of her videotape. She agreed to send me the video file from her DVD disk. I asked her to include some scenes she had taken just before and just after she videotaped the UFO, and she did this. The VOB video file she sent me shows them driving by Lost Creek Reservoir, then an airplane landing at Medford Airport, then the UFO sequence, then a reversed sequence back to the airplane and UFO sequences, and finally them driving up to cross over Dodge Bridge over the Rogue River.

The analysis in this report is made from an MPEG4 file converted from the DVD VOB file, which is essentially MPEG2 movie format. The reason for the conversion is that movie editing software generally does not read and edit VOB files, but MPEG4 files are fine. I used Apple's iMovie HD editing software to do timeline calculations, take stills from, etc.

Table 1, Timeline of Still Frames, shows the important frames and frame sequences from the entire VOB file that Karen sent to me.

Table 1. Timeline of Still Frames

Frame No.	Still Frame	Comment
0:10:08		Airplane landing at Medford Airport sequence begins.
0:13:23		Good image of airplane. (partial frame)
0:15:19, 0:18:21, 0:19:27		Relatively clear images of the airplane are in these frames. Note that sunlight reflecting off one of the cockpit windows is clearly visible here (partial frame)
0:21:03		Trees show up at the bottom of the frames now. (full frame)
0:27:09		The UFO sequence now begins. The right side of the frame is dark and blurry because it is the right edge of the window frame out of which Karen was videotaping the UFO. (full frame)
0:27:28		The first appearance of the UFO shows up as a very indistinct darkish spot in the lower right quadrant of the frame. (full frame)
0:29:07		First appearance of a light spot on the UFO. The UFO image is blurred and doubled because of severe bounce and shake in the traveling vehicle while videotaping. (partial frame)

Frame No.	Still Frame	Comment
0:29:14 to 0:29:18		The first appearance of power lines next to the road as Karen is videotaping and Richard is driving along. This sequence shows double images of the power lines and the UFO. (full frame)
0:29:20 to 0:30:03		This sequence shows good, light-colored, but indistinct (and doubled) images of the UFO at the top of the frame. (full frame)
0:30:04 to 0:30:08		This sequence shows another group of power lines and the UFO about in the middle above the power lines. (full frame)
0:30:12		A good, single image of the UFO. (partial frame)
0:30:18		This is a strange dark frame with a central lighter column showing the UFO toward the top within the column. Is it a camera or computer video artifact? (full frame)
0:30:24 to 0:30:25?		This frame shows the first appearance of an indistinct, dark spot below and to the left of the UFO. (partial frame)

Frame No.	Still Frame	Comment
0:38:05		This frame shows a good image of the UFO and the indistinct, dark spot below and to the left of the UFO. (partial frame)
0:38:09		The indistinct, dark spot is gone now.
0:38:15 to 0:38:18		This sequence shows the best clear frames of an elongated, bright UFO with areas of great brightness variation along its length. (partial frame)
0:38:24 to 0:39:10		The first frame in this sequence is a good, clear one. There are further interesting variations in the brightness areas of the UFO image. Also, a dark spot (not shown) appears again to the left of the UFO. (partial frame)
0:39:18 to 0:40:10		The UFO image is now out of the frame at the top due to the difficulty Karen had of holding the camcorder steady in a moving car. The UFO reappears at the top of the frame at a spot where you would expect it to reappear if the UFO itself were a constant object through time. There is no unusual movement of the UFO making it inconsistent with a "normal" solid object moving along in the atmosphere.
0:40:26 and 0:40:27		Two identical, good, clear UFO images show up in these two frames. (partial frame)
0:41:03		A good, clear image of the UFO shows up here. (partial frame)

Frame No.	Still Frame	Comment
0:41:08 to 0:41:14		This sequence shows good, clear images of the UFO. (partial frame)
0:41:29 to 0:44:06		This is another sequence of good, clear images of the UFO. (partial frame)
0:44:07 to 0:44:23		The UFO becomes dark and indistinct now in this sequence. (partial frame)
0:44:24		An obscuring roadside bush (or tree) begins to enter the frames at this point. The UFO is the dark spot in the middle of the frame. (full frame)
0:46:01		This is the last possible image of the UFO. The UFO image is very dark and obscure now. (partial frame)
0:48:12		This frame ends the entire UFO videotape sequence. (There is no UFO in the frame.) (full frame)

ANALYSIS

This case consists of the witness testimony and her UFO videotape footage. Karen also supplied after-the-fact 360 degrees of photo coverage of the landing airplane videotaping site and the UFO videotaping site, which were less than about a quarter mile apart on Modoc Road. The analysis proceeds mainly from evidence gathered from the videotape and her still photos of the videotaping sites. The usual questions about UFO size, distance, speed, etc., are addressed here with varying degrees of success.

Duration of UFO Recording

The videotape that Karen sent to me is a DVD file (VOB format, which is essentially an MPEG2 file), which consists of more than just the UFO. This is described earlier under **Evidence**. The UFO sequence lasts from frames 0:29:06 to 0:46:01. However, frames 0:30:25 to 0:38:02 in the UFO sequence are one single image (a sequence of the same frame). Karen apparently “paused” the camcorder when she originally copied the miniDV videotape to the DVD recorder. So, the duration of these frames must be subtracted to obtain the total videotape duration of the UFO.

Converting the frame numbers to seconds we have:

- The total length of the videotape sequence (Lost Creek Reservoir, airplane landing, and UFO) at the front of the tape is 46.03 seconds.
- The total length of the non-UFO content in this sequence (Lost Creek Reservoir and airplane landing) is 29.2 seconds.
- The total length of the “paused” sequence within the UFO sequence is 7.2 seconds.
- Thus, the duration of the UFO videotaping is

$$(46.03 - 29.2) - 7.2 = 9.63 \text{ sec}$$

So, Karen rode along in the car and managed to get 9.63 seconds of the UFO recorded on her videotape. Of this 9.63 seconds, because of the camera shake due to riding in the car and being zoomed out to the 40X optical maximum extent of the lens, many images of the sequence are blurred with double imaging of the UFO and cloud structures. However, some images are relatively clear and most of the analysis is based on these clearer images.

UFO Size

Two approaches suggest themselves for figuring the size of Karen’s UFO.

- Compare the UFO image with the landing airplane image.
- Compare the UFO with the cloud structure evident behind the UFO image.

We try both of these approaches. But first we calculate the angular size of the UFO.

Angular Size of UFO. We know from measurement that the UFO in Karen’s video is an average of 42 pixels in length. We know that the full frame of a video image is 720 pixels across and we know that Karen videotaped the UFO at the maximum zoom extent possible, which for her Sony DCR-HC38 camcorder is the 35 mm equivalent of a 1440 mm lens (from the manual).

From an Internet focal length/field of view calculator (<http://www.tawbaware.com/maxlyons/calc.htm>) for 35 mm photographic lenses, the full frame horizontal field of view for a 1440 mm lens is 1.4°.

Thus, we have the following ratio and proportion:

$$\frac{x}{1.4^\circ} = \frac{42 \text{ pixels}}{720 \text{ pixels}} \Rightarrow x = \frac{(1.4^\circ)(42 \text{ pixels})}{720 \text{ pixels}} = 0.08^\circ$$

This 0.08° angular size for the UFO is somewhat smaller than the size of the full moon (at about 0.5°). Thus, the UFO is a little more than six times smaller than the full moon. This accords well with Karen say-

ing that a shiny dot of light drew her attention to the UFO. Though this size is small, it is, however, still bigger than a cruising-altitude commercial jet.

Using this angular size for the UFO (0.08°), we can calculate a range of reasonable sizes for the UFO (first assuming that the UFO was a mile away) with the following:

$$\tan(0.08^\circ) = \frac{x}{5280\text{ft}} \Rightarrow x = 7.4\text{ft}$$

So, if the UFO was one mile (5280 feet) distant from Karen, it would be about 7.4 feet in length. *Table 2, Possible UFO Sizes* gives a range of lengths for different distances.

Table 2. Possible UFO Sizes

UFO Distance (miles)	UFO Length (feet)
1	7.4
2	14
3	22
4	30
5	37
6	44
10	74
15	111
20	148
25	185

Landing Airplane Comparison

The VOB file that Karen sent to me had a sequence of a landing airplane. (I had asked Karen to send some sequences just before and just after the UFO sequence because this can sometimes add valuable context when we evaluate UFO images.) Karen stated that she believed the airplane was landing at Medford Airport and, indeed, when I examined her airplane videotaping spot along Modoc Road and the normal landing pattern into Medford Airport, this seemed entirely reasonable. (See *Figure 3, Medford/White City, Oregon, Area* and note that the Medford Airport runway approach is just to the west of Upper Table Rock and about three miles from Karen’s videotaping spot.)

Landing Plane Angular Size. In *Figure 6, Landing Airplane*, we can make a probable identification of the aircraft landing at Medford Airport as a Bombardier Q400 (DH4) as shown in *Figure 7, Bombardier Q400 (DH4)*. United or Horizon airlines have commuter flights arriving at about the right time for Karen’s videotaping and they both use Bombardier planes. The Bombardiers are about 110 feet long.



Source: Karen's videotape

Figure 6. Landing Airplane

Karen videotaped this airplane landing at the Rogue Valley International Medford Airport shortly before she videotaped the UFO. This airplane is probably a Bombardier Q400 (DH4). See Figure 7, Bombardier Q400 (DH4).

Google Earth was used to measure the perpendicular distance from Karen's landing airplane videotaping spot along Modoc Road to the landing flight path of the airplane. This turns out to be about three miles. Using the 110 feet length of the landing airplane and the number of feet to the airplane, we can calculate the angular size (α) of the landing airplane.

$$\tan \alpha = \frac{110 \text{ ft}}{15840 \text{ ft}} \Rightarrow \text{atan}(\tan \alpha) = \text{atan}\left(\frac{110 \text{ ft}}{15840 \text{ ft}}\right) \Rightarrow \alpha = 0.40^\circ$$

So, the angular size of the landing airplane is about 0.40° , which is just under the size of the full moon at half a degree.



Source: Alaska Air

Figure 7. Bombardier Q400 (DH4)

This commuter aircraft is about 110 feet in length with a wingspan of about 90 feet and cruises at around 400 mph. The maximum cruising altitude is around 25,000 feet.

Comparing the Landing Airplane and UFO. We now know the angular size of the landing airplane and UFO—the UFO being calculated because we know the focal length of the lens used and the UFO pixel size and the landing airplane being calculated because we know the airplane length and distance to the airplane.

To compare the two, we need to know the pixel dimension of the landing airplane in a 1440 mm lens. We know from the calculations in **Angular Size of UFO** earlier that the horizontal pixel width and angle of view of a 1440 mm lens are 720 pixels and 1.4° respectively.

Thus, a 0.4° angular size object appears in a 1440 mm focal length lens to be about 0.4°/1.4° the size across of the full frame, or about one quarter the size across of the full frame. In a 720 pixel across frame, this is about 720/4 pixels, which is about 180 pixels in length. So, the airplane would have measured about 180 pixels if Karen had been zoomed to the maximum 1440 mm extent.

Assume UFO Three Miles Away. Let's make the *unwarranted* assumption that the UFO is three miles away. This is the same distance the landing airplane was away from Karen. If this is true *and it is probably not*, then we have another ratio and proportion to figure out what the size (length) of the UFO was at three miles away.

$$\frac{42 \text{ pixels}}{180 \text{ pixels}} = \frac{x}{110 \text{ ft}} \Rightarrow x = \frac{110 \text{ ft}(42 \text{ pixels})}{180 \text{ pixels}} = 26 \text{ ft}$$

Note that this 26 feet length accords well with the 22 feet in *Table 2, Possible UFO Sizes* calculated from the known 1440 mm maximum zoom lens focal length for the videotaping of the UFO and the pixels across dimensions for the UFO as measured in the video frame.

Focal Length for Landing Airplane. As an aside, we note that the airplane image in *Figure 6, Landing Airplane* actually measures 75 pixels across. This leads to the following ratio and proportion of

$$\frac{180 \text{ pixels}}{1440 \text{ mm}} = \frac{75 \text{ pixels}}{x} \Rightarrow x = \frac{75 \text{ pixels}(1440 \text{ mm})}{180 \text{ pixels}} = 600 \text{ mm}$$

So, Karen actually used a focal length zoom of about 600 mm to videotape the landing airplane.

Cloud Structures Comparison

Comparing the UFO with the cloud structures that are evident in the video frames is another way to get at a size for the UFO. However, research into nimbo-cumulus clouds did not reveal any readily available size estimates for cloud structures found within this basic cloud type. We do know, however, that the visibility during the hours of the UFO sighting was 10 miles, so Karen could easily have videotaped clouds 10 miles or more away. So, using the cloud structures at best only gives us a feeling for how far away and how big the UFO actually was.

Summary

It is our feeling that since Karen zoomed to the maximum extent of her Sony camcorder that the UFO was farther away from her than the landing airplane, but only perhaps another mile or two or three distant. *This would put the UFO in the range of 30 to 40 feet in size according to Table 2, Possible UFO Sizes.* See later under **UFO Altitude** for more on this.

See *Table 3, UFO/Landing Airplane Comparison*, for a summary of the situation.

Table 3. UFO/Landing Airplane Comparison

Parameter	UFO	Landing Airplane
Angle of View	0.08° (calculated)	0.40° (calculated)
Pixel Length	42 (known by measurement)	75 (known by measurement)

Parameter	UFO	Landing Airplane
Distance	4 to 6 miles (?)	3 miles (15,840 feet) (known by measurement)
Actual Length	30 to 44 (?)	110 feet (known from specs)
Camcorder Lens Focal Length	1440 mm (known from witness)	567 mm (calculated)

UFO Speed

Simple visual inspection of the 9.63 seconds of the UFO sequence on Karen's videotape leads to the idea that the UFO did not seem to move much while she was videotaping it. We know this by inspection of the cloud structure that the UFO is seen against. See *Figure 8, Early Frame of UFO (0:29:07)* and *Figure 9, Late Frame of UFO (0:43:17)*.



Figure 8. Early Frame of UFO (0:29:07)

This is a frame early in the UFO sequence. The double image of the UFO is due to severe camcorder shake at 40X zoom. Note the blurry, but still discernible, cloud structure below the UFO.



Figure 9. Late Frame of UFO (0:43:17)

This is a frame late in the UFO sequence. Here there is no double image because the camcorder was momentarily still at the “top” and “bottom” of its cycle of shaking due to the 40X zoom extent and the camcorder operator, Karen, riding in a car while shooting the UFO. Note the cloud structure below the UFO.

To figure the time taken to travel the short distance the UFO did against the cloud structure, we must subtract the “paused” sequence within the UFO sequence.

- The total time from frame 0:29:07 to 0:43:17 is
 $43.57 - 29.23 = 14.34 \text{ sec}$
- Subtracting now the 7.2 seconds of the “paused” UFO sequence, we have
 $14.34 - 7.2 = 7.4 \text{ sec}$

Now to get a feeling about whether this UFO might be an airplane or blimp/dirigible viewed under unusual circumstances, let’s take the speed of an airplane flying among low-level clouds (2000 to 4000 feet) to be a minimum of 150 mph.

- One hundred fifty miles per hour is 220 feet per second.
- Thus, our theoretical plane has traveled

$$220 \frac{ft}{sec} (7.4 \text{ sec}) = 1628 \text{ ft}$$

Now we need to figure out if the cloud structure plainly visible is 1600 feet or so at the point the UFO clearly moves against it. A study of nimbo-cumulus clouds that the weather observations of the day indicate and that the videotape itself shows suggests that the UFO does *not* travel anywhere near 1600 feet *at a minimum* because we chose a *minimum speed* for the plane. If the UFO was as much as ten miles away from Karen, the UFO would only be about 70 feet, so the clouds structure around it are nowhere near 1600 feet in size. Thus, we think *the UFO is not to be identified as an ordinary airplane of any kind* seen under unusual circumstances.

UFO Altitude

We can only do a “by guess and by golly” estimate here. But we’ll take a stab at it anyway.

We know that Karen videotaped the UFO through the driver-side window of her vehicle while she was sitting in the passenger’s seat. This would tend to prevent her from videotaping at an angle with the horizon of more than about 25° above it because her view would be cutoff by the vehicle door/roof line at the top of the window. Her video does not show any darkening of the top edge indicating that she did not reach the limit of the top of the window.

Let’s assume the 25° and calculate the altitude with the following equation for the UFO at one mile away:

$$\tan(25^\circ) = \frac{x}{5280 \text{ ft}} \Rightarrow x = 2460 \text{ ft}$$

See *Table 4, Possible UFO Altitudes* for more distances. In fact, for reasons discussed under **UFO Size** earlier, we believe that four, five, or six miles away may have been the actual distance away. Since the clouds were quite low that day, as show by the landing airplane video, *we believe that the UFO was not more than about 10 to 12 thousand feet in altitude.*

Table 4. Possible UFO Altitudes

UFO Distance (miles)	UFO Altitude (feet)
1	2460
2	4924
3	7380
4	9340
5	12,300
6	14,760

CONCLUSION

A good strategy for identifying a possible UFO is to propose a list of possible identifying objects or phenomena. Then a good faith effort is made to see how many of the typical identifying characteristics of known objects and phenomena do actually fit the facts developed in the presentation of the evidence and analysis of the UFO case. If too many of the identifying characteristics of known objects or phenomena are not a good enough fit, then the investigator is left with a reasonable “identification” of a case as a MUFON “unknown.”

This case is an easy one because none of the reasonable identification candidates are very good fits at all. *We believe that this case should be “identified” as a MUFON “unknown.”*

Possible Candidates for Identification

The most reasonable identification candidates are the following:

- **Airplane.** An airplane would not have shifted its brightness back and forth between being dark and very bright. The appearance of a “shiny dot” is what attracted Karen’s attention in the first place. Then she notices that the UFO was hard to keep track of because it transitioned back and forth be-

tween very bright and quite dark. This uneven illumination is even evident in the 9.63 seconds of videotape that Karen managed to get. *We rule out an airplane as an identification of this UFO.*

- **Ultralight.** None of the common characteristics of an ultralight are present in the videotape images and besides the weather on a very cloudy (and earlier rainy) day is certainly not good ultralight flying weather. *An ultralight is ruled out.*
- **Blimp/Dirigible.** We rule out a blimp or dirigible as a cause for this UFO sighting because there were none reported in this predominantly rural and sparsely populated area of Oregon. In addition, the overall shape and structure of light and dark on the UFO in the videotape do not particularly conform to blimp or dirigible configurations. *The general structure (or lack of it) of the UFO does not conform to blimps or dirigibles.*
- **Balloons.** Some sort of strange-looking balloon might be an identification for this UFO, but this is made unlikely because of the very small amount of movement over the 9.63 second duration of the UFO videotape. It is quite evident that the UFO hardly moves at all against the cloud structure that it appears against. In fact, it is entirely possible that the cloud structure itself has moved during the 9.63 seconds and that the UFO has remained *completely* stationary, but this is not provable. *We rule out balloons.*
- **Helicopter.** *This identification is ruled out because the videotaped image simply does not look like a helicopter image at all.* This is made more plausible because of the landing airplane that Karen also videotaped within minutes of taping the UFO—both under very similar cloud conditions. We would see more identifiable structure if it were a helicopter.

Since the identification candidates fail for the reasons just given, we believe that Karen has videotaped a genuine MUFON “unknown.”

Appendix A: Lens Data

The following tables provide data about 35 mm camera lens viewing and specific data about the Sony DCR-HC38 camcorder.

Table 5. 35 mm Lens Focal Length and Angle of View

Focal Length (mm)	Angle of View (°)
12	113
17	93
21	81
24	74
28	65
35	54
50	40
75	27
90	23
135	15
200	10
300	7
500	4

Table 6. Lens Data for Sony DCR-HC38 Camcorder

Lens	Focal Length	Focal Length (35 mm equiv.)
Carl Zeiss Vario-Tessar 40 x (Optical) 2000 x (Digital)	1.9 to 76 mm	35 to 1440 mm

Table 7. Lens Data for Konica-Minolta DiMage Z6 Digital Camera

Lens	Focal Length	Focal Length (35 mm equiv.)
Konica-Minolta f2.8 (wide angle) to f4.5 (telephoto)	5.83 to 69.9 mm	35 to 420 mm

Appendix B: Weather Data

The following weather data for March 20, 2007, in Medford, Oregon, was taken from the excellent Weather Underground site (wunderground.com).

Table 8. Medford Area Weather March 20, 2007

Time	Temp. (°F)	Visibility (miles)	Wind Direction	Wind Speed	Precip.	Conditions
9:53 AM	46.0	10.0	Calm	Calm	None	Overcast
10:53 AM	50.0	10.0	Calm	Calm	None	Mostly Cloudy

Appendix C: Witness CMS UFO Description

The following is witness Karen's CMS UFO description:

Short Description of UFO Event:

Unknown over the hills of Eagle Point and White City.

Detailed Description of the UFO Event:

My husband and I were headed to Medford [in our truck]. It was very cloudy but not raining and I'm not sure if it was windy or not. We were on Highway 62 getting ready to turn onto Highway 234 when I saw a shiny dot in the clouds just above the mountains. I tried to zoom in on it [with my video camera] then and was not able to find it in the viewfinder. My husband couldn't see it. I couldn't find it or see it from Highway 234 but I kept scanning the sky. When we were on Modoc Road. I saw it again. It was going from shiny to dark to shiny to dark and I was having a hard time finding it in the viewfinder. My husband couldn't find a good spot to pull over . . . and still couldn't see it. When I was able to find it and start recording it I was leaned over from the passenger side of the truck towards my husband looking between his face and the wind[ow]; the window was up. It was more of an oval or a cigar shape when I was zoomed in on it and I thought that when we got home and viewed it we would be able to see wings and be able to identify it as a plane. I thought it was moving south while I was watching it but when we viewed it on the TV it seemed to be staying in the same place. I stopped recording when some trees came in view and I couldn't find it again. I don't think it disappeared. I think it just went dark and I couldn't see it again.