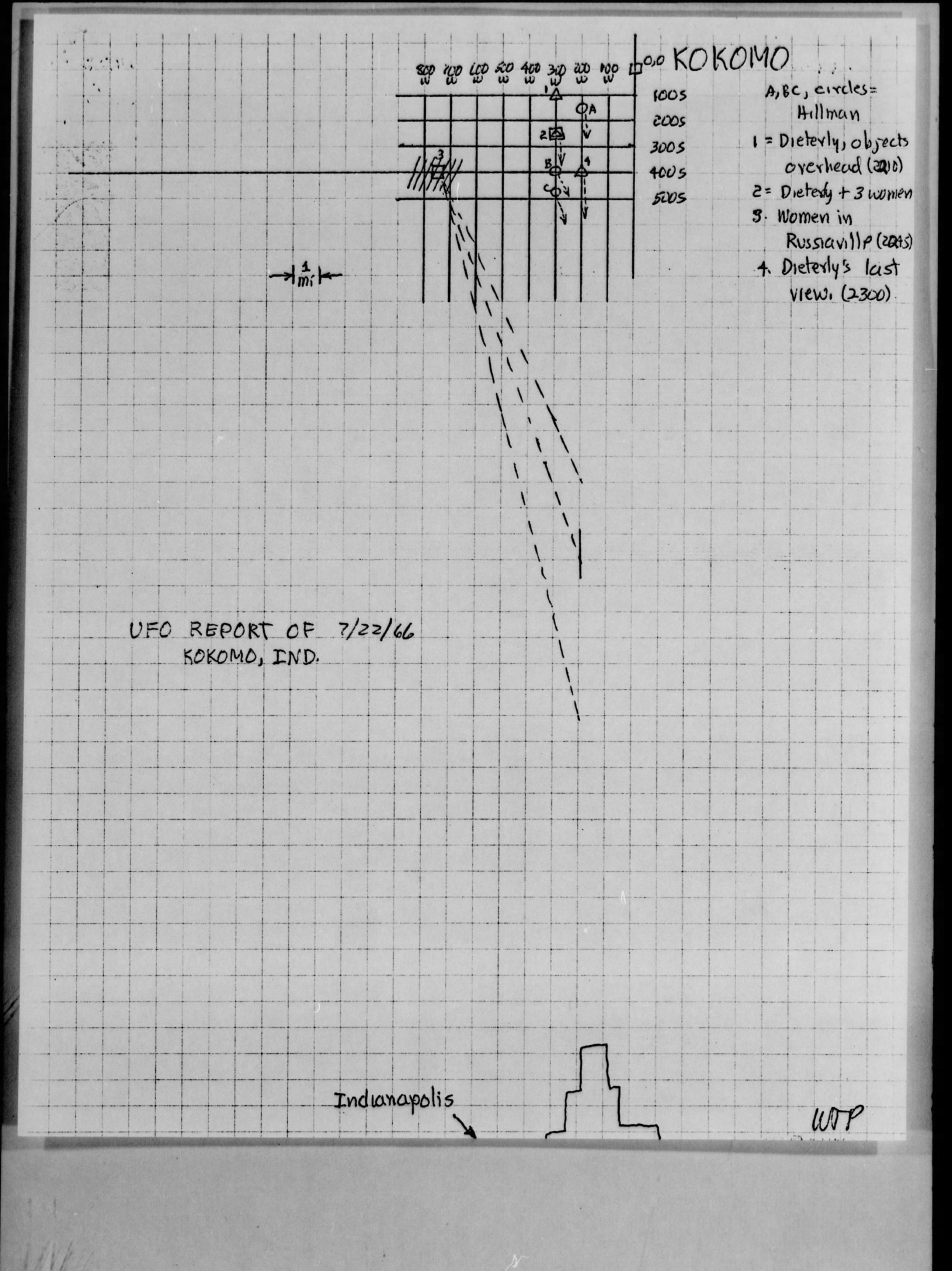
PROJECT 10073 RECORD

PROJECT 100/3 RECORD	
1."DATE - TIME GROUP 22 July 1966 23/03102	2. LOCATION Kokomo, Indiana (12 Witnesses)
3. SOURCE Civilians	10. CONCLUSION Other (REFLECTION FROM GROUND LIGHTS) (JAH)
4. NUMBER OF OBJECTS Varied	
5. LENGTH OF OBSERVATION 50 Minutes	11. BRIEF SUMMARY AND ANALYSIS
6. TYPE OF OBSERVATION ; Ground-Visual	SEE CASE FILE
7. COURSE Southward	
8. PHOTOS D Yes EXXNo	
9. PHYSICAL EVIDENCE D You CONO	

FTD SEP 63 0-329 (TDE) Previous editions of this form may be used.



Report on UFO Investigation, Kokomo, Indiana, 7/24/66

Investigator: W. T. Powers

General Summary:

Between the hours of about 2210 and 2300, Friday, July 22, 1966, oval patches of white illumination were observed moving very rapidly back and forth within an area over Kokomo, the area gradually shifting southward until the group of lights disappeared behind trees. Some of the lights moved, some remained stationary for varying periods of time. The lights appeared bluewhite, were oval in shape, and shaded off to darkness at the edges "like a flashlight seen in fog."

A total of twelve witnesses gave accounts of the lights; the longest baseline was over seven miles. There was disagreement by four of the witnesses concerning clouds: four claimed that the night was cloudy, while four who observed the longest said it was clear, with stars and moon visible. Four others were uncertain, although their impression had been that the night was overcast.

Results from Interviews

lst Interview: Mr. W. C. Dieterly, Chief Deputy, Howard County Sheriff's
Department; Mrs. _______, wife of a city police detective; Mrs. _______and Mrs.
visiting Mrs. _______ Interview took place in Howard County Jail offices.
At about 22:05, Mr. _______ received a radio call that inmates of the

county home (known locally as the "poor farm") were watching strange lights overhead. He was at the time west of town, and drove immediately to the county home, where he got out of the car and saw the lights directly overhead. He is positive that there were six lights. The lights were oval, like an

"egg-shaped disc", and moved with fast jerky motions from one point to another, remaining within a generally oval area some 30 degrees wide.

Mr. was at that time located at 200 south and 300 west on the county grid system, in which roads one mile apart are given numbers by the hundreds: he was therefore two miles south and three miles west of the 0.0 point, which is in the city near its center.

Mr. Parived about five minutes after the call came in, and when he did arrive, the lights were overhead and moving south as a group, slowly; he decided to follow them. He drove south on 300 West (Malfalfa Road) to the intersection of 300 west and 250 south, where he parked and turned his headlights off. He got out of the car and watched the lights in the sky for perhaps twenty minutes, the lights having moved straight south to an elevation of some 30 to 40 degrees.

At this point the three ladies drove by and recognized the car of Mr. Dieterly; thinking he was in trouble they pulled over and called to him, asking what he was doing. Dieterly said he was watching "the objects in the sky," which the ladies had not yet seen. The ladies turned their headlights off and got out to watch, too.

The lights at this time (about 2230) were about 20 degrees up from the horizon, just over some woods, and were moving back and forth through an arc of perhaps 30 degrees, an oval pattern with the north-south dimension about one-third of the width. The pattern of movement within this area consisted of rapid dartings and "chasing" motions; at one point, one witness said two of the spots stopped, and became narrow with rays of light extending upward from them, while two to the left remained stationary in the normal shape, and two others to the right went around each other in circles. Picture 1

illustrates the configuration. The lights seemed, on recollection and by experiment, to be as big as a penny between 18 and 24 inches from the eye, approximately two degrees. Mr. Dieterly suggested that they were as big as an automobile, and the ladies said no, they must have been bigger than a 707 jet. There were no objective means for determining actual size.

All the witnesses had thought of searchlights, but had decided that the spots were not from searchlights for several reasons:

- 1. The motions were far too fast for a large searchlight to have produced. Illustrations of the motion using a hand-held flashlight indicated that the movements were as fast as the flashlight could be moved by hand.
- 2. No rays of light could be seen extending up from the ground, as one would expect on a hazy night.
- 3. There were no commercial establishments in the direction toward which the lights went; the general implication was that the source would have to be in open country.
- 4. The lights were too bright to have been produced by anything smaller than a large anti-aircraft light. All the four witnesses agreed that there was a halo of brightness around the area of the lights, as if they were illuminating nearby haze.
- 5. All saw stars and the moon, and concluded that there were no clouds for a searchlight to play on.

The ladies were on their way to Russiaville, five miles west on Rte. 26, which is the county road 400 south, 1-1/2 miles south of where they were parked. They proceeded on to Russiaville after watching for some twenty minutes with Mr. Dieterly, Russiaville is located at 750 west and 400 south. The ladies parked in Russiaville with the car pointed north; at this point they could see

one light out of the rear window of the car, somewhat to the east. The most easterly bearing they would agree to was about 155 degrees, or 25 degrees east of south.

At the same time, Mr. Dieterly remained talking with some people who lived where the cars had stopped, for perhaps twenty minutes, and then went one mile east and one mile south, to the junction of 200 west and 400 south, where he watched until after 2300 hours. The lights were very low on the horizon at this time, and were due south. He was probably at this location when the ladies were in Russiaville. The ladies and Mr. Dieterly were at that time 5.5 miles apart on 400 south: the minimum distance of the lights is therefore 5.5/tan(25°) or thirteen miles south of Dieterly, at approximately 2300 hours.

During this interview, Mrs said, "My next door neighbor said they were in Indianapolis Friday night and close to them they were using six spotlights at a used car lot...."

Indianapolis is about forty miles to the south of the location of the witnesses.

The witnesses were asked if the lights ever went through each other, and they said emphatically that they did not. On being asked whether a light ever went in front of another one or behind, however, they all agreed that this had happened repeatedly. The deputy chief said that they would move in a curved path like the wheel of a racing car taking a curve, becoming oval, then circular again.

Mrs. Said, "I wish we could have gotten a hold of Frank Edwards - have you ever talked to him? (No) He is the most interesting person! I just love to hear him talk. Especially when he has actually seen them."

Mr. Dieterly repeated several times that there were definitely six of

Mrs added that there was interference with the television pictures that night, and Mr. Dieterly said he could not reach more than four miles on his police radio which normally makes contact over ten miles.

Second Interview: Mr. and Mrs., and two children, (about twelve) and Jeff (about ten). This family had just come from dinner, leaving the restaurant about 2000. At around 2010 to 2020, they were on 200 west at about 150 south when they saw two or three lights on the clouds. They thought they were spotlights on clouds. Turning west on 400 south, they saw the lights still to the south, but lower; the family drove to 300 west and turned south, losing sight of the lights at 300 west and about 375 south, owing to trees thirty to forty feet feet tall, and about one-half mile away. The lights still seemed to be three in number, and moved in circles in a regular pattern.

The lights were last seen at about 2030. When the witnesses were told that the previous witnesses had reported no clouds at all, the Hillmans were very surprised, and while they did not contradict the other witnesses, they seemed to be avoiding that out of tact more than conviction. Mr said, "I looked up when I got home (about 2040) and I saw a few stars, but I also thought that there were some clouds..."

These witnesses were located about 1/2 mile directly north of the "poor farm", and saw the lights at about 2030, to the south, moving back and forth over about a thirty degree arc and remaining generally fifteen to twenty degrees above the horizon. They thought the lights were spotlights, but had evidently been talked to a bit, since they added that the lights seemed "under" the clouds

not on their bases. They were positive that there were clouds, and could not be shaken into saying that the night was clear; in fact, they pointed to heavy cumulus and said that the cloud cover was dense, like that.

Added Information

According to the Indianapolis weather bureau, the cloud cover at 2155 was three-tenths altocumulus in a layer at 16,000 feet, thickening to six-tenths an hour later; there was another layer of cirrostratus, about five-tenths cover, above 20,000 feet. Therefore, stars could be seen between the clouds. The high cirrus thickened to an overcast by 2255 hours at Indianapolis, and probably later at Kokomo.

The layer at 16000 feet would be intercepted by a horizontal beam of light at a distance of 155 miles. A beam angled up at about 3.3 degrees would make a spot that would appear overhead forty miles away.

The size of a spot forty miles away depends on the focal length of the searchlight, the arc size, and the throw distance. A 60-inch searchlight with a 26-inch focal length and a 1/4-inch arc will make beam about 0.5 degrees wide. At a forty-mile distance the spot will be 1800 feet in diameter. Viewed from 16,000 feet below, this spot will subtend 6.5 degrees the short way, and many times that length in the long dimension, provided the cloud layer is horizontal. The apparent size was given as considerably smaller than this, so one must conclude that (1) the searchlights were aimed through holes in the lower layer to impinge on the higher layer, and/or (2) the searchlights were closer than forty miles, (they could have been as close as 30 miles), or (3) the witnesses underestimated the size.

Of these choices, the first seems somewhat likely, as the cover was only three-tenths at 16,000 feet, while it began at five-tenths at 20,000 feet

(minimum estimate) and became 100% overcast. At the point when the witnesses were together watching the display in the southern sky, the lights were about twenty degrees up, which on the 16,000 foot layer, would place them about nine miles away. Since they were still moving south, this agrees well with the thirteen mile figure from the triangulation on the baseline to Russiaville, which was determined for a later time.

The estimated sizes were determined by all the witnesses for the case in which the lights were to the south: if they had been halfway between the source postulated above and the observers, they would have appeared round and about one-half degree in diameter, when on a direct line to the source, and oval when off that line. A two-degree diameter would place the lights about 1/4 of the distance to the source away.

Conclusion

A reasonable interpretation of the event is that the witnesses saw lights from six searchlights known (by one of the witnesses) to have been in action at the proper time in Indianapolis. The cloud cover is sufficient to account for seeing the spots as far away as 155 miles; it is not therefore impossible for them to have been seen clearly at thirty to forty miles range, directly overhead.

The extremely fast motions seen by the observers are easy to understand when it is realized that the angle of motion seen by the witnesses would have been four to ten times as great as the actual angular deviations of the search-lights, due to the great difference between the angle of throw and the distance of observation.

The color of the lights was likened to a mercury-vapor light; this is also characteristic of the blue-white light from a carbon arc source.

The oval shape of the lights is due to the angles of incidence and observation.

The failure to see beams coming up from the ground was due to the fact that there were no clouds below 16,000 feet, and since the beams were coming at a low angle from the south, the forward scatter would be low. A halo effect was seen in the area of the lights, which is accountable for by natural diffusion of light from inevitable imperfections in the light source mirrors, and from scattering of light over small angles by the atmosphere.

There seems to be no reason to assume that the source was other than the searchlights in Indianapolis.