

**EXAMINING
THE
EARTHLIGHT
THEORY**

**The Yakima
UFO Microcosm**



Greg Long

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The Yakima UFO Microcosm

Greg Long

The J. Allen Hynek Center for UFO Studies
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FOREWORD

The Center for UFO Studies has published a number of specialized monographs during its existence, and the volume you hold in your hands continues this tradition. It is especially appropriate that CUFOS publish Greg Long's study, as Dr. J. Allen Hynek, CUFOS founder, assisted in the initial investigation of the Yakima area sightings.

Long's study can profitably be read by those with a varied set of interests in the UFO phenomenon. First, it details his and others' work in investigating the dozens and dozens of UFO reports in the Yakima area. As such, it offers a fascinating account of what UFO investigation is actually like, with all its false starts and difficulties. This work was not easily accomplished and required great persistence and dedication.

Second, Long has documented the existence of a "mini-flap" of UFO reports, a phenomenon that is often discussed in the literature but rarely studied in depth. His work contributes toward our further knowledge of the characteristics and distribution of UFO reports.

Third, and perhaps most important, Long has used this report data to offer a preliminary test of an interesting theory that purports to explain most UFO sightings. The tectonic strain theory, developed most fully by Michael Persinger and John Derr, has been tested by the use of aggregate-level statistics in the past. Two of the theory's weaknesses, critics contend, is that its authors ignore both the varied types of UFO reports in their databases and the characteristics of each

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report. Long attempts to remedy this shortcoming by looking closely at each report and comparing its features to those predicted by the theory. His analysis leads him to conclude that the theory is still deficient in certain critical areas.

Whether or not the reader agrees with this particular conclusion, the crucial point, I believe, is that Long actually attempted an empirical study of the UFO phenomenon. We will make no progress toward an understanding of the nature of UFOs until we examine the reports in great detail and with some rigor. This monograph is another step along that winding road that will eventually lead to knowledge of the mechanisms behind the UFO phenomenon.

Mark Rodeghier
Scientific Director, CUFOS

ACKNOWLEDGMENTS

I want to thank a number of people without whose help this report could not have been possible.

The late W. J. (Bill) Vogel was extremely helpful in providing all his case material for my use. I believe he would be pleased with how his work has been treated in this report. I also want to thank the fire lookouts who patiently searched their logbooks and diaries and gave generously of their time and memories. David Akers answered many questions and provided useful information. To the families and many others on the Reservation who remain unnamed in this study, I extend my thanks.

My close friend David Hampton was an excellent early critic of my writing. Ron Westrum raised interesting questions which I pursued. And Michael and Linda Sheets of Richland, Washington, created excellent maps and drawings to give life to the study.

I greatly appreciate Mark Rodeghier, George Eberhart, and the J. Allen Hynek Center for UFO Studies for showing interest in this study.

But above all I want to thank Donna, Scott, and Todd, my wife and sons, for carrying most of the burden of this work for many years. I spent far too many hours away from them, and only hope they will someday understand.

INTRODUCTION

What are UFOs? After 40 years, are we any closer to the answer?

As of this writing, a stream of new and updated abduction books continues to fill the shelves of bookstores across the country. A local businessman who claims multiple sightings and alleged authentic photographs of a “spacecraft” in Gulf Breeze, Florida, has reaped a six-digit book contract. Local, regional and national UFO conferences continue to attract large audiences. Anonymously delivered, apparently untraceable briefing papers naming names and declaring an ongoing and cooperative relationship between the government and Extraterrestrial Biological Entities fall under the microscopic analysis of researchers. And quietly, in the background, startled people continue to come forward to report to the media and to UFO investigators their puzzling sightings of strange objects in the air or on the ground. While all the while in the offices of ufologists everywhere the UFO reports keep piling up. . . .

In 1981 I came upon, by accident, a pile of these reports. The atmosphere back then was a bit different. It was quieter. It was conducive to focused attention on an unusual situation, which was that a fairly significant mass of UFO reports had been compiled by one man on an Indian reservation in the state of Washington. Additionally, this man had managed to photograph many times the very objects he and many others had viewed. The reports and the photographs reinforced each other in terms of very specific observational details. In addition to the man’s and others’ reports of the apparent self-same object (usually a ball of light most often

hovering or moving at hundreds feet above the earth) were reports of close encounters, even those with beings.

I was soon determined to get to the bottom of the mystery contained within the boundaries of this unique set of reports. Here was, as I discovered, a microcosm of the UFO experience—a meticulously kept record that opened a window onto all facets of the phenomenon. During my scrutiny of the reports and my interviews of the witnesses, such persistent, concrete patterns of a real phenomenon emerged that surely a physical explanation—perhaps pointing to something natural and non-sentient—must explain the reports.

I established goals for the project: I would thoroughly judge the value of the reports and analyze all of them for patterns, plus uncover old and new ones not recorded. I would completely document in edited form (quoting whole or parts of reports as required to emphasize a point or to establish the objective evidence of a sighting) the whole Indian reservation experience. Then, having reduced the problem to manageable size, I would take the only workable hypothesis (or at least the most tractable hypothesis that I knew of)—and test it. From this test and my own statistical findings I would draw conclusions based on the results of the test. At the end, perhaps the reports would be swept away as something ultimately prosaic, or perhaps something entirely new would be revealed. Perhaps I would even arrive at the answer to the question, What are UFOs?

Examining the Earthlight Theory is a unique history of nearly 200 sightings reported over 20 years in one limited locale. It provides scientists and anyone else with a serious interest in the UFO phenomenon a complete, factual view of the range of sightings, the physical characteristics of the objects, their geographic location at exact times (whenever known) as well as other events that seem to share the common factor of “strangeness.” The book also describes and tests the Tectonic Strain Theory of UFOs, an explanation scheme that looks at UFOs from the perspective of geophysics and radiation.

The Tectonic Strain Theory is a controversial idea, and currently is most strongly promulgated by only a few researchers (in Canada and Great Britain). The theory deserves a hearing; not as the Final Answer to UFOs (which it often strives to be), but as a concept to be fairly analyzed and evaluated on its own merits, just as the Extraterrestrial Hypothesis, Multidimensional Hypothesis, or any other concept deserves to be listened to, considered, and quantitatively judged on the basis of fact and known scientific laws. I find it impossible to accept that geophysics can explain the total UFO experience. The best promise of the theory is that it might explain a tightly defined subset of the phenomenon as noise, thus clearing away deadwood that obscures and confounds our understanding of the core phenomenon. On the other hand, the theory might eventually explain much more of the phenomenon than we might suspect. The book here is only the first of many possible microscopic investigations into UFOs and hypothesis testing, which any objective, disciplined researcher can, with a little persistence, carry out on his own.

If nothing else, I hope readers will be challenged by the scope and accomplishments of this book. It demonstrates, I think, that a difficult task can be suc-

cessively accomplished using *UFO reports*, which still remain the heart of ufology. It also shows that Nocturnal Lights still persist as an important element of the UFO experience, and that regardless of the almost universal glamour of the “nuts and bolts” view, a real, thoroughly documented and substantiated *type of Nocturnal Light* has appeared in concentrated numbers in a geographically confined area. (There are other areas in this country, as well, waiting to be studied.) Ufologists have long admitted that most UFOs remain a predominately nocturnal phenomenon, that they compose the majority of all UFO reports. No one has satisfactorily shown that they are natural, let alone spacecraft. Perhaps some NLs are part and parcel of a technological phenomenon. However, brushing NLs aside as vague, boring or only distant lights in the sky means nothing unless they are studied as assiduously as close encounters, abductions, government documents, or any other legitimate part of the UFO problem.

What are UFOs? Investigation and research must go on. The UFO phenomenon continues, the reports are there waiting to be analyzed. Perhaps this book will help us find the answer.

Greg Long
Tigard, Oregon
December 11, 1989

1



SETTING THE STAGE

In August 1981 I drove onto the Yakima Indian Reservation that lies just south of Yakima, Washington. For those in the UFO field, Yakima (YACK-uh-maw) triggers an old, familiar memory. It was here that Kenneth Arnold, a Boise, Idaho, businessman, landed his private plane on the afternoon of June 24, 1947. At the Yakima airport he reported his startling sighting of nine silver-colored disks that were flying south along the backbone of the Cascade Mountains.

South of Yakima the northern edge of the Yakima Indian Reservation runs in a ragged line along the outskirts of the upper Yakima Valley west to the foothills of the Cascades. As I drove, I could clearly see the looming, snowcapped masses of Mount Rainier to the north and Mount Adams to the south. Like sentinels, they frame the western expanse of the Reservation. These two rugged giants mark the passage of Arnold's "flying saucers." One minute and 42 seconds after Arnold began timing them, he watched them gather altitude just beyond the southernmost crest of Mount Adams where they vanished from sight.

I had interviewed Kenneth Arnold for the Mutual UFO Network's *MUFON UFO Journal* the year before. Now I was traveling to meet another man, Willard J. (Bill) Vogel (Plate 7). In his 50s, Vogel was the retired head of the Yakima Indian Reservation forestry observers. His official title was the chief fire control officer in the Division of Forestry of the Bureau of Indian Affairs in the Department of the Interior.

In November 1978 on the day I moved to the Tri-Cities, Washington, 65

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miles southeast of the Reservation, I had come across a newspaper story about Vogel and UFO sightings on the Reservation. Entitled “Yakima Valley Prime Area for UFO Sightings,”¹ Vogel was depicted as a mature, level-headed official who spoke coolly about the Yakima UFO experiences. The story contained a photograph of Vogel inspecting his personal collection of slides, claiming to show UFOs he had photographed.

For three years I sat on the newspaper story until I had the time to find out about the alleged sightings myself. I had been interested in UFOs since 1975—but from a distance, harboring a certain degree of skepticism. Now, I wanted to see Vogel personally. Certainly there was the fact of Arnold’s famous sighting just outside the Reservation. To this day, Arnold’s sighting—although heatedly debated—has never been satisfactorily explained. Were these Yakima Indian Reservation UFOs, briefly described in the single story I read, true UFOs? Having sat on the sidelines, here was my chance to practice firsthand investigation, to find out for myself whether there really was anything to Unidentified Flying Objects.

I met Vogel in Toppenish, a little town in the eastern half of the Reservation and the home of the Yakima Indian Agency Tribal Headquarters. He escorted me to his small, modest home in Toppenish.

Earlier that spring I had received the Center for UFO Studies’ *CUFOS Bulletin*, a newsletter. The lead story, “UFOs on the Yakima Indian Reservation,” was written by Vogel, with an editorial note by J. Allen Hynek.² I was impressed by this statement of Vogel: “Sometimes the (UFO) activity became so intense that I actually became bored taking . . . pictures, as hard as this may be for some to understand, and restricted myself to taking photos of only the more unusual cases.”

This was a strong statement. I had never heard of such a situation where UFOs could be photographed so freely. This fact was a major reason for my desire to meet with Vogel. But at this point, my skepticism overcame any desire to believe: Wasn’t Vogel actually—despite his governmental position, despite the fact that he had fought in World War II and won the Purple Heart and Bronze Star, despite his 30 years of responsible fire fighting, despite his apparent objectivity—deluded? Was he only photographing celestial objects or lighted aircraft?

After an afternoon with Vogel, I drove back to the Tri-Cities with a number of impressive facts for the reality of UFOs on the Yakima Indian Reservation. The most convincing was Vogel’s slides.

The slides showed intensely glowing orange or reddish-orange objects, in some cases streaks resulting from time-lapse photography. I had seen many UFO photographs reproduced in UFO books, but these were different. The objects were compact, burning, round shapes; they seemed on fire. Given Vogel’s descriptions during our meeting, I discounted ball lightning. If not a lightning-related phenomenon, or stars, planets or aircraft, what were the glowing balls of light?

Vogel had showed me more than slides. He had a three-inch-thick black binder filled with UFO reports that he and others on the Reservation had written. He had been compiling the reports since the early 1970s when the UFOs first began making—to his knowledge—their appearance on the Reservation.

He told me: “I’ve never felt that anybody ever came to me with a story of

seeing something just to be telling me. They had no reason to. Almost all the people that I got these reports from were people I had known for a number of years and I knew were credible witnesses. . . . A multitude of people have come to me out of the blue. People say they never ran into anyone but me who they could trust. For example, a grown man told me that when he was 15 or 16 riding on a bicycle one day from Wapato to Toppenish, three ‘flying saucers’ with domes on top came flying up the railroad tracks. He told me, ‘If you tell anyone, I’ll kill you!’”

And so here was also the fact of credibility and sincerity, qualities UFO investigators finally must assess in the UFO witnesses they interview. But, despite Vogel’s own belief that people weren’t telling him stories, despite the extensive photographic evidence of something apparently anomalous, despite Vogel’s non-committal stance (he never once offered an explanation for the Yakima UFOs), could all these Reservation witnesses somehow be participating in a grand delusion?

I say grand delusion because Vogel gave me accounts of more than sightings of balls of light. The *Bulletin* article had outlined stories of disks and cylinders, strange fires and glowing canyons, inexplicable underground sounds, incidents of objects chasing automobiles and aircraft, radio system blackouts, encounters with humanoids and Bigfoot creatures, and a host of other strange occurrences.

This report is my personal attempt to find the answer to the Yakima Indian Reservation UFOs. It is based on my investigations and research from August 1981 until 1986 when I compiled all my findings into a working report. Now, the J. Allen Hynek Center for UFO Studies has invited me to present my findings of the Yakima Indian Reservation sightings—a microcosm of the UFO experience.

The Yakima reports cast light on all dimensions of this experience, reflecting all its forms: “flaps” or concentrations where UFO sightings increase during time over a localized area; distant nocturnal lights; daylight objects; close encounters with objects and beings; accounts of possible abductions; and other seemingly related phenomena.

Because of the quantity of the sightings and the quality of the photographic evidence, internal analysis and evaluations of the information bits that compose this body of evidence can be consistently and confidently applied; and the data can be tabulated and conclusions drawn in terms of the data themselves. But more importantly, the data can be used to test theories to explain the sightings.

Potentially, the most promising theory to date to explain the Yakima UFO microcosm—if we believe that all searches for a natural, non-sentient explanation for the events should be sought first before other alternative natural explanations or more exotic theories are proposed—is the Tectonic Strain Theory of UFOs (the TST). The TST, devised by Michael Persinger of Canada, attempts to interpret UFO sightings in terms of geophysical phenomena. Persinger and John Derr of the U.S. Geological Survey have applied the TST to the Yakima reports, using a limited set of the data.

My report will first present a brief description of the physical features of the Yakima Indian Reservation, and an historical picture of the Yakima Indian Reservation sightings will follow. This history is presented to not only provide

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details of the sightings and to communicate the atmosphere of the times, but to establish a context for my test of the TST and my own statistical findings. The text and the appendices include almost all of the Yakima Indian Reservation reports in one form or another, either as summaries or the actual verbatim reports. Although the connection between Sasquatch (Bigfoot) sightings and UFOs is controversial, these reports are included as well since Bigfoot was observed in an area where UFOs predominated. Other possibly UFO-connected phenomena, such as unexplained physical traces and beeping sounds, are also described in appendices. The reader may wish to refer to a series of articles on the Yakima sightings that I wrote for the *MUFON UFO Journal*. These are listed in a footnote.³

Hynek stated in the *Bulletin* article: "I had not been aware of the scope of the UFO activity in the Yakima region. I knew, of course, about the wandering nocturnal lights and have received from time to time accounts of those from Mr. Vogel. . . . Clearly the Yakima Indian Reservation does constitute a remarkable area for major study of the UFO phenomenon."

Here is that major study. I only hope it will open new avenues of inquiry into the UFO experience as a whole. . . and perhaps with luck will provide at least part of the answer to the UFO mystery.



DIMENSIONS OF THE MICROCOSM

The Yakima Indian Reservation is a 1.25-million-acre (3,500-square-mile) area located in south central Washington state (Figure 1). The Reservation was established in 1857 as a home for the Yakima Nation and 11 other Native American tribes.

The Reservation is shaped somewhat like a broad, rough-edged fish—its blunt nose pointed east, its tail west. Natural barriers of mountains and ridges form the northern, southern and western verges of the Reservation (Figure 2).

The Indian lands fall naturally into two very distinct halves. The western half is rugged wilderness territory devoid of human development except for some paved roads used by the Indian logging companies, and a few earth-surfaced or gravel roads that lead to higher-elevation meadows and campgrounds. Lack of development in the western area suggests that manmade lights could not account for the reported UFOs. At the far western edge of the Reservation boundary towers Mount Adams, a dormant volcano 12,307 feet high. Mount Rainier, 14,410 feet, lies 35 miles northwest of the Reservation.

In stark contrast, the eastern half of the Reservation is flat land devoted to agriculture and cattle, and is the lower, southern end of the lush Yakima Valley that extends into the Reservation from the north. On the Valley floor, farmers tend to their hops, grapes, apples and mint on land bought or leased from the Yakima Nation.

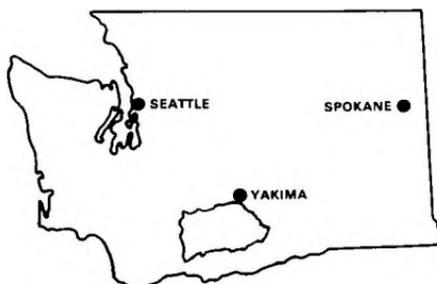


Figure 1. The Yakima Indian Reservation in south central Washington state.

Only enrolled members of the Tribe or permit holders are allowed into the high back country of the Reservation; and only the northeast portion is open to free public travel, along with U.S. Highway 97, which cuts through the southeast quarter of the Reservation and runs north through a gap in Ahtanum Ridge. It was here, along Ahtanum Ridge, that some of the UFOs had been seen. Just outside the northeastern corner lies Yakima (where Arnold had landed), the hub of the Valley (population 51,000). About 10,000 people live on the Reservation, with the largest towns Toppenish, Wapato, and White Swan. Smaller communities such as Zillah, Granger and Mabton—sites of UFO sightings as well—are situated near the Yakima River outside the eastern boundary.

The Cascades to the west, the Simcoe Mountains to the south, and Ahtanum Ridge to the north lock in the Reservation on three sides; the natural course of the Yakima River to the east forms a fourth boundary. Within these four walls, a small, rural population exists, diminishing in density near the rising timber line marking the western half of the Reservation.

Toppenish Ridge is an important geologic feature (see Plate 14), which we will return to later because of its purported implication in a UFO/geologic connection. Its long, bony form runs east-west through the eastern half of the Indian lands, forming another barrier to population expansion.

South of Toppenish Ridge sprawls a huge wedge-shaped area marked by craggy gorges, twisting creeks, and tortuous gulches where dry grass, sagebrush and scrub growth eke a hardy existence. This vast, unpopulated area is part of a great basalt desert covering 250,000 square miles of eastern Washington, Oregon, and parts of Idaho and California that formed 15 million years ago. Here, too, UFOs have been seen.

Figure 3 is a three-dimensional depiction of the Reservation and surrounding topography. The bold, black line marks the Reservation boundary (the far southern limits are not shown). One can clearly see the path Arnold's UFOs took, flying north to south between Mount Rainier and Mount Adams.

To the northeast of the Reservation is the Yakima Firing Center, a military installation for training Army and National Guard units. Its military aircraft, according to Vogel and his fire lookouts, were often seen flying over the Reservation. It should be kept in mind that a small percentage of the Yakima UFOs could have been misinterpreted military aircraft, as well as flares dropped during

RAINIER
14,410 FT

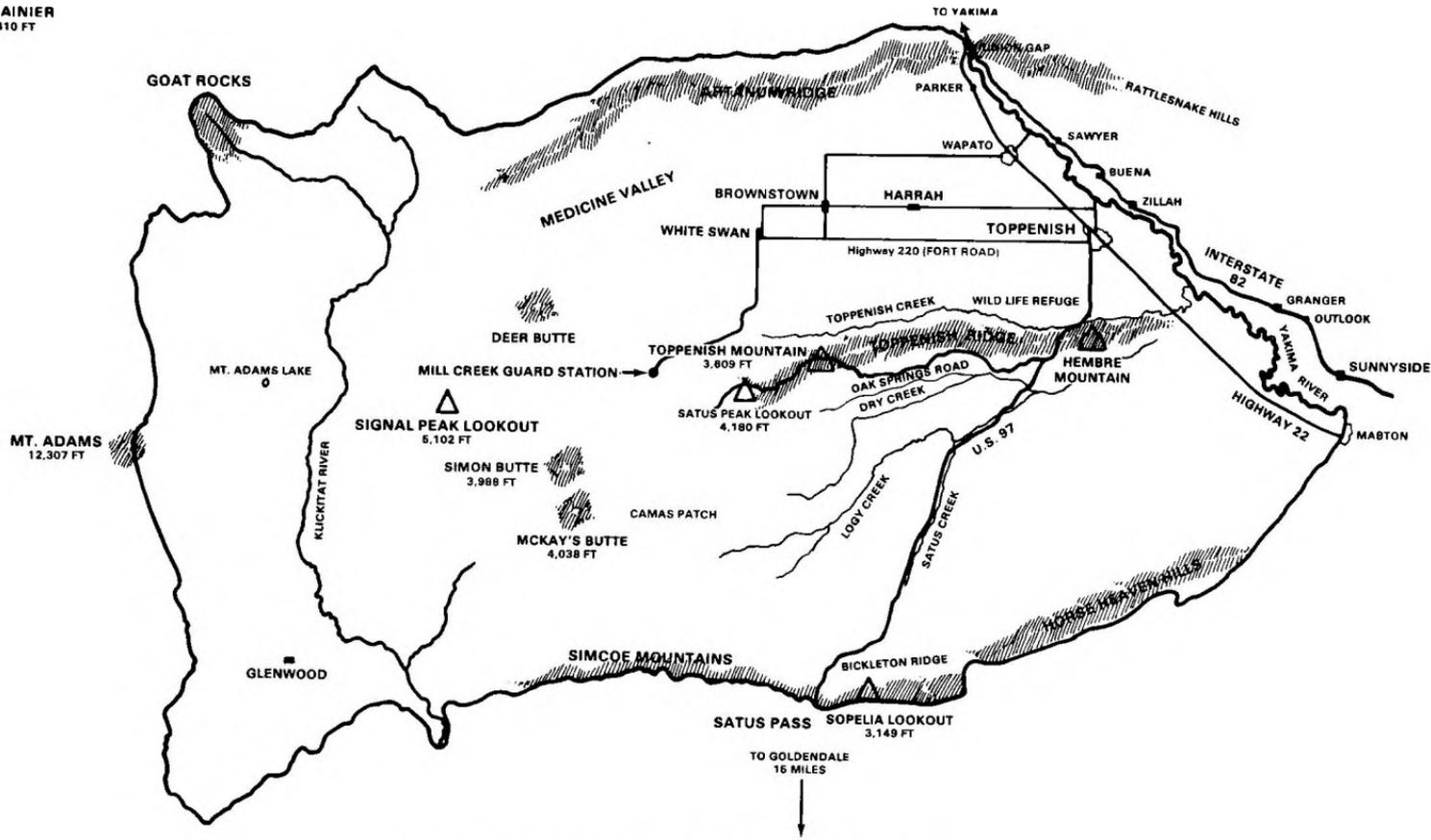


Figure 2. Major landmarks of the Yakima Indian Reservation.

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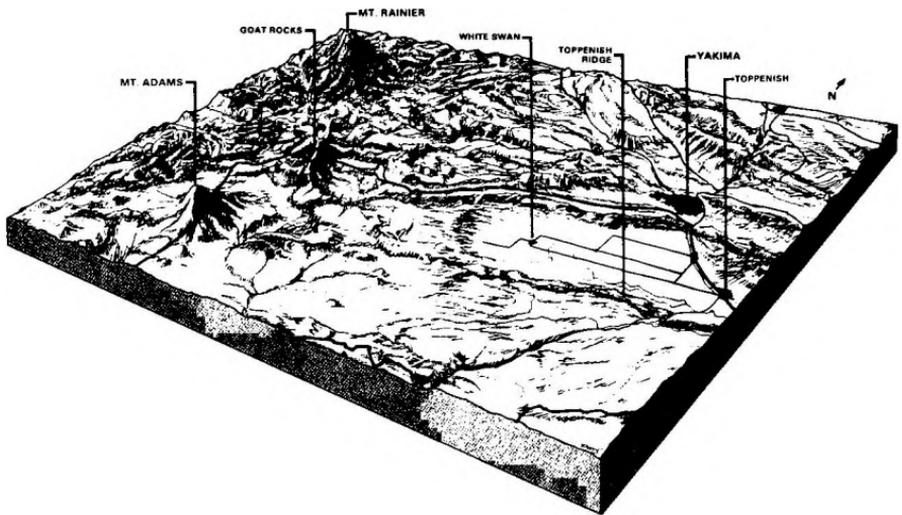


Figure 3. Three-dimensional view of the Yakima Indian Reservation at the foot of the Cascade Mountains (black line marks the boundary of the Reservation, except for furthest southern part).

exercises. However, the likelihood of these aircraft maneuvering at low altitude, and silently as some UFOs did, especially over populated areas of the Reservation, is very unlikely. I checked with the Firing Center to determine if it had records of UFO sightings by its personnel. The adjutant replied that it had none.

Interestingly, east of the Indian reservation is the Hanford Reservation, where the first A-bomb was developed, now the site of plutonium factories and secret nuclear-related activities. Timothy Good quotes from an official Army memorandum that in July 1950 Air Force jets attempted to intercept round UFOs sighted over Hanford.¹ Vogel told me that he received rumors of UFO sightings at Hanford during the early 1970s.

3



THE DRAMA BEGINS

In the late 1960s and into 1970 and 1971 several forest rangers and fire control personnel began periodically entering Bill Vogel's office with strange tales.

These tales were of sightings of unknown objects. As Vogel said later, he received these reports "with knowing smiles, an embarrassed shuffling of papers, and advisement to 'keep us informed.'"¹

These people described very bright, white lights moving low in the sky and over rough, inaccessible terrain in the vast rangeland south of Toppenish Ridge. Extending for 15 to 20 miles south to the steep, timbered heights of Bickleton Ridge and the Simcoe Mountains, the rangeland is broken by numerous deep, narrow canyons, many cut by creeks with such odd names as Lousy Creek, Logy Creek and Dry Creek. No human habitations or installations mark this area although some improved surface roads wind back along and above several creeks and canyons. Because the rangeland is a highly hazardous fire area, especially during summer, no government agency would have been operating south of Toppenish Ridge without first notifying the fire organization.

Also, in the mid-1960s a logger was always coming down from the hills talking about funny-shaped objects. This logger's experiences are detailed in Chapter 9.

In summer 1971 concerned residents north of Toppenish Ridge repeatedly telephoned the Toppenish Police Department to report bright, white lights moving about or on the north slope of the Ridge, or remaining stationary over a small

area on the slopes. After varying lengths of time, the lights—usually one or two—would either move off or disappear instantly as if being turned off. The areas were inaccessible to normal land or foot traffic.

At 1:30 a.m., August 27, 1971, Vogel was in his government truck south of Toppenish on U.S. 97, patrolling the hilly, brush-covered countryside for possible fires from a previous afternoon's lightning storm; embers could lay dormant for days after strikes before bursting into life.

Vogel was suddenly startled by a flashing light in his rear-view mirror. He pulled over. The two Indian Agency law and order officers who approached him were looking for what they thought was a vehicle whose lights they had observed moving west of the highway between Dry Creek and Logy Creek. They wondered what Vogel was doing out at that hour. Vogel explained about the fire threat, and he and the officers stood and talked for awhile.

Once back in his truck, Vogel proceeded south on the highway, intending to drive the 25 miles to Satus Pass, which cuts through the Simcoe Mountains. A few minutes later, a brilliant, white light above a hill to his left caught his eye. His first reaction was curiosity as to why an airplane would fly so low with its landing lights on over this desolate area. After a second look, a feeling grew that something wasn't adding up. He let the truck coast to a stop near the side of the road. Later, Vogel wrote:

It was easy to see then that the object most certainly was no aircraft. Also there was no discernible lateral movement. Even without binoculars, the object's teardrop shape, with the small pointed end above, was obvious. Brilliantly white in the center, the outer edges were fluorescent tan or light orange with a surrounding halo-like glow. Its most awe-inspiring feature was a mouse-like tail or antenna protruding from the small end and pointing upward. The antenna, as long as the object itself, was segmented into colors of red, blue, green and white which were constantly changing brilliancy and hue.²

Vogel had won awards for his amateur photography. This night he had a 50mm single lens reflex camera with him. With the shutter set at 1/30 of a second and the lens fully open, he took seven or eight pictures, some at slower shutter speeds.

Plates 1 and 2 show the teardrop NL. Over a 90-minute period, the object traveled slowly south, vanishing over the Simcoe Mountains. Figure 4,A, shows the location of the object when first observed and its path (see arrow).

Vogel found no explanation for the light. Later, he used triangulation and calculated the altitude of the object at 8,500 feet.

Vogel told me: "Seeing that 'teardrop' was the turning point." He had been skeptical about UFOs; now he accepted the stories he had been hearing.

Late in the evening of August 28, 1971, several Forestry Division personnel were fighting a timber fire in the Satus Pass area (over which the teardrop had vanished from sight) when they saw a bright, white light pass over U.S. 97 and

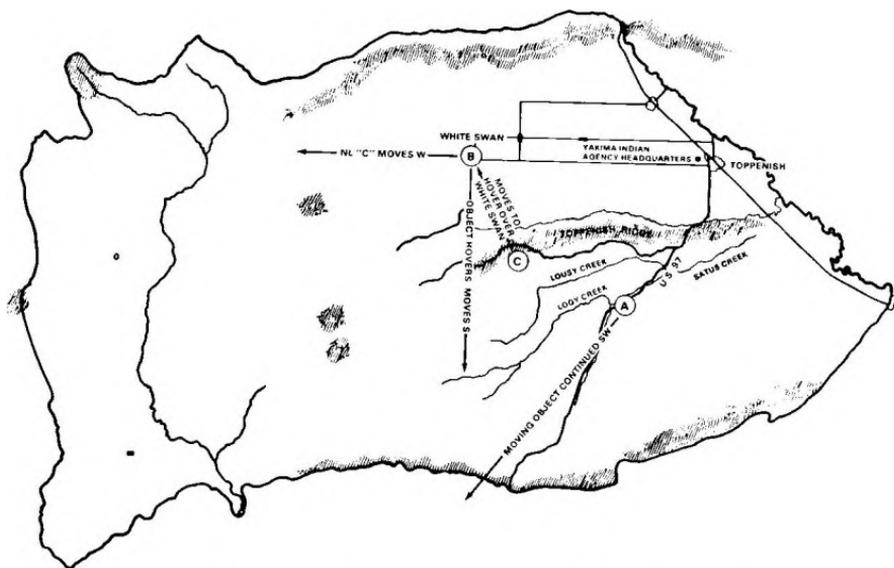


Figure 4. Path of aerial UFOs observed August-October 1971.

descend behind a ridge into a canyon several miles away. As the light entered the canyon, the canyon momentarily became well lighted. Vogel could locate no helicopters operating that night.

A week later at 1:30 a.m. Vogel spotted a light to the west and above White Swan (Figure 4,B). The object seemed similar to the teardrop. Vogel drove home, grabbed his camera with an 800mm telephoto lens and his tripod and photographed the object from the Indian Agency parking lot just west of Toppenish. The object moved south, over and beyond Toppenish Ridge. Vogel drove south on U.S. 97 but couldn't see the object. Plates 3 and 4 show the NL.

"Everybody," Vogel said, "suddenly became very conscious of the phenomenon."

On October 8, 1971, about 8:00 p.m., fire crews were fighting a fire just west of U.S. 97 on the Oak Springs Road, less than a mile south of Toppenish Ridge, when they sighted a bright, white light above the Ridge and near Toppenish Mountain, a prominent 3,609-foot-high peak 12 miles west of the Oak Springs Road-U.S. 97 junction (Figure 4,C).

The light had no recognizable shape and was rapidly changing color, continuously sequencing from white to green to red to blue to white. A fixed-wing aircraft was ruled out. The NL moved north, vanishing from view over the ridgetop. Vogel, having rushed to Toppenish to get his camera, watched the light from the Indian Agency parking lot. The light was now positioned over White Swan. In the 30 minutes it took Vogel to reach the parking lot, the object had traveled 10 miles, averaging 20 miles per hour. (The teardrop in August had made a similar gradual progress.) The slow speed seemed to rule out conventional aircraft.

The UFO remained motionless in the sky for the next half hour at an estimated 7,000 to 8,000 feet. Vogel took several time exposures. The light finally moved off slowly to the west and disappeared over the Cascades. The developed film showed a course to the light like a boomerang (Plate 8).

Vogel began writing down his and others' sightings while they were fresh. He sought an explanation, sending a copy of the mousetailed teardrop to the Grizzle Observatory at Wenatchee, Washington. The observatory explained the object as "most likely of terrestrial origin and could be a highly secret technological development."

To Vogel, the shape, color, silence and speed (17 mph) of the teardrop seemed to rule this out. He sent another slide—this time of the October 8 UFO over White Swan. This time, the observatory directors suggested that Vogel contact J. Allen Hynek.

On November 25, 1971, Vogel wrote Hynek, enclosing a copy of his slides. Vogel briefly related the sightings that had occurred in the rangeland, as well as some of the fire lookouts whom, he noted, had been with the Division of Forestry from 10 to 20 years and were not "the least bit 'spooky' or given to 'seeing things' which aren't there, or letting their imagination get the better of them. In fact, they are extremely reluctant to discuss such sightings, and then, only with supervisors such as myself."

Several years ago we were building a new lookout on the western end of Toppenish Ridge, and of course until construction was almost completed, it was difficult by looking at the site to tell just exactly what was being built—a lookout, radar site, or what. The site was within the view of three other lookouts, and all three observed that during the construction period, and after construction crews had left towards evening, two or three orange-colored balls (size uncertain although they couldn't have been too small to be so readily visible to lookouts located about 10 to 15 miles away) would be seen approaching the site from cross-country. They would drop down to just above the ground and circle the building four or five times as if inspecting progress. They would then move off again cross-country and disappear behind the hills. At the time of these sightings, none of the lookouts was aware that the other lookouts were observing the same things.

Last year (1970), our lookout on Signal Peak (about 19 miles west of Satus Peak and in the exact center of the western half of the Reservation), who has been with us for 13 years, and a very stable person, while looking out of her cabin window, observed a bright, white light out over Cedar Valley (to the south). This valley is a large, saucer-like timbered basin with no inhabitants. She moved outside her cabin to better see what it was. Knowing the country well and there being enough skylight to outline ridges, she could see that the light was not on the ground and yet was below the ridgetops. She said it was about as bright as a bright streetlight, and the distance would probably be about 10 miles. It was fairly late in

the evening. While standing approximately 15 feet in front of her cabin watching the light, she noticed this orange-colored object approaching her from the direction of the white light. It passed between her and the cabin and as it passed behind the cabin, she could look through the cabin front door and see it pass by the window in the back wall. It continued out towards the light over Cedar Valley and because of its size disappeared from sight. Right after a time interval of about the time needed for the object to reach the white light, the white light then went out. She said the object was a glowing, fluorescent orange, about the size of a basketball and made no sound. The sky was clear, there were no lightning clouds anywhere in the area, and there had not been for several weeks. It was several months before she decided to tell me of this happening. She has mentioned it to no one else since.

In 1964 our lookout at Sopelia Lookout located just east of Satus Pass on U.S. 97, looked out her window one evening [*sic*: midafternoon; see Appendix 1, Case 8] to the north and observed hovering just above the trees on the slope in front of the lookout, a round object giving off a bright, white light. She couldn't ascertain its size. Incidentally, she has been a lookout for us for 10 years and is very stable. She turned to the center of her lookout to reach for her binoculars, and when she turned back, the object was no longer visible. She opened the door to the lookout and stepped just outside on the steps to see if she could see the object. The roof has quite a wide overhang which prevented her from seeing directly overhead where she stood. However, there was a noise which completely filled the night air although it was not unusually loud. The sound resembled the noise made by a whirlpool. She had an overpowering feeling that under no circumstances would it be wise for her to step out from under the overhang. The conviction was so strong that she immediately returned inside the cabin, quite frightened. The noise shortly disappeared. The night was clear with no clouds or wind.

The lookout on our Satus Lookout (at the western end of Toppenish Ridge) has the habit each morning, when first awakening, of sitting up in bed and looking around over the countryside to see if any "smokes" have appeared during the night. On this one particular morning this past summer, she observed this bright, white lighted object hovering near the ground a short distance from her lookout. As near as she could tell due to the brightness, the object was round. (At the time she told me of this happening, I did not ask her the estimated size.) As she sat watching the object, two smaller, similar objects approached the large object and either entered it or were absorbed by it. It then moved off at not too great a rate of speed until it disappeared beyond the hills.

A month later Hynek wrote Vogel: "As yet I cannot explain your observations, except to say that they fall into that large class of reports which also cannot be explained. There is no doubt we have a mystery on our hands."

In April 1972 Hynek drove to Toppenish from Seattle where he was attending an astronomical meeting. Vogel took Hynek out to the Oak Springs Road to overlook the rugged rangeland south of Toppenish Ridge where many lights had been observed. Afterwards, several fire lookouts and other witnesses met at the Indian Agency and were shepherded into a closed room where Hynek questioned them. At the end of his five-hour visit, Hynek stated that the level of UFO activity on the Reservation seemed the highest of any place he knew of at that time.

On June 21, 1972, Hynek wrote the Tribal Council chairman asking permission to station an observer on the Reservation in the summer.

It would be of greatest scientific importance. . .to attempt to maintain a serious watch for these strange lights this summer. It would be most important, for instance, to have a given light observed from two or three different locations so that a surveyor's "fix" could be obtained giving us the distance and height of the light. Then, working from the apparent brightness of the object and, knowing the distance, we could compute the actual energy output of the light. This coupled with photographs and, hopefully, a spectrogram of the light would do more to advance the study of the UFO problem than anything that has been done previously.

The Tribal Council granted Hynek's request. David Akers of the Aerial Phenomena Research Organization (APRO), living in Seattle, volunteered his resources and time. He and the San Diego, California, chapter of APRO built and assembled a variety of scientific instruments for the summer project.

The *National Enquirer* at this time was publishing well-investigated UFO reports. Hynek was a member of its Blue Ribbon Panel of UFO experts that evaluated potentially scientifically valuable UFO cases. The *Enquirer* agreed to pay for Akers's living expenses while he was on the Reservation in exchange for a report of his findings.

As Akers readied his instruments in Seattle, a major wave of UFO sightings was spreading across the United States. On July 9, 1972, Vogel wrote Hynek, complimenting him on his recently published book *The UFO Experience*. Vogel also reported on a man's observation of a UFO south of Toppenish. "The man described the UFO as a fairly bright, hovering light which changed from green to blue to red and had smaller white lights apparently revolving or circling it. After about five or 10 minutes of this, the smaller white lights disappeared and the larger object moved off to the northeast at a high rate of speed." The color of the object's lights matched perfectly those of the October 8, 1971, object that moved slowly from over Toppenish Ridge to hover over White Swan.

When Akers arrived in Toppenish, his only comment about the local UFOs to Vogel was: "There is really something big going on here."

4



UFO STAKEOUT

David Akers had been investigating UFO sightings in Washington state for APRO since 1966. The experiences ran the whole gamut of UFO phenomena, he told me, "from objects to strange noises, electromagnetic interference of automobiles by UFOs, all sorts of outlandish things." During these years, he had never seen a UFO, and he had taken only a few observational tools and a camera with him on his investigations. The reports of sightings on the Reservation attracted him; here was a chance to collect more than anecdotal reports. With the appropriate instruments and cooperation of the Reservation officials, he planned to observe and record, firsthand, UFO events while they were actually in progress. As an engineer, he welcomed the opportunity to gather hard data. The Reservation project could turn out to be the first historical instrumental field study of UFO phenomena, which hopefully would reap valuable information about the material nature of the objects. For the study to succeed, it would have to be carefully planned, organized and executed with utmost care.

Akers began by traveling to the Reservation to determine the lay of the land. It would be critical to set up his instruments in locations which could afford excellent views of the hills and ridges where the UFOs had been reported. It was also important to find out-of-the-way places where he could remain unnoticed—to both people and traffic on the Reservation as well as to the UFOs. Bill Vogel had told him that the UFOs seemed to disappear when the fire lookouts alerted each other to them over the fire control radio network. Akers planned to be flexible and

unobtrusive; this was the way he had investigated sightings in the past, creating no publicity and drawing no attention to his work. He would repost himself and his instruments whenever he felt he could get closer to the phenomenon, but would not attempt to chase the UFOs. He would wait for the UFOs to come to him. I wondered if this strategy meant that Akers believed the UFOs possessed awareness, that he was afraid of exposing himself to the intelligence out in the open. But it seemed to me that because there was no evidence to support his belief in the intelligence of the objects, he wasn't carrying out a truly objective investigation. "Bill had observed before that whenever the UFOs were mentioned on the radio network, they disappeared," Akers answered me. "There are many things in nature that appear to act purposefully but aren't intelligent. But I had to go on the basis of what Vogel and others were reporting."

Patiently, for several days and nights, Akers became acquainted with the normal activity in the areas where he planned to set up his portable data collection system. Familiarity with his surroundings would help him to separate ordinary objects around him from truly anomalous objects, should they appear. He planned to man the posts generally between 9:00 p.m. and 1:00 a.m., the time period when the UFOs were reported to most often appear. During the day, after catching up on his sleep, he would gather data on other sightings he came across and compile geographical and other useful information.

As Akers reconnoitered the Reservation, Bill Vogel visited the fire lookouts and instructed them on how they should call each other's attention to UFOs over the Forestry Division radio system without naming the objects; they would use the code name "10-50" for "UFO." He also asked the fire lookouts to cooperate with each other in zeroing in on an object using azimuth readings and cross-shots. The lookouts would also alert Vogel in code over the radio so that he could attempt to photograph any UFO that was sighted. Akers would also have free access to the radio system to communicate with Vogel and the fire lookouts. Vogel, the fire lookouts and Akers all agreed to minimize radio transmissions whenever possible to avoid disturbing anyone who monitored the 110-unit radio net on a 24-hour basis.

In mid-August Akers arrived on the Reservation in a vehicle packed with a variety of instruments (Plate 9). One of two single-reflex cameras would be used for recording light from the UFOs visible to the human eye. This camera was fitted with a 500mm, f8 catadioptric-design lens, which produced a 5-degree field of view. The second single-reflex lens camera was equipped with a 55mm lens and replica grating to analyze the wavelengths of light emitted by the objects. A rangefinder camera held black-and-white Kodak high-speed infrared film and had a special filter for recording radiation in the near-infrared spectrum. A motion picture camera was fitted with an 18-66mm, f2.7 zoom lens, but could also be operated with the same 500mm still camera. Both the still cameras and the motion picture camera used Kodak High-Speed Ektachrome, Type B film selected for its high exposure index, good resolution characteristics and reasonable exposure latitude.

In addition to these cameras, Akers brought a standard time receiver which

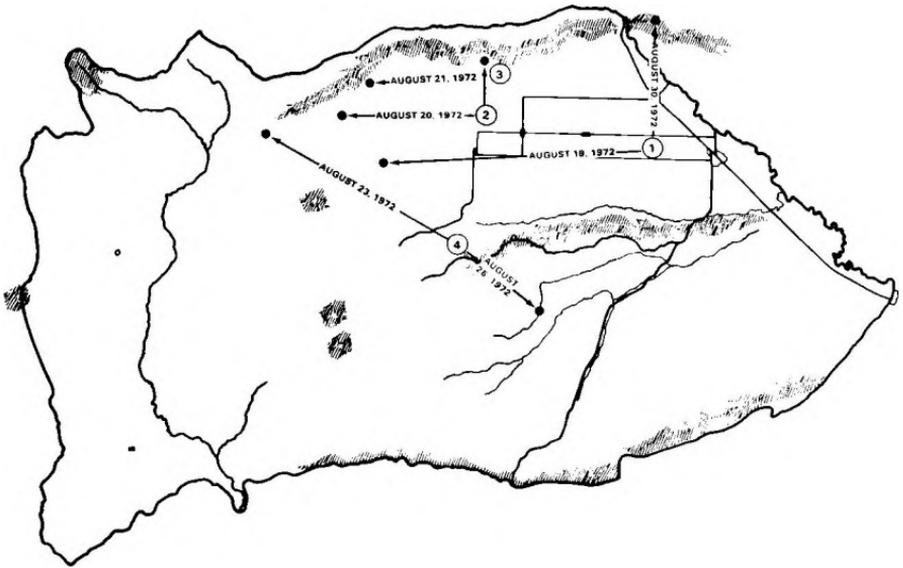


Figure 5. Akers's viewing positions, dates of his observations, and locations of the observed UFOs during the UFO stakeout.

picked up National Bureau of Standards time signals and served as a time reference for measurements. An electronic compass spin detector was also deployed during the observations. The signals from the time receiver and compass, along with his commentary, would be fed simultaneously into a tape recorder as the UFO observations unfolded.

APRO's automatic recording magnetometer would be used to record changes in magnetic fields and to detect rotational force vectors of possible paramagnetic nature. Akers also had instruments for measuring nuclear radiation, infrared radiation, and ultrasound frequencies.

Akers checked into a Toppenish motel and telephoned Vogel. The fire control officer had a UFO he wanted Akers to see that evening. Vogel had been receiving regular reports from citizens living near Toppenish Ridge and from a deputy sheriff and other law enforcement officials of a "fire" that kept appearing at night on the Ridge. Vogel himself had observed it several times from Toppenish. The bright, fluorescent ball would sit in the same place for five to 30 minutes and then slowly move westward along the side of the Ridge for a half mile or a mile, then fade or abruptly go out. When Vogel joined the puzzled deputy sheriff, Vogel knew that this was no fire, but the egg-shaped, bright orange light. As Vogel watched, the egg proceeded to move up the Ridge and glided over the top, vanishing over the other side. That night Akers joined Vogel at an observation point and viewed the light himself, his first Reservation UFO sighting.

On August 19, 1972, Akers launched the project, setting up his instruments five miles west of Toppenish just north of the Fort Road (Highway 220) and west of the South Wapato Road. This location is marked as number 1 on Figure 5. The

arrows depict Akers's line of sight, and the black circles are the approximate locations of the UFOs he would observe. Although Akers was stationed relatively close to a populated center, his position gave him an unobstructed view of all the ridges—Toppenish Ridge to the south, Ahtanum Ridge to the north, and the ridges that begin to rise west of White Swan at the end of the Fort Road. Because he was near farms and roads, rather than in an open, uninhabited area, he also felt less conspicuous to the strange objects, and to passersby. Yet he would find that when anyone happened upon him and asked him what he was doing, his answer that he was studying the lights so often reported on the Reservation was accepted without comment. The local residents, it seemed, accepted the UFOs as something routine in the area. On this first night of the stakeout, a light breeze was blowing from the northwest, the temperature was mild and the sky was overcast with cumulus, although the stars were visible overhead and to the south. Occasionally the moon appeared through the clouds.

At 9:15 p.m. a luminous, round light suddenly appeared west of White Swan at an angular elevation of 10 to 20 degrees and well below the hills. At a distance of about 19 miles, the light was west of the Fort Simcoe Job Corps Site and north of Hunt Creek. At 9:37 p.m. a second light joined the first one. Akers described what he observed in his report on the UFO stakeout project:¹

The two objects were apparently round, with a reddish-orange glow and no clearly defined outline. The diffuse glow was evenly distributed over the surface of each object and no discontinuities were visible. The light flickered noticeably, in much the same way as a flare might look when subjected to a strong wind. The object would appear and disappear as if being switched “on” and “off.” Color hue and saturation appeared to remain constant as the light flickered, but apparent size appeared to change.

Movement of the objects was erratic and discontinuous. They appeared to move independently, circling and changing places in relation to one another. The lights operated below the ridge of the hill at all times during the observation. They were last seen at approximately 10:10 p.m. Intensities gradually diminished and time between “on” cycles became longer until they were no longer visible.

The unusual kinematics and physical appearance of these objects strongly indicate that they did not arise from mundane causes, such as car or motorcycle lights.

Using the 500mm single-reflex camera, Akers managed to successfully photograph the lights, either singly or together, four times—at 9:37, 9:38, 9:39, and 9:42 p.m. (the light photographed at 9:39 is on the cover of this book).

In an interview, Akers told me that through his binoculars these round lights did not appear to be three-dimensional. “If you took a low-resolution computer graphic and plumped it down on the hillside, this is what they looked like.” He also noticed that very frequently “they appeared to move in spurts. When they were

animating themselves, they would flicker from one spot to another, but you couldn't see them moving in between. They were flickering at rates of 16 to 20 Hertz."

As was his practice throughout the field study, Akers immediately wrote down his impressions after the sighting to assure total accuracy while his memory was fresh.

The next night Akers moved his instruments to a field west of the intersection of Wesley and Branch Roads, which cross at the northwest outskirts of White Swan (Figure 5, location 2). He hoped to get closer to the activity of the previous night. However, rather than first observing lights to the west, he sighted lights to the north (arrow, Figure 5), approximately 5½ miles away at the base of Ahtanum Ridge. The lights, which appeared to be automobile taillights, were seen at 9:05 p.m. A west-east road does run along the base of the ridge, and thus Akers could not rule out an automobile. Yet what happened next was startling:

The taillights stopped moving, and shortly thereafter two luminous, amber "balls" came rapidly down from near the top of Ahtanum Ridge, circled around each other and approached the red lights. All of the lights next went out, suddenly and simultaneously. The whole observation lasted less than 2 minutes, and no sounds were heard.

Akers scanned the horizon in all directions for over an hour, observing nothing. Then:

At 10:12 p.m., two "vehicles" with red lights were observed moving rapidly up and down the hillside, approximately 10 degrees to the left of the first observation. Their distance was again about 5 miles. Each "vehicle" had what appeared to be an amber headlight which swept rapidly back and forth over the ground ahead of its path. The actual source of the "headlight" was never seen, regardless of whether the object was going up or down the hill. Only the beam cast on the ground by this "headlight" and the red light were visible.

The objects appeared to move independently of each other and traversed the distance from near the base of the hill to the top of the ridge (approximately 900 feet of elevation, at an angle of 60 degrees to horizontal, in less than 10 seconds [over 60 mph]). Again, no sound was heard. The objects disappeared from view about 10 minutes later.

At five miles, Akers thought he should have heard engine noises if he were observing man-made machines, but he heard nothing. "I had the sense they were vehicles," he told me, "and they were airborne."

A little over an hour later (11:19 p.m.), Akers was shaken up by the sudden appearance of an object to his left, to the west, as he continued to watch Ahtanum Ridge to the north. "That [UFO] was the spooky one. It kind of snuck up on me. I thought it was a planet at first." But the object was well below the overcast, which

completely obscured the sky. The object had the shape of a large, brownish-orange ball and flickered slightly. It appeared positioned above Rattlesnake Ridge, 15 miles away (arrow, Figure 5).

Akers swung his camera around, the tape recorder running on the car hood as he described in the dead of the night what he was seeing. "I had it cold," Akers recalled, "but the moment I turned the camera on it, *poof!* it was gone."

Later, Akers discovered that his commentary was missing from the tape. Apparently he had rewound it in his excitement and failed to start the machine. "It was no big deal," he told me, but he found his error puzzling. It was obvious that this sighting frightened him.

At 8:52 p.m. the next night, August 21, he sighted and photographed a luminous ball similar to the one of August 19 (Figure 5, location 3; Plate 5). The ball appeared to the west at a distance of about 10 miles and appeared to be stationary at the base of a hill. Orangeish-white, the ball blinked on and off several times before going out. It was difficult to determine whether or not the light was actually the headlight of a motorcycle; however, the size and intensity of the light suggested otherwise.

Having obtained several photographs of NLs from the Valley floor, Akers decided to move his operations to Satus Peak (Figure 5, location 4), joining the fire lookout who had seen unexplained lights from the high mountaintop since 1964. Fearing ridicule, she did not report her sightings to anyone until the fall of 1971 when she read of Vogel's UFO sightings in a Yakima newspaper. She now regularly reported unusual lights to Vogel, and provided Akers information on lights she had seen and was now observing.

Akers pitched a tent in a nearby pasture and settled in. Despite being out in the open in unfamiliar territory, miles from the nearest town, he felt safe and comfortable. The Satus Peak fire lookout station would offer an excellent view of much of the Reservation, and the lack of interfering man-made lights on the mountaintops provided a clear line of sight onto the terrain below him. Although the Valley-floor observation posts would often be subject to irritating light and haze, Akers had good views of Toppenish and Ahtanum Ridges and the Dry Creek area where much of the activity had been reported.

Once his instruments were set up on the peak, Akers began observing on the evening of August 22. Nothing out of place was noted until the evening of August 23. At 10:10 p.m. Akers and the lookout sighted a bright, white light moving very rapidly through a wooded area southeast of Piscoe Meadow, at a distance of 18 miles (arrow, Figure 5):

The light moved so fast that it gave the impression of a streak. It would appear stationary for a moment, then, almost instantaneously, appear some distance away (typically 10 degrees of arc through 7x50 binoculars). After another brief pause, it would dart back in the opposite direction. When stationary, the object appeared through the binoculars as an intense pinpoint of white light. The sky was clear and the moon was rising, but there was considerable haze in the Valley. All car lights observed this

evening had an orange cast. The observation lasted about 1 minute, and no photographs were obtained.

Then at 12:30 a.m., Vogel radioed the Satus Peak fire lookout from his position in the Valley. He asked if Akers was up and around. The lookout replied affirmatively, and the transmission was terminated. The next day Akers learned that Vogel had spotted a tan-colored, slow-moving (approximately 50 to 60 mph) light from the freeway near the town of Parker, 28 miles northeast of Satus Peak, in the far northeast corner of the Reservation. The light moved west to over White Swan, then turned south and passed over the Satus Peak station, headed east, then turned south and disappeared in the distance. Vogel feared making any direct mention of the object when he radioed, believing his message might be overheard by the object. Yet he felt that Akers should not have missed seeing the light, given its brightness and proximity to the lookout station. Akers, although he stood outside the cabin and had a clear view of the sky, saw nothing—not before, during, or after Vogel's transmission. The engineer concluded: "The observer in the Valley is known to be extremely reliable, and there is no reason to doubt his word. This 'non-observation' rates very high on the strangeness scale."

Nothing was seen the next night, and Akers spent much of his time interviewing the lookout. Then on August 26, Akers unknowingly photographed what appeared to be two lights in an area where NLs had often been seen before (arrow, Figure 5). During most of the night, Akers had intermittently observed lights along a rugged ridge southeast of Satus Peak. The ridge was in the Dry Creek area where lights had been reported by Reservation officials during 1971. Appearing and disappearing at random, the lights suggested the activity of cars or campers. Between 1:45 and 1:47 a.m., Akers took a time exposure of the activity area with the 500mm lens, set at f8. Later, when the film was developed, lights appeared on the film, which Akers had not seen at the time.

For the next several days, nothing unusual appeared from observation posts Akers set up at Signal Peak and Sopelia Mountain, and Akers decided to return to the first site in the Valley outside of Toppenish (Figure 5, location 1). At 9:18 p.m. on August 30, Akers and Vogel, who had joined him at the post, sighted a luminous, orange ball 11 miles to the northwest situated between the base and top of Ahtanum Ridge. The ball appeared to be following the hills of the ridge and was similar to the UFO sighted on the first night, August 19. Akers made a 60-second time exposure of the ball before it disappeared.

At 11:39 p.m., the apparent same UFO reappeared, this time almost due north, directly below and in line with a microwave tower about 8½ miles away:

The object was clearly visible through binoculars and appeared as a sharply defined, brownish-orange disk. It gave the impression of being flat, and the ground near it could be seen illuminated by the glow. The object disappeared by "turning off" before the camera could be trained on it. The foregoing observations could not be accounted for in normal terms.

When Akers developed the film, he noticed that the ball was not clearly defined, but was an uncharacterized luminous mass that had moved in spurts (Plate 6). Akers was satisfied that no obstructions had been present between the camera and the NL during the exposure which may have blocked light coming from the object as it moved, creating gaps in the light trail.

The brownish-orange disk Akers saw had also appeared to be one-dimensional, like the balls he had seen on the first night of his stakeout.

With only two weeks allowed for the project, Akers concluded his investigations on September 1, 1972. On November 2, 1972, he submitted his report to Hynek and the *National Enquirer*. Akers concluded that the primary objective of the project had been met—demonstrating the feasibility of a field investigation in which the stakeout technique allowed observations and instrumented recording of the phenomena. Unfortunately, because the UFO activity was at a great distance—the closest object was 5½ miles—Akers acquired only a few photographs. Also, technical problems prevented him from acquiring a spectrogram of the light from any of the objects. Another disappointment was the 16mm motion picture camera. Because the reflex viewing system in the camera used a half-silvered prism, this prism could only transmit a small portion of the light coming from the luminous objects. With limited light in the viewfinder, a recognizable image was not formed to allow tracking of the objects. These problems prevented the acquisition of extremely valuable data that could have answered questions about the material nature of the UFOs.

The compass spin detector was deployed during most of the observations, but no anomalous compass deflections were observed. The recording magnetometer was also used, but only a few times, and no definitive data were collected although the device was activated more than once in the Satus Peak lookout. This was likely the result of mechanical problems. For the logging of the exact times of the sightings, the exposure of the photographs, and Akers's personal observations during the events, the tape recorder was invaluable.

Despite technical difficulties, Akers was pleased with the results. Even though it took an hour or more to set up and tear down the instruments each night, and the long hours in the field were tiring, the effort was worth it. It had been the experience of Vogel and the fire lookouts that the best chance of observing UFOs would be in August, and this turned out to be true. Akers had planned to go after hard information, and had gotten it: the photographs were unequivocal evidence that the reports he had been hearing were true. He concluded in the report:

This investigator is satisfied that genuine UFO activity has been and is still taking place on a more or less regular basis in the Toppenish area. However, there was nothing in the nocturnal light observations made during the study which would suggest conclusively that the source of the activity is extraterrestrial. On the other hand, something very *strange* [Akers's italics] and unusual is taking place.

More than just acquiring photographs of genuine UFOs, Akers also discov-

ered much about himself and the physical challenge of gathering useful scientific information about the objects. At the end of a long day, he often suffered from headaches from talking to witnesses, recording their testimony and performing demanding visual observations. Because the UFOs were outside the context of known experience, he found himself at night working in a new frame of reference which evoked an unusually high level of anxiety and alertness. He also expended a great deal of energy on the painstaking cultivation of contacts and friendships with Reservation personnel, an even more important project whose success was required so that he could move freely on the Reservation.

Despite the very real strangeness of the objects, there was no evidence that they were more than that—strange, unknown objects that hopefully science could explain. “The problem warrants a very careful and objective examination,” he wrote. I pressed Akers on his feelings about the apparent intelligence of the objects. The soft-spoken engineer drew no conclusion; in fact, he seemed unusually cautious, even unduly conservative about his experiences.² Yet in the course of my investigations into the Reservation UFOs, I heard the following story about Akers from two people independently of each other. In the summer of 1980 Akers was on Satus Peak with the fire lookout and three other people when around midnight a glowing orange ball appeared over buttes to the southwest. “Everyone grabbed binoculars, and we ran out onto the catwalk and watched the object for quite awhile. Dave said: ‘Now I’m a believer! Now I’m a believer!’” This reaction seems strange considering that he had seen UFOs before. When I asked Akers about this event, he told me he didn’t remember anything about the occurrence, which I find difficult to believe. Is Akers afraid that the objectivity of his observations could be damaged by his emotional reactions to the strange things he has seen?

As Akers began writing his report, Bill Vogel reported to the Yakima Tribal Chairman that the engineer “had several interesting sightings, particularly of lights which couldn’t be accounted for, although there was a noticeable decline in UFO activity once it became known that he was working on the Reservation.” Throughout the summer the fire lookouts had observed lights (although the total number had been small), and during early August UFO activity had picked up. Yet when Akers arrived in mid-August, sightings abruptly dropped off. Did the decline in sightings simply coincide with his arrival? Was it only coincidence that the brownish-orange ball over Rattlesnake Ridge and the one-dimensional disk on Ahtanum Ridge had gone out at the exact moment Akers brought his camera to bear on them? Or were the objects aware of Akers? (This isn’t the last time we will confront the question of whether the Reservation UFOs are intelligent.)

Even if we set aside any speculation as to the motives of the Reservation UFOs, it is clear that Akers’s study proved that the persistent reports of strange aerial phenomena on the Reservation were true, that something real was being seen, that it emitted light in the visible spectrum, that it hovered, moved and cast light on the ground.

For Bill Vogel the drama was only beginning. He continued his late-night patrols, keeping watch for the lights, a camera with him at all times. UFO activity

had diminished; if it had done so because of the presence of an outside observer, there was no way to tell. Luckily, Vogel liked to keep late hours, and this helped him monitor UFO activity. He also regularly listened to police radio traffic and kept in close contact with the fire lookouts. More importantly, Vogel was patient. Like the fire lookouts, he had plenty of time on his hands. Sure enough, before Akers finished his report, the UFOs were back.

5



LIGHTS AND CRAFT: ONE AND THE SAME?

Akers would return to the Reservation many times over the next few years to investigate other sightings. It wasn't long after he completed his stakeout and returned to Seattle that the UFOs returned; and several news stories in the Toppenish and Yakima papers in late November and early December 1972 elicited more reports.

From 1972 to 1974 Vogel found himself busy writing reports and corresponding with other UFO investigators who were curious about activity in the Yakima region. The reports from this period fall into two categories—*lights* and *craftlike objects*. These categories symbolize, to an extent, a central, nagging question of UFO studies: Are UFOs a natural, non-intelligent phenomenon (some kind of light), or a craft—either extraterrestrial or manmade?

This division of Reservation UFO reports into the light and craft categories first became apparent during Akers's stakeout when he reported his observations of both round lights *and* seeming vehicles with amber beams.

Let us survey, in capsule form, the reports Vogel collected from 1972 to 1974 that fall into these two categories.

Lights

The lights reported in 1972–1974 can be divided into three sub-categories: lights at ground level, lights above ground level, and high-altitude lights.

Lights at Ground Level

- February 20, 1973, sometime after 6:00 p.m. A Yakima County fire official observed from his residence four bright, flashing red lights situated on the lower one third of the slope of Toppenish Ridge. The lights were moving back and forth in lines, as if traversing a winding road. Thinking of fires, an Indian police unit drove to the Ridge to check on the lights. Upon arrival, no activity was visible.

- July 22–23, 1973, 10:45 p.m.-1:00 a.m. David Akers and the Satus Peak fire lookout watched three orange lights hovering below the ridges of the Horse Heaven Hills 18 miles to the southeast. The lights flickered and moved slightly, disappearing almost simultaneously, then reappearing 15 to 20 minutes later nearly simultaneously. Akers excluded automobiles or motorcycles.

- July 24, 1973, 10:45 p.m.-midnight. The Satus Peak fire lookout watched a bright, red light moving less than a mile away to the north, below the lookout station in a roadless area and near Mill Creek Canyon.

Lights above Ground Level

- Late September or early October 1972, 11:45 p.m. While watching an Air West flight departing Yakima and climbing for altitude over the Horse Heaven Hills, Vogel saw a white, star-like light coming from the east and lower in altitude (below the 6,000 feet of the airliner). As the object neared the airliner, the white object went into a rapid, steep climb on a collision course with the jet. Just before the object reached the jet, it disappeared (“went off”).

- February 19, 1973, 7:00 p.m. The Olsen family (pseudonym) observed bright, white lights on or above Hembre Mountain. The lights seemed to move in the pattern of a circling airplane, turning bright red and flashing. Vogel discounted aircraft.

- April 2, 1973, 10:43 p.m. In bed, a 10-year-old boy saw a yellowish ball of light about the size of a soccer ball or basketball descend from the vicinity of power lines outside, then approach and vanish around the corner of the house.

- April 3, 1973, 11:45 p.m. Vogel observed a tan-colored light slightly north of Toppenish Ridge, moving at under 200 mph west to east, parallel to the Ridge. The object was like the one that circled Satus Lookout during Akers’s stakeout, and like the one that shadowed a jet in October 1972. The next morning a Forestry secretary confirmed seeing the same object at the same location and same time.

- April 4, 1973, about 1:15 a.m. Awakened by a high-pitched whining sound, a boy observed a large fluorescent or slightly glowing, whitish-blue object with darker blue-colored spots scattered over its surface passing over his house. He watched it disappear to the east toward White Swan.

- June 22, 1973, afternoon. The Satus Peak fire lookout was looking out the window of the cabin door when a bright, red color caught her eye. She grabbed a loaded Kodak 35 camera, opened the screen door and photographed the object through the screen mesh. The object, coming from the south-southeast, moved to

the northeast, vanishing behind a cloud. The object was “brilliant red and large.” Plate 11 shows the object. A thunderstorm had been in the area earlier.

- July 27, 1973, 3:00 a.m. Two men at the Dolson Dairy four miles east of Zillah sighted a silent object traveling in front of the hills west of Granger. The object followed the line of hills. The object appeared as a pair of reddish-orange lights fixed in relationship to each other and attached to a body or fuselage of some sort. The lights were spinning around this body. The object was traveling about 3 to 4 mph.

- July 27, 1973, 3:38 a.m. A deputy marshal was traveling just west of Zillah when he saw two side-by-side orange balls of light straight ahead of his patrol car and above and behind trees in the Zillah Cemetery. After shining his spotlight into the yard of a house to his right, the officer looked back and saw the lights moving in his direction. He drove onto the cemetery grounds and watched the round, well-defined lights from a vantage point overlooking the Yakima River. The lights maintained a very rigid spacing as they executed several slow turns, finally disappearing from view towards Granger. During the sighting, the witness radioed the Toppenish dispatcher and said in no uncertain terms he was not watching a helicopter.

High-Altitude Lights

- Week ending October 14, 1972, about 7:00 p.m. While on the roof putting up a TV antenna, Vogel and his son sighted a very pale orange or sand or buff-colored object trailing a jet plane flying at 6,000 to 8,000 feet to the northeast. The object was trailing two to three miles behind the jet “as if tied to it by a string.” When the two reached a point over Wapato, “the amber light went out. . .gave two or three bright red flashes, the amber again came on, and the object gently curved off to the south as the plane continued northwest.” The object disappeared out of sight to the south but at reduced speed.

- August 25, 1973, 7:30 p.m. A camping party at Mt. Adams Lake 10 miles north-northwest of Signal Peak saw a rapidly moving, large, white ball of light coming from the northwest. It was extremely high. It passed overhead. Fifteen minutes later, two smaller lights—the front one orange, the rear one white—appeared over Mount Adams and traveled to the northwest. The party believed they weren’t meteors.

- Summer 1974. The fire lookouts recorded observations of high-flying white lights traveling in an easterly direction. Two white lights went out simultaneously; another faded out, and 18 minutes later another light appeared, heading east, where it vanished in the distance.

- June 15, 1974, 10:18 p.m. A Yakima tribal judge sighted an orange-red object moving easterly at 50,000 feet (an over-estimation of altitude?); it veered south and passed from sight four minutes later.

- July 20, 1974, about 2:00 a.m. Vogel and a deputy sheriff, while on patrol on the Track Road north of Wapato, sighted an orange-red light west of Satus Peak, approximately 20 miles away. The apparent size of the object was an “eraser

on a pencil.” Vogel used the top of the railroad embankment as a reference point to gauge any movement of the light. There was none. The light remained steady until 2:05 a.m., at which time it faded in intensity, turned white, increased in intensity and then went out.

We could postulate that the lights in the first group, because they were seen at ground-level, are somehow associated with the earth, that is, unknown processes in crustal rock. We will explore this idea later when we test the Tectonic Strain Theory of UFOs. Vogel did photograph a low-level, round, white object in February 1973, which suggests a possible earth connection. Plate 10 shows the object hovering on the bottom slopes of Toppenish Ridge.

For years, ufologists have been exasperated with nocturnal lights, calling them vague or characterized by “low strangeness.” Certainly it is possible that the flashing red lights near Hembre Mountain (described above) were aircraft lights. There was a storm in the area when the fire lookout photographed the red ball (ball lightning?). The yellowish ball that descended from near power lines. . . this could be something akin to a plasma. The high-altitude lights? Their west-east pattern suggests satellites or meteors or space debris.

But what about the craft reports? These reports contain signs of “high strangeness,” a term Hynek devised. A high strangeness UFO sighting is extremely difficult to explain due to its bizarre content and the strong probability that the sighting occurred just as the witness reported it.

Craft

- Mid-October 1972. Near Toppenish Ridge and the point where an orange object continuously appeared above its slopes (August 1972, Chapter 4), a 10-year-old boy walked out to the mailbox to get the mail. Suddenly, a gray, plate-like, silent object as big as an airplane flew quite low over him. Frightened, the boy got his minibike and started down the road to his grandmother’s. The object reappeared, and he stopped his bike and ran into some heavy brush alongside the road and hid. The object came right over the top of the brush very slowly as if looking for him, then left.

- March 13, 1973, just after 7:00 a.m. Driving on the Fort Road east of White Swan, a fire lookout saw an object hovering over the Satus fire lookout station on the top of Satus Peak, about 8 miles distant. The fire lookout pulled over. The object was shaped like an “old dinner bell with the handle on top.” Larger than a small aircraft, the object was metallic gray, except for a strange fluorescent, orange glow in the mouth of the bell at the bottom. After hovering five to ten minutes, the object moved slowly northward in jerks. The jerking motions lasted about 15 to 20 seconds. Then the object accelerated, disappearing out of sight west of Yakima.

- August 1, 1974, about 11:00 p.m. A married couple and a friend driving on the West Wapato Road along the foothills of Ahtanum Ridge saw a number of lights on the ridge. Red, green, blue and white, they were spinning on a car-like

object. They filed a police report which stated the object had “two red lights in the back and two white lights in the front. . . . the back lights turned blue and the front lights turned green.”

- September 21, 1974, 9:45 p.m. A couple observed from their car a red, a blue, and a yellow light arranged in a triangle configuration. The object appeared to remain over them until the couple approached a city police car. Vogel reported: “They said that the way the object [lights] acted, they got the idea it wanted them to follow.”

The difference between the craft and lights above is distinct: as reported, the craft suggest a material mass or form extended in space. Unlike so-called vague nocturnal lights, it is difficult to explain these craft away. Yet, should we be so quick to discount nocturnal light UFOs only on the basis of distance and nighttime viewing conditions? For example, consider the “above ground-level” UFO of July 27, 1973. The witnesses stated that the two round, orange lights seemed to be attached to a body of some sort, and that there was a mass between the orange lights. Here is a case of lights seemingly affixed to a material structure.

We should also recall the fire crew that saw an NL over Toppenish Ridge on October 8, 1971 (pages 11–12). It was rapidly flashing white to green to red to blue and back to white, the same colors as the lights on the car-like craft object presented a moment ago (August 1, 1974). And the object Vogel reported to Hynek that hovered south of Toppenish (page 14) was also changing colors—from green to blue to red, and had smaller white lights apparently revolving around it.

Other evidence of the possible interconnection of lights and craft: Akers observed round, orange lights. The dairy workers and deputy marshal reported round, orange lights—but on a fuselage. Clearly, it is dangerous to conclude that any UFO described as a light is only a light. Here is a most dramatic example where a light suggests more than a poorly understood but innocuous natural phenomenon. This fact will have serious bearing upon our test of the Tectonic Strain Theory of UFOs.

Vogel received a report from two Tribal members who were coming down Hitchcock’s Logging Road through Toppenish Ridge shortly after dark fell in the summer of 1972. When they reached Coyote Gulch, they noticed a *bright, white, round light* on the side of Toppenish Ridge in the vicinity of the Slide Lakes. The men stopped their vehicle to get a better look.

Suddenly the light moved toward them. The men got back in their vehicle and proceeded rapidly towards the Valley and White Swan. The light swung directly behind and slightly above their vehicle and paced them. The interior of the vehicle suddenly became unbearably hot. The light followed them until the men reached Toppenish Creek, a distance of a mile. The interior remained extremely hot with even the steering wheel hot to the touch.

“As they reached Toppenish Creek,” Vogel reported, “the object veered off and returned towards its original location. As it departed, the vehicle interior almost instantly cooled off. The next time they looked back towards Toppenish Ridge, the light was no longer visible.”

Can a natural phenomenon, a light, hover and then move from its location, pace an automobile for a mile, and then veer off and return toward its original location?

November 2, 1972, about 7:00 p.m. A Federal police officer and his wife observed a “very bright star” about 2,000 feet above the Fort Road (Highway 220). The bright, white object gradually grew larger, then exploded into a Fourth of July fireworks-like display. “Within about two seconds,” Vogel reported, “a winged-like object moved slowly west out of the fireball—then suddenly zoomed from sight.” The fireball disappeared as the winged object flew away.

A “light” that underwent a *transformation*?

Clearly, Nocturnal Light UFOs cannot be so easily dismissed. Clearly, a connection may exist between NLs and craftlike UFOs. This is a problem we will return to in the conclusions.

6



CLOSE ENCOUNTERS ALONG TOPPENISH RIDGE

During my investigations, Bill Vogel suggested I contact a family that lived just off the Pumphouse Road which runs east-west along the lower north slopes of Toppenish Ridge. He said the family had had a number of UFO sightings, and that I might be interested.

I soon discovered that the Millers (pseudonym) had many stories to recount, most of their sightings in 1975. A check of Vogel's records also showed that a notable concentration of sightings swept across most areas of the Reservation in the mid-1970s.

My interviews with the Millers and my study of Vogel's reports showed a clear pattern of UFOs and other phenomena seemingly focused on the Ridge or on the Millers themselves. Sightings at other Reservation areas during the same time period shared, in part, features of the Millers's experiences.

The Millers are serious, hardworking cattle ranchers. They love the isolation of their ranch hundreds of feet above the Valley below, and relish their freedom to travel south of Toppenish Ridge to graze their cattle in the open, empty rangeland.

In April 1974 the Millers moved into the home they built off Pumphouse Road. Before the move, Mr. Miller and his son, Jim, had observed a UFO in 1972 near Toppenish Creek and at the end of Island Road or Campbell Road.

There, while tending to cattle in a corral on December 9, 1972, the Miller males watched a tannish or dull orange, teardrop-shaped light (recall Vogel's first sighting) moving toward them from the west. The object stopped over the Ridge just to the south and hovered. The object moved up and down sideways fairly slowly, went short distances back and forth above the Ridge, moved toward them and then returned to the Ridge. After an hour of this activity, the UFO streaked eastward along the top of the Ridge, "like it had been shot from a gun," and disappeared from sight. Vogel stated that this sighting "made believers of the [Miller] males."

In January 1975, eight months after the Millers moved to their home, Reservation dwellers began calling Vogel. Two or three NLs were appearing once a week at various places on the Reservation. One witness was observing almost nightly between 2:30 and 4:00 a.m., a "large, orange, ball-like object" hovering over Parker Heights.

It was near Parker Heights that one witness observed a yellow light. Late in the evening in the first week of 1975, the witness was traveling south on U.S. 97 from Yakima. He had just gone through the Gap (an opening in Ahtanum Ridge) when a yellow ball of light the size of a volleyball or softball moved through his headlight beams, right to left. The light gained altitude toward Parker Heights, then just before it was lost from sight, the object made a U-turn and came back. It passed over the road in front, made another U-turn and disappeared for good in the distance over Parker Heights.

On January 17, 1975, a male witness in Toppenish called Vogel to report a large, bright light 15 to 18 miles away to the north below the top of Rattlesnake Ridge. The light was much larger than an aircraft landing light, red-orange in the middle, yellow toward the edges and whitish around the perimeter. The object hovered three to four minutes, moved eastward four or five miles, stopped, reversed direction and returned to its original location and then departed "fairly rapidly" to the northwest, until out of sight. Vogel could find no helicopter to account for it.

About 7:00 p.m., February 15, 1975, Vogel listened to police radio messages concerning "two bright yellow balls of light" in the sky over the Granger-Outlook area. Vogel drove immediately to the area, but when he arrived the balls were gone.

Activity continued into March. Washington State Patrol troopers in the Columbia Basin were being hassled by UFOs. March 5: several second-hand reports claimed that NLs were in the vicinity of the Satus Peak Lookout Station.

Then, the January 17 witness observed another object on April 29, 1975—a bright light with a red center and a yellow boundary. It floated below the tops of hills, approaching from the northeast. Before it reached Toppenish, it turned due north and slanted off and up into the clouds in the northwest. Through binoculars, two lights were detected, separated by darkness: a fluorescent yellowish glow in front, a hard red glow in the rear. The witness said the object looked oblong. "I would say it was huge."

Summer 1975: UFO sightings dwindled.

September 12, 1975: The Sopolia fire lookout observed an orange light north

of the Horse Heaven Hills. "Disappeared," she entered into her log.

September 15, 1975: Preparing to stop a motorist on the Mill Creek Road, a tribal policeman saw a basketball-sized, orange-red light in his rearview mirror 200 feet behind him, crossing the road. The light was traveling toward Satus Peak Lookout. It disappeared near Toppenish Ridge.

Late September 1975: Several loggers camped along the south fork of Toppenish Creek watched a "large, fuzzy-edged blob of light" appear over their camp, then shoot out of sight. The logger told his wife he was now a "believer in UFOs."

Sometime during the middle of September two pilots for Yakima tribal officials observed while standing outside the Tribal hangar near White Swan a heart-shaped object flying out of the west at high altitude. In a few seconds, the object traveled from horizon to horizon, vanishing in the distance. A week later, one of the pilots saw two of the same objects while outside in downtown Yakima. Side by side, the UFOs came out of the southeast, made a sudden right-angle turn over Yakima and disappeared to the northeast.

November 20, 1975, Vogel wrote to Hynek: "Our law and order people have been reporting more and more NL sightings. . . . reports insist on trickling in to me." Vogel then reported on what he considered a recent, significant sighting.

Vogel found out that a particular type of NL had been appearing regularly since August 1975. After midnight and prior to 4:00 or 5:00 a.m., a bright, white, glowing, oval- or round-shaped object, somewhat fuzzy around the edges, was being observed hovering about 1,500 to 2,000 feet over Harrah (HAIR-ah). The silent object would depart rapidly to the north, disappearing beyond Ahtanum Ridge.

Vogel recounted that two men doing nighttime plowing observed the object. As the object departed, it passed overhead and the needle on the tractor's alternator ammeter "banged over against the pin on full charge. As soon as the object had passed over, the needle dropped back to normal."

While this UFO was appearing over Harrah, 12 miles to the southeast strange lights were being seen on and near the Toppenish Game Refuge, located just west of U.S. 97 and slightly north of the Pumphouse Road. The manager of the Refuge told Vogel that for some time he had been observing the lights, and that he could find no source for them. (This official, now working with the Department of the Interior, Washington, D.C., did not respond to my letter asking for details.)

Vogel recorded that the manager's dogs acted strangely, and the manager's AM radio experienced inexplicable interference. The manager's secretary was frightened and was considering packing up and moving into Toppenish. The manager said that in 1974 he had discovered a circular spot melted in the snow where he had observed a light. Vogel told me that he remembered the manager stating he had seen a landed object near the Refuge as big as a two-story house.

On December 16, 1975, another Department of the Interior official was driving on to the Reservation on U.S. 97 from the south. At 4:00 p.m., about five miles onto the Reservation near the mouth of Kusshi Canyon to the west, he saw an airborne object floating at the far end of the canyon. The object disappeared

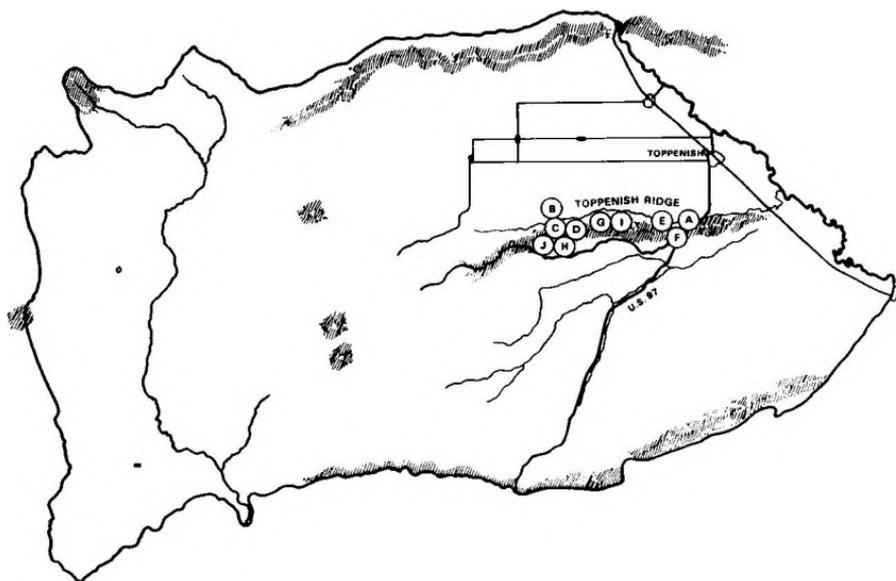


Figure 6. Locations of UFOs and other strange observations along Toppenish Ridge, 1975–1976.

behind its rim.

After proceeding north 15 miles, two light-gray objects resembling aircraft or jets approached from the east. However, these jets were silent and bore no insignia. Five hundred to 700 feet above the ground, the objects passed directly in front of the official and flew westerly above Logy Canyon, just clearing the rim at the head of the canyon and vanishing out of sight.

As of March 17, 1976, the Refuge manager was continuing to see bright, white lights above and along Toppenish Ridge and in the immediate vicinity of the Refuge. The secretary reported that during the past several months the sound of “swarms of locusts or bees” had been waking her up at night.

Evening, April 24, 1976: In his car, a local rancher was searching for stranded friends on a dark road in the fringe area of the Reservation (where timber meets rangeland) when he observed headlights up ahead. Moments later, headlights of another vehicle pulled up alongside the first set of lights. The rancher came upon the stranded party next to their disabled vehicle. The rancher and party noted the headlights next to the road. Suddenly, one set of headlights rose rapidly vertically into the air and disappeared. The other headlights went out.

While all these scattered UFO sightings were occurring across the Reservation, the Millers were having their own sightings on Toppenish Ridge.

Figure 6 shows the approximate location of Miller-family and “non-Miller” sightings that occurred very close to the Ridge. The letter A indicates the first sighting, B the second, and so on (all in chronological order).

The early months of 1975 had been marked mostly by NL sightings—typically orange and yellow balls of light—and so it was probably no surprise that

the Millers' first memorable sighting, as new homeowners on the Ridge, should be of a ball-like object.

On March 12, 1975, the Millers observed a brilliant white, round light hovering over or near the site of a large pumping station of the Wapato Irrigation Project, several miles north of the Ridge. The object was below the top of the Ridge in elevation (a thousand feet)(Figure 6,B). (Figure 6,A, indicates the Game Refuge sightings, already ongoing since 1974.)

The light alternately turned yellowish, pulsated or blinked and then turned white. During the sighting, the horses crowded up to the house and the dog retreated to his shed.

When Miller and his son left the Ridge in their pickup, they passed under the object. Mrs. Miller and her daughter saw the NL brighten and dim down after the truck's passage. The light then moved slowly towards Toppenish Ridge and went out.

Vogel's phone rang on June 10, 1975. It was Mrs. Miller. Vogel visited her and she described her sighting earlier that day (1:00 a.m.) of an oval or egg-shaped object the size of a grapefruit at arm's length rising up from behind Toppenish Ridge (Figure 6,C). She viewed the object through her bedroom window facing south. The object angled off toward the east and vanished beyond the window frame.

Mrs. Miller stepped out on the porch and searched the sky but saw nothing. Ten minutes later, while gazing out the bedroom window again, a similar object appeared, rising straight up at 90 degrees and disappearing behind the top of the window.

She compared the objects to ghostly apparitions seen on TV mystery movies. Vogel reported: "For some reason the thought crossed her mind that the objects did not want to be seen."

Close to this time (exact date unknown), Mr. and Mrs. Miller were relaxing in their living room watching television when they heard a loud, nonhuman cry outside the picture window. They described the cry as the low grind of a siren as it just begins to turn, rising from an extremely low bass to the highest octave of a yodeler (Figure 6,D). There was a momentary pause, and a second cry shattered the night.

Mr. Miller ran to the closet to seize a rifle. For an instant, he seemed paralyzed. The sensation passed, he grabbed the rifle and stepped outside. He saw and heard nothing.

December 14, 1975, 11:00 p.m. Jim Miller was proceeding home on Pumphouse Road after dropping his girlfriend off. About a mile east onto Pumphouse Road he encountered strange beings (Figure 6,E). This frightening experience is fully described in Chapter 9, which is devoted to all known Reservation humanoid encounters.

Two months after Jim's Close Encounter of the Third Kind, a mother and her young daughter were returning home when they neared a site just east of Highway 97 called the Stone Giant on the southern slope of Toppenish Ridge. About 400 feet ahead and to the mother's left, a large, dark-brown creature about seven feet tall

stepped out of a ditch on the west side of the highway (Figure 6,F). The creature moved on its hind legs like a man, and made its way up the fairly steep bank of Toppenish Ridge in long strides. The creature reached a flat stretch of earth, hurdled a fence with ease, and descended out of sight down a slope to a gravel road. Peter Byrne of The Dalles, Oregon, investigated but found no tracks.

During late February or early March 1976, a bright white light appeared above Toppenish Ridge and moved to a position near Mr. Miller and his son who were feeding cattle in a corral next to the Pumphouse Road (Figure 6,G). The light then moved out of sight. This occurrence was not far from Jim Miller's CE-3.

March 4, 1976, about 10:30 p.m. Sitting in their living room, the Millers heard a noise that sounded like a "vehicle pulling up into their driveway." The cattle, horses and dogs turned restless. "Shortly," Vogel reported, "they heard several piercing whistles from outside someplace. Then heavy footsteps could be heard near the back of the house." The father investigated. He went around a corner of the house and passed through an area of smell that burned the inside of his nose (Figure 6,H).

March 6, 1976. A family was returning home on the South Harrah Road, which runs up to the north slope of Toppenish Ridge and is about 10 miles from Jim Miller's CE-3. There the family encountered humanoids (Figure 6,I)(see Chapter 9).

Two days later Jim Miller was driving home on the Pumphouse Road with a passenger next to him. Near the area where Jim and his father had twice seen strange lights, they noticed a bright, white light to the left descending from the summit of Toppenish Ridge (Figure 6,J). The passenger flashed a flashlight at the object. Immediately, the light enlarged, becoming fuzzy around the edges. Frightened, Jim increased his speed. The UFO took up a position some distance away and paced the car, moving in stairstep motions as it maneuvered over the contours of the land. At one point, the light approached the car and then receded back to its original position.

Nearing his house, Jim saw a bright flash, like a "bulb going off," which illuminated the hillside. Jim pulled into the front yard, leaped out of the car and attempted to spot the object. Meantime, his friend sighted a yellowish-orange light coming from the north over the Valley. Jim awakened his parents. Outside, everyone watched the light travel to a position high above the house where it hovered starlike against the starfield. A plane, coming from the north, passed over the house and under the UFO, which zipped behind the plane. Then both objects vanished into the distance to the south.

Finally, late on the evening of December 28, 1976, static drowned out the radio traffic on the Millers' CB, and the dog began barking outside. Investigating, the family observed the dog and a bright light the size of a basketball moving through the air from the top of Toppenish Ridge. It was on a course for the dog (Figure 6,K). Sputtering like a sparkler, and oscillating back and forth like a flashlight in someone's hand, the light reached the dog, swooped down on it and circled it like a small bird harassing a hawk. Barking furiously, the dog leaped and snapped at the light, then retreated to the garage. The light departed approximately

in the same direction it came, disappearing over the top of the Ridge.

The Millers related a number of other UFO sightings to me; but due to some problems with the accounts, they have been excluded from the record here. Several times the family drove to the top of the Ridge to look for UFOs (sometimes they were successful). Despite their relatively large number of sightings, none of the Millers ever offered an explanation.

Could the Millers have possibly misinterpreted stars, planets or lighted aircraft? I find this difficult to accept. A major reason: the persistent link between one feature of the objects they saw and the same feature in other sightings from witnesses far-flung across the Reservation. This feature is the *round shape* of the objects.

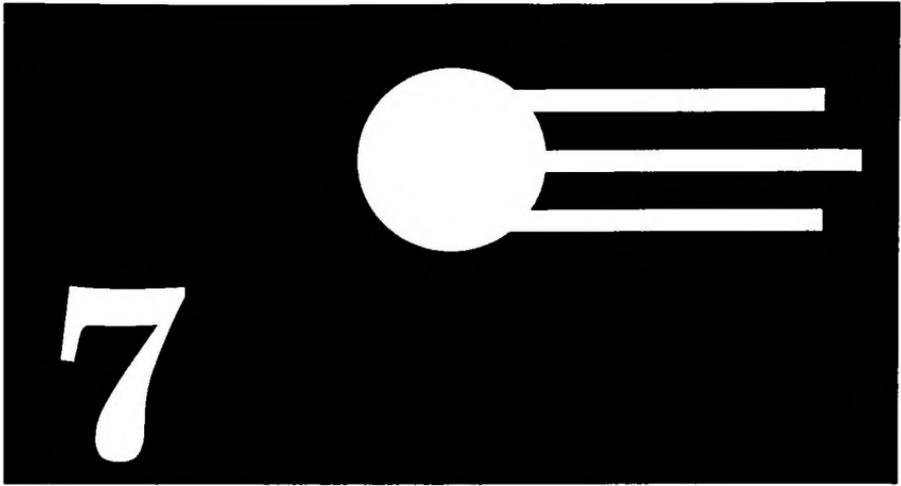
For example, the yellow *volleyball or softball light* that made two U-turns . . . the *glowing ball* that teased the Millers' dog. . . Mrs. Miller's *gray ovals*. . . the *bright yellow balls* over the Granger-Outlook area. . . the *glowing, white round object* over Harrah. . . the reader can begin to compile his or her own list. Later, in our conclusions we shall look closely at this shape.

And although this is not the place to thoroughly analyze the colors of the Reservation objects, *white* and *orange* are reported in not only the Millers' reports but in those sightings far from the Ridge.

If the Millers were emotionally prone to misidentify natural or manmade objects, they were not alone; for given these links of shape and color, all the other Reservation witnesses were fooled as well.

My own sense is that the Millers were not attracting UFOs to themselves. They seemed more accidental witnesses, living in the right place at the wrong time (or vice versa?). And even if we take a natural-phenomenon tack, believing that none of their experiences was the result of an extraterrestrial or other nonhuman, intelligent source, we must then consider some new, alternative natural phenomenon. We've noted that UFOs tended to cluster along or near the Ridge. Is there something in the Ridge itself to account for the objects and the creatures? As with other issues we've raised so far, we will return to this question later.

Until then, we must continue our investigation of the Toppenish Ridge sightings—because the concentration of UFO sightings did not end in 1976. Sightings continued into 1977 with new levels of strangeness and with increasing evidence that what people were reporting was real and truly anomalous.



THE EVIDENCE GROWS

The NL flap of fall-winter 1975–1976 (marked by Jim Miller’s CE-3) had tapered off. . .until May 1976 when Vogel began receiving more reports from the Miller family and law enforcement personnel. By summer 1976 Bill Vogel would be documenting considerable UFO activity in areas of the Reservation where strange lights should not be.

This time lights were moving indiscriminately across the terrain south of Oak Springs Road near Hole-in-the-Wall (south of Toppenish Ridge). The lights were described as headlights. Sometimes they were accompanied by a large, white, fuzzy-edged light. Occasionally the light shot a beam, like a searchlight, up into the air or swept it across the hillside. Law officers failed to find the lights.

On a warm evening in July Vogel visited the Refuge wildlife manager’s secretary about a fire. While talking to her, Vogel heard footsteps pass by on the gravel road outside her open window. Vogel wondered out loud who it was. She chuckled: “Oh, I hear that all the time. Hearing someone walk by on that road is a common occurrence.” But whenever she checked, she never saw anyone.

In August the Satus Peak fire lookout had three sightings: a red light bouncing through the air for “a couple of minutes” northwest of Fort Simcoe; a large, pulsating orange light hovering 23 minutes over power lines on Ahtanum Ridge; and a ground-level red NL traveling west to east, starting from Toppenish Mountain. Activity was beginning to build.

Seven miles south of Toppenish Ridge and just off U.S. 97, the ranch hands

of ranch owner Ruth Olsen (pseudonym) were witnessing, over several nights, a “brilliant, white ball of light” of such intensity it was blinding. Sometimes the light traveled slowly into view and then vanished into the distance; at other times it hovered above the canyon rim to the west.

Two men observed the object on October 19, 1976, at 7:56 p.m. Yellow on the inside with an orange-red rim, the object moved slowly from the southeast to the northwest about half a mile from the ranch. Low in altitude, it disappeared behind a butte once it cleared the canyon rim.

October 21, 1976: A Yakima Tribal police officer traveling west on the Pumphouse Road along Toppenish Ridge neared the site of Jim Miller’s CE-3. Suddenly a bright, white light appeared over the top of the Ridge and began pacing him. Shortly, blue and red lights appeared on the object, flashed, stopped and remained steady, then flashed again. The object followed the officer for five miles. Near the Miller Ranch, the light turned away and disappeared over the top of the Ridge.

During the nights that followed, Vogel monitored CB reports of unusual NL activity near Satus Peak. His interest whetted, he drove to White Swan on the evening of October 26, 1976. At about 8:00 p.m., he witnessed something that marked the beginning of a relatively rapid succession of startling NL events that occurred over 90 minutes. Figure 7 shows where the events happened.

Event A: Satus Peak lookout station, about 7:55 p.m. The fire lookout observed a bright, white, strobe-like light northwest on the ground beyond a canyon. After a few minutes, the light went out.

Event B: Near White Swan, 8:00 p.m. Vogel noticed a small, whitish-orange light moving west over Satus Peak. It was in an angle of descent and moving faster

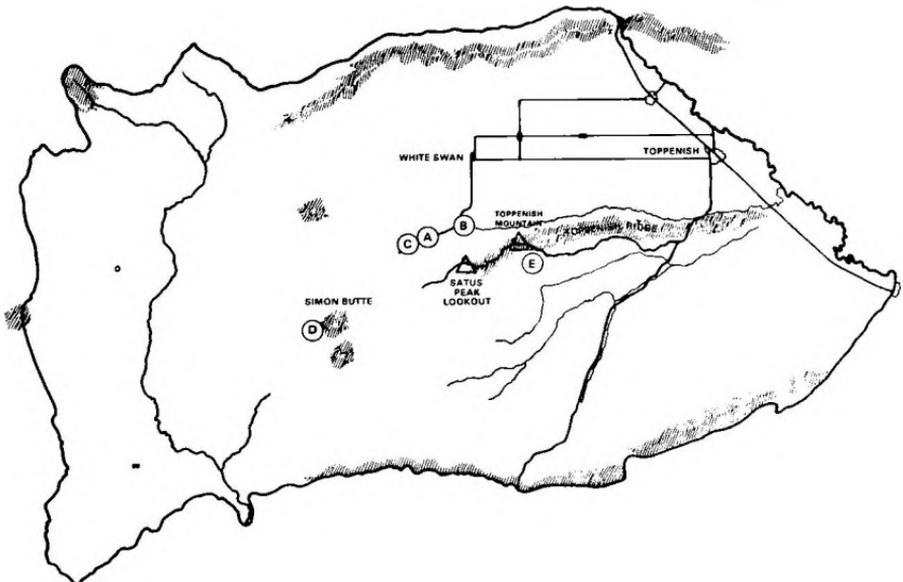


Figure 7. Locations of UFOs observed during a 90-minute period, October 26, 1976.

than an aircraft. It passed Satus Peak and made a 70-degree turn towards White Swan (the north). Vogel momentarily took his eyes off the object. Looking back, he saw between himself and the peak, on a line that the object had been moving, north, "a fairly large, more-or-less circular, whitish, *luminescent* [Vogel's italics] cloud."

Vogel thought the moon must be shining through a cloud, then realized the quarter moon was well to the west. Also, the sky was cloudless. He estimated that the cloud was over the Valley at 1,500 feet. The cloud was semi-transparent.

Slowly, the cloud expanded equally in all directions and thinned. It remained luminescent, particularly toward its middle. Eventually it expanded and then thinned to the point of invisibility. The original light he saw was nowhere to be seen.

Event C: Same vantage point as B, about 8:20 p.m. A bright, orange light appeared above the upper end of Mill Creek Canyon. The canyon runs northeasterly about eight miles down from the western end of Toppenish Ridge to the Valley. Vogel watched the light momentarily flare brighter; then it divided into two smaller orange lights, which moved, one behind the other, north down-canyon towards the Valley.

The lights reached the Valley, turned east and began paralleling the Ridge, staying between the top and bottom of the Ridge. They continued easterly until they passed Slide Lake, at which point they turned northward. Soon after, the lights merged into one, flared brighter and went out. Vogel estimated the speed of the lights at 100 to 150 mph. He continued to scan the ridge line, saw nothing and so returned to Toppenish. There he radioed Satus Peak: "There's quite a bit of activity in your area. So watch." The fire lookout responded: "I'm looking!"

Event D: Satus Peak, approximately 9:15 p.m. A reddish glow appeared behind Simon Butte, 11 miles to the south-southwest. The glow was bright enough to clearly outline the butte. The fire lookout believed she was viewing a fire, then realized a fire this large would have already been reported by someone. And this fire was too deep a red. As she studied the glow, a reddish, cigar-shaped object rose soundlessly at a 30-degree angle from behind the butte and in a few seconds vanished high in the sky. The red glow was no longer visible.

Event E: Satus Peak, 9:30 p.m. The fire lookout recorded in her log: "Glow east of Toppenish Mountain."

Thus ended 90 minutes of sudden NL activity.

Six nights later, November 1, 1976, 7:30 p.m., the Satus Peak fire lookout and her mother watched a bright, red light leave the ground northwest of Fort Simcoe 7½ miles north-northwest of Satus Peak. It traveled straight up into the sky at a high rate of speed and disappeared. Forty-eight hours later the Satus Peak fire lookout and another visitor observed a white light 16 miles to the east move just above the ground north to south at "a very high rate of speed." The light appeared to be paralleling Satus Creek and U.S. 97. The lookout estimated that it disappeared close to the Olsen ranch.

Sightings did not let up as fall came. Again, the Olsen ranch south of Toppenish, November 10, 1976. Shortly after dusk two ranch hands feeding horses

in a corral saw a large, bright, white light approaching the ranch from the east. Silent, traveling at the speed of a small aircraft, the light was just above canyon-rim height. As it reached the west canyon rim, the object suddenly stopped as if it had spotted the men feeding the horses, and reversed direction and moved over the corral. The men fled into the ranch house. Inside, they peered through a window; the light was gone.

On December 8, 1976, Mr. Olsen decided to drive into Toppenish. At 6:00 p.m., he drove his truck equipped with a stock rack down the ranch driveway. Where the driveway enters U.S. 97, he alighted from the truck to close the gate behind him. Walking back to the truck, he noticed a bright, white light approaching him from the south-southwest. He thought of a passing aircraft, but after he was in the cab, the ground outside the truck lit up. He poked his head outside and saw the light directly overhead and hovering. There was no noise.

Nervously, he drove onto the highway. The light followed him for two miles; then the illumination went out. "Somewhat shook up by this time," Vogel wrote, Olsen continued into Toppenish.

Next evening at 5:30 p.m., Mr. and Mrs. Y, who live on Jensen Road 1½ miles north of the Wildlife Refuge, observed a bright, white light two miles to the south. It was either on or just above Toppenish Ridge. The light remained visible for an hour.

Mrs. Y and her daughter left the residence for Toppenish, northward on U.S. 97. The light left the Ridge and approached them, taking up a position slightly behind and above their vehicle. The NL paced them all the way to north-central Toppenish. When the women stepped out of the car, the light retreated back to Toppenish Ridge. The daughter telephoned the police, who notified Vogel.

Two police officers began looking for the light. At this time, the light left the Ridge and moved northerly, stopping once to hover for less than a minute. The officers caught sight of it, and they and the women watched it pass through or above the opening in Ahtanum Ridge, called the Gap. Vogel, having gone outside to watch for the light, saw it for 10 to 15 seconds as it approached the Gap before his line of sight was blocked by a neighbor's house.

The estimated altitude of the object was 2,000 feet. Vogel checked with the Yakima Airport Control Tower, the Yakima Firing Center and private helicopter companies; none reported an aircraft aloft.

One of the officers described the light as "a bright ball of light with an orange tail moving slow."

Now that the UFOs were approaching vehicles with drivers, was the UFO phenomenon on the Reservation initiating a new phase? This is a valid question, because on January 19, 1977, what appeared to be UFO "operators" landed in the backyard of a small boy's house. This detailed and well-investigated case is included in Chapter 9.

February 10, 1977, about 8:00 p.m.: A man and his family watched a light from their yard in Toppenish. The light had a reddish-orange center surrounded by white light. About 15 miles away, the light was moving east to west south of Toppenish. The upper portion emitted "spike-like rays of white light." Across the

bottom portion was a number of red lights. The NL disappeared behind Toppenish Ridge.

February 11, 1977, 6:15 a.m. A man and several members of his family observed, from White Swan, “a fairly large and very bright white light” descend and land on Satus Peak. The light remained visible until two vehicles descended the logging road in Mill Creek Canyon northwest of the peak, at which time the light disappeared.

Back to the Olsen Ranch south of Toppenish, March 6, 1977, about 6:00 p.m. The strange white light had been hovering above a natural saddle formed in the canyon rimrock to the west of the ranch. No roads enter the rugged, nearly inaccessible saddle. Each time the ranch hands or the Olsens attempted to reach the light by horseback or four-wheel drive vehicle, the light went out. On this night, Mr. and Mrs. Olsen and several hired hands had just completed branding some steers at the ranch when the familiar white light was again sighted hovering above the saddle. Their work finished, the observers decided to gain a better view. As they reached a new location, a foglike cloud formed around the light, obscuring it. Then the cloud slowly dissipated, and the light did not reappear.

Back to the Y residence, Jensen Road. At 12:15 a.m., March 10, 1977, Mrs. Y and her mother-in-law sighted a strange light configuration apparently suspended just above or on top of Toppenish Ridge. The lights may have been attached to an object, but this could not be determined.

The light configuration was in the form of an upside-down “T,” although no actual object was visible. On the horizontal bar of the T were three evenly spaced lights. The two lights on the ends were red; the light in the center was white. The shank of the T, three times as long as the horizontal bar, displayed a row of red lights. All the red lights on the bar and shank rhythmically flashed; the white light on the bar remained steady. The shank was several hundred yards long, and it appeared to run at less than a 90-degree angle from the horizontal bar, probably an effect of the position of the light configuration relative to the observers. After five minutes, the configuration slowly faded from view.

One criterion for assigning “true UFO” status to an object alleged to be a UFO is multiple, independent-witness confirmation of the object. In short, did more than one person at different locations observe the same object? Also, do the independent descriptions support one another?

The cases below satisfy these criteria. Notice that the objects not only feature similar colors and behaviors, but the objects reviewed earlier in this report share these same features as well. This corroboration implies that we are dealing with *one and the same object*. Figure 8 shows where the objects were located.

Event A: March 13, 1977, evening. A lighted object swooped down on a couple’s car at Lateral C and LaRue Roads (four miles north of Toppenish Ridge), not far from the Miller residence. The couple was extremely frightened.

Event B: March 13, 1977, 11:45 p.m. A Tribal police officer patrolling north on Plank Road seven miles east of U.S. 97 just south of the very eastern end of Toppenish Ridge observed a white-orange light floating south to north and crossing Tule Road to the west at an altitude of about 1,000 feet. Tule Road

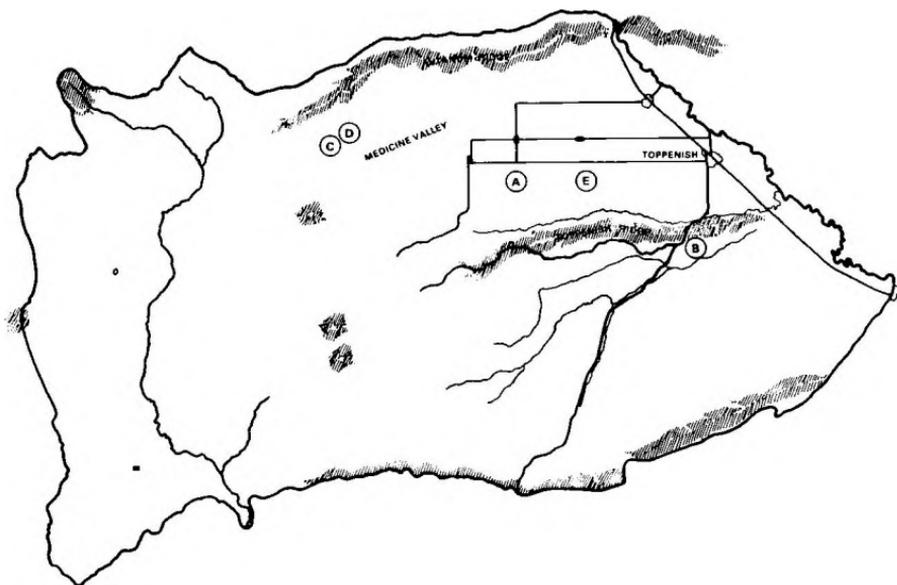


Figure 8. Locations of UFOs observed by multiple, independent witnesses, March 13 and 17, 1977.

parallels Toppenish Ridge to the south. The light, estimated at six miles distance, and the apparent size of a “large fist,” passed over the ridge top. The officer drove around the eastern end of Toppenish Ridge and picked up the light again.

As the unknown object moved a mile or so out over the Valley, an Army Huey helicopter approached the light from the north. As the helicopter approached, the light abruptly turned and sped rapidly off to the south until out of sight. The helicopter turned northward.

The officer had the definite impression that the helicopter had been sent to check on the light, or that the pilots had spotted the light and out of curiosity approached it. The Yakima Firing Center, a military installation, is six miles northeast of Yakima and eight miles northwest of the Reservation boundary.

Event C: March 13, 1977. This sighting was reported to the Yakima Tribal Police dispatcher at 11:47 p.m. The sighting lasted 30 minutes and occurred at Medicine Valley, 25 miles northwest of Toppenish. There were five witnesses, all police officers. The weather was cool and calm with clear skies.

Three bright, oval-shaped, silent white lights were observed maneuvering over Medicine Valley at 1,000 to 2,000 feet. One of the lights was larger than the other two. One of the two smaller lights changed color from white to blue to green to red and back to white (a color sequence we have met before). The other objects remained steady. The lights moved sideways and up and down (recall the actions of the Millers’ UFO sighted from a corral, December 9, 1972, pages 31–32).

The large light and one light and one of the small lights remained over Medicine Valley, while the small one moved, for the most part, over Ahtanum Ridge to the north. The large light “dropped out of sight” when an airliner

approached, but reappeared as soon as the aircraft passed. After about 30 minutes, all the lights extinguished at the same time and were seen no more.

Three days later, March 16, 1977, Vogel received a phone call from a person in Buena, who stated that he was observing a UFO low in the sky between Buena and Sawyer along Highway 12. Vogel immediately drove to the location. He saw nothing.

Event D: March 17, 1977, between 8:00 and 9:00 p.m. The same caller phoned again. The caller was viewing a UFO from his picture window. The caller stated that right after he called Vogel the previous night the light had gone out. Vogel quickly went to a viewing area on the outskirts of Toppenish. This time he saw an object. The whitish light appeared to be over Ahtanum Ridge and Medicine Valley at 24 miles distance. The apparent size of the object was a pencil eraser at arm's length. Viewed through 10× binoculars, the object looked oval. The light was circling like an aircraft in a landing pattern, although the light was less intense than a landing light. As the NL turned away from Vogel, its brightness remained the same, eliminating the possibility of a landing light, which should diminish as its beams were focused in another direction. Also, the light gradually became whitish-orange. Vogel took several 35mm slide photos using a 135mm lens. Plate 12 is one of these photos.

The NL made several mile-diameter circles for approximately 15 minutes, then began to slowly fade and disappear from sight. Five minutes later the light slowly came back into view and returned to its original brightness. The light then moved eastward, paralleling Ahtanum Ridge and slowly faded from sight.

Vogel phoned the Yakima Airport. No airport personnel had seen the object. However, Ahtanum Ridge would have obscured the area to the south, making detection difficult if not impossible.

Although conceivably Vogel could have been viewing an aircraft, this light was softer than a landing light, oval in shape, changed from white to orange and faded away. More importantly, Vogel saw no flashing or multicolored running lights.

Event E: On the same night, about 8:30, during the same time frame as the sighting above, Mr. Olsen was sitting at the wheel of his small cattle truck with a cowpony in the back, driving west on LaRue Road, four miles north of Toppenish Ridge. As he approached a point three miles east of where a couple was frightened by a bright light four nights before (Event A, Figure 8), Olsen noticed a bright light to his left approaching from Toppenish Ridge.

The light stopped above his truck and followed him a short distance, lighting up the surrounding area like the light from an arc welder, then sped off toward Medicine Valley and Ahtanum Ridge (where the oval light Vogel observed circled in the sky). Vogel commented on Olsen's experience: "Needless to say, this scared the hell out of Mr. Olsen, and he stated at the time it happened his horse went into a complete panic and attempted to exit the truck."

As soon as Olsen reached his home on Campbell Road, a mile away, he called his wife and mother-in-law to join him outside, where all three watched the light moving around over the area of Medicine Valley and Ahtanum Ridge.

It is difficult not to conclude that Olsen's light and Vogel's light were one and the same, given the direction of the departure of Olsen's light and the time of the two sightings.

On June 24, 1977, at 10:30 p.m., Mr. and Mrs. B were preparing for bed in Toppenish. Mr. B, standing in the living room, happened to look out the east window when he saw a square arrangement of individual, multicolored square lights. The square was about four feet wide and five feet high. The square was like a window with eight or twelve panes. The panes were only two-dimensional, possessing height and width but not depth. The squares were separated by empty space.

The flying "window" was moving through the air just above the roof of a house across the street, heading toward Mr. B. It passed over the roof of his house.

"Mr. B stood dumbfounded for a moment, then set out to do what he had originally started, such as locking the doors, checking the stove, etc. He said nothing to his wife, who was already in bed, as he did not want to alarm her."

However, at this time Mrs. B was in the bedroom. The bedroom window faced south. She looked out the window and saw a similar set of lights flying toward her, heading north. They were at the level of the power lines and passed between two trees in front of the house and disappeared over the house. The object was more like a ploughshare with two rows of square, incandescent lights on each side of the ploughshare. The squares were two dimensional with nothing but space separating them.

Mrs. B called to her husband, and he told her he had seen something similar not two minutes before.

Mr. and Mrs. B said the squares were sharply defined and easy to look at; they cast no glow nor illuminated any object. The objects moved at the speed of a fast walk.

Several patterns emerge from the sightings from the 1976–1977 period. One pattern was the seeming preference of UFOs for Toppenish Ridge:

- In three of five cases, lights approached a vehicle from the direction of Toppenish Ridge, as if zeroing in on a target (recall a similar incident in Chapter 5 where a light left the Ridge, pursued two men and returned to the Ridge).
- During a sequence of events on October 21, 1976, NLs appearing to originate from Toppenish Ridge underwent strange transformations—turning into a cloud, and splitting, merging and fading out.
- In two cases, a glow was observed near Toppenish Mountain (a promontory of Toppenish Ridge), and a light was seen traveling parallel to the Ridge.
- A T-shaped configuration of lights was observed over the Ridge.

The apparent association of these UFOs with the Ridge, coupled with other sightings of UFOs on or near the Ridge documented in earlier chapters, suggests that an important line of inquiry would be to investigate the Ridge itself to see if it might hold the answer, or part of the answer, to the UFO mystery on the Reservation.

Another pattern that emerged from the 1976–1977 sightings was “strangeness” and growing indications that the UFOs could be intelligent (as if they were consciously, willfully controlled):

- In at least five incidents, a light or lighted object paced or hovered over a vehicle. In one case, the object sped away, suggesting a controlled machine.
- At the Olsen ranch, a UFO(s) repeatedly visited the ranch, at times stopping in midflight, turning and approaching the ranch.
- In two cases, objects shot up into the sky.
- A boy encountered humanoids and their vehicles (see Chapter 9).
- Footsteps were heard outside the wildlife manager’s secretary’s house (were they UFO-related?).

During this period, far above Toppenish Ridge and the Valley floor, Bill Vogel’s fire lookouts continued to scan the landscape below. Dedicated, practiced observers, they had been watching the land and sky for many years. If there was any question about the factuality of UFOs, I had to turn to them. They should be able to tell me what they knew. . .the shape of the objects, their color, how they behaved. Above all, the fire lookouts should be able to tell me where they most often saw the UFOs. That information might point to the cause of the UFOs. Could it be Toppenish Ridge—or something entirely different, even unexpected?



8



THE VIEW FROM THE MOUNTAINS

Long before Bill Vogel went public with his and others' sightings in the local newspapers in fall 1972, the fire lookouts had been seeing inexplicable things in the sky from their stations on three high mountain tops (Plate 15). The fire lookouts were among the first people to approach Vogel with their UFO experiences, and had been entering sighting reports into their logs and diaries since at least 1964. Once the lookouts discovered that Vogel accepted their stories without skepticism, they began passing their reports on to him. During David Akers's UFO stakeout in 1972, they readily participated in the study, and for years after kept in radio contact with each other and Vogel, alerting one another to UFOs. One lookout even managed to photograph a UFO (Plate 11). When Vogel retired in 1981, passing his job on to a new fire control officer with new views and policies, the fire lookout reporting network essentially dissolved.

The fire lookout UFO reports are included verbatim in the appendix. Some of the sightings, those with higher strangeness and complexity, are described in greater detail in the chapter devoted to the test of the Tectonic Strain Theory of UFOs. The fire lookout UFO reports represent one of the best collections of observations of UFOs made by a single group of observers over a 20-year period. Although the quality of the reports is not always consistent, the fact that these observers took time to record what they saw is an important accomplishment and quite valuable for performing a true scientific study of the Reservation UFOs.

I interviewed six fire lookouts. Each gave me examples of personal sightings of manmade lights, astronomical phenomena or terrestrial objects, which upon closer examination the fire lookouts always proved by themselves to be distinctly different from the UFOs they saw. I judged the fire lookouts as better than average observers. They expressed no pet theory to explain their observations, and whereas their sightings were interesting to them, the fire lookouts weren't preoccupied with the UFO subject.

However, I took a conservative approach and wondered if social influences could have affected the fire lookouts' UFO sightings once they found out Vogel was interested in collecting UFO reports. Did the fire lookouts begin misidentifying astronomical or manmade objects in their desire to inform Vogel of unusual activity? I was personally satisfied they weren't misreporting false UFOs, but I performed an objective test, comparing the content of the post-1971 fire lookout reports to those before 1971. Vogel shouldn't have been influencing the lookouts before 1971; therefore, shouldn't the pre-1971 UFO features match those of post-1971, if one and the same phenomenon had been observed?

I discovered that the NLs seen before 1971 were typically red or orange, colors common to many NLs after 1971. Also, in one case, a lookout on Satus Peak saw in 1961 a formation of five to seven metallic-appearing, teardrop-shaped UFOs. The daylight objects were 12 miles to the southwest, near Simon Butte and McKay's Butte. They flew at treetop level, hugging the contours of the earth. Each object had a single black spot on its side. Three of the objects were arranged vertically at the front of the formation, one above the other. The objects passed over U.S. 97, vanishing into the distance. The similarity of the teardrop shape to Vogel's August 1971 NL and the Millers's NL observed from a corral near Toppenish Ridge is significant. I concluded that sociopsychological factors had no bearing on the fire lookout observations.

The fire lookouts viewed the UFOs either unaided (with their naked eyes) or with binoculars. When their reports are taken as a whole, the fire lookouts reported seeing an orange or white round light either moving or hovering above the ground or near the horizon. The light was usually at a some distance, from a few miles up to 60 miles in some instances. The light was either steady, pulsating or flashing. If not pulsating or flashing, it was rapidly descending at sharp angles or located at high altitudes (thousands of feet). The light was not a meteor, star or planet, ball lightning, lighted manmade aircraft, a cloud of glowing insects, weather balloons, kites or other common object. The lights either vanished by traveling out of viewing range, or dimmed out, or suddenly extinguished like a light being switched off. It would be difficult to interpret the light, when close to or on the ground, as a fire because of the shape, color and behavior of the light.

Almost all the fire lookout sightings were of distant objects. In three cases, however, the fire lookouts saw objects fairly closely, within several hundred yards. These cases carry a mental or so-called psychic component in which the fire lookouts experienced a type of communication, apparently from the object. A common attribute of these cases is "Stay back, or you'll get hurt," and the witnesses seem to be restrained from advancing further.



Plate 1. Vogel's "teardrop." High-speed Ektachrome film, Mamiya Sekor DTL 1000 camera, 50mm lens, 1/30 sec., hand-held. August 27, 1971. Credit: W. J. Vogel.

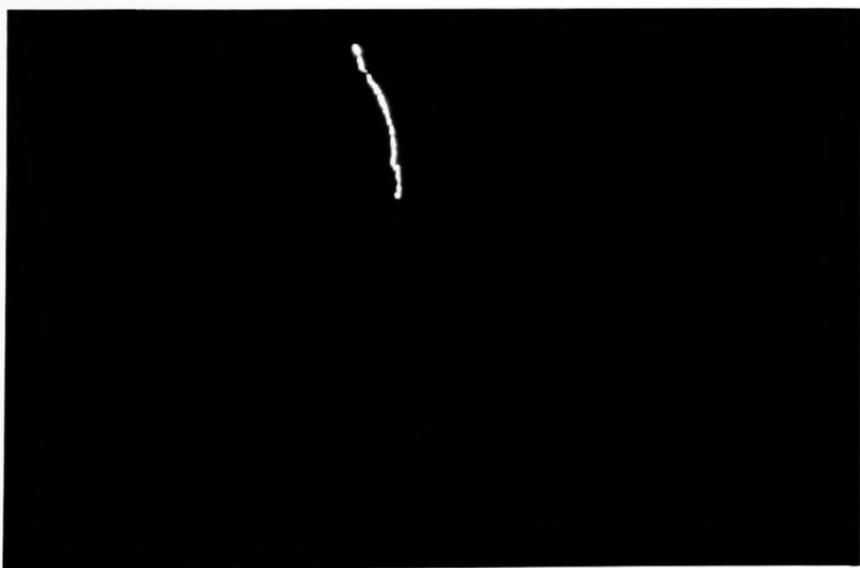


Plate 2. Time exposure of the "teardrop" NL moving over Sopelia Lookout at Satus Pass. 20 miles; 8,500 feet. August 27, 1971. Credit: W. J. Vogel.



Plate 3. NL over Toppenish Ridge. Photographed from Indian Agency parking lot. 800mm lens, 30-sec. time exposure. Hornlike protrusions evident on object. Approx. 25 miles. September 3, 1971. Credit: W. J. Vogel.



Plate 4. Same NL as in Plate 3. NL has begun to move. Object disappeared behind Toppenish Ridge and was seen no more. Credit: W. J. Vogel.

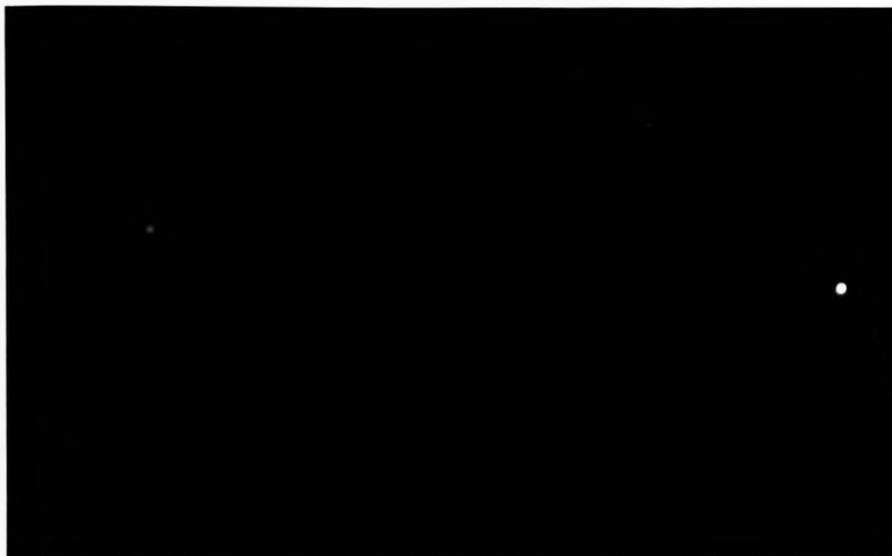


Plate 5. Stationary luminous orange ball at base of hill near Ahtanum Ridge. To right is mercury vapor yard light. EFB film, 500mm lens, f8, 1/4 sec. 10 miles. August 21, 1972. Credit: David Akers.



Plate 6. NL between base and top of Ahtanum Ridge. 60-sec. time exposure revealed apparent "spurts" as NL traveled from left to right. EFB film, 500mm lens, f8, 8.5 miles. August 30, 1972. Credit: David Akers.



Plate 7. W. J. "Bill" Vogel, 1978. Credit: Tri-City Herald, TriCities, Washington.



Plate 8. NL suspended 30 min. over White Swan, Washington. Time exposure showed it moving slowly on a boomerang course. 20 miles. October 8, 1971. Credit: W. J. Vogel.

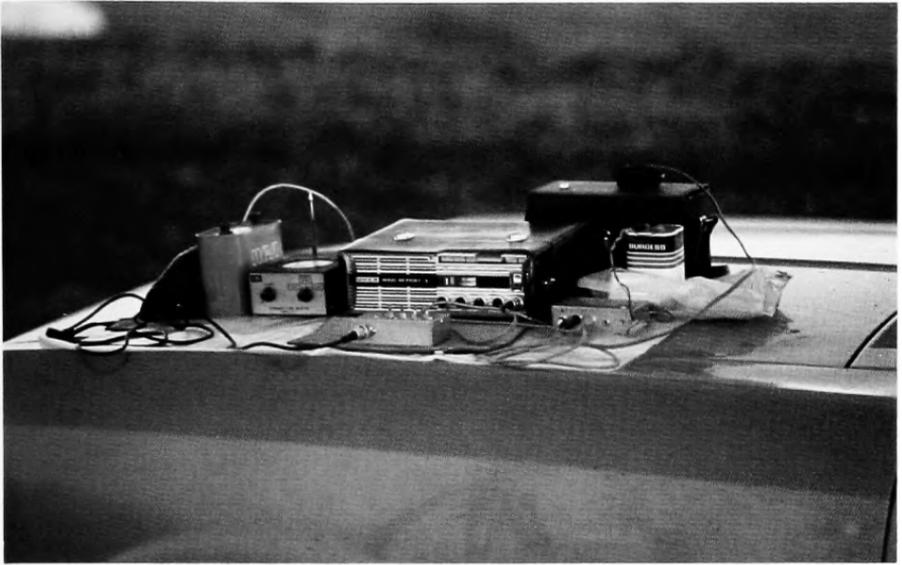


Plate 9. Some of the many instruments David Akers used on the Reservation during the August 1972 stakeout.

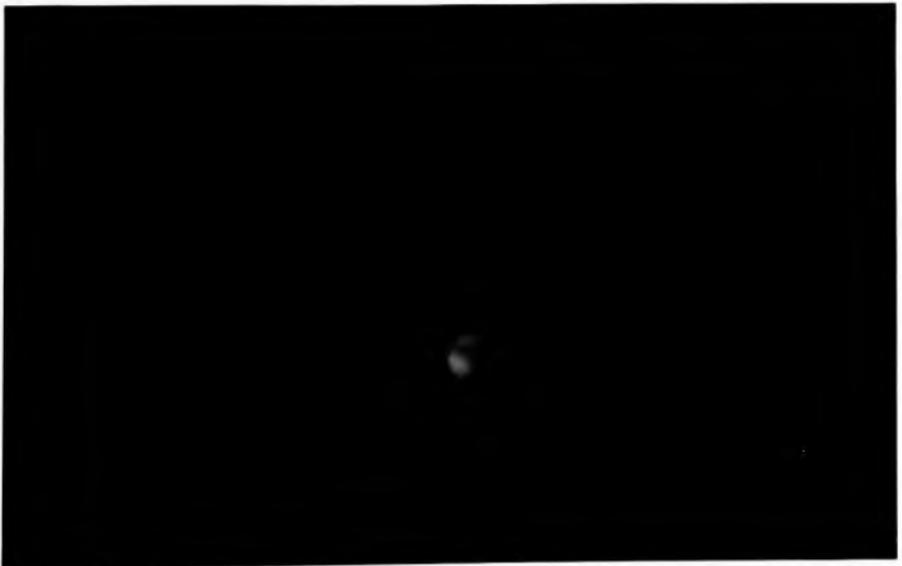


Plate 10. Stationary NL on lower third of Toppenish Ridge, north side, 6 miles from viewer. High-speed Ektachrome film, ASA 200, 150mm lens, f-stop unknown, probably 60 sec. February 1973. Credit: W. J. Vogel.

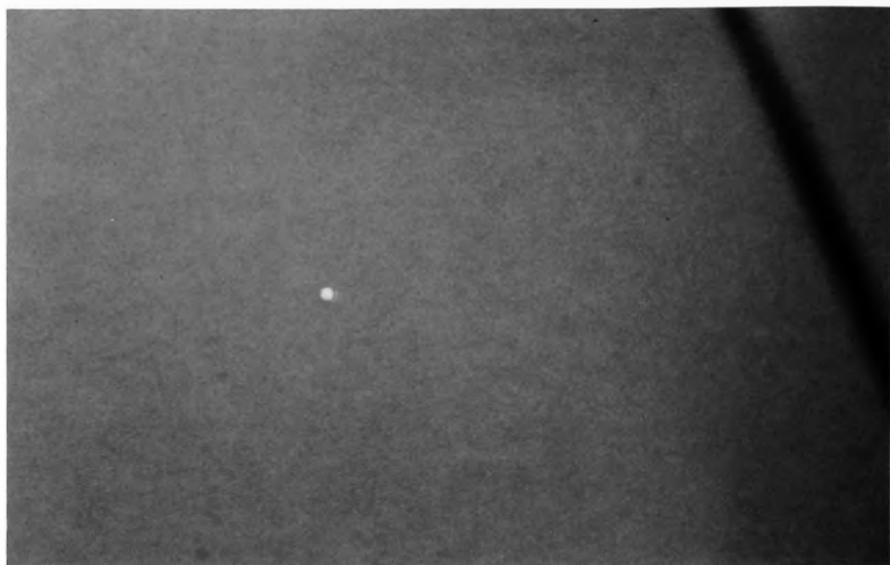


Plate 11. Luminous object photographed from Satus Peak fire lookout station. Object south-southeast, over Logy Creek area. Moved rapidly to northeast. Kodak 35 camera, high-speed Ektachrome daylight film, ASA 160, f3.5, 1/25 sec. Approx. 9.5 miles. June 22, 1973. Credit: S. D., fire lookout.



Plate 12. Whitish-orange NL viewed just outside northwest edge of Toppenish looking toward Ahtanum Ridge. Object had changed from bright white to whitish-orange. (Man-made lights are at the bottom of the photo.) 135mm lens; other details unknown. About 24 miles. March 17, 1977. Credit: W. J. Vogel.



Plate 13. A strange, circular mark with concentric rings formed from dust on the hood of Vogel's car, June 1983. Note white "hair" on rings. Such traces also appeared on Bill Smith's cars. The Smith residence was the site of many paranormal manifestations. Credit: W. J. Vogel.



Plate 14. Toppenish Ridge. Credit: Greg Long.



Plate 15. Sopelia Mountain fire lookout station. Credit: Greg Long.

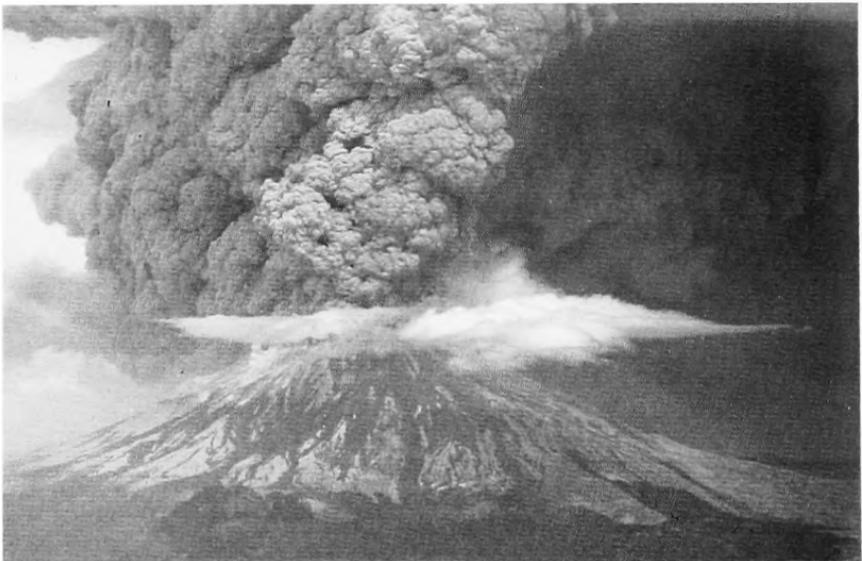


Plate 16. Mount St. Helens eruption, May 18, 1980. Did orange ball of light activity subside on the Reservation when regional tectonic strain waned after the eruption?

In 1964, S.D. (initials are used for the sake of anonymity) at Sopelia Tower observed a puff of smoke above a tree about $\frac{1}{4}$ to $\frac{1}{2}$ mile away, followed by the appearance of a round, silver object above the tree. Returning to the window with binoculars, she heard strange sounds above the lookout cabin. When she approached the doorway, she experienced a warning that she should not step outside to investigate (see Appendix 1, Case 8; and page 13).

While at Signal Peak, fire lookout M.H. saw a bright shaft of purple-colored light shining down one night around her cabin. She went to the door but was unable to step outside; something, which she compared to the sensation of two magnets repelling each other, blocked her exit. She even stepped back and ran at the doorway several times to get out. She finally gave up and shut the door. After a time, the light went out.

A more disturbing event took place when something woke up M.H. about 4:00 a.m. at Sopelia Tower. Sitting up, she noticed light radiating from behind a hump in the ground a hundred yards away near the gate west of the station. She decided to investigate. Taking a handgun (although she decided "it wouldn't do any good"), she wanted to see the light; for some reason she felt she "knew what it was." As she walked toward the gate, something unspoken persistently kept urging her to turn back. As she neared the gate, she found herself unable to go further and turned around and returned to the station. "They didn't want me," she told me.

Bill Vogel had an experience similar to these fire lookout accounts. He described how he once drove up the Oak Springs Road south of Toppenish Ridge in search of the reddish egg-shaped light that had been repeatedly sighted by Valley residents and himself in summer 1972. Parked with his lights off, Vogel experienced a feeling that swept over him; he sensed he had no business being there. It was "a feeling just like you get when you walk into a dark room and there's somebody there; you can't see them, but you know they're there." The feeling was so overpowering he immediately left.

Did the witnesses react to an actual communication, or could the witnesses have responded to some physical property of the object, such as pulsed radiation? This question is posed in terms of a proposed natural phenomenon to account for the Reservation UFOs. We will look at this problem soon when we explore the Tectonic Strain Theory of UFOs.

For the moment, we should note that the fire lookouts corroborated the details of the physical characteristics of the Reservation objects reported by others living in the Valley below, and that the bulk of their sightings (they totaled 118 of the 186 reports) forms impressive evidence for the reality of unknown objects on the Reservation. Many of their sightings, as presented in the appendix, will be used to test the TST.

One final fact to note is that none of the fire lookouts reported a close encounter observation of an alleged humanoid being. The fire lookouts worked alone and isolated in their mountain stations six months out of the year, but interestingly, their sightings were almost always of distant lights. If aliens needed helpless victims, the fire lookouts were ready targets; but nothing disturbing,

beyond the reports cited above, ever happened at the fire lookout towers.

The next two chapters are devoted to looking at the Reservation sightings of humanoids and apparent abductions of several witnesses. As the history of the Reservation sightings has unfolded, we have seen examples of increasingly stranger, more controlled behavior on part of objects which the fire lookouts only saw as distant lights, yet from the vantage point of the witnesses on the Valley floor displayed distinct overtones of intelligence. If we accept as fact the accounts in the next chapters, how would it be possible to interpret the Reservation UFOs as a natural phenomenon?

9



THE CE-3s

The known Close Encounters of the Third Kind on the Reservation—sightings of unknown beings—number three. The first, taken in the chronological sequence, were the Jays's.¹

John Jay (pseudonym, now deceased) was a Yakima logger. In the predawn hours of summer days in 1965, he often noticed a motionless light above trees on the north side of Toppenish Ridge. He inquired of fellow loggers and truckers who made their way down the Ridge logging roads. Yes, they, too, had seen the light.

Curious, Jay and his wife made evening trips to the Ridge to search for the light. Finally, one night, as they were parked at the base of the Ridge, a single light rose up from behind the hills. Jay flashed his headlights; the light flashed in response. Through binoculars, Jay saw a shadowy form surrounding blinking red, blue and green lights. A single large red light capped the form. Suddenly the UFO accelerated, approached at high speed, and passed several hundred feet overhead.

The Jays kept returning to the Ridge. They signalled their presence with their car headlights. "We began to play with them," said Jay. "They got to know us very well." Like swallows, the lights zig-zagged in the sky, often rushing over the car. "You could feel the hair come up on the back of your neck, and you'd sit there and shake. You knew what it was; you knew you had brought it on yourself, and you couldn't do anything. They were checking us out."

John Jay began seeing UFOs often; even near populated centers; and the objects looked like machines. One summer evening Jay drove into Union Gap at

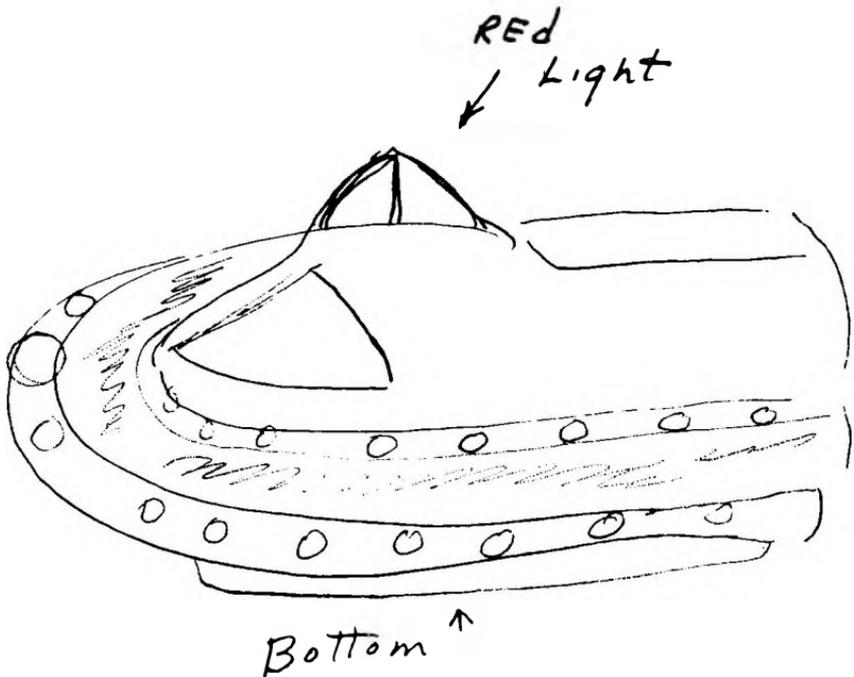


Figure 9. "Saucer" drawn in the presence of the author by John Jay.

the foot of Ahtanum Ridge and south of Yakima. He sighted a blackish-gray object hovering 100 feet above a service station. The object was shaped like a horseshoe. It had an elongated dome on top. On the dome was a small, bell-shaped red light. On the back were exhaust ports. Figure 9 is Jay's drawing of the object.

Jay pulled over and watched. The object tilted down, nose first, emitted a buzzing sound, and two "shields" on the front of the dome slid open, revealing black, shiny opaque windows. John impulsively waved, and the object lifted up and leveled itself. The shields then closed, and a swishing noise came from the object as it leisurely moved toward Ahtanum Ridge and vanished into the distance.

Another evening, dusk. Jay pulled into a convenience store and gas station a few miles south of the Fort Road and Lateral A. While heading back to his car with his purchase, he saw a "wagon wheel" in the sky. The wheel had a hub and spokes. All along the rim of the wheel and its spokes were lights—blue, green and amber on the rim; white lights on the spokes. The lights were turning on and off in sequence, creating the effect of moving lights along a segment of rim, inside a spoke, another rim segment, another spoke and so on. . . a moving string of lights (Figure 10). All the while the UFO emitted *calliope music*. "I can't believe this!" Jay thought.

A few days later, at the same site, he observed a grayish, shiny, cigar-shaped object with portholes moving across the sky, west to east, at an altitude of approximately 600 feet (Figure 11).

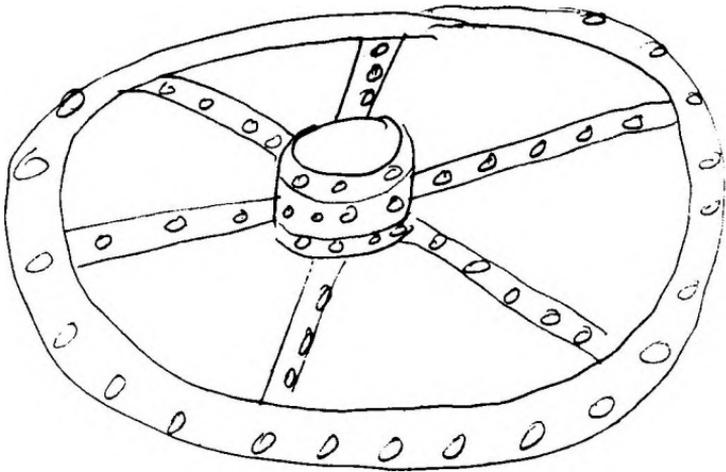


Figure 10. "Wagon wheel" UFO drawn by John Jay.

John and Linda decided to drive to Toppenish Ridge once again to find their "friends." They saw five greenish-glowing, metallic objects lying on the ground about 400 feet away. Each was 60 feet in diameter. Small, dull, fluorescent-appearing lights moved up and down the hilly slope nearby. These red, green, blue and white lights were bobbing, as if people were carrying them. Suddenly the landed objects started shooting little amber-colored balls at the visitors. Flying through the air, the balls began arranging themselves in a horseshoe pattern above the car. "I got the idea," Jay told me, "that if the 'horseshoe' enclosed the car, if the balls closed up the loop, something was going to stop our car from moving."

Terrified, he started the car and tore away from the site, nearly running into a ditch. In White Swan he alerted his parents. The entire family watched a V formation of 20 objects with orange, blue and white lights around their circumference rise into the sky over Toppenish Ridge and move slowly off to the east.

Months later, Jay stepped outside with his father to sit on chairs on the front lawn, while his wife Linda was inside clearing off the dinner table. Suddenly, a huge cigar-shaped object moved slowly toward the house from over the local Enco station. "It was as long as a football field, and had layers of observation decks that went up, and giant portholes lit up with shadows moving in them as if people were

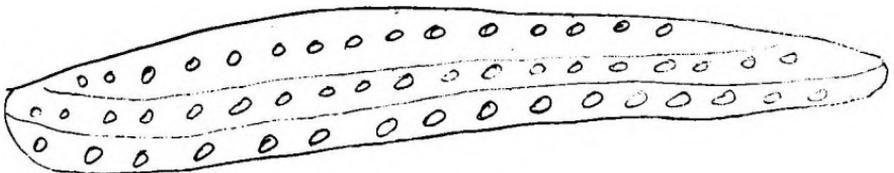


Figure 11. "Cigar" UFO drawn by John Jay.

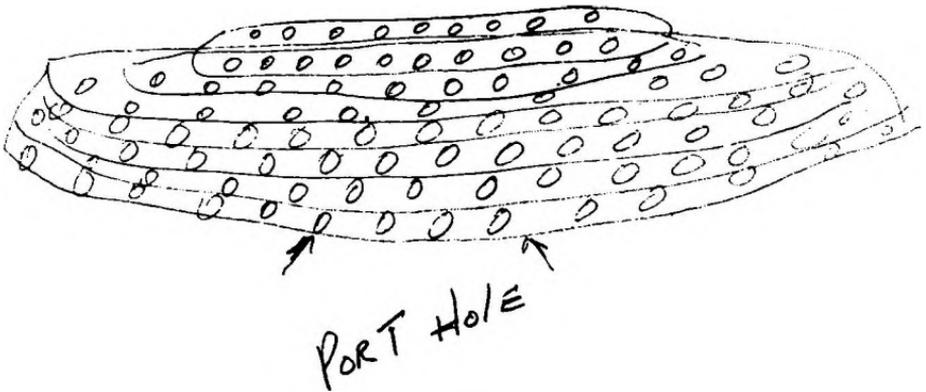


Figure 12. Large UFO with "observation decks" drawn by John Jay.

observing us below, as if they were on a sightseeing tour. It looked like a giant cruise ship." A massive round hole was in the belly of the object from which white light poured (Figure 12).

John shouted for Linda. Stepping outside, she saw the object poised above the house. As John's father stared at the strange object, John shouted, "See if any neighbors are home!" Linda ran inside to dial, but no one answered her calls.

In the meantime, a lime-green haze similar to fog or a fine netting suddenly shot out of the luminous hole in the object and floated down, illuminating the house, the trees and the car parked in the front yard.

Frightened, Linda ran to the bedroom. With knees drawn up, she sat shaking on the bed. A green ball floated through the open window and began slowly encircling the walls. Linda screamed for her husband.

The men ran up the porch steps, but the screen door, although not locked, would not open. Linda was sobbing as the ball circled the walls. After the sixth circuit, the ball floated out the window, the haze faded away, and the front door opened. A faint, pale-green glow remained in the bedroom. "The experience scared the Devil out of my dad," John said, "and it scared me quite badly."

Two weeks later, the Jays saw another luminous ball moving in and out of abandoned houses across the street. The ball seemed to be searching for something. Eventually it left the houses and floated down the street.

Jay had always believed that the green haze that had fallen into his yard was a way for them to mark him and his family. Several times when he was driving between White Swan and Toppenish, a loud "bang!" resounded on the outside of the car. "They were notifying us that they were in the area," Jay concluded. "The car was marked. I knew they were telling us to stop and take a look." When he did, a light would be seen hovering in the sky. "They'd play and dance around a bit, and I'd wave at them, and away they'd go." At other times, John and Linda heard similar loud, metallic noises at home, followed by a deep male voice that said, "John" or "Linda."

Then late one August evening a turning point was reached. The couple had observed a glowing orange ball in the sky over the re-load station (a log dump for

temporarily storing logs) at the edge of White Swan. Tired of observing it, they drove home and prepared for bed. In the darkened bedroom, Jay went to the window to look one more time.

“Oh my God, Linda! Get up!” A “man” was standing in the back yard. Figure 13 is an artist’s portrayal of the man based on Jay’s description. The figure was about 5½ feet tall and dressed in a one-piece suit that glowed with a green light. The man wore boots, which were part of the suit, and a belt buckle; an emblem on the man’s chest glowed brightly. Fitted over the figure’s head was a Buck Rogers-like helmet. Two holes marked the dark openings of nostrils, and the mouth was a simple horizontal, lipless mark. As the man stood, arms at his sides, he bounced slightly, as if shaking. Then the creature’s eyes turned on John.

The eyes were huge, about 2½ inches in diameter, and glowed with greenish and red light that varied in intensity. “You couldn’t take your eyes off him. . .”

He tranced us in. All the time I looked at him, I felt there were holes all the way through me. Like he knew where my heart was, where it beat. He knew every part of my body. He went right straight through me—like a cold chill, like an icicle being speared right into me.

Why did this person even come, or attempt to come, other than “they” were trying to contact us? And they did. They made contact. We were quite aware they made contact. He was in our backyard; we weren’t in the isolated area out there. He came clear into where he could be observed, and yet he wasn’t afraid. He knew everything that was going on, right there. I knew that for a fact.

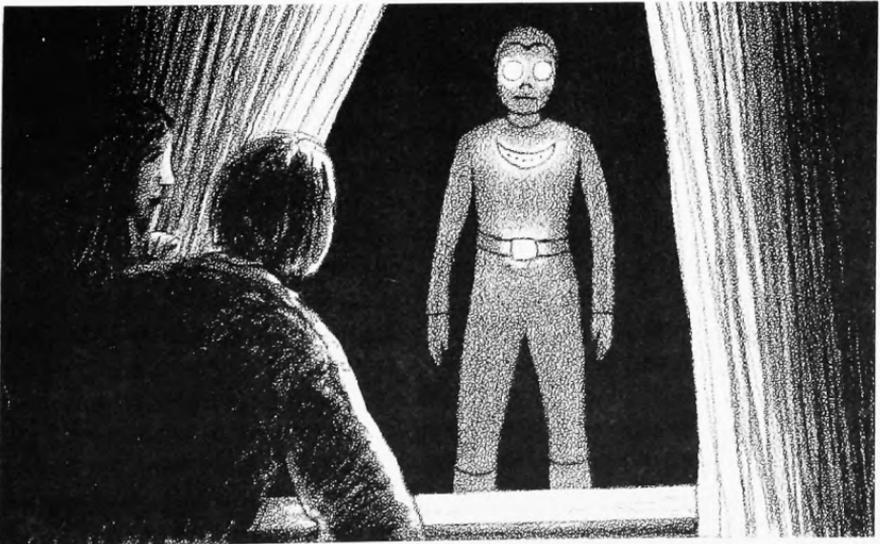


Figure 13. Artist’s portrayal of a “man” observed by John and Linda Jay (from a sketch by Bill Vogel based on John Jay’s description).

Then the man turned, crossed the street towards the Enco station, looked back once, and then cut through another yard and disappeared in the direction of the re-load station. As the creature moved, he appeared to *float* between steps, like an astronaut on the moon, covering 15 to 20 feet in a single stride.

This encounter ended the Jays's game with the UFOs. John had felt for some time that he and Linda "were getting too close for comfort. I had no idea why, but we were about to get hurt." The creature's appearance in the back yard seemed to imply that they were aware of the Jays's actions, of the couple's periodic forays to the Ridge. Lately, Jay had been having uncomfortable inner thoughts. "Maybe we shouldn't go out tonight," he would caution Linda, "because we're getting too close. They know we're getting close." What if one of the UFOs stopped and hovered over their car while they were parked at the base of Toppenish Ridge? What if the UFO occupants said, "Hello, John and Linda, climb aboard"? "We were getting to the point where we were going to be uninvited guests," Jay told me. "Fear at that point finally set in."

The Jays decided to end their trips to the Ridge. "All the fun went out of it," Jay said, and the sightings tapered off and finally ended.

Years later. . . December 14, 1975. It was 11:00 p.m. Jim Miller had dropped off his girlfriend after a party. He turned off U.S. 97, and began the familiar journey home along Pumphouse Road which runs along the northern slopes of Toppenish Ridge. The gravel road was dark, without streetlights.

A mile up the road, Jim was surprised to see in his headlights a roan cow and her two calves beelining it toward him. The cow was bawling and looking back over her shoulder, apparently to make sure that one of the calves was following. Something had frightened the animals. Jim slowed his truck to avoid hitting them. Moments later, as he neared the top of a small rise, he saw three figures standing on the left side of the road. He wondered if they were travelers in trouble. The boy reduced his speed, ready to help. Suddenly, one of the figures, standing in the ditch on the side of the road, bounded out onto the road in a 15-foot, floating, slow-motion stride to a point just past the center of the road.

The figure, apparently a man, was about seven feet tall. He slowly put his arms above his head (Figure 14, Jim Miller's drawing). An uncomfortable feeling descended over Jim. He decided it was best to continue on. The truck approached within several feet of the figure, and Jim saw that the man was extremely thin and wore tight black clothing with white bands at each wrist and ankle. A white trapezoid, as if an insignia, was on his chest, and black boots or similar footwear were on his feet. The man had a very long face and a long, pointy nose. The skin on the face was very white, as if covered with flour. The upper lip appeared to be pulled back in a permanent snarl, and fine teeth were visible. The lower lip was either missing or very small. The man's shoulder-length hair was brownish, reddish-blond and very matted and stringy. The fingers on both of the man's bare hands were long, and the creature grasped something purple in his left hand. The thing had a wire on it, which appeared to run down the creature's arm. Jim noticed that the other two individuals remained close together at the side of the road. They were wearing the same kind of clothing, complete with white markings.



Figure 14. "Giant" drawn by Jim Miller.

Completely frightened, Jim swerved around the figure. As he did, the giant turned sideways, never moving his arms nor changing expression. Jim tore off up the road and into the darkness. He had the urge to look into the rearview mirror but was too frightened. He drove as fast as he could. A few moments later, an elongated, lighted object appeared behind the truck. It blinked on and off several times. Shortly, the inside of the truck and a 10-foot area around the vehicle were flooded with light as if the dome light had been turned on. The intensity of the illumination masked the instrument panel lights and revealed dead insects stuck to the windshield.

Out of the corner of his eye, Jim saw a shadow in the seat to his right. He intuitively knew that the figure was that of a close male friend his own age; he recognized the shape of the friend's head and his familiar coat. As Jim drove madly home, a woman's voice spoke in his head: "Drive recklessly because they can't afford for them to be the cause of you getting hurt."

Jim's passenger turned his head and looked at Jim, then leaned forward and

looked up at the light pouring in through the windshield. He then leaned back, wiped his eyes, leaned forward as if to stand up, and vanished. The light disappeared, and a sick feeling came over Jim that someone had died.

The boy reached home and ran inside and awakened his parents, who could see that he was quite frightened.

Vogel learned of the experience the next day. Jim and his father had already returned to the scene of the encounter but found no footprints or other clues. After Vogel's interview with the boy, he notified David Akers who traveled to the Reservation. The engineer and Vogel interviewed the boy together. Akers reported to Hynek that he could detect nothing to suggest conscious fabrication on the part of the witness or the desire for publicity. Jim seemed an intelligent, above-average observer. It was difficult, however, for Akers to account fully for the amount of Jim's descriptive detail given the nighttime conditions and duration of the encounter. "In short," he concluded, "this is one of those cases where no assignment of belief or disbelief should or can be made. It is reasonable to expect that something very strange did happen to Jim Miller. Maybe time will add some more understanding to the case."

About three months later, a ranch family was returning home on the South Harrah Road. This road runs up the north slope of Toppenish Ridge and is about 10 miles from the location of Jim's CE-3. Nearing their ranch, the family was surprised to see two tall humanoid creatures chasing a number of their cattle down the road (Figure 6,I). The description of the creatures, given by the family to a Tribal policeman, matched exactly that of Jim's "giants" on the Pumphouse Road. The one detail the family specifically mentioned to the policeman was the extremely *white faces* of the creatures.

Another interesting fact is Jim Miller's statement to me that he learned the morning after he encountered the giants that a friend who resembled the passenger in his car had *died the night of the encounter in a violent shooting*.

Puzzled, I reviewed the psychic literature, finding reference to "crisis apparitions," true-to-life figures of loved ones who appear for a brief moment before a witness, then vanish, leaving the witness with an overpowering sense of grief and personal loss. A short time later, the witness invariably learns that the loved one had died usually at the exact moment the crisis apparition appeared before the witness.

The voice in Jim's head seemed that of a guardian, explained Jim, a kind of conscience. Jim said he believed the giants weren't there to help him, but that the encounter was "a good example of a confrontation of good and evil." Why would a protective guardian, I wondered, order Jim to drive recklessly—so he would hurt himself? The message seemed absurd. The ghastly white face of the giant cast a nightmarish pall on the experience. For some reason, I interpreted Jim's encounter in terms of a test or as a warning to Jim. Would extraterrestrials lay in wait for unsuspecting drivers to drive by on lonely roads on a cold December night? Jim's experience seemed material, but mental as well. The glowing ovoid that followed him was a classic nocturnal light UFO, but the voice. . . ? I noted that Jim and his father immediately checked the area the next morning after the encounter. They

found no signs of footprints or of a landed vehicle.

A CE-3 where evidence of a landing was found occurred on January 19, 1977. Just as Jim Miller's CE-3 had happened during an increase in UFO activity on the Reservation (Chapter 6), this encounter occurred during a concentration of sightings on the Reservation (Chapter 7), and most interestingly, during a period when unidentifiable lights were approaching drivers in vehicles and frightening them.

In telling this story, I have relied on Vogel's investigation and the findings of *Toppenish Review* news reporter Frances Story.² Details collected by both investigators match in nearly every instance.

We will call the nine-year-old boy "Juan." The sighting occurred at his residence on the edge of the little town of Harrah, which lies roughly halfway between Ahtanum Ridge and Toppenish Ridge and halfway between Toppenish and White Swan (Toppenish Ridge is seven miles to the south).

Juan was preparing his breakfast at about 6:00 a.m. on January 19, 1977, when he heard a sound in the front yard. Going to the front door, he peered through the glass pane in its upper section. Standing about four or five feet from the door was a greenish creature about three feet tall. The creature the boy later drew for investigators (Figure 15) possessed a single eye in its forehead, short hair, two antennae, a straight mouth and arms. The creature's torso extended into a base, like a pedestal, rather than legs.

As Juan stared through the pane, the creature looked up and saw him, then reached for something hanging on its belt. This thing resembled a gun. Frightened, the boy ran to get his mother, asking her to explain to him the little man outside. She discounted the story and settled down to catch up on the sleep she had lost the



Figure 15. "Greenish creature" drawn by Juan in the presence of investigators.

night before with a fussy baby. The boy decided to go outside and see for himself.

Through the back door he saw a steely-looking, saucer-shaped craft resting on the ground in the back yard. He slipped outside and hid behind a washing machine stored next to a shed. From there he sighted another craft resting on a flat section of the roof of the house. The creature from the front of the house came around the back, and appearing to float (remember the floating strides of Jim Miller's giant and the Jays's creature?), rose up to the object on the roof, and entered it. As the creature did so, Juan saw a similar creature sitting inside the object, and then noticed another greenish creature standing on bare ground next to the garage. As he looked, the creature moved to the second craft parked on the lawn and entered it. This object also had a greenish occupant. Both objects then rose from the ground and disappeared into something that resembled a cloud, steam or smoke.

Juan stated that stairs much like a ramp led up to a door in each craft. The door opened in two parts to reveal a brilliantly lighted interior which contained two chairs with very tall bases. He also said the objects had a window similar to a windshield. Prior to lift-off, a sliding mechanism moved across the windows and closed them off. The action was like the sliding motion of closing scissors. The doors closed in the same way.

What was curious to investigators was the way the creatures on the ground moved. According to Juan, they rotated on their bases. When Juan's teacher's aide at school heard his story (his mother, disbelieving, sent him to school), she found no reason not to believe him, and she and another teacher's aide accompanied Juan home. There he showed them where one creature had rotated on its base: two round marks were clearly visible in the gravel near the garage. At another location, six other marks were found: three sets of two marks each, each set arranged above the other. Vogel measured these; they were $2\frac{1}{2}$ to 3 inches in length and 1 inch wide.

After Juan's mother spoke to the teacher's aides, and the aides and Juan returned to school, she called her neighbor to help her search the back yard where they found a circular impression about 10 feet in diameter in the long grass. Inside the impression, the grass was whirled up in the middle. That evening the circle was still clearly visible.

Vogel learned of the sighting on the evening of January 19 and interviewed the boy that night. When he photographed the prints near the garage, he noticed that the ground was dry about 18 inches around the prints. To preserve the impressions for David Akers, who would be arriving on the Reservation the next day, Vogel had Juan's father place an old box spring over them. However, during the night, an animal sought protection under the springs and disturbed the prints to such an extent that only one was barely visible in the morning. When Akers arrived, he detected no radiation with a Geiger counter, from either the prints or the circular impression. Vogel judged Juan as truthful. "His father," Vogel wrote, "told me that Juan had been taught to never lie, and the father felt he was telling the truth. Juan's story never varied as to what happened and what he saw no matter how many times he was asked to tell it. He rapidly tired of going over the thing for different persons."

The final proof for Vogel was the markings visible on the ground and lawn.

But perhaps the most important fact was this: on the night prior to Juan's encounter, Vogel monitored many CB reports of a bright light over Harrah.



10

POSSIBLE ABDUCTIONS

Now we arrive at a point where frightening close encounters fade into nightmares. . .

On Mother's Day, 1967, two couples, both about 20 years old, and a woman about 37 drove to a meadow near the Camas Patch about four or five miles south of the Mill Creek Guard Station and Toppenish Ridge. The group, Jim and Alice, Bob and Sally, and Sarah (pseudonyms) picnicked most of the afternoon. Later, when they prepared to leave, the car became stuck in the mud from the spring rains. The party struggled to free it, but abandoned their efforts as evening wore on.

At about 9:30 p.m., the party started walking toward the Mill Creek Guard Station. At 1:30 a.m. they reached a cattle guard located a mile from the station. Although they had no flashlight and the road was muddy, it seemed strange to Jim that it had taken four hours to travel four miles to this point. Further, Jim had a feeling of coming to with the others and running with them down the road. He recalled that before coming to he had seen a strange light. In 1982 UFO investigator Ron Westrum was visiting the Reservation and by accident heard about this experience. An interview with Jim led to interviews with other members of the party. Eventually Westrum pieced together a fragmentary tale of a frightening event.

Jim's incomplete recollection was the strangest. He remembered one of the three women calling the party's attention to a shooting star. He looked up and saw an object flashing across the sky to the northwest. Suddenly the object turned and

came back with tremendous speed toward the group. “It shot back, and it stayed there and it hovered. It was brighter than a regular star. And it started dropping in intervals, not continuously, but it came down, like, in ‘sections.’” Then the object shot off toward the west, and “it made the wind blow. I can’t explain that part of it.”

The object quickly returned, 100 feet above the trees, stopping to hover above a hillside one or two miles north of the party. Jim remembered thinking that the object couldn’t be a helicopter because of its silence when suddenly the object made a sound like a “whoosh,” and the whole sky was lit up as though a flare had exploded. He remembered seeing himself and the others frozen, looking up, from a perspective as if he were out of his body.

Subsequent events are a blank until 1:30 a.m., when Jim found himself running down the road, his heart pounding, one hand holding his wife’s hand (Alice), the other hand holding a stick. He wondered, “What am I doing running?” The rest of the party was nearby, also running. Sarah was so tired that she stopped and lay down by the side of the road, immediately falling asleep. The party left her, which was strange, and walked down to the Mill Creek Guard Station and called for a ride home. When the ride arrived, Sarah was picked up, still asleep, and the party was driven home.

The recollections of other members of the party contain similar features but remain incomplete and inconsistent. Alice remembered first seeing a light or little lights through the trees about half a mile away. She recalled the light moving up and down, right and left, in a criss-cross pattern as the party initially set out from Camas Patch for the Mill Creek Guard Station. She said that the party “got kind of scared,” wondering whether the light was from someone walking with a lantern at Renschler’s Mill (north of their position). “There was nothing we could do, just stand there and watch it [laughs]. . . we walked much faster after we saw the light. We didn’t know who was out there.” Then “the whole sky lit up, lavenders, blues, the whole spectrum.” The colors were spread out “like the colors in an airbrush design.”

Sarah recalled that after it started to become dark, the party began to walk out of the Camas Patch area. She remembered the eastern sky lighting up “like a huge flashbulb going off.” Then, when the party was west of Satus Peak lookout, they saw a very bright triangular-shaped light, lit up with lights “like a Christmas tree,” hovering just above the Ridge. Her last recollection was of feeling tired and crawling into the weeds on the side of the road to lie down.

Sally recalled several silent, bright lights hovering above a hill as the party walked down the road. She stated that no one seemed to be affected by the lights. She was impressed by their brightness and their position above the hills.

Westrum found it puzzling that the members of the party did not discuss their sighting among themselves after they returned to the Valley. Jim said that when he tried to discuss the event with Sarah and Alice, the women laughed and refused to talk about it.

Then, three years later in 1970, Jim read a local news story about some teenagers who had seen a UFO. The story seemed to trigger his own memories of

his encounter, and eight years of nightmares ensued. In his dreams he would see the light, hear its sound and then at the point where he remembered running down the road with the stick in his hand, he would wake up, eyes wide open, his body sweating. Even after he remarried, these anxiety attacks continued. In 1972, as he prepared to depart on an air trip from Portland to Yakima, he broke into an intense sweat at the sound of the airplane's engines. In 1978, as he watched an approaching helicopter, the sound of the rotor and the flashing light froze him. Gradually, as he began discussing his experience with others, he began to accept the experience, although he could not fathom it. In 1972 he talked about the encounter with Vogel, related it to a psychology class in 1975, and talked it over with his second wife in 1978. He insisted, however, that whatever occurred had not harmed him, a conclusion not warranted by the eight years of nightmares. He has always wondered, "How close did it [the object] come to me, and what happened?"

In Chapter 12 we will meet Mrs. S who, with her daughter, observed a strange set of triangular-shaped NLs near her house. This would not be the end of her sightings, as Ron Westrum discovered. Over the next six weeks the family made a point of searching for NLs in the sky near the house.

One night their search was rewarded when they saw NLs while driving home. Mr. S pulled the van onto the lawn, and the family watched the lights bobbing in the air to the west. Then an orange light appeared, jerking along in a rhythmic series of jumps behind an airplane. Soon, a pale-orange, round light like a flattened disk floated up from behind a stand of trees half a mile away, flashed towards them and went out. This last event frightened Mrs. S, and she vowed not to actively watch for UFOs again.

A family friend, who learned of the S family's sightings, urged Mrs. S (henceforth called S) to accompany him to the site where the lights had been seen. But the more the idea was discussed, the more apprehensive S became. One night, while lying awake in bed after just talking about the proposed trip, she suddenly felt that she was outside the house in only a nightgown. The odor of corn assailed her. A breeze was blowing on her, and she had an unpleasant feeling that her nightgown would come up. The impression was brief, distasteful and seemed to be a memory of something she had experienced (S was seven months pregnant at the time).

For several more nights, the idea of traveling to the UFO site was discussed; and each time S reacted to the proposal with nausea and headaches. Finally, one night she decided to put on the nightgown she wore in the memory and relax and "go with the flow." The next morning she awoke exhausted and suffering from a headache. She remembered waking up sometime during the night with the need to use the bathroom. The electricity was off in the house, and she was forced to use the bathroom in the dark. She felt a breeze coming from the area of the kitchen, and she walked down the hallway. She called for Mr. S, telling him the electricity was off. He came to her and stepped around her to shut the kitchen window. S then heard a noise near the sewing machine, like a roll of thread falling to the floor. She looked and saw the figure of a feminine-appearing "man" with small, rounded, narrow shoulders and a thin head and thick neck like a turtle's. She saw no eyes

or mouth and remembered seeing no legs or arms. She remembered Mr. S saying something, and she was afraid. She thought of the children, and as she moved behind Mr. S, she scraped her back on the hard enamel paint on the wall. Next, she found herself floating through the air over the cornfields behind the house, dressed in only the short, pink, knee-length nightgown. The gown was loose and blowing up around her naked thighs. Her hair was loose and blowing in the breeze. She smelled corn and irrigation water. The last thing she remembered was seeing a whitish, disk-shaped spaceship about 80 feet long with a top on it hovering over the cornfields. She floated up underneath a round, purplish, ultra-violet-type of light and the memory ended.

S recalled that during her observation of NLs, one of the neighbors she called told her, “They’re coming to get you to experiment on you and the baby.”

Budd Hopkins has shown that abductees—people allegedly abducted by alien beings—are unable to account for an extended period of time after they observe an unexplained object. Abductees are haunted by vague feelings, partial recollections and dreamlike flashbacks of the event. Hypnosis aids in unearthing “missing time” where the witness is taken aboard a UFO craft by alien creatures. There, the aliens perform a medical examination, removing ova or sperm ostensibly for genetic experimentation and to breed a hybrid alien/human race.^{1,2}

A consistent scenario occurs during the abduction. First, there is contact, as if the abductee’s mind is somehow being prepared for what is about to happen; feelings of fear or apprehension characterize this stage. Next, the abductee is overtly seized. Then, as if following a script, the abductee leaves the car or house and confronts humanoid forms. The abductee is then immobilized, captured and transported, often floated, into a UFO. The medical-like examination then ensues.

Until hypnotic regression and questioning are applied, the abductee is haunted by vague feelings that something, which he cannot remember, happened to him. The witness’s loss of conscious memory of the abduction experience may result from repression of the painful or frightening abduction experiences.

The experiences presented in this chapter are similar to classic abduction accounts. Several aspects of the Jim and S cases reflect various stages of Hopkins’s abduction scenario, suggesting that actual abductions occurred. Over the years, Jim was deeply troubled and perplexed about what happened to him, a state of mind most abductees share. During Westrum’s interviews, the women showed signs of anxiety. Sarah laughed nervously when she learned from Westrum that Jim had been frightened by the light. These signs and Jim’s persistent nightmares, accompanied by stark physiological reactions, point to an intense, traumatic experience. Jim’s recollection of the stick is important. Was he carrying it to protect himself, to fend off his captors? At the very least, it suggests that he had been threatened by something. Jim also remembers that he and the others were suddenly frozen, a sensation experienced in the immobilization stage of the abduction scenario. Clearly the approach of the bright light and this immobilization sensation seem connected. Alice and Sarah recalled the sky lighting up, supporting Jim’s memory of an explosion of light; and several of the witnesses recalled strange, luminous objects situated in the same general location to the

north, near Toppenish Ridge where lights shouldn't have been, confirming that something out of the ordinary was observed the night of Jim's memory loss.

Of the five members of the party, only Jim reported immobilization and the "out-of-the-body" experience and the eight years of nightmares. He did not reveal any memories of humanoid encounters or a medical examination. Yet more time than usual seemed to have passed between the point when the sky was brightly illuminated and when Jim came to, running down the road. The feeling persists that something unusual—certainly something more unusual than a run-of-the-mill UFO sighting—occurred that night. The signs of an abduction, possibly of the whole party, seem evident.

S, too, appears to have been abducted. She awoke at night, realizing that the house was dark. This environmental condition reflects the initial stage of preparation of the victim for contact: the victim cannot easily escape in the dark (she is immobilized). S observed a shadowy figure, evidence of the confrontation stage where victim meets humanoid captor. Then, S found herself floating over the cornfields. Floating is a common mode of transport of abductees, occurring during the actual physical abduction. Finally, S appeared to enter a UFO, which links her experience to the final stages of the scenario.

A psychological interpretation of her experience is possible. The apparent abduction occurred during the last trimester and near the time when S's neighbor suggested an abduction motive for the March 1981 triangular lights (Chapter 12). However, S told Westrum she did not believe that her humanoid encounter and the floating experience were the product of her imagination.

Interestingly, two years earlier (spring 1979), while S was living in another house 10 miles east of Toppenish near Toppenish Creek, S heard something moving back and forth along one side of the house. The thing made a loud thumping noise and stopped at a window. This frightened S, who was alone with the children, and she locked the doors and sat down in a chair to wait for her husband to return. A few days later she had a dream.

In the dream, S looked outside the window and saw "a big, orange, bushy, ugly thing" squatting down in tall weeds and looking at her children who were playing. A week later, after the children were in bed, she sat down to watch television. She became frightened that something was looking in the window at her. She remembered suddenly waking up, as if she had inexplicably blacked out. An hour had passed; her head had dropped over to one side, and her neck hurt from a "crick." She became frightened and didn't want Mr. S to leave her and the children alone. Several times after this she had another dream; its content was always the same: she was driving home and crossing over Toppenish Creek; the car engine would die, and a little Sasquatch (Bigfoot) creature the size of a small man would jump down from where it was sitting on the bridge abutment and would come to the car. Associated with these dreams and fears were her grandmother's statements that if a young woman thought about Sasquatch, the creature would visit her. S also remembered her grandmother's strictures against leaving the curtains in the house open at night and the rule that she should not look out at the night. Later, during the 1981 NL sightings, S remembered an Indian belief that if

you don't bother the lights (UFOs), they won't bother you. Following a strict psychological interpretation, S's abduction could be reduced to an experience of repressed guilt—she had experimented with unknown UFO forces, showing disrespect for Yakima Indian tradition; what she felt and saw was all in her mind. If true, it is interesting that floating and flashbacks were part of her guilt, experiences typical of abductions.

It is important that none of these apparent abductees ever sought to publicize their experiences. The witnesses were silent until the UFO investigator came on the scene; even then, the witnesses spoke indifferently about their experiences, merely recounting what they remembered, never offering an explanation. The experiences, at the very least, should be considered in the context of the greater UFO picture that existed outside the witnesses at this time, which included aerial UFOs and CE-3s.



11

THE UFOs VANISH?

After the UFO concentration of 1976–1977, highlighted by Juan’s encounter with little creatures, UFO sightings began to dwindle, until finally by the mid-1980s few sightings were being reported. As the sightings tapered off, I began compiling my findings in a mood of reflection. My excitement was understandable then when a Reservation UFO sighting made the front page headlines of the *Yakima Herald-Republic* on September 5, 1986. Two weeks after the sighting I interviewed several police officers over the phone to piece together the event.

At about 5:00 a.m. on September 4, 1986, the officer on duty at the Zillah police station just outside the Reservation received a phone call from the Wapato police station. The Wapato dispatcher had been alerted by a patrol officer of strange lights traveling from the southwest to the northeast. Could the Zillah officer see them?

The Zillah officer stepped outside and observed a bright light in the sky over Granger to the southeast. In his car, the officer drove toward Granger on Highway 12, keeping the light in sight. Pulling off the highway at Nelson Road, the officer saw, according to his report, “a red light fly off of the first object and hover next to it for a few moments; and then both lights continued east.”

The officer returned to Zillah and called the Wapato dispatcher, reporting his observation. The Wapato dispatcher told him another light was headed over his area.

I then went out front of the police station where I saw a large (estimated 50 yards in length) object pass overhead. Its bottom was oval in shape with greenish-blue lights and reddish-orange lights with a great number of smaller, brighter white flashing lights. It appeared to be about a mile up and made absolutely no sound as it passed by. As it went overhead I could see it block out stars, so I assumed it was a solid mass. It took one to two minutes to pass overhead. It then headed northeast towards the Rattlesnake Hills and out of my view. It is my firmest opinion that this object was not a plane nor a helicopter of any type. I had never seen an object similar to this in the sky before.

The officer then went outside and saw the first two lights hovering over the Sunnyside area to the east. Once again he called Wapato who advised him that they had received many calls from witnesses about the lights. Because members of the media were waking up at 5:00 a.m., they happened to overhear the police officers on their CBs and ran outside to see the lights—but only those to the east. Significantly, they reported the lights as appearing as a distant star, and as “changing colors and holding motionless.” At 5:00 a.m. Sirius would have been directly east and 30 degrees above the horizon. Betelgeuse was also in the sky nearby. It is reddish. Could it have been the red light that was shot out of Sirius?

The large oval object poses a different problem. The Yakima Air Traffic Control Tower reported that nothing was in the air and nothing was observed from the tower at 5:00 a.m. (the tower opens at 6:00 a.m.). The Yakima Firing Center and Seattle Air Control also reported no aircraft aloft near Zillah.

I contend that a possible UFO passed over Zillah before the Zillah officer drove south in a futile effort to approach Sirius and Betelgeuse; and that the large oval object he later saw was probably a real UFO. Strangely, the Zillah officer said that upon reporting his sighting to the Zillah Chief of Police later that morning he learned that the Chief of Police’s wife and several other people in Zillah unexpectedly awoke at about the time as the oval object passed over. They all reported the sensation of someone being in their houses, but when they searched they found no one. The Chief of Police told me that he has no police scanner in his home, and that he lives a half mile from the police station. This would tend to negate the possibility that the Zillah officer’s activity outside the station—rather than the large oval object—woke up people around him.

This was the last Yakima Indian Reservation UFO sighting I investigated before relocating to Portland from Kennewick, Washington. A year and a half earlier, on April 22, 1985, Bill Vogel died unexpectedly in his home in Toppenish. Local sightings had been diminishing considerably since the late 1970s. When Vogel retired in 1980, the fire lookouts found it difficult to contact him to report their sightings, which were few. Also, their eagerness to report their observations waned since, as one fire lookout told me, Vogel had made the fire lookout job a special experience; the “fun went out of it” upon his retirement. But sightings had been dwindling even before Vogel retired. Even in his retirement, as he worked part-time with the local police, he overheard few sightings on the police air waves.

UFO activity simply seemed to have dried up. Vogel himself had seen his last UFO on December 18, 1984. It was about 7:30 p.m. He was driving a mile east of Toppenish when he saw an NL, whose apparent size was “about as large as a pencil eraser,” hovering above or on the ground of the Satus Peak lookout station. At 20 miles, the bright, orange NL was identical to the other NLs so often observed on the Reservation. The light had a reddish outer perimeter and flickered slightly. During the next two evenings, at approximately the same time, he checked the area visually, but discovered no stars or planets that could have been mistaken for the light.

About three weeks before Vogel’s NL sighting, something visited Tom Johnson’s property a mile north of Toppenish Ridge. At about 11:00 p.m., November 27, 1984, Johnson (pseudonym) and his wife heard a loud, guttural growling passing by outside his house. The sound was loud enough to vibrate the bedroom windows. Thirty-six hours later the Johnsons discovered 14-inch-long, 5-inch-wide tracks cutting through their yard in the deep snow. The tracks were five to six feet apart. Marks as if made by a dragged heel preceded some of the tracks and measured nearly three feet. The tracks had completely flattened the snow, as if by something very heavy.

Many months before, on April 24, 1984, Mr. Olsen and two other individuals observed a large, whitish ball rise out of a box canyon little less than a quarter of a mile west of the Olsen ranch south of Toppenish. At times the whitish orb turned an orangeish shade. The ball moved back into the canyon and disappeared, only to reappear and then move back into the canyon to disappear for good.

A month previous to this, a man stepped outside his house south of White Swan to pick up his morning paper when he saw a large triangle with steadily burning, multicolored lights on its perimeter passing overhead at high altitude. In the fall of 1979 or 1980, this same man, along with two other men, had observed a large, silent, white ball about 25 feet in diameter bouncing at ground level in fog in the Dry Logy area southwest of Satus Peak. The men were on horseback, checking on cattle. As the ball bounced, it sometimes moved close to the witnesses, frightening the horses and their riders. Eventually, the ball moved off into the fog and disappeared.

The last recorded UFO sighting by a fire lookout occurred at 7:50 p.m., September 28, 1985. The Satus Peak fire lookout, while looking out the south window of the lookout station, observed an oblong-shaped object with two large, square windows angle down at an altitude of 5,000 feet about 10 miles away near the west end of Tannewash Pastures. Traveling east to southwest, the lighted object was visible for two to three seconds, then went out like a light.

With the death of Vogel and my leaving the Yakima area, the trickle of UFO sightings that was characteristic of the 1980s finally came to a complete halt—at least no sightings have been publicized beyond the dramatic September 1986 incident. Perhaps sightings do continue on the Reservation. . .but quietly, unrecognized; or perhaps the UFOs have vanished for good. One thing is certain, a large body of Reservation UFO reports and other information is now waiting for analysis and evaluation in a scientific search for the answer.



12

A GEOPHYSICAL CONNECTION?

To this point, the Yakima UFO microcosm encompasses a rich spectrum of UFO and apparently related phenomena—all compressed into a relatively small geographical area. . . simple, distant, unremarkable lights. . . orange balls of light. . . objects with the suggestion of machine-like properties. . . closer objects that approach the viewer or vehicle. . . unidentified creatures. . . strange markings and sounds. . . even, apparently, terrifying abductions. We are now faced with a simple question: of this menagerie of reports, do any reflect the physical reality of a true alien machine or intelligence on the Reservation, or can all be explained as one or several natural, non-intelligent phenomena?

In my own search for an answer, I was continually reminded of Allan Hendry's pioneering work, *The UFO Handbook*.¹ The *Handbook* contains Hendry's findings as an investigator for the J. Allen Hynek Center for UFO Studies. Of the more than 1,000 UFO reports he received over a two-year period, only 113 passed his stringent tests for "true UFO" status—and of these the majority (79 cases) were of Nocturnal Lights. Hendry found that most UFOs were ultimately identified as objects seen at a distance—and most importantly at *night*: stars, planets, advertising planes, aircraft, meteors, satellite re-entries, weather balloons, and other objects. Above all, he discovered that UFO witnesses were generally emotional and programmed by the media to expect to see the features of alien spacecraft in conventional objects.

Most of the Reservation UFOs were nocturnal, but I do not believe that the majority of the Yakima Indian Reservation UFO witnesses were emotional,

ignorant viewers of astronomical or manmade objects. Granted, some sightings—I believe only a small percentage—were possibly of misidentifications of distant lights. But were the rest of the observations of alien machines?

I was reminded of Hendry's statement that the UFOs he labeled as NLs could have been accurate descriptions of "*classically* [his emphasis] strange natural phenomena (such as ball lightning.)"²

I discount ball lightning as a source of the Reservation NLs. Ball lightning is nearly always observed during thunderstorms, measures about 4–16 inches in diameter and is extremely short-lived (one to two seconds).³ The Reservation UFOs—certainly the balls of light—were seen in all kinds of weather and were clearly distinguishable up to many miles, suggesting a size of several feet. Some balls of light were also visible for minutes, not brief seconds. The gnawing presence of craft reports also negates the ball lightning hypothesis.

The Tectonic Strain Theory (TST)

Faced with the fact that meteorology or atmospheric physics cannot adequately explain UFOs, a new line of inquiry among some researchers has gained ground in the last 10 years: the so-called *geophysical theory*. Having exhausted every known theory for the Reservation UFOs in my attempt to solve the puzzle, I turned to the works of the chief proponent of this theory, Michael Persinger.

Persinger is a professor of psychology and neurophysiology at Laurentian University, Sudbury, Ontario, Canada. He has written prolifically over the past 20 years concerning his theories of UFO generation and the reasons for the existence of Fortean and other odd phenomena. His belief is that all these phenomena can be ultimately explained in natural, terrestrial, physical terms.

Persinger now focuses almost all his attention on the Tectonic Strain Theory of UFOs, which he has developed over many articles published in *Perceptual and Motor Skills*. All his articles on the TST to date are listed as a footnote.⁴ Persinger is an unusually productive and prolix writer, demanding a great deal of patience and familiarity with advanced statistical analysis. It is my intention to interpret Persinger's TST as accurately as possible; but I urge readers to consult all of Persinger's articles on the subject to fairly wrestle with all the complexities of the TST. After I delineate the TST and its major components, I will test the theory, using all the Yakima Indian Reservation reports. I purposely reserved some of the Reservation reports for this chapter, rather than presenting them earlier. In this way, particularly salient points and arguments can be more directly and clearly addressed.

To grasp the TST, take a moment to construct a mental image of Planet Earth seen from space. In your imagination, strip this gleaming blue and white disk of its atmosphere, and we are left with a somewhat brown and green oblate ball. The skin of this ball is the crust. The diameter of Earth is 7,918 miles, yet its crust is a mere 25 miles thick. A fractured, worldwide mosaic of huge chunks of rock—or plates—form the thin crustal covering. These slabs slowly move on top of churning, liquid magma beneath. As monumental forces move through the molten

rock, the tectonic plates grind against one another. Where plates push and lock together, faults form. As pressure mounts from beneath, a field of strain expands across the region. When the subterranean pressures reach critical proportions, the two conjoined plates can suddenly slip, moving side to side, or up and down. The result is an earthquake where massive waves of energy are suddenly released to travel through the rock to the surface.

Persinger believes that light phenomena can sometimes be seen in a strain field region, the area where tension persists over time from the subsurface pressures. John Derr of the U.S. Geological Survey has clearly demonstrated, using numerous eyewitness reports and photographs, that a valid geophysical phenomenon called *earthquake lights* exists (or EQL).⁵

These lights are seen almost always just before, during or after large-magnitude quakes. *Magnitude* is related to the amount of seismic energy released by the quake. As the seismic waves or vibrations from the quake travel through the earth, they are recorded on seismographs stationed across the globe. Using the zig-zag tracings from the recordings, geophysicists determine the magnitude from the logarithm of the amplitude of the waves. Each whole number increase in magnitude on this Richter scale (named after its inventor)—such as 3 instead of 2—represents a *tenfold* increase in measured amplitude.

Earthquakes with a magnitude of about 2.0 or less are called “microearthquakes.” People generally do not feel these, and usually only local seismographs record them. Several thousand magnitude-4.5 quakes are recorded all over the world annually. An 8.0 or higher quake is recorded just once a year somewhere in the world. It is important to remember that, for our study, EQL are generally associated with quakes above 4.5.

Persinger theorizes that an *earthquake-light-like* phenomenon, a luminosity, can sometimes be observed in strained regions for several months or a year or more *before* or *after* a large-magnitude quake occurs. The luminosity is typically a spherical or elliptical mass of light, or “a very small plasma-like condition.”⁶

Called the “fourth state of matter,” plasmas are a collection of charged particles containing equal numbers of positive ions (neutral atoms missing electrons) and free electrons, and capable of conducting electricity and being affected by a magnetic field. Apparently, Persinger’s plasma-like condition is formed by ionization. If energetic electrons or an electric field of sufficient magnitude is passed through gases in our atmosphere, the electrons in the neutral atoms of the gas are stripped away, leaving the stripped atom behind (an ion). Once an atom loses an electron, it quickly picks up another electron and becomes a neutral atom once more. As long as the electric current is present, neutral atoms will continue to be excited.

As evidence for the existence of this ball of light, Persinger and Derr cite the 1981 work of Brian Brady, a researcher with the U.S. Bureau of Mines, Denver, who subjected a granite core to pressures of 32,000 psi. The experiment produced short-lived, intense balls of light. The balls were contained in electromagnetic loops and moved along the fracture lines in the granite. Persinger writes:

These miniature luminosities reflect all the major characteristics of the field varieties, including spin (rotation), color changes, radio-frequency emission, splitting (into separate balls), fusion (into larger volumes) and the ejection of narrow beams of energy.⁷

The luminosity should be seen during periods of low-level earthquakes, in areas with “old fault lines and fracture zones.” The luminosity should behave in characteristic ways: it would be evident near sharp shapes (cliffs, towers, or steeples which concentrate electric charge); appear near sources of electric charge (radio towers or high-tension power lines); move along local fault lines; and be attracted to insulated, charged conductors (moving cars or ships).

Persinger pictures strain storing up in the crustal rock, then a small trigger event causing the strain to be released. These trigger events might be the passage of a severe windstorm, an unusually high- or low-pressure air mass, lunar tides, even manmade events such as the filling of a reservoir or lake. Geomagnetic storms resulting from sunspot activity could also precipitate a small burst of luminosities.

The luminosity would be created by an “electromagnetic field column.” Persinger describes this column as an area of space where electromagnetic energy is maintained in a “shortlived plasma environment.” The electromagnetic energy arises, somehow, from the strained rock during deformation, or the bending of the rock under pressure. An unprepared witness who happened to observe the luminosity would likely report it as a UFO: “It must have been an alien spacecraft!”

Persinger explains witnesses’ reactions to a natural, tectonically derived luminosity in terms of behaviorism, or stimulus/response reactions where people are rewarded on “reinforcement schedules” for believing in a particular version of reality. Simply stated, witnesses of a sudden and unusual phenomenon have been conditioned to explain the phenomenon as a flying saucer. According to Persinger, the descriptions that people give of anomalous objects merely reflect the prevailing societal view of what the unknown phenomenon is supposed to be, rather than what it actually is. Therefore, the words of the witnesses are unreliable. In addition, people’s recall of a sudden, novel event is inaccurate; their renditions of strange experiences are filled with biases and untruths (although not always conscious fabrications).

Persinger provides a long list of actions the natural luminosity would undergo as it formed inside the electromagnetic field column and moved through the air. He also lists the verbal responses of the witness. Because witnesses are programmed to interpret a natural, earthquake-light-like luminosity as a flying saucer, the witnesses would interpret all of the luminosity’s characteristics in terms of intelligence.

First, the subterranean stress and the attendant electromagnetic field column that produces the luminosity move along a fault line. Depending upon the geometry of the fault and the dynamics of the local stress-field at the fault line, the luminosity could make a sudden right-angle turn, or quick or slow movements or sudden diving motions. The surprised witness would say the luminosity was under

intelligent control and performing impossible feats. In reality, the movements of the luminosity would only be reflecting the changes in the stress field as the subsurface pressures varied.

The luminosity might travel above roads or pathways parallel to or along existing natural topographies such as old river beds, valleys or gullies—fault lines may exist beneath these features. The viewer would believe the light was displaying intelligent movement in its travel.

In a like manner, if the luminosity underwent slow or quick accelerations, the witness would say the craft increased its speed to escape detection; or it slowed down to observe a certain landmark. If the light hovered, it would be performing surveillance. If it approached the witness (moving along the fault line), the frightened witness would tell the police that he had been attacked.

According to Persinger's theoretical model, the luminosity would be attracted to metal, such as buried pipelines, railroad tracks, powerlines. The witness's response? "The UFO was sucking power from the lines."

A human UFO witness is a charged semi-conductor, Persinger says. If the witness approached the electromagnetic field column, the column would move away as the viewer approached, seemingly mimicking the witness's motions. The witness would report that the object was eluding him.

Depending upon the form of the electromagnetic column, the luminosity could have a different geometric shape. "It was shaped just like a disk or ball," the witness would report.

As the values of the stress lessened or increased, the field potential values of the column would vary. The luminosity would flash or blink as the electric field oscillated around these values. "They started signalling us!" Or: "The UFO disappeared and reappeared!"

The luminosity would appear over military installations, atomic reactors or reservoirs where piezoelectric rock sources coincidentally exist. The luminosity would appear because of the content of the rock under the ground, not because of the importance of the human structure on the surface. Yet the witness would report: "The UFO demonstrated clear intent on the weapons area!"

In short, the witness would project human properties and abilities onto the light where none existed. The witness would insist that the luminosity had intelligence with the ability to think and make decisions.

Being a physical phenomenon, the luminosity would also affect the witness or the environment if it came into contact with them, leaving marks or distinct mental and physical signs of its material presence. For example, depending upon the width of and amount of energy in the electromagnetic field column, and its distance from the witness, the viewer might experience tingling skin, oppression in the chest, odd smells, fear, paralysis and dreamlike states, such as out-of-body sensations, floating, time distortions or ecstasy. The electric fields of the column would stimulate certain parts of the brain, eliciting a mixture of visual, auditory and vestibular experiences, causing the witness to hear voices, see visual imagery including human figures, experience vertigo—all experiences akin to CE-3s.

The luminosity would resemble a plasma, as described earlier, a gaseous

mass of positive ions and electrons capable of conducting electricity. As a plasma it would emit ionizing radiation. In the ultraviolet range, this radiation would burn the witness's skin and inflame his eyes, causing temporary blindness in some cases. If gamma or X-rays, the victim would suffer radiation sickness: loss of appetite, malaise, altered white blood cells, loss of hair, diarrhea, vomiting and susceptibility to infection.

A field column with enough intensity could even induce seizures or blackouts and amnesia, typical of abductees who have experienced missing time. If the column stimulated certain parts of the body, the witness might incorporate these sensations into imagery, such as advanced equipment placed on the head or the genitals during an on-board medical examination. A sufficiently large enough column could kill the witness, or affect (if over the water) a ship's radio communications and electrical equipment. If the column extended to high altitudes, electric charge could collect on the wingtips or tail tips of a plane; the pilot would report a UFO coming from nowhere and following him. A column intense enough could interfere with the pilot's radio communications, cause the pilot or passengers to black out or even cause the fuel to explode.

Imagine yourself now in a balloon far above a region of your state. The earth's surface looks like brown skin with silver wrinkles marking the slow course of rivers and streams; sharp, shadowy nodules of hills and mountains; the white, angular geometry of urban development; the thin ribbons of roads and highways. Just under the skin the deep pulse of convective forces throbs. At the boundary points of broken tectonic plates just beneath the earth's skin, pressure swells. A strain field expands invisibly from the future quake point, in a three-dimensional vortex. The whole region vibrates silently, undetected by humans, as the pressure increases; the strain field now covers many hundreds, even thousands of square miles.

You sight a tiny car creeping along a black ribbon of road. Suddenly, a glowing spherical light appears near the highway on the slope of a jagged peak. The car pulls over; the driver steps out (to you only a speck) to view the light. The light pulsates, blinks, begins moving along the slope, then vanishes. Over the next 12 months more spheres appear, all across the strain field, as tiny earthquakes occur deep in the earth where the strain has localized—focusing at critical points. The microquakes (2.0 magnitude or less) radiate shock waves; in rare cases, the surface dwellers feel them, at other times only sensitive instruments planted across the region record their presence. UFO reports flood into the office of the regional UFO investigator. Then, after a year of excited reports of luminous spheres and other glowing objects, a quake measuring 4.5 on the Richter scale strikes the region, the tectonic strain dissipates and the UFO reports subside.

Following Persinger's thinking, almost all of the UFO reports collected by the local investigator would describe a flying saucer. Details of the flying saucer offered by several witnesses who viewed it from different locations would all differ. Perhaps one report would describe a terrifying abduction; the witness might have burns on his face when the saucer landed in front of him, or a vague memory of creatures, then a loss of memory.

During the UFO flap, witnesses excited by the news media stories of the saucers would also begin reporting IFOs, or Identified Flying Objects. These would be the usual stream of misinterpreted astronomical, manmade and other miscellaneous objects. Unfortunately, this noise would enter into the local UFO investigator's file of reports. And because the tectonic-strain-produced luminosity could be confused with these IFOs, it would be difficult to differentiate the luminosity from the false UFOs.

Statistical Analysis

Since 1977, Persinger has applied a sophisticated mathematical technique to prove the connection between tectonic strain in earthquake-prone areas and UFO reports. Multivariate statistical analysis involves comparing a large mass of independent variables—or data points—among each other to determine if the variables have any statistically significant correlations. That is, which data points appear to be dependent upon other data points? If there is evidence that one variable is related to another, perhaps one variable implies or causes another.

Persinger first reported on his use of multivariate statistical analysis in his book (co-authored with Gyslaine Lafrenière) *Space-Time Transients and Unusual Events*.⁸ The book was the culmination of his analysis of 6,060 reports he collected from a variety of sources, including the works of Charles Fort and *Fate* magazine. Spanning a 160-year period, the reports were of infrequent, transient, intense and localized events—much like the theoretical short-lived luminosity that witnesses accidentally see and report.

In looking for statistical relationships among the various categories of anomalous events, Persinger noticed a correlation between volcanic eruptions and earthquakes and UFOs. This led him to explore the idea that unusual events might occur before or after a major geophysical change. Persinger finally concluded that there was a positive statistical likelihood that earthquakes and UFOs were physically related. It was now a “numbers problem” to prove this connection and to isolate the exact environmental contributor that caused the UFOs.

Teaming up with Persinger, John Derr provided the Canadian researcher seismic records from various earthquake-prone areas where luminosities had been reported. Gathering UFO reports from several UFO investigators, Persinger applied multivariate statistical analysis in a number of case studies and showed apparently strong statistical evidence for a link between the UFO reports and earthquakes in the particular *window* areas.

A window is a restricted geographic area where UFOs and other strange events occur decade after decade. Persinger estimates the size of a window as 100 miles long and 50 miles wide. Interestingly, the size of the Yakima Indian Reservation is almost the exact same size as Persinger's model window, has numerous faults and has experienced earthquakes, ideal conditions for testing the TST.

Figure 16 shows the faults on the Reservation. The figure has been adapted from a map in an article by geologists Newell Campbell and Robert Bentley.⁹ The

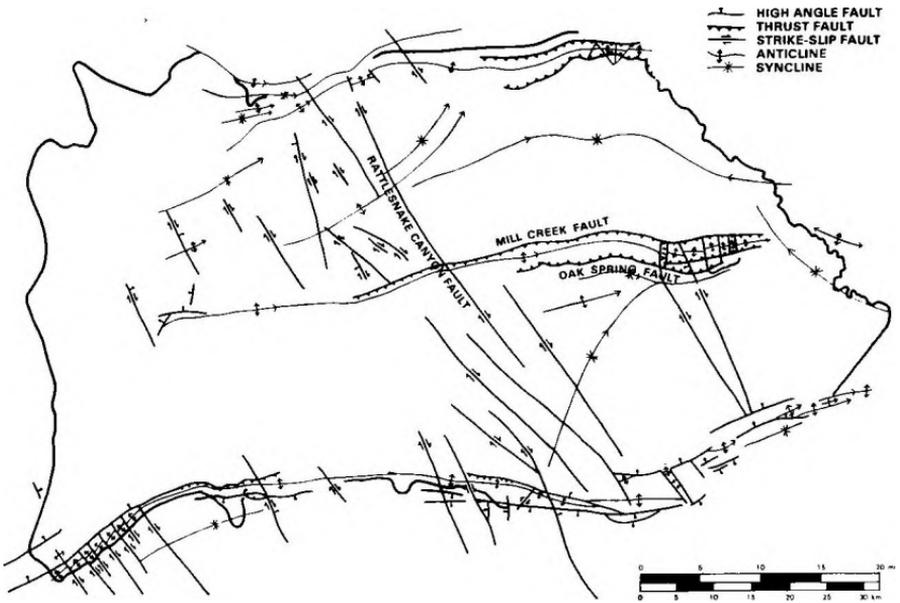


Figure 16. Faults on the Yakima Indian Reservation
(Source: Campbell and Bentley, 1981).

Reservation is marked by a belt of eleven west-to-east-trending anticlinal ridges formed of 50 basaltic segments. (Anticlines are layers of stratified rock which have been thrust and bent upward into arches by earthquake forces.) The geologists note that all along Toppenish Ridge are nearly 100 northwest-trending surface ruptures. These faults run across a 19.2-mile section of the Ridge.

Campbell and Bentley conclude that Toppenish Ridge was uplifted from regional strain anywhere from 500 to 13,000 years ago, a brief period in geologic time. The Toppenish Ridge area remains active today. On February 1, 1981, for example, a 3.8-magnitude earthquake occurred one tenth of a kilometer beneath Toppenish Ridge in the vicinity of the Mill Creek Guard Station.

Persinger has stated this about the Tectonic Strain Theory of UFOs: "Any potential contribution of this theory will be eliminated if the reader attempts to accept it uncritically; one should severely and quantitatively test its specific predictions."¹⁰ Here is such a test. The Reservation reports have been screened for use in this test, and where possible, I have matched them to the components of the TST.

Anomalies Associated with Tectonic Strain

Spherical Forms. Persinger predicts the presence of a spherical luminosity in earthquake-prone windows. The spherical luminosity is a "relative" of EQL. Derr cites the great Idu Peninsula (Japan) earthquake of November 26, 1930, where witnesses reported 1,500 instances of EQL to the local investigator

Musya.¹¹ The majority of these reports were of a single flash of light like sheet lightning which illuminated the sky. However, a smaller number of EQL were fireballs.

The investigator Terada also documented EQL fireballs. These fireballs reportedly hovered, flew in various directions or moved upward and vanished.¹² UFOs have also been reported in squadrons or geometric clusters, and Persinger refers to EQL that have assumed a number of geometries, from wheels to straight lines.¹³ In support, Derr documents a sighting of EQL formed as “a straight row of round masses of light” that appeared over a mountain and moved and reversed direction.

As we have seen, luminous spheres were commonly observed on the Reservation. They were generally below ridge lines and near ground level, fulfilling Persinger’s criterion for localizing the point of their generation at the surface of the earth.

Luminosity Characteristics and Behavior. Several Reservation spheres blinked on and off. Persinger postulates this behavior, as well as a sudden increase in light intensity before the sphere vanishes. Vogel’s July 20, 1974, sighting involved a pencil eraser-sized orange-red light near Satus Peak that faded in intensity, turned white, increased in intensity, and went out (pages 27–28).

In another case, a bright, white light hovered over U.S. 97, changing to red or orange as cars passed under it. Persinger predicts small faults running beneath valleys, gullies and old river beds. U.S. 97 is built within natural declivities of Satus Creek. We could hypothesize a hovering light as the product of tectonic stresses beneath the highway. Perhaps the color changes of the sphere result from the interactions of its electric fields with those of cars passing on the road below it. This effect would create, in the mind of the witness, the attribute of UFO surveillance.

Similarly, when fire lookouts describe lights moving low to the ground along straight paths, these could be luminosities following fault lines. On August 31, 1976, a red light moved east to west toward Toppenish Mountain along the southern edge of Toppenish Ridge. This edge follows a fault line, above which runs the Oak Springs Road (see Figure 16).

On November 3, 1976, a bright, white NL moved at a very high rate of speed parallel to Satus Creek and U.S. 97 just above the ground. The light traveled five to six miles until it disappeared near the Olsen ranch where lights were seen from 1976 to 1977 (Chapter 7). The Miller family also reported to me their sightings of round, orange or white lights streaking along Toppenish Creek at treetop level one mile north of Toppenish Ridge. Near this creek, on March 12, 1975, a light hovered and moved toward the Ridge, where it “went out” (page 35). Theoretically, these lights could have followed buried faults.

At 9:30 p.m., September 15, 1975, a police officer was preparing to ticket a speeder on Mill Creek Road when he saw a round, orange-red light in his rearview mirror. It was crossing the road behind him, heading toward Toppenish Ridge (page 33). According to Persinger, it would be more than coincidence that the object was moving on a path parallel to a north-south fault, the Rattlesnake

Canyon fault, in the vicinity (Figure 16).

Persinger's hypothetical luminosity should be charged. Thus, it would be attracted to points of charge collection, such as railroad tracks and power lines. On June 5, 1979, a couple was driving west on the McDonald Road north of Toppenish when they sighted a bright, white ball of light hovering above the roadway ahead of them. The ball was east of the Northern Pacific railway. The railway runs parallel to Wappenish Road. The object "gave a short jump upward, described an arc and descended somewhere on the other side of the railway embankment."

In a similar incident, on August 22, 1976, the Satus Peak fire lookout observed an orange, pulsating light for 23 minutes. It hovered over power lines that crossed the Wiley City road on the other side of Ahtanum Ridge (Appendix 1, Case 59).

April 2, 1973: A young boy watched a yellowish, basketball-sized ball of light descend from the vicinity of power lines outside his house (page 26). We should note that Bonneville Power Authority high-tension power lines run along a path roughly parallel to U.S. 97 and near the Olsen ranch. It was at this ranch that the Olsens and ranch hands regularly witnessed bright, white lights that approached the ranch or hovered in a saddle west of the ranch (Chapter 7).

Scorched Vegetation. Persinger predicts that an electromagnetic field column associated with subsurface stress could kill plant life or alter the properties of some minerals if its current flowed through a conductive region.

In the early 1970s (the period of the heaviest UFO activity), Vogel received reports of scorched vegetation in uninhabited areas of the Reservation. The witnesses were returning from the high country on horseback. Ball lightning can leave holes, furrows and scorch marks on the ground. However, it is certainly conceivable these marks could have been caused by a terrestrial luminosity.

Burning Columns and Beams of Light. Paul Devereux of Great Britain, a proponent of the geophysical theory of UFOs, calls luminosities "earthlights," and his 1982 book of that title¹⁴ explores the relationships among fault lines, ancient monoliths, meteorological phenomena and UFOs. As evidence of the earth/UFO connection, Devereux presents cases of light beams rising from the earth during the 1904–1905 Barmouth, Wales, luminous phenomena flap. In one instance, two pillars of clear fire sprang into being while another pillar seemed to grow from the earth. The latter beam eventually assumed the same size and form as the other two:

And as I gazed upon them I saw two arms of fire extending upwards from the top of each of the pillars. The three pillars and their arms assumed exactly the same shape and remained so for about a minute or two. As I looked towards the sky I saw smoke ascending from the pillars, and immediately they began to disappear. Their disappearance was equally swift with their growth. It was a gradual disappearance; the fire became small and went out. . .¹⁵

Devereux calls these pillars "terrestrial discharge phenomena." The phenomenon emerges from the ground as a streamer, then develops into a searchlight

beam, pillar of fire or luminous column. In some cases, according to Devereux, it can detach as a spheroid. The spheroid is able to rise up into the atmosphere or even divide. Devereux cites several Barmouth reports in which spheres actually formed inside fiery columns. In cases where the column of light failed to take on a spheroidal form, it collapsed and extinguished. Persinger also refers to examples in the EQL literature of beams, glowing columns and pillars of light.

Vogel told me that the fire lookouts had observed burning columns in isolated areas. The columns were comparable to trees that had burst into flame. In several cases, “searchlight beams” were also recorded in the fire lookout logs (Appendix 1, Cases 4, 72, 77 and 113). For example, at 1:50 a.m., September 14, 1983, the Satus Peak fire lookout saw a large, bright, white spotlight shooting up into the air about 20 miles to the south. After a few seconds it went out. Several minutes later, a similar spotlight appeared several miles west of the first location, turned orange and went out.

At one point, Vogel was convinced that Toppenish Ridge was the key to the UFO mystery on the Reservation. In the summer of 1973 he made a helicopter reconnaissance flight over the area south and southwest of Toppenish Ridge. A week before the flight, a fire lookout had seen a fire in the shape of a burning column in the vicinity of the Bonneville Power Authority’s high-tension power line that runs along U.S. 97 south of the Ridge. The fire died down after she reported it to Vogel, but nothing was detected in the form of smoke or fire the next day; and when Vogel went up in the helicopter to scour the area where the lookout had seen the flame, he failed to find a burn spot. Afterwards, he and the pilot scanned all of Toppenish Ridge and several of the canyons to the south where the glow of nighttime lights had been seen on previous occasions. Nothing unusual was observed.

Ground Glows. The Japanese earthquake investigator Yasui observed a large hemisphere of white light contacting the earth’s surface during the 1965–1967 Matsushiro earthquake swarm. Like beams of light, these glows could be signs of some kind of electromagnetic discharge into the atmosphere.

Curiously, Vogel saw a white halo of light radiating from behind Toppenish Ridge on the evening of January 3, 1975. Six miles away, the halo was “of continuous intensity, white and not especially bright, but would be about what a rising moon or a vehicle’s lights behind the Ridge might produce.” Vogel discounted the moon and any manmade source (heavy snow on the ground would have prevented vehicular traffic in the area).

Vogel had received reports of similar lights in the early 1970s from the fire lookouts. These were glows in inaccessible canyons 600 to 700 feet deep south of Toppenish Ridge. The steady, non-pulsating lights were compared to distant city lights as seen by an approaching traveler.

Effects on Animals and People. Persinger’s electromagnetic field column could affect living tissue in a variety of ways, from burns to mental disturbances.

In Chapter 6 we reported on the Miller family’s sighting of a brilliant, pulsating white light hovering just north of Toppenish Ridge. It moved toward the Ridge and went out. During the sighting, ranch animals appeared to respond to the

light. Hypothetically, they may have reacted to electromagnetic fields in the Ridge as stress propagated through the ground and under the ranch. Perhaps they responded to ultrasound waves emitted by imperceptible earthquakes and above the range of human detection.

Such a scenario might explain the nervous behavior of horses at the Olsen ranch during a night in the week of April 4, 1976. The horses finally bolted, completely panicking and stampeding through and over the corral fence and several other fences in the area. The caretaker's horse ran over a mile before stopping in a corral at an abandoned sheep camp. The other horses were in a high state of fright. If the horses did not respond to electromagnetic fields, perhaps they reacted to subtle ground vibrations caused by a low-level quake. Four months later, the Olsen ranch would be the site of many NL manifestations. (We should note that two months earlier Bigfoot was sighted two miles to the north of where the horses panicked.)

David Akers also experienced an unexplained uneasiness on the night of October 30, 1976, while he slept in his car off the Pumphouse Road north of Toppenish Ridge. The area was unusually quiet. The only sound Akers heard was coyotes far away in the Valley. That night at about 8:00 p.m., the Satus Peak fire lookout sighted a bright orange ball of light nine miles southeast of the peak. Four days earlier, October 26, 1976, a burst of NL activity had occurred on the Reservation (pages 39–40).

Radio Interference/Blackout. Persinger predicts that tectonically derived electromagnetic forces would not only produce luminosities, but disrupt radio transmission and reception and affect electrical instruments.

August 29, 1972, about midday: The entire Reservation FM radio network, including its mobile radios, was mysteriously blacked out for less than a minute. Akers, Vogel and the fire lookouts on all the mountain peaks became aware almost simultaneously of “skip” and ensuing silence on their radios. This blackout occurred near the end of Akers's UFO stakeout and a day after he had observed NLs.

At 9:25 that evening, the Satus Peak fire lookout saw two bright lights in the Medicine Valley area 15 miles to the northwest. Two minutes later, the lookout saw a light on Bickleton Ridge 25 miles southeast. This was followed by a third light in the sky, again above Bickleton Ridge. We could hypothesize a large-scale seismoelectric event occurring across the surface of the Reservation, or an atmospheric event caused by a solar flare.

The Reservation records document other electromagnetic disturbances. October 28, 1974, 4:00 a.m. The Signal Peak lookout was awakened by a “loud squelch tone on her FM two-way radio.” She was unable to deactivate the noise by normal adjustment of the squelch control, indicating intense interference. The noise lasted 22 minutes, then disappeared.

During the summer of 1974 several other lookouts experienced similar radio interference. Vogel found this puzzling; no one else on the Reservation reported a similar radio problem.

On October 9, 1980, the Satus Peak fire lookout wrote in her log: “My radio

went crazy. Loud squelch noise and lights flashing.”

In a letter to Hynek, October 11, 1972, Vogel reported an incident strongly suggestive of electromagnetic interference on the Reservation:

... [O]ne night when we [Vogel and his son] were returning from a fire on the other side of Toppenish Ridge (the same night Sopelia LO had the rocket-type object fly out of the canyon in front of her) [*Ed.: probably August 11, 1972*], I had my pickup AM radio on listening to some music. As we broke over the hill and started down into the Valley there developed the strangest noise on it that I couldn't hear the station— somewhat similar to the sound an electric razor makes on a radio yet different. It was unusual enough that I looked out all windows to see if there might be something around (UFO). I even remarked to my son...that was probably the noise like a UFO would cause. Come to think of it, it was almost identical to when one drives through a dust storm and picks up static electricity on his antenna, or is driving in the vicinity of an electrical storm and picks up the same on his antenna. I saw nothing so didn't think too much more about it as it decreased and as we moved into the Valley and finally quit. As we turned off the north-south highway (U.S. 97) onto the freeway towards the Agency, out of the corner of my eye I saw the orange ball on the side of Toppenish Ridge a few miles west of where the highway came over it that we'd been on. I called the boy's attention to it and said we'd take a better look when we got over to our Agency bull pen. When we got there, it was no longer visible.

We first met the orange ball (or egg) in Chapter 4. It was often mistaken for a fire, but unlike a fire ascended Toppenish Ridge and vanished over the top. Vogel heard the radio interference at a point where Toppenish Ridge meets U.S. 97, a few miles from where Vogel saw the orange ball. Could the ball and the interference be connected to the geology of the Ridge?

Derr includes in his review of EQL events a personal communication from an observer of the July 16, 1973, earthquake on the coast of Guerrero State, Mexico. After the quake, the observer heard a strong noise for five minutes on all the FM stations on his car radio. Chi-Yu King, a geologist, also reports examples of electromagnetic emissions before earthquakes in Japan and China.¹⁶

For three to five days before the [Tangshan, China] earthquake, unusual interference was received by many military and civil radio-communication receivers in an area within about 250 km of Tangshan. In another case, before the Longling earthquakes (magnitudes 7.5 and 7.6) on 29 May 1976, rain-like noise was received by an ordinary household radio while “earthquake light” was sighted.

Although other phenomena could have caused these lights (such as distant lightning), King concludes that “the phenomenon of earthquake-related electro-

magnetic emission must be seriously considered.”

Consider the content of the following two cases. They suggest an electromagnetic anomaly *beneath* the surface of the Reservation. Vogel wrote to Akers on November 16, 1972:

The secretary from the White Swan Ranger Station told me yesterday of something that happened to her brother who was over on the Roza [just below Rattlesnake Ridge] at a ranch. It was early in the evening, and as he came out the ranch road towards the main road, he noticed a car approaching with its headlights flashing on and off as if they were on a flasher. As he turned onto the main road and met this car, his headlights began doing the same thing and continued to do so for three or four miles at which time they returned to normal. The next day he checked all of his wiring, etc., and it was perfect. His lights had never done this before or since.

On April 21, 1975, Vogel filed another “Incident Report.” A Tribal police officer had experienced a strange event about February 1975 while driving on Yost Road, about three miles north of Toppenish Ridge and due north of Satus Peak. The report was written in the first person, as the officer had narrated it:

I was patrolling out in the White Swan area and was near the intersection of the Shaker Church and Yost Roads. The time was about 3:00 a.m. PST. As I was driving along the Yost Road, my lights momentarily went out, stayed out for several seconds, then came on again. They stayed on for several seconds, then went off again for several seconds. This was repeated in sequence a number of times. I looked at my ampmeter to see if it indicated any sudden discharge or reaction due to a short in the wiring. It was acting normal and was not showing much needle reaction even when the lights would flash off and on as would normally be the case if one were to do the same with the light switch.

When the lights came on and stayed on, I continued on down the road for a half mile or so. I got to thinking how strange this had been, so I turned around and went back. When I reached the place along the road where my lights had shown the reaction, they *again* began the on-and-off sequence and did so until I passed out of the location of the first reaction. I then stopped and shut off my motor to listen but could hear no noise in my area such as I thought a UFO might make. However, I did not look overhead nor pay particular attention as to whether there was anything around me. But as it was very dark, I would have noticed any lights around me.

Conceivably, both witnesses may have passed through electromagnetic field zones. Toppenish Ridge and its attendant faults were only a few miles away in the second incident. Rattlesnake Ridge, where anomalous lights had been sighted in the past, could have faults, too, although I have not determined this.

Akers himself wondered if an electromagnetic source was a cause for the Reservation events. He installed a magnetometer in the Satus Peak lookout to detect and measure magnetic disturbances. Several times the magnetometer was activated (Appendix 1, Cases 44, 45 and 47), although no UFOs or unusual atmospheric phenomena were seen. We should also recall the Fish and Wildlife agent in Chapter 6. He reported radio interference during periods of NL manifestations on the Refuge and near Toppenish Ridge.

Finally, at 8:23 p.m., October 18, 1974, a power outage “of somewhat mysterious origin”¹⁷ occurred in Selah, eight miles north of Ahtanum Ridge and its faults. The outage caused a blackout of the entire downtown area of Selah. The outage was traced to a 12,000-volt line midway between two poles over a swampy area. After 25 minutes, the outage corrected itself. Four days before the Selah blackout (October 14, 1974), both the Satus Peak and Sopolia lookouts heard underground rumblings, and as noted earlier, radio interference occurred for 22 minutes on October 28, 1974, ten days after the Selah blackout. Persinger theorizes that an electromagnetic field column moving beneath or adjacent to power lines could produce blackouts due to induction or overloading.¹⁸ In the instances above, we could hypothesize electromagnetic emissions from tectonic strain and earthquake activity interfering with electrical systems.

Underground Sounds. During my investigations, I discovered accounts of seeming underground sounds on the Reservation.¹⁹ Although not listed by Persinger as a component of the TST, John Derr told me he believed that these sounds were a sign of earthquake activity, and that this fact supported tectonic strain as the cause of UFOs in the Yakima region.

During the heaviest period of UFO sightings (the early to mid-1970s), the fire lookouts began detecting the strange sounds. Vogel reported for the first time (on November 7, 1972) that the fire lookout on Satus Peak, at the western end of Toppenish Ridge, had been hearing deep rumbling noises that seemed to come from under the lookout station.

Vogel described the sounds as “similar to a loaded truck pulling a long hill and never reaching the top, or the kind of rumblings one sometimes associates with an earthquake.” He reported that the lookout heard the sounds only during the daytime, and he excluded logging trucks or jet aircraft as the source. The lookout felt no tremors or vibrations when she heard the sounds. Two years later, August 1974, the sounds were reported again.

In May 1976 Vogel noted that several loggers in an area four or five miles west of Satus Pass on U.S. 97 heard what sounded like “several large turbines start up and run.” The loggers compared the sounds, which seemed to come beneath them, to the turbines in the powerhouse at Grand Coulee Dam.

Vogel also noted that a former gate guard at the Mill Creek Guard Station, a few miles west of Satus Peak, had heard underground turbines in the evenings when out in the yard of the station.

By November 1976, Vogel reported that the sounds had been heard “all the way from Fort Simcoe (7½ miles north-northwest of Satus Peak) to almost the entire length of Toppenish Ridge.” In September 1978 the sound of underground

turbines or engines was heard at Sopenia Tower at the southern boundary of the Reservation for *seven hours* (approximately 9:00 p.m. to 4:00 a.m., September 3–4). According to Vogel the noise was like a turbine or “unsynchronized propellers on multi-engine aircraft.” When let outside the lookout station, the fire lookout’s dog displayed anxiety, and the lookout felt barely perceptible vibrations under her feet when standing on a concrete slab. The lookout said she had heard the same sound during the summer of 1978, but always during daylight.

During my investigations, I persuaded the fire lookouts to comb through their logbooks and diaries for all references to UFOs, unexplained phenomena and sounds. Their accounts of the sounds can be found in Appendix 1, Cases 49, 51, 79, 85, 87, 90, 106, 110 and 117. I have found many other references to machine-like sounds in the UFO literature. These sounds have been heard in several of the states of this country, as well as in England, Italy and Puerto Rico. Certainly, it is fair to interpret some of the Reservation sounds in terms of earthquake activity, although those that feature distinct machine-like qualities could very well pose a different problem.

In 1986 Persinger and Derr published a paper where they concluded that many of the Reservation UFO reports were strongly correlated with local and regional earthquake activity.²⁰

The researchers emphasized that Toppenish Ridge may still be undergoing compressional deformation. They pointed to the faulting on Toppenish Ridge and the records of shallow-focus seismic activity near the Ridge. There are no seismometers on the Reservation, but two University of Washington seismometer networks lie north and south of the Reservation boundaries.

The records show that seismic activity on the Reservation for the period of interest had been very low. All but an M (magnitude) 3.8 event near Toppenish Ridge were less than M 3.0. Most events were less than M 2.0. Focal depths (the point under the earth’s surface where the slippage or breakage of rock actually occurs) were less than 5 km (3 miles). Persinger and Derr sought to determine if the magnitude, distance and energy release of earthquakes on or near the Reservation were related to luminous phenomena (LP).

Seismic Activity on the Reservation

For the statistical analysis, Persinger and Derr analyzed a set of data provided by David Akers. This data was in the form of a simple printout listing dates, times and estimated locations of UFOs on the Reservation. Records of seismic activity occurring within 100 km (62 miles) of Satus Peak were also used. The researchers first analyzed quake and LP data for earthquakes more than M 2.0. Their interpretation of the statistical results was:

1. Increases in seismic activity during July-August 1972 and October-November 1976 were associated with LP sightings.
2. During October-November 1976, earthquakes occurred just south of the Reservation and within (40 km) 25 miles of Satus Peak. Also, the largest number

of LP ever observed were reported during the October-November period.

3. The largest successive series of LP reports occurred in the seven months *preceding* an unusually large release of seismic energy in June and July 1975 within 100 km (62 miles) of Satus Peak.

4. For the period November 1975 to April 1977, LP reports seemed to be positively correlated with the sum of earthquake magnitudes within 100 km (62 miles) of Satus Peak. Beyond 62 miles, no correlations existed. Persinger and Derr concluded that LP are confined to an area of local faulting, or to a window.

Persinger and Derr then looked for correlations between LP and small, local quakes between M 1.0 and less than M 2.0. They found:

1. Monthly values of the log of earthquake energy release were related to LP within 62 miles of Satus Peak.

2. When earthquakes occurred in clusters within 62 miles of Satus Peak, LPs observed within 30 days of these clusters tended to correlate with increases in seismic energy.

3. Most LP occurred around periods of quake activity, although only four LPs were reported on the same day as earthquakes.

4. LPs were most frequent when the epicenters of earthquakes moved from one side of the Reservation to the other. LPs also tended to occur towards the side of the Reservation at which the most recent earthquake activity was occurring. This alternating movement of epicenters suggested that the LP were associated with the waxing and waning of compressional tectonic strain.

Persinger and Derr also concluded that as magnetic activity caused by solar activity increased, LP were seen within 30 days. This confirmed, they believed, that geomagnetic activity can trigger the release of seismic energy and thus produce UFOs.

Finally, the researchers noted that the total number of LP sightings decreased after Mount St. Helens erupted on May 18, 1980 (Plate 16). Mount St. Helens is 90 miles southwest of Yakima. Persinger and Derr believed that LP increased during the decade before the eruption as tectonic strain grew across the region. Once the pressure was released in the eruption, the LP vanished.

Persinger and Derr's overall conclusion was that LP (or luminosities) were natural in origin, arose from compressional stress and were either related to EQL but did not appear at the same time as the quakes, or were EQL that occurred during small quakes less than M. 1.0 (very small quakes that escaped detection due to lack of seismic instrumentation in the area to record them).

TST Assumptions

At first glance, selected physical features and behaviors of particular UFOs on the Reservation appear to support Persinger's model of the tectonic strain origination of UFOs in the Yakima region. Statistically, the interpretation of the

tectonic link also seems plausible. But Persinger and Derr's conclusions that the Reservation UFOs are purely natural in origin are based upon a vulnerable chain of assumptions.

First, Persinger's TST is erected broadly on subjective data. Some Reservation reports are pure naked-eye observations without corroborating evidence from other witnesses or support from instruments that dispassionately measure the physical event. Persinger addresses the fact that human verbal behavior is essentially unreliable, yet he has found potentially error-prone data suitable for statistical analysis and interpretation. In fact, he states that the reports he systematically classified and computer-sorted for his *Space-Time Transients* study may only reveal "the various nuances of human stupidity and observer error."²¹ There very well could be, and probably are, some spurious UFO cases in the body of the Reservation reports.

Before performing the analysis, Persinger and Derr purged the computer readout of all reports classified as close encounters or daylight observations. They did so because they believed that these sightings—they call them "exotic cases"—could have nothing to do with the true phenomenon, the luminous spheres. Their assumption is that cases that don't fit a particular class of object are noise and would skew or bias the results. However, it is important to note that Persinger and Derr did not acquire and read the *original reports*, those narratives written by Vogel, Akers and other witnesses. Without an analysis of the internal details of the reports and justifications for the elimination of specific reports (screening), there is an increased risk of distorted correlations between earthquakes and the LP.

Persinger and Derr themselves admit that the Reservation UFO database is "certainly contaminated." Yet, they offer no examples of these contaminated reports. Conversely, they believe the earthquake database for the Yakima window is complete and accurate but also paradoxically state that the earthquake database is "marginally adequate." This fact bears critically on the analysis. The researchers hypothesize a connection between LP and very low-magnitude quakes, yet given the lack of seismometers on the Reservation, important low-level seismic activity may not have even been detected.

In short, the old computer adage "garbage in, garbage out" applies here. The results of a statistical analysis are only as good as the data used. Persinger and Derr limited themselves to removing from the Reservation UFO database DDs and close encounter reports (even CE-3s)—any "episodes where observers were close enough to discern specific details of the lights."²² They also failed to screen out any IFOs, lumped all the reports into one classification—natural luminosity—and sought correlations with an admittedly poor earthquake database.

If the researchers had considered the content of the reports, they would have discovered that many of the luminosities—as reported—behaved in strikingly intelligent ways, and bore little resemblance to the simple sphere, or fireball, in the EQL literature. For example, consider Akers's report of two amber balls that swept a beam back and forth onto the ground as they rapidly went up and down Ahtanum Ridge at 60 mph for 10 minutes (page 19). How do Persinger and Derr know that Akers *wasn't* viewing actual aerial *vehicles* with amber beams? Another example:

numerous Reservation UFO reports describe bright, white lights that do not have a round shape. And some Reservation NLs are described as blindingly bright or strobelike.

Presented below is a mini-catalog of Reservation UFO sightings that Persinger and Derr labeled as “luminous phenomena.” *No studies of internal report details were performed.* It is important to study these reports because they do not appear to support the components of the TST.

“High Strangeness” Phenomena at Yakima

Case 1. August 3, 1972, Satus Peak. The fire lookout went to bed at 9:00 p.m. An hour later she was awakened by the radio. She noticed that the interior of the cabin was entirely lit up. She then noticed something hanging in the sky about 45 degrees above the horizon and 12 miles to the east toward U.S. 97. The object was approximately between Dry Creek and the second crossing of Satus Creek.

The fire lookout looked through the window. The thing was a roundish, cloud-like object which was slowly changing its brightness, first fading out “like something melting,” then gradually reappearing. Bright rays of light radiated from the object. The object brightened and dimmed for the next *75 minutes*. The lookout finally went to bed. This object does not appear to be a *transient* event of the type Persinger postulates for the TST.

Case 2. September 29, 1978, Satus Peak. The fire lookout turned off the television set at 11:00 p.m. and prepared for bed. Glancing through the west windows, she noticed a bright, orangeish light similar to a car’s distant headlight, but twinkling. It hovered over Goat Rocks, not much above the horizon and definitely below cloud level.

K.L. sat down on a bench in front of the heater along the west wall. Bracing her arms, she held up her finger and sighted along it to see if the object was moving. Satisfied it wasn’t, she closely studied the object through 7x50 binoculars.

The sand- or light rust-colored object was oblong or egg-shaped. In its center, various colored lights having all the hues of the rainbow swelled and surged. K.L. was awed by their beauty; later she would compare the lights to a “fountain spilling out.” The lights slowly pulsated like a beating heart for approximately 45 seconds, and then the object faded away.

K.L. continued to peer at the spot where the lights had been. The night was starlit although not bright—the moon was not out. For the first time, she noticed a few long, flat, thin clouds above the Goat Rocks. Haze prevalent in the west earlier in the day had moved north and east of Satus Peak, leaving the west clear except for these clouds. A minute passed, and then a glow lit the underside of the clouds. The glow reminded her of the circle cast by a searchlight, but she had the feeling that the source of the light was located directly under the cloud. She was drawn towards a darker region beneath the clouds, the lower portion of which appeared to contain “an illuminated row of square windows.” The four or five windows were not lit themselves but rather were outlined by a fluorescent-like glow. The windows at the far ends of the row seemed “fuzzed out.” Later, K.L.

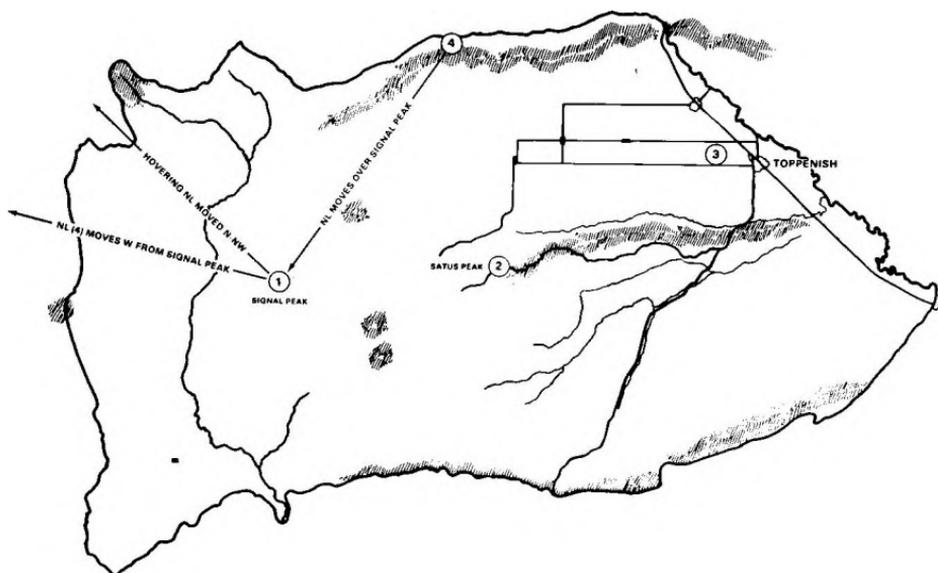


Figure 17. Locations of multiple witnesses and paths of UFOs, July 15, 1981.

compared the brightness of the outlines to that of an illuminated clock at night.

After a minute, the “windows” faded out, and the original oval-shaped light with its surging lights reappeared beneath the cloud. K.L. wanted to radio someone but thought that if she did, the light would go out. After about four minutes, the lights dimmed out, and a line of individual red lights flickered on from right to left, one after the other. Three seconds later the object again became totally dark. At the same time, a green light to K.L.’s left and a red light to the right came on, with a gap in between. The two lights began moving towards the fire lookout, picking up speed as they approached. K.L. could not see any object attached to the lights, and as she stood on the catwalk, the lights passed north of her, almost directly over the peak. As they moved to the east, a white light appeared behind the formation. A considerable distance separated the three lights. The sound of a motor could be heard, but it did not resemble an aircraft piston engine, and “it definitely was not a jet.” The lights continued to move east and vanished in the distance.

Five nights later at 9:00 p.m., October 4, 1978, S.D., who had returned to Satus Peak after her days off, “saw a strange row of lights west-southwest of McKay’s Butte [traveling north to northwest]. Waited for them to come [out] behind next north butte, but it never did. Didn’t see it anymore. It wasn’t moving fast.” The fire lookout drew in her log *five squares in a horizontal row*; she compared them to train windows.

Case 3. July 15, 1981. Signal Peak, Satus Peak, and Toppenish. At approximately 10:53 p.m., the fire lookout (F.R.) on Signal Peak was awakened by a bright light and a strange noise over her cabin (Figure 17, location 1). Her bed was along the north wall, and the curtains were open, which enabled her to look outside. She observed a bright light overhead, but she was unable to open the

windows for a better view. Using the Reservation two-way FM radio, she immediately called S.D. on Satus Peak and asked her what was above her (Figure 17, location 2).

S.D. had received her radio call at 10:55 p.m., and she immediately grabbed her binoculars and hurried to the west window of the lookout cabin. Through the window, she saw an object with bright lights moving to the north.

The light, predominately white with smaller red, blue, and green lights, began moving north-northwesterly. As it moved, a flame shot out of the rear of the object like a jet, and the fire lookout heard a roaring noise similar to that made at a rocket launch.

When the two fire lookouts began discussing the object, a fire control official in the Valley, 35 miles north-northeast of Signal Peak, overheard their conversation over the Reservation fire radio network (Figure 17, location 3). He immediately went outside his residence with his daughter and looked to the west-southwest and saw a light moving to the north-northwest at 8,000 to 10,000 feet (again, Figure 17, location 1). Through 10× binoculars, he saw a glowing triangle, uniformly emanating a white light. The object appeared to be moving in a straight line in a series of jumps and stops. The official and his daughter watched the object until it moved over Mt. Rainier, where it suddenly went out.

The two fire lookouts had also watched the light disappear toward Mt. Rainier. S.D. then went back to her radio to talk to F.R. As they discussed their experience, S.D. noticed a bright light moving low over Ahtanum Ridge and heading southwesterly (Figure 17, location 4). She immediately alerted F.R. Meanwhile, in the Valley, the fire official's daughter called her father's attention to the same light. Overhearing the fire lookouts, the fire official called F.R. and verified that the light was the same object she had seen earlier going north.

The fire official watched the light move toward Signal Peak. Every feature of the object seemed the same. The light was about 20 miles away and was traveling faster than a jet aircraft. By this time, S.D. had rushed to the west window of her station and saw a "large [moving] object covered with bright lights." Hoping for a better view, she hurried out onto the catwalk, but the light was gone.

On Signal Peak, F.R. watched the object move almost directly overhead. The fire official also saw it reach a point directly over Signal Peak; then the object made an abrupt right-angle turn (Figure 17, location 1), gained speed and disappeared over the horizon into the west. The fire official later told Vogel that the light was "definitely not an aircraft."

If Persinger and Derr had examined the contents of these reports, and others like them, they would have uncovered a pattern describing green, red and blue lights on a radiant white body. These sightings would clearly be different than the class of common orange spheres. Likewise, a comparison of the motion of the luminous UFO above to that of the March 13, 1973, metallic-appearing, dinner-bell-shaped object (page 28) provokes questions as to the material nature of these two objects. Remember that the dinner bell moved northward from above Satus Peak in a series of jerks like an automobile when the clutch is released too quickly. Is this a variant of the jumps-and-stops motion of the object sighted above?

Case 4. On August 12, 1979, Bill Vogel interviewed a Wapato police sergeant regarding an NL that he had reported with several other police officers and a fire district chief. They had repeatedly observed an NL since late September 1979 between Wapato and Harrah. The NL would first appear in the distance, looking like the evening star. Then, as it approached Wapato, it would become considerably brighter and larger. Vogel saw the NL once himself and compared its brightness to that of an aircraft landing light. He reported his investigations thus:

Observers who have looked at the NL through binoculars state that it appears to have *two bright, white lights in front and multicolored ones around its perimeter*. Due to the brightness of the white lights, they have been unable to definitely ascertain its shape.

The NL at times will hover west of the city limits of Wapato. During one contact, Sgt. X. and another officer shined the spotlight of the patrol car at the object. It almost immediately *departed at a rapid speed in a westerly and climbing direction* until out of sight. During its departure, the officers could hear what sounded *like a jet engine*.

No noise is heard during its hovering.

Portions of this report are similar to Case 3 above: multicolored lights seen around the circumference of a luminous object, and the rocketlike sound which accompanies its rapid departure. This pattern of multicolored lights parallels those of other Reservation luminosity cases:

1. Vogel's first UFO sighting: a teardrop with a mouselike tail segmented with *red, blue and green lights* (page 10). The object (white, then fluorescent tan) was observed for 90 minutes.

2. The October 8, 1971, sighting by Vogel and a fire crew of a white light without discernible shape *flashing from white to green to red to blue and back to white* (pages 11–12). The object both hovered and slowly moved at altitudes of 3,500 to 8,000 feet.

3. The October 21, 1976, sighting by a Yakima police officer of *a bright, white light* that approached him from Toppenish Ridge as he proceeded west along Pumphouse Road, *flashing blue and red lights as it paced him* (page 39). The object descended the Ridge, paced the automobile, and ascended the ridge.

Can all of these accounts of multicolored lights be explained as plasmas generated by earthquakes? Recall that Vogel's teardrop was moving at an altitude of 8,500 feet and had both an orangeish, central body *and* an antenna-like tail segmented with different colors. The white light that approached the police officer's car began flashing only as it paced him, as if the lights were "turned on."

Case 5. October 27, 1980. 5:15 a.m. A married couple awoke to hear a high-pitched beeping sound passing just above the house. They looked out a rear window of the house and observed a black object about the size of a small house moving over the orchard. Upon reaching the far end of the orchard, it settled behind the trees, emitting a bright, orange-yellowish light.

That evening at 7:00 p.m., alerted by a neighbor, the husband and wife stepped out into the back yard to see the same object again hovering over the orchard. It was giving off the same high-pitched, rapid beeping sound, but had no lights or glow. Frightened, the couple went inside the house.

Before we proceed, it is rapidly becoming clear that Persinger and Derr's tectonic strain theory of UFOs is unable to account for all the Reservation cases put before it. Although "bright, orangeish-yellow light," as above, is a common detail in many Reservation reports of luminous spheres, how does Persinger and Derr's theory explain the sudden appearance of flashing, multicolored lights on EQL, along with evasive maneuvering, or the sudden emission of sound?

If Persinger and Derr would have correlated the detail of the *black body* above with Mrs. Miller's *ghostly gray, oval objects* traveling over the top of Toppenish Ridge, would the possibility of an object capable of turning off its light(s) have altered their views as to the nature of the luminosity? Numerous Reservation UFOs—orange, spheroidal ones—have been reported to go out, as if being turned off. Was the above black body such an object, its orange light extinguished?

Case 6. March 21, 1981. At about 9:30 p.m., the family dog belonging to Mrs. S began raising a fuss at their residence, about five miles southwest of Toppenish near Toppenish Ridge (we met Mrs. S in Chapter 10). Mrs. S's eight-year-old daughter opened the front door and looked outside. She saw no one but called her mother to look at "all the bright stars." Busy at the time, Mrs. S did not heed her daughter's ominous warning.

Fifteen minutes passed, and the dog continued to bark while retreating closer to the house. Mrs. S finally stepped outside and looked around. It was then that she saw bright lights in the sky to the southwest. But let Vogel tell the rest of the story:

There were three larger ones [lights], triangle-shaped with greenish-blue lights around their edges. They each had a white light in the center which at times would flash red. They maintained a triangle formation. At the center of the formation were three bright white lights in a horizontal line. At one time, the white light on the left of the line, moved back to the rear, left triangle for a short period of time and then returned to its place in line. Mrs. S said it seemed to merge with the triangle or enter into it. The line of three lights eventually moved away from the triangle formation and more or less did its "own thing," while maintaining the line formation. The thought did cross my mind of the possibility that the three triangles were actually corners of a large single triangle, but Mrs. S said this wasn't possible as they broke up the formation several times and moved around separately. She at first thought they were helicopters as the light configuration indicated to her they were about the same size. However, as she watched, she realized the aerial movements they performed and the lack of engine noise eliminated this possibility.

When asked to describe what kind of flight patterns they made, she said they moved about just like the computer games one plays on the TV

screen. The white lights moved about the same way. This, of course, eliminates any type of aircraft.

Their altitude varied from 8,000 to 10,000 feet down to almost treetop level. There were scattered clouds at about 12,000 feet. Mrs. S estimated the closest they approached her house was about two miles. At the time they were within two miles, Mrs. S could watch the triangles while looking under or through the power line which runs along R— Road.

Mrs. S said their dog normally refuses to enter the house even if called, but that during this time he was making every effort to enter the house. He was very frightened, barking and whining. Mrs. S's daughter was also quite upset by this time.

Mrs. S said the objects made a humming, buzzing sound very similar to that made by high-tension electrical lines—being louder when close and less when a greater distance away. The power lines in front of the house are not high voltage. She further stated that at the time they [the lights] were closest to the house, there was also a noise very similar to the sound made by water running in a ditch plus a sort of crackling. This sound of water is most interesting as a police officer made the observation that the sound made by a police K55 mobile radar was often described as being like water running in a ditch. When the objects moved away to a greater distance, the water sound ceased. She also advised their speed varied from quite slow to very rapid.

At about 10:30 p.m., the objects moved southward towards Satus Pass and appeared to be leaving. But, as she watched, they returned to the area. Finally, at about 11:00 p.m., the objects again began to move southward and soon vanished over Simcoe Ridge (Satus Pass) on the south boundary of the Reservation. Mr. S arrived home just before they moved out of sight and was able to observe them for a few seconds.

Mrs. S admitted to me that she was very frightened and had phoned several of her neighbors. However, they were more interested in a night's sleep than in seeing UFOs. She advised them if she disappeared, they would know why and what took her away. She said she wanted someone to know.

Certainly this is a strange NL case. Persinger has stated that the shape of his proposed luminosity should be spherical or elliptical. If so, how does he account for the triangle shapes described above? The 90-minute duration of this transient event is also interesting.

If we turn to the first UFO sighting recorded at Sopolia Station (Appendix 1, Case 8), we note that the lookout heard a loud "swisssh" above the station for about a minute. The lookout compared this sound to that of water going down a bathtub. Is there a connection between this sound and that of Mrs. S's sound of running water? Again, we simply note this recurrent detail, which a limited space/time statistical study such as Persinger and Derr's would fail to consider.

Case 7. June 10, 1981. About 1:15 a.m. A Yakima Indian couple was

proceeding west on West Wapato Road in their car between the Lateral A and Lateral B crossroads (three miles west of Toppenish). Suddenly, the immediate area around their car lit up. Peering through the windshield, they saw above them, at the height of a three-story building, a fairly large object shaped like a badge (Figure 18). Coming from the underbelly was a cone of light that was enveloping the car.

Small, multicolored lights flashed along the edge of the object. Two bright, pale-yellow lights were on either side of the object, while a third shone in the center. The beams from the two outside lights appeared to be angled towards the cone of light emanating from the center of the object.

The silent object remained over the car while the couple drove towards Lateral C, a distance of little more than a mile. The object then climbed straight up at a rapid rate and disappeared in "a cloudlike mist of its own making." (Recall nine-year-old Juan's "saucer" that vanished into cloud, steam or smoke, pages 59–61.) The couple drove home and immediately contacted the Tribal police.

If this is a luminosity, it is a very complicated-looking one indeed, taking on a very non-standard form and vanishing in a most unusual fashion. After reviewing the Reservation reports, looking for patterns of repeated details, we also recall Vogel's sighting of a fast-moving NL that appeared to vanish into a luminescent cloud (pages 39–40). We also find the report of a cloud materializing around a hovering NL observed by the Olsens and their ranch hands (page 42).

Again, notice the similarity of detail in the reports; and notice the *differences* in details between various Reservation UFOs. These differences consign undifferentiated luminous spheres and structured-appearing objects into separate UFO classes, with possibly different underlying causes. Persinger and Derr have failed to divide their luminosity category into discrete groups for more refined correlations. Consider the following strange case whose details suggest lights affixed to something quite concrete.

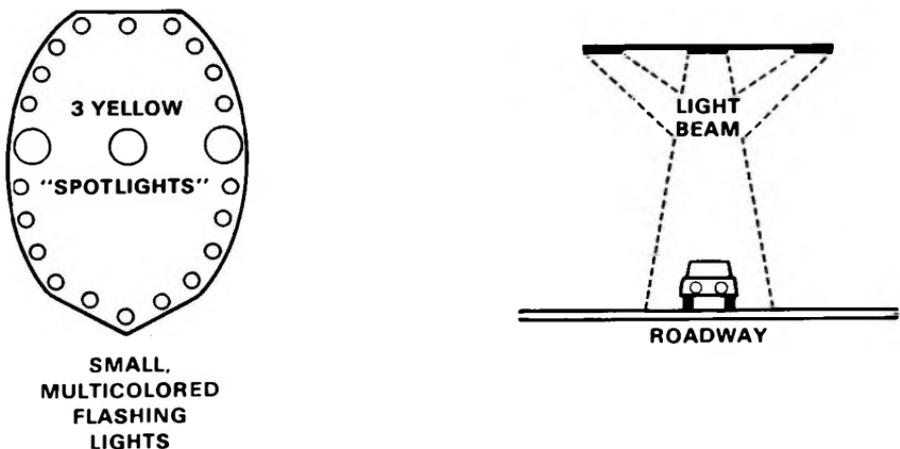


Figure 18. Craftlike object observed by Yakima Indian couple, June 10, 1981.

Case 8. First week of February 1982. A Tribal police officer was on routine patrol westbound on Highway 220 on a clear, calm night. At 3:30 a.m., a bright light several miles to the south caught his eye. Believing a house or the brush was on fire, he turned south on Lateral C. As he proceeded, he momentarily took his eyes off the light, losing it. However, he proceeded onward to the Marion Drain Road which bisects Lateral C. Near Marion Drain, he turned off his headlights, still thinking that he had seen a house fire.

Suddenly, ahead of the officer where Lateral C crosses Toppenish Creek, two bright objects rose up almost simultaneously from behind trees on either side of the road. The objects were cylindrical with half-moon-shaped bottoms. Each was “as large as a house.” The objects gave off a white light, and brightly illuminated the ground beneath them as they rose.

When the objects reached approximately 150 feet, they soundlessly moved south toward Toppenish Ridge. Moving up the Ridge, they described a more-or-less figure-S pattern, remaining side by side all the while. The ground beneath them was illuminated as they moved. It took the objects less than four or five seconds to travel from Toppenish Creek to over the top of the Ridge, where they vanished from sight.

Vogel had received a number of reports of bright, spherical UFOs moving up and down Toppenish Ridge in the same general area during February. How can we possibly associate the police officer’s *cylindrical-shaped objects* with these meandering luminosities, especially when they traversed one mile in five seconds?

These eight cases, all different in a variety of ways, demonstrate that there is more to the Reservation UFO phenomenon than the simple spheres of light that Persinger and Derr propose as evidence of tectonic strain in the Yakima region. If Persinger and Derr would have gone to the original reports, they would have uncovered details of object behavior and physical appearance that would have shattered their idealized concept of luminous spheres. Yet, the researchers selected only the variables of space, time and local seismic activity to search for a connection between earthquakes and the strange lights.

What would Persinger and Derr have found if, after reading the original reports, they had divided them into separate classes based on internal details, and correlated these with earthquake records? For example, we have shown that a class of NL exists on the Reservation which we can call “NL with flashing multicolored lights” (such as in Case 4 above). Would there be a significant correlation between this class alone and earthquakes? Likewise, we could also propose classes based not on the classic UFO taxonomy of NL or close encounters, but on such parameters as shape, color, motion, flashing or dimming lights, and sound. Each of these UFO attributes would then be compared to the seismic record. Yet Persinger and Derr failed to pursue this line of inquiry, preferring to *generalize* about the Reservation UFO phenomenon and purge the computer readout of all reports classified as close encounters or daylight observations, since these sightings, they believed, simply could have nothing to do with the true phenomenon, the luminous spheres.

Tectonic Strain Re-examined

Persinger and Derr have failed to prove that the true UFO phenomenon is composed only of luminous spheres. Did Persinger and Derr remove the DD and exotic sighting reports from Akers's UFO record because they were *not* natural in origin? Or did the researchers conclude—*without referring to the original reports*—that these exotic cases were misidentifications of natural objects? Persinger and Derr offer no rationale for the removal of these strange reports, but—more importantly—*offer no supportable arguments for concluding that the NL reports that remained represented a natural phenomenon*. All that the researchers offer as proof of the natural origins of the Reservation UFOs is their statement: “If LP remain unidentified after diligent investigation, then they would seem to be natural in origin.” Unfortunately, nothing in their Reservation study demonstrates this to be so. In fact, one result of their study suggests that earthquakes may not be linked to some LP:

We have been strongly motivated to find correlations between individual earthquakes and individual reports of LP, hoping to find a direct cause and effect relationship. Close scrutiny of the spatial distribution and temporal sequence of LP and earthquake epicenters *suggests that not all seismic events within 100 km [of Satus Peak] may have contributed to the occurrence of LP [my italics]*.²³

If not all earthquakes contributed to the occurrence of LP, then the contributing factor *may or may not be* one or several geophysical mechanisms that the authors propose at the end of their study.

Persinger has stated that “the problem with patterns is that observers see what they project into them,”²⁴ that is, “see what they want to see.” Persinger and Derr have fallen into a similar trap in their study of Reservation UFOs and earthquakes. Better Reservation earthquake data and a larger, higher-quality UFO database could very well alter the only apparent physical relationships between the NLs and seismicity. Better screening of the reports, including classification according to their internal details, could reveal other patterns.

It is certainly possible that the orange spheres were actually non-LP UFOs, coincidentally present on the Reservation during the earthquake activity. Persinger himself admits that it is possible that unusual events could occur at the same time as unrelated and independent events, and that these “temporal parallels” could result solely from chance.²⁵ But more importantly, these correlations have no value without a clear causal, physical *mechanism*.

“. . . [O]ne must understand the basics of the luminosity itself,” Michael Persinger has stressed.²⁶ As we have seen, the grouping of heterogeneous reports into a single homogeneous data set depersonalizes each individual UFO report, leaving it *devoid of information pointing to the material and functional nature of the object*—and leaving only the conclusion that “unusual things happen during earthquakes.” Vague statements like these reveal nothing about the mechanical

processes that could produce a sighting, such as a luminosity arising from tectonic strain.

However, Persinger goes on to say that, since unusual luminous phenomena are associated with earthquakes, a causal mechanism exists. He proposes that strain in the earth's crust (highly localized and of lower magnitude than seismic activity) generates luminosities through a piezoelectric effect without fracturing of the crust. Within these localized areas (100 to 10,000 square meters), pressure on quartz rock generates intense electromagnetic fields for short durations, ranging from seconds to minutes. These fields ionize gas in the air, forming a spherical or elliptical luminosity. The behavior of these phenomena would be highly unusual, since they would interact in a complex way with the environment and human beings.

As we scrutinize the geophysical luminosity model, we must keep in mind that the model that Persinger has chosen to account for reported NL details reflects poorly understood geophysical processes and their attendant effects. We must also remember that Persinger has biased his evidence to stress selected features of NLs, extrapolating an idealized version of NLs from these reports, which corresponds to the predictions of his tectonic strain model. His idealization may be divided into a number of parts. To prove his theory, each of these parts must be examined separately, and the assumptions linking them must be elaborated. Working hypotheses may then be derived that can be independently tested and confirmed in other laboratories and in the field. Persinger, however, is content to explore the edges of his new science, searching only for new facts which support his idealized version of NL events. However, basic principles must be critically examined before the tectonic strain theory of UFOs becomes more than an exercise of the imagination.

Compressional strain and ionization are the main building blocks of Persinger's geophysical luminosity model. As we shall see, compressional strain mechanisms, as currently understood, are inadequate to produce enough energy long enough to ionize the air into glowing gases at high altitude. We shall also see that the physical behaviors and characteristics of many Reservation NLs cannot be adequately explained by compressional strain and ionization.

Ionization is a well-understood phenomenon whereby gases in the air are made to glow. An intense electric field will break down the insulating properties of the air, tearing electrons away from atoms, producing charged positive and negative ions. As these charges are moved by the electric field, they collide with other neutral atoms. Some collisions may produce more electrons and ions. At other times, the electrons may be captured by positive ions to form atoms. Visible radiation is emitted, and the excited gases fluoresce, or glow. The blue nimbus surrounding a power station or domestic air ionizer is one example of this effect.

The key to sustained ionization is a continuous flow of energy. Without energy to move ions, the charged particles will simply recombine and the gases will cease to glow. Since air is a poor conductor of electrical energy, *three million volts* of potential difference across one meter of space is required to break down the insulating properties of air and create ions.²⁷ Persinger has guessed that

extreme pressures applied to rock crystals could generate the needed potential differences. However, when quartz rocks are pressed in the laboratory to the point of breaking, a much weaker piezoelectric effect is seen.²⁸ Also, recent findings indicate that fields created by the piezoelectric process die out quickly, and that naturally occurring rocks contain variously oriented crystals whose electric fields cancel each other.²⁹ If we, therefore, discard the piezoelectric effect as a mechanism for luminosity production, what other energetic mechanisms can we consider?

As we have seen, Brian Brady of the U.S. Bureau of Mines has demonstrated that various rocks, when highly compressed, emit discrete, short-lived (100-microsecond) pulses of light. Brady performed spectroscopic analyses to determine the origins of the light. Brady found no evidence for frictional heating, electrostatic discharge (as from the piezoelectric effect), or gaseous plasmas emitted by internal heating of the rock. Instead, the emission spectra showed that electrons expelled from the rock were exciting the atmosphere. This process could be invoked to explain the light emissions observed during massive fractures in mines or during earthquakes. However, for the atmosphere to be excited, the fracture would have to reach the surface of the earth in order to release the electrons.

Persinger has relatedly noted that NLs are associated with ionization of the air during conditions of tectonic strain, *not necessarily during earthquakes and fracture*. We must not forget that Brady's electron phenomenon occurs *during fracturing* and should coincide only with *high-magnitude quakes*.

Brady concluded that "an exoelectron type of illumination is not likely to cause *isolated light sources to appear several hundred meters above the Earth's surface* [my emphasis], as is reported to occur in some earthquake-prone regions."³⁰ This is important since Reservation NLs have been observed at hundreds, *even thousands of feet*, above the earth's surface with no connecting glow between them and the ground.

And even though Brady demonstrated that atmospheric glows may be caused by geophysical strains or fractures, other aspects of Reservation NLs, besides altitude, cannot be explained by Brady's experiment or Persinger and Derr's theories: their stability, shape and motion.

For instance, imagine either an electric field or high-energy electrons ionizing the air and creating a localized glow. Studies show that natural sources of high electrical potential discharge quickly, giving rise to transient phenomena. In the case of a lightning stroke, for example, conducting channels of ionized air destroy the powerful electric fields in fractions of a second. Some Reservation spheres have been reported to be visible *from minutes up to over an hour*. Geophysical mechanisms which may be sources of these intense fields must operate continuously and uniformly for long periods of time. Fracturing or frictional mechanisms apparent during violent, short-lived earthquakes do not seem to provide the answer, while sustained pressures on quartz-bearing rock provide only transient effects. Even Persinger states: "Frankly, it is not clear how the luminosity could be contained in a small space [without dispersing in all

directions like fireworks] for durations . . . typical of UFO stimuli.”³¹

Whereas some Reservation reports describe short-lived spheres that hover briefly and then disappear, other lights have been observed moving over longer periods of time (Appendix 1, Cases 37, 53, 74 and 80). As these objects move, whether rising due to heating, or migrating due to wind, they would enter less intense regions of the electric field and would go out. Yet with these NLs, this does not seem to be the case.

Additionally, Persinger believes that the movement of luminosities can be explained in terms of moving subsurface stress along faults. The luminosities appear to travel because they migrate above the subsurface electric fields. Derr confirms that auxiliary faults can break at right angles to main faults,³² which could explain the abrupt changes in motion of the luminosities.

Further, seismic waves propagating within the earth could travel as fast as 13 km/sec. Indeed, some Reservation NL reports describe extremely fast-moving lights (Appendix 1, Cases 60, 66, 91 and 105). Yet, can fast-moving seismic waves explain the luminosity of March 13, 1977 (pages 43–44)? Recall that the bright, white-orange light observed by the Tribal police officer abruptly *turned around in its flight path and sped off in the direction from which it came*. Why did a bright, white sphere of light leave Toppenish Ridge, approach the occupants fleeing in a truck, pace it, then *veer off and return toward the Ridge* (pages 29–30)? Why did a bright, white, oval light hover night after night over the town of Harrah, *only to rapidly depart each time to the north* (page 33)? On August 24, 1972, David Akers and a fire lookout watched an intense, white light hover momentarily, then almost instantaneously move some distance away, only to dart back in the opposite direction again (pages 20–21). Do strain fields *move rapidly back and forth through rock*? In the summer of 1972, an orange “egg” was observed by many people hovering above or moving along the side of Toppenish Ridge. It appeared over an area of faulting—but *repeatedly appeared regularly between midnight and 2:30 a.m., two or three times a week*. Can strain accumulate, generate electric fields and ionize the air *on schedule*?

Vogel also saw the egg as he stepped outside the Yakima Indian Agency for a breath of fresh air one night. At the time, the light was moving slowly westward along the ridge. It soon disappeared behind a group of trees. As Vogel reported to Allen Hynek on September 25, 1972:

I decided to drive up that road away I took you on that is on the other side of Toppenish Ridge [Oak Springs Road] to see if I could see anything. I told the lookouts I was going up the road. I went up the road a mile or so (the lookouts saw my lights) and turned off my lights to have a look around. For some reason, I got a very uneasy feeling while sitting there and decided to leave. After leaving, I told the lookouts I was on my way back to town. The lookout on Sopelia Lookout at Satus Pass noticed that two real bright lights a couple of miles ahead of where I’d stopped were still there. She had assumed them to be my headlights, even though they were so bright. She said they stayed there about a half an hour after I left.

A half hour is a long period for an electric field to retain its shape and ionize the air. Further, if such sustained activity does occur, intensifying in a highly focused space over many weeks, why wasn't the egg observed during daylight as well as night?

Several of the observed Reservation UFOs had a different appearance. Recall the Olsen boy who was chased by a gray, platelike UFO during the day a few miles from Toppenish Ridge (page 28). The UFO was "as big as a large airplane," and moved over the brush where the boy hid. Observations have been made of ball lightning (tectonic strain luminosities would bear a family resemblance) that have displayed a solid appearance, and a dull, metallic or reflective surface.³³ Also, some ball lightning has appeared discoidal in shape.³⁴ To explain this, Steuart Campbell proposes a physical model to account for metallic-appearing aeroforms.³⁵ A contracting and rotating mass of ionized air creates a pinch in the local magnetic field of the Earth, producing a dipolar singularity having properties of floating and a plasma layer with a reflective, metal-like surface. Can the child's plate be explained by this mechanism? Yet this doesn't seem possible since, if the plate were the egg, the plate/egg seemed to prefer the night; Vogel received only this one daylight report of a metallic object, the plate, near the site of the 1972 egg sightings. If the egg were formed by electric fields, surely these fields would have also been generated during the day. Surely witnesses would have found it hard not to have sighted a daylight luminosity the size of a large airplane.

In summation, Persinger and Derr's geophysical luminosity model must provide complex explanations for the varied observed features and behaviors of Reservation UFOs. The luminosity model requires large amounts of continually supplied energy to ionize the air into a luminosity; the electromagnetic field(s) must be focused in a manner to contain the inherently unstable plasma in a three-dimensional region for up to minutes and even an hour at a time; the strength of the field must extend to high altitudes (hundreds to thousands of feet) where the less dense luminous sphere must be capable of hovering or moving while contained in the restricted region without rising and collapsing in the cooler air; and magnetic fields must be pinched to give a metallic sheen to the plasma. Persinger admits that the model provides qualitative predictions at best.³⁶ Quantitative evidence, including measurements of the geophysical changes and their atmospheric effects, is required. The unusual and complex nature of applied forces that underlie the luminosities must be explored more thoroughly by specialists in the physical sciences before firmer conclusions can be drawn. In this regard, the Yakima Indian Reservation may serve as a valuable laboratory where the relationship between UFO sightings and seismic data can be readily explored. The final answer to the Reservation UFO mystery, if it lies with geophysics, now depends upon scientists who are willing to investigate the secrets which may be hidden in the earth.

One critic has stated that Michael Persinger's TST is "richly cloaked in jargon" and "demonstrates ignorance of both the language and physics of electromagnetics."³⁷ Certainly we cannot assume that a theory, no matter how

emotionally appealing or superficially persuasive, is to be confused with fact—fact arrived at by discovery, experimentation, measurement, observation and replication. We may feel compelled to accept statistical correlations between phenomena as evidence of an earthquake/UFO link, but as we have shown, a proven geophysical mechanism is missing as a source of the Reservation spheres and other non-standard NLs. Similarly, an argument for UFOs being mental events created in the brain by the neurologic effects of electromagnetic fields is unsupportable at this time.

We are left with photographs of unusual and baffling phenomena. In the absence of unifying concepts, each report must be evaluated on its own terms. Individual details become extremely important, for they can be used to classify reports, suggesting patterns that separate objects. This analysis may further lead to physical phenomena that could serve to explain each discrete set of phenomena. Those that could be explained by known mechanisms would be discarded, isolating a core of unexplainable phenomena. It is safe to say that Persinger and Derr have yet to isolate this core.

13



STATISTICS & CONCLUSIONS

Persinger believes that the way to uncover subtle patterns in UFO reports is to reduce the reports to simple data points. These data points are *space* and *time*. Where did it happen? When did it happen? It is also important to apply pattern analysis to large samples of space/time data because a single, individual report is not inherently reliable or important because of fallible human memory and the distorting influences of social programming. The next step is to correlate the UFO space/time data points with the data points of seismic events.

But as I have demonstrated, ignoring the details of the reports can seriously affect the validity of the statistical analysis. Do truly anomalous events correlate with tectonic strain release, or are IFOs contaminating the analysis? Of the total body of UFO reports, could some be descriptions of a rare, unrecognized natural phenomenon, and others accurate records of the classic extraterrestrial spacecraft many ufologists believe UFOs to be?

The Reservation UFO reports must be divided into discrete classes of objects. Among these classes, meaningful patterns must be sought; but these patterns must be more than those of space and time. As we discovered with the eight strange, complex UFO cases in the preceding chapter, some sightings did not fit Persinger and Derr's profile of an idealized orange or white sphere. A simple, broad approach to data analysis, although capable of pointing us in a certain direction, is no substitute for refinement and discrimination. With the general "lump" of Reservation reports in front of us, we are faced with several questions.

- To what extent are the Reservation reports heterogeneous?
- Do any of the patterns we can extract from the reports support any part of Persinger and Derr's electric field-ionization model?
- Are there a variety of inexplicable phenomena that share a central, underlying cause, or are there a variety of phenomena with many individual causes?

Before any of these questions can be answered, the problem of data *quality* must be addressed. I have noted the errors that can occur when data are of poor quality; unreliable data can, as with Persinger and Derr's studies, raise legitimate concerns about the conclusions.

Admittedly, the Reservation reports contain data based on subjective impressions of the observers; and they have not been completely screened for IFO contamination. But I believe the reports are generally of above average to at least good quality. First, the witnesses' descriptions of at least the orange and white spheres exactly match the photographic details of the objects. The photographs were also taken independently of independent visual observations and never, to my knowledge, shown to the witnesses. I conclude that naked-eye observations of the luminous spheres are quite accurate and unbiased.

Second, two thirds of the sightings were reported by above-average, even very reliable observers—the fire lookouts. These lookouts observed UFOs long before the early 1970s when Vogel began attaching the UFO label to the objects. Because the pre-1970 sightings were not prone to potentially prejudicial labelling, and the features of the earlier objects matched those of post-1970, the likelihood of the existence of a truly anomalous phenomenon—immune from any psychological contamination—is increased. Also, as practiced observers, the fire lookouts were capable of distinguishing inexplicable objects from familiar ones. I have confidence that two out of three of the Reservation reports are essentially valid descriptions of what fire lookouts honestly took to be UFOs. Certainly, some IFOs likely appear in their reports, but the lookouts only tended to report anything out of the ordinary, not just anything.

Third, Bill Vogel never displayed in my presence any passionate belief in UFOs; that is, he never offered any interpretation of what the UFOs were. Rather, he was a very organized individual who meticulously recorded his and others' observations, noting as many details as possible and welcoming support from others in a search for an explanation. Granted, he was not a scientist, but he was technical enough to extract from witnesses such critical information as the color and shape of the object, its estimated distance and altitude and—where possible—time durations and physical behaviors. His reports were sometimes compiled under the pressure of other commitments, but he did a commendable job of gathering a great deal of generally complete UFO sighting information.

The witnesses Vogel interviewed included, among others, local police, Tribal officials and government personnel, individuals who would think twice before filing a UFO report which could embarrass them in their important positions, if given publicity. I tended to accept their reports as essentially honest

reactions to puzzling events. Also, 40% of the UFOs reported were by two or more witnesses, which I believe strengthens the soundness of the observations. Finally, as a UFO witness himself, Vogel struck me as an accurate observer. Often I quizzed him about report details without him having a copy of the report in front of him. In almost all cases, his memory was exact as to the details. I conclude that the reports he wrote were basically accurate renditions of his own observations, as well as those of other witnesses.

Overall, the photographic evidence, combined with the many reports from a variety of responsible witnesses, convinced me that the Reservation UFO database was sound enough for a meaningful statistical analysis.

I did discover some likely IFOs in the reports (and often Vogel named these as such). Removing these from the database left 186 UFO reports. I divided these into Hynek's classic UFO categories. The categories with the total number of reports for each, and the percentage each category represents of the total UFO database follow:

TABLE 1
YAKIMA RESERVATION UFOS BY HYNEK CATEGORY

UFO category	No. of reports	% of database
NL	164	88%
DD	17	9%
CE-1	14*	
CE-2	6*	
CE-3	5	3%
	<u>186</u>	<u>100%</u>

*Extracted from NL and DD categories. Percentage of CE-1s and CE-2s relative to total database not given.

Figure 19 depicts the yearly distribution of all but one of the Reservation UFO reports (one was unknown). The peak years for sightings were 1972, 1975

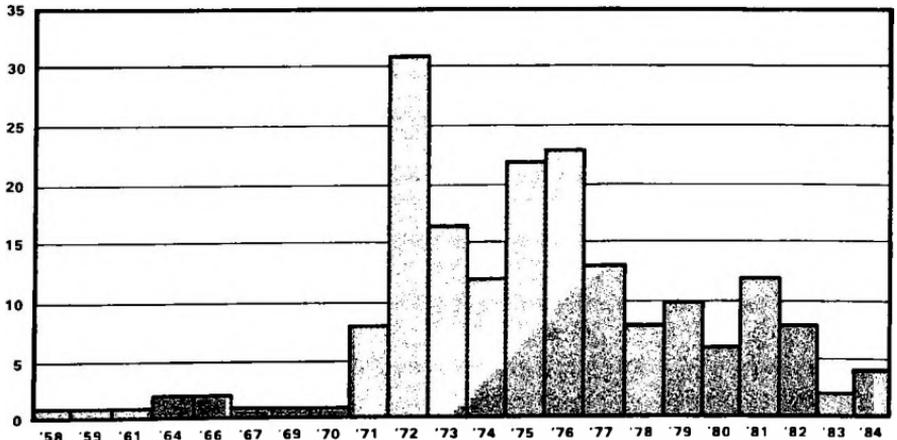


Figure 19. Number of UFO reports by year.

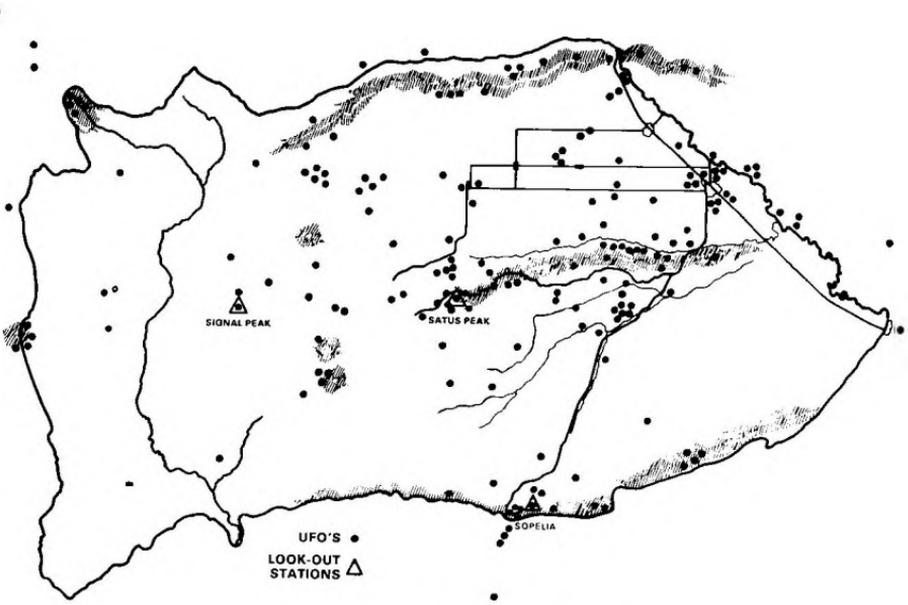


Figure 20. Locations of UFOs on Reservation.

and 1976. Beginning in 1978, reports begin to diminish considerably. In the past few years, UFO reports have virtually ceased.

Figure 20 shows the locations of all the Reservation UFOs. Because exact locations were not always known, I made “best guesstimates” in some cases. Even with guesstimates, it is apparent that most UFOs cluster in the northern areas and northeast quadrant of the Reservation. We also find a large number of UFOs along, north and south of Toppenish Ridge; and many UFOs were sighted in the Valley between Toppenish Ridge and Ahtanum Ridge. Relatively fewer UFOs were observed in the western and southern regions of the Reservation. Figure 16 (page 78) does show a few earthquake faults in the southwest quadrant and western region of the Reservation, suggesting a possible correlation between the Reservation UFOs and faults.

Before searching for patterns related to the physical process behind the objects, I investigated the reports for seasonality and time of sighting. Did the objects favor certain times of appearance? (*Note: All the results in this chapter are based on the Reservation reports, not the total number of objects actually sighted, since some sightings were composed of more than one object, and this would have skewed the results. In the NL class, a single NL was reported in 138 cases; two NLs in 17 cases; three NLs in five cases; four NLs in three cases; and six, seven and nine NLs in one case each.*)

Monthly Sighting Patterns

As Figure 21 shows, most sightings occurred in July and August. The sudden

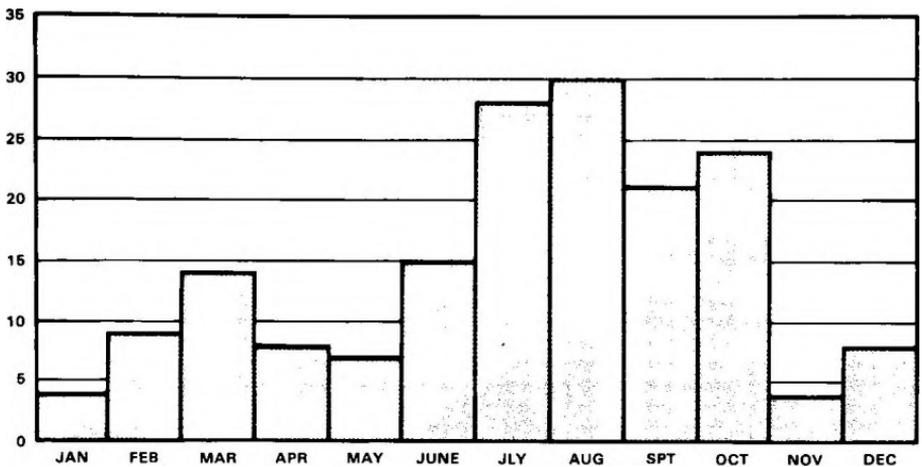


Figure 21. Monthly distribution of UFO sightings on the Reservation.

rise in June and rapid drop in November most likely reflect the beginning and ending of the fire lookout watch season. However, March, when lookouts were down from their mountains, was a relatively active month, and during the other non-watch months, sightings continued. The prevalence of summer sightings probably not only reflects the active viewing of fire lookouts and the greater chance of outside observers, but the quality of the viewing conditions (clear nights). Months were not known for 11 cases, although three of these sightings occurred in the fall and four in the summer. Overall, it would seem that when fire lookouts are actively observing the environment around them, unusual objects are seen.

This makes sense when we realize that the fire lookouts view the terrain and sky in various directions for concentrated time periods. Richard Haines has recognized that when people look for objects long enough, they will see them: “By moving the eye scan in certain directions [as fire lookouts do] within certain periods of time, it is possible to greatly increase the probability of detecting an object if one is present and above the visual sensitivity ‘threshold.’”¹

Time of Day of Sightings

Figure 22 graphs the times of the sightings (31 cases were omitted due to lack of information). The data show that 91% of all Reservation UFOs were observed between 6:00 p.m. and 6:00 a.m. The sightings began to significantly increase at 7:00 p.m. and peaked between 9:00 and 11:00 p.m. The diminishment of sightings at 11:00 p.m. most likely reflects the sleeping habits of the fire lookouts. However, lookouts and officials in the Valley would frequently wake up during the early morning hours to view the terrain or go on patrol. The occurrence of sightings during these hours probably reflects those habits (41% were made between 11:00 p.m. and 4:00 a.m.).²

Only 9% (17 cases) of all sightings were DDs (five DD cases did not have

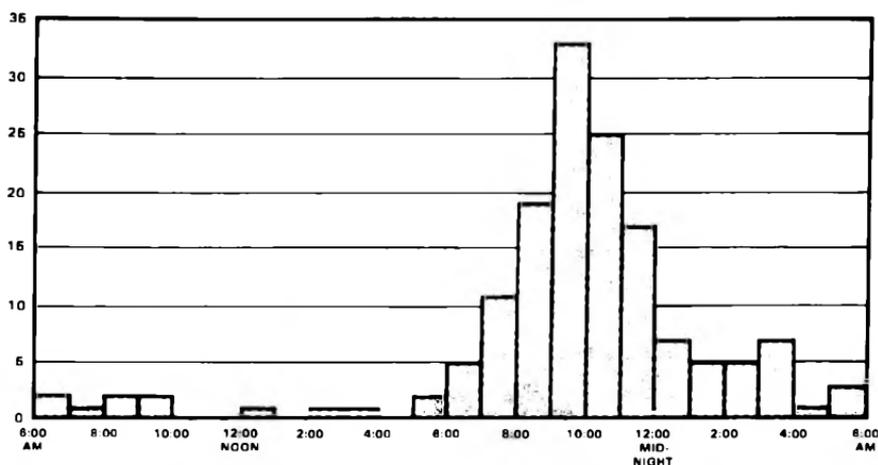


Figure 22. Distribution of UFO sightings by time of day.

exact times, and these DDs are not plotted in Figure 22). If we assume that NLs are related to tectonic strain, it is curious that either electric-field ionization of the atmosphere occurred 9 out of 10 times at night, or the visible light due to ionization could not be seen during the day.

Faced with observations of a phenomenon that seemingly favors the night, do the internal details of the NL reports tell us anything about the physical basis of the phenomenon?

I extracted all data from the NL reports related to physical characteristics and behavior: color, shape, altitude, distance, apparent size, motion, duration, and manner of disappearance. Mostly data on color, shape, motion, and manner of disappearance are available.

Before we proceed with the analysis, we should note that the Reservation NLs are composed of several subclasses of light phenomena, derived on the basis

TABLE 2
DISTRIBUTION OF NL CATEGORY BY SUBCLASS

Subclass	No. of reports	% of NL category
Spheres	50	31%
Shapeless, luminous forms	77	47%
Teardrops	2	1%
Light beams	3	2%
Glows/fires	5	3%
Blobs	2	1%
Missiles	2	1%
Unknown shapes	8	5%
Light configurations	7	4%
Nocturnal, craftlike objects	8	5%
	164	100%

} Misc. NLs

of *shape*. These subclasses, the total reports for each subclass and the percentage each subclass represents of the Reservation NL category are in Table 2.

In 83% of all the NL reports, a single NL is documented. This single NL is usually either a sphere or a shapeless, luminous form. The spheres have round or oval shapes. The shapeless, luminous forms do not reveal unequivocal spherical outlines, and in most cases are simply very bright light sources. Many fewer NL reports comprise the remaining subclasses, called “miscellaneous NLs.” These miscellaneous NLs are apparently located on the earth’s surface, display nonstandard shapes and behaviors, or appear as complex arrangements of variously colored, multiple lights. Because of the paucity of reports in the miscellaneous class, and their heterogeneity, I excluded them from the statistical analysis that follows. I focused only on the spheres and shapeless, luminous forms (shortened to “forms”).

The sphere and forms subclasses were large enough for a meaningful statistical analysis and shared common attributes, such as color, motion, and manner of disappearance. These two NL subclasses suggested a Persinger/Derr luminosity, and the analysis could assess features of the spheres and forms in light of Persinger’s luminosity model. Also, color could serve as a promising key to explain the NLs (at least the spheres and forms) in light of the excitation of solids or gases. In this case, excited gases and solids will emit electromagnetic radiation in the visible spectrum—light of various colors which might point to the underlying physical process.

For example, James McCampbell has suggested that UFOs could emit energy at various intensities. Specific intensities would excite particular atmospheric gases, producing telltale colors.³ Colors and changes in colors could also correlate with hovering and acceleration of the object. In other instances, the object might obey black-body radiation laws where metal in a cooler state emits

TABLE 3
DISTRIBUTION OF TYPES WITHIN NL SUBCLASSES (SPHERES AND FORMS)

	No. of reports
Spheres	
Ball	34
Round	12
Oval	4
	<u>50</u> (39%)
Shapeless, luminous forms	
Light	68
Starlike light	6
Headlights	2
Streak of light	1
	<u>77</u> (61%)
Total	127 (100%)

red light, then white light as the temperature of the metal increases. Another possibility would be gases heated by a thermal source.

To begin the analysis, the reports describing spheres and forms were counted (Table 3). Table 4 presents the reported colors of the spheres and forms. The exact descriptions from the reports are given. The analysis (performed manually)

TABLE 4
SPHERES AND SHAPELESS, LUMINOUS FORMS
BY COLOR, TOTAL REPORTS, AND PERCENTAGE OF TOTAL

Color	No. of reports	% of total
<i>Spheres (includes ball, round, and oval)</i>		
Orange	18	36%
Reddish-orange	4	8%
Brown-orange	1	2%
Whitish-orange	2	4%
Red	3	6%
Orange-red	2	4%
Yellow	3	6%
White	13	26%
Aqua blue	1	2%
Foglike	1	2%
"Ghostly" (gray?)	1	2%
Light-colored	<u>1</u>	<u>2%</u>
	50	100%
<i>Shapeless, luminous forms (includes lights, starlike lights, headlights, and streaks of light)</i>		
Orange	16	20.8%
Reddish-orange	1	1.3%
Yellowish-orange	1	1.3%
Whitish-orange	2	2.6%
Red	8	10.4%
Orange-red	2	2.6%
Orange-yellow	1	1.3%
White	26	33.8%
Orange-white	1	1.3%
Green	1	1.3%
Blue-green	1	1.3%
Dim	1	1.3%
Bright	1	1.3%
Unknown	<u>15</u>	<u>19.4%</u>
	77	100.0%

searched for correlations between color and shape, motion, altitude and extinguishment.

Color and Shape

One-third of the reports described spherical UFOs—ball, round or oval (Table 2). However, the forms pose a problem. Is a light (see Table 3) a luminous point, or an extended source where the luminescence obscures its real shape? Could a light be a ball or oval at a distance distorted by atmospheric conditions? For example, “starlike lights” could be bright spheres too far away for clear resolution of shape. The fire lookouts and Vogel told me that “bright light” or “blinding light” was a white, shapeless, photonic source. Almost half of all Reservation NL reports feature these equivocal forms (Table 2).

The major colors of the Reservation NLs are *orange* and *white*. Half of Reservation *spheres* are orange; 26% are white. One-fourth of Reservation *forms* are orange; over one-third are white. Over half of all forms are either white or colors other than orange. *Apparently, orange is more often associated with spheres than with forms.*

Color and Motion

Most reports did not describe objects maneuvering in abrupt ways, although several reports documented right-angle turns and sudden reversals. The objects usually:

- Hovered.
- Hovered and then accelerated.
- Moved back and forth in straight lines.
- Appeared in view moving in a straight line and then vanished in the distance.
- Moved in a straight line, stopped, and resumed travel.

None of these actions is beyond the capabilities of manmade aircraft. In a few cases, objects ascended straight up into the atmosphere, vanishing from sight, or descended and appeared to land.

Most objects were either hovering or moving at the moment the observation began (the object came into view, apparently by accident). It is impossible to know if the color changed just before the observation began.

A few reports describe NLs that lessened in light intensity, changed colors while hovering or—as white lights—turned on colored lights that flashed sequentially as the objects moved (these reports are a small percentage of the total). One case described a moving white, oval-shaped sphere that gradually became whitish-orange as it continued to move.

I discovered that twice as many orange spheres were hovering as moving when first observed (18 cases, five with insufficient information). White spheres were moving when first observed in two-thirds of the white sphere cases. Of the 26 white forms cases, two-thirds described white forms in motion at the initial

point of observation. *White appears to correlate more strongly with motion than does any other color.*

If we group together all white spheres and white forms, we discover that two-thirds were observed moving; one-third were seen hovering. Of all cases of orange spheres *and* orange forms grouped together, 63% describe hovering orange spheres and orange forms. *Again, orange seems to favor hovering.*

Color and Altitude

Were there patterns where a particular color was associated with a particular altitude? Perhaps a color occurred during a phase of luminosity production, or was associated with a certain class of object, which depended strictly on altitude in some way.

The data were not always explicit as to the location of the NLs. I decided, therefore, that “ground level” meant any NL that was actually on the ground or below the top of hills or ridges—no higher than a thousand feet or so. Any NL above ground level was above ridge lines, hilltops or other high structures.

I discovered the following:

Orange Spheres: NLs were equally seen either at ground level or above ground level. Many above ground were hovering just barely above buttes or ridgetops.

White Spheres: 55% were above ground (although there was insufficient information in the remaining 45%).

Orange Forms: Seen equally at or above ground level (using information from 11 of the 18 cases).

White Forms: Seen equally at or above ground level.

Red, Reddish-orange, and Yellow Spheres: At least two-thirds of these groups were at ground level.

Orange-red, Whitish-orange, Red, and Green Forms: Mostly above ground.

The last category presents a puzzle. Were these forms a different UFO species than the orange and white spheres and forms? Or are orange-red, whitish-orange or red forms actually white and orange NLs seen through atmospheric distortion? Certainly we shouldn't always expect all the witnesses to describe orange or white in terms of pure colors.

Orange and white NLs appear half the time at or near ground level, and half the time at higher altitudes. Also, because orange and white spheres can appear equally at any altitude, our division of the NLs into spheres and forms may very well be arbitrary. There may not be two distinctive species of Reservation NL, merely incomplete descriptions as to shape, or a different appearance of shape depending upon distance or some other unknown factor.

Sequentially Flashing Colored Lights and Altitude

The problem of explaining how electric fields can extend to high altitudes, which we faced in Chapter 12, applies to the unique class of Reservation objects

where multiple, sequentially flashing colored lights appear on white forms (one white sphere also displayed such lights). These five radiant NLs performed distinctly craftlike movements. More importantly, the NLs moved at altitudes ranging from 1,000 to 8,000 feet. It is difficult to believe that electric fields arising from tectonic strain could extend to such heights, ionize different gases in the atmosphere to produce the unique patterns of flashing lights and, most importantly, move for long periods of time across large areas of the Reservation, both pausing and accelerating in the process. Unlike the simple behavior of a hovering, low-level, luminescent orange sphere, these high-altitude NLs:

- Descended from Toppenish Ridge to pace a police car, then ascended over the ridgetop.
- Hovered over Signal Peak, moved, paused, accelerated and displayed a flame and roar.
- Hovered in the sky west of Wapato and departed rapidly with a roar.
- Hovered over Toppenish Ridge, then initiated the color sequence as it moved over White Swan, only to pause and move on west toward the Cascades.
- Hovered over Medicine Valley, moved up and down, sideways, and concealed itself out of sight.

We conclude that these NLs cannot be caused by electric-field ionization.

They may share their white color with other Reservation NLs, but their flashing, multicolored lights place them in a unique NL subclass. These five NLs do not appear natural in origin. If they are manmade aircraft, they are unlike any currently known. Are the mass of other plain, white Reservation NLs capable of turning on multicolored lights like those of this small NL subclass?

Color and Vehicle Pacing

Six white forms approached or followed motor vehicles. It seems significant that each of these NLs is white, and in most cases, was already moving when observed. Earlier we concluded that white is strongly correlated with motion. As examples of this motion, Reservation white forms were observed descending and landing, descending and vanishing, moving at very high speed at ground level, reversing direction and darting. We should also note that like the white forms that approached motor vehicles, a white sphere descended Toppenish Ridge seemingly to taunt a dog, and then ascended the Ridge. Interestingly, a recent investigation of apparent physical effects of UFOs on motor vehicles reveals a strikingly similar pattern where white UFOs approached vehicles.

Mark Rodeghier, scientific director of the Center for UFO Studies, performed a statistical study of 441 cases of vehicle interference where UFOs were associated with effects on moving vehicles, usually stalling or completely killing the car engines.⁴ Three statistical groups emerged from his study. One group includes large, high-energy UFOs (15 to 33 feet) that seemed to perform deliberate acts of control of vehicles, while another consists of metallic-appearing objects that emitted sound. The third group is composed of UFOs that were mainly red or white, small in size (0 to 15 feet), silent, and that moved in straight trajectories.

Rodeghier wondered if the white lights of the third group were related to an unknown natural phenomenon, and he thought that Persinger's ideas about the piezoelectric effect might hold the key. The resemblance of the last group to the Reservation NLs is obvious, although where Rodeghier found no cases in which a light instantly left the vicinity of a vehicle, we have noted at least two cases where this occurred on the Reservation (Chapters 5 and 7). Also, our vehicle-chasing Reservation UFOs emitted beams or lighted areas on the ground, supporting Rodeghier's observation that similarly-behaved UFOs had light beams.

We conclude that some white Reservation NLs display aggressive motion-dynamics in addition to high speed.

Color and Object Extinguishment

The tectonic strain theory of UFOs attempts to explain the sudden disappearance of a luminosity in terms of energy dissipation or discharge. Many Reservation NLs did go out, as if a light were switched off. Was this sudden extinguishment associated with a particular color? Perhaps the color could point to a natural phenomenon, although this seemed unlikely because our earlier findings showed that electric fields most likely cannot ionize atmospheric gases at high altitude. Even if electric fields can ionize gases at *low* altitude, how do we explain physically similar NLs at high altitudes as well? We have seen that electric fields would have to be of extreme intensity and capable of being focused for long periods of time, and subsequently moved, to explain the observed phenomena.

However, to give Persinger the benefit of the doubt, I studied the spheres and forms for connections between color, UFO shape, motion and extinguishment. Shouldn't the UFO have a certain shape, color, and motion when it went out? For example, if Persinger's electric fields were weak, wouldn't the luminosity be

TABLE 5

COLOR AND MOTION OF RESERVATION NL AT TIME OF EXTINGUISHMENT, BY SHAPE

Color	Sphere:		Form:	
	Hovering/Moving		Hovering/Moving	
Orange	4	2	4	1
Reddish-orange		2		
Brown-orange	1			
Whitish-orange	1			1
Red				2
Orange-red			1	
White			4	5
Orange-white			1	
Foglike	$\frac{1^*}{7}$	$\frac{\quad}{4}$	$\frac{\quad}{10}$	$\frac{\quad}{9}$

* Turned orange.

spherical and usually go out while hovering before it could move in attraction to conductive materials in the surrounding landscape?

Unfortunately, few Reservation NL cases yield the complete information we need to provide a definitive answer. However, the little information I did uncover forms an interesting pattern.

Table 5 shows that of 11 cases of spheres, all spheres that went out were orange or a shade of orange; none was white. Also, nearly twice as many spheres were hovering than moving when they went out. Of the 19 reports of forms, almost half of these NLs were white when they extinguished; the other half were orange, red or shades of orange and red. If we combine the hovering spheres *and* luminous forms, we discover that 76% of these NLs were orange or shades of orange at the moment of extinguishment.

It appears that when Reservation spheres and forms go out, they are usually orange and hovering. Even though this conclusion is based on only a small sample of the Reservation reports, and we have no information on the altitude of these few objects, it is a finding that provides some credence to Persinger's electric-field ionization model. Perhaps a Reservation NL must gain sufficient electrical potential at the hovering stage (where orange is the telltale signature) before turning white just before or during acceleration. However, to sustain the motion and acceleration for long periods of time, a continuous energy supply and a mechanism for maintaining the spherical form would be required, conditions not possible given our current understanding of the physics.

For example, one Reservation orange-red NL hovered, faded in intensity, turned white, increased in intensity, and then went out. Likewise, another NL, this one bright orange and apparently hovering in the sky over Bickleton Ridge, turned white before disappearing. Do some NLs reach a critical stage and collapse before they are fully formed? Some ufologists have imagined interdimensional shifts in which the NL, as a craft, passes into a different space/time continuum. These energy bursts, and the disappearance of the NL into a cloud, as in the following, would be signs of the shift: in two Reservation cases, a whitish-orange NL and a white NL respectively, either transformed itself into a luminescent cloud, or was enveloped in one before vanishing.

What the Yakima Microcosm Tells Us

We have come to the end of our journey through a maze of photographs, stories, and numbers, a complex of patterns that at times parallel each other, at other times diverge and terminate at dead ends. We have thoroughly explored all the dimensions of the Yakima UFO microcosm with its rich variety of components.

After all the accounts and statistics, what facts can we confidently accept? And from these facts, what is our next step, the new direction we should take to further understand the Yakima Indian Reservation UFO puzzle? More importantly, what must we pursue to understand the bigger mystery outside the Yakima window. . .the *macrocosm* of the total global UFO phenomenon that continues to

grip the imagination?

First, we must recognize that of all the descriptions of UFOs in the body of Reservation reports, the most veridical and consistent is the description of the ball of light—and more specifically, of the *orange ball of light*. There is *absolutely* no doubt that this object exists on our planet. Not only do the testimony and photographs support this fact, but more importantly, similar if not exactly the same descriptions from different, widely separated geographic areas in the United States confirm its existence. The most famous of these classic areas are the Uintah Basin in Utah, and the Piedmont area of Missouri.

Frank Salisbury (Utah) and Harley Rutledge (Missouri), both professional scientists, either investigated reports of these balls of light or viewed and photographed them.^{5,6} Interestingly, just as the total body of UFO reports from Yakima document mostly orange balls of light with fewer numbers of reports of craftlike objects and daylight disks, so do the reports from Utah and Missouri reflect this pattern. On the face of it, it would seem that the UFOs at Yakima, Utah, and Missouri are the same. In addition, all three areas experienced earthquakes during the sighting periods. Therefore, it shouldn't be surprising that Persinger and Derr conclude that tectonic strain is the culprit behind the Utah and Missouri manifestations.^{7,8}

Yet, despite the statistical correlations and these geographically far-flung observational similarities, we are left unsatisfied. In the Yakima study, Persinger and Derr pointed to seismicity within 100 miles of the Reservation; the Missouri study included quakes as far as 250 miles from the sighting area; and in a study of NLs in Carman, Manitoba, Canada (near Winnipeg), the researchers used quakes that occurred *775 miles away*.⁹ To Persinger and Derr, distance of quake activity appears to be little matter of concern. It is as if any quake at any distance implies tectonic strain in the region, and therefore, the mystery is solved!

And it would seem that weak energy released from a low-level quake poses no obstacle either. We know that EQL appear during *large*, energetic quakes above 4.5 but usually greater, such as 6 or 7. How is it that energy released from a *mild tremor* below 2 or even 1 can produce a plasma above ground? Even if electromagnetic radiation from a weak quake could pass through the tough, intervening barriers of rock from great depths, how can the plasma be formed and sustained in the atmosphere, beyond appearing as a momentary flash of light (a more likely assumption)? I can list even more problems with the TST—and already have in Chapter 12; and the reader can easily imagine numerous additional problems. Simply add them to the growing list.

Chris Rutkowski best puts the problem this way:

The Tectonic Strain Hypothesis [or Theory] poses an interesting problem for the scientist. As a hypothesis, the concept of explaining UFOs in terms of a natural geophysical mechanism is quite appealing, since it appears that it is a testable idea. In theory, it should be possible to verify whether UFOs are caused by underground strain fields.

However, while strained rock certainly exists, the strain field itself is

a mystery at this time. . . . [I]t is the mechanism that eludes us more than any other aspect of the hypothesis. While it might seem plausible that the constituent elements of the hypothesis follow each other to produce a rational argument in creating UFOs, the connections are not at all secure from a scientific standpoint. Even Persinger and Derr admit that: “There is still no direct evidence to support the existence of strain fields.” Since these fields are the foundation of the TSH, we can wonder why the TSH continues to support an undefined mechanism. It may in fact be easier to admit that UFOs are caused by extra- or ultra-terrestrials.¹⁰

This study has not attempted to prove whether or not the latter two possible origins of UFOs are true. But if we assume for the moment that Persinger and Derr are right—that luminous phenomena, in this case, orange balls of light, are caused by tectonic strain—why is it that in each window area they have studied, miscellaneous UFOs always show up as well (as in Table 2)? Why the presence of humanoids? Why craft? Why sightings of hairy creatures? Why strange sounds? Why possible abductions?

The problem, put as simply as possible, comes to this:

- Either Persinger is right, and the orange balls of light are a natural phenomenon caused by tectonic strain; *and* the exotic cases are the record of radical misinterpretations of mundane objects, or images from dream states induced by electromagnetic fields. In effect, *all* the reports from each window are reducible to a natural, neurological or psychological phenomenon.
- Or the orange balls of light—and certain selected categories of other luminous phenomena—can be explained by a geophysical mechanism, and the stranger cases are examples of a non-human intelligence operating in the window area.
- Or *all* the reports are of real, legitimate UFOs (orange balls of light and all the rest of the objects) or of UFO-related phenomena and have nothing to do with a non-sentient natural phenomenon. In short, Persinger is wrong.

If we accept that *at least* the orange balls of light are a purely natural (although little understood) phenomenon, and the rest of the cases (the miscellaneous ones) are true UFOs—we must ask why would such a non-human intelligence appear again and again in an earthquake-prone area where orange balls of light are produced during conditions of strain?

First, we might consider a program of surveillance, monitoring or scientific research for benign or evil purposes in which the aliens in their craft study the orange balls of light, earthquakes and other natural events or processes in the area. We do know that the secret Hanford Project is near the Yakima area. Perhaps radioactive contaminants were dispersed onto the Reservation from Hanford in the 1970s, such as through underground rivers, and the UFOs gathered data on the extent and effects of the dispersal on animal and human life.

We might posit an intelligence whose activities are best executed within a natural environment which provides *camouflage* for its activities. Harley Rutledge went so far to say that he believed UFOs are capable of imitating natural

phenomena; he even claims to have observed this. Perhaps as the natural orange spheres proliferated in the 1970s, the UFOs, themselves appearing either as orange spheres themselves or craft, pursued their activities under cover of the continual nighttime display of “mindless” tectonically caused luminous phenomena.

Perhaps different beings from different worlds visited the Reservation: consider the different shapes of the humanoids, and the different miscellaneous objects. Perhaps the beings ride inside the orange spheres. Perhaps when the orange spheres vanish like a light being turned off, they enter the proverbial “other dimension.”

Why the different descriptions of UFOs? If the orange spheres and miscellaneous UFOs are all one craft, perhaps this single craft appears differently to viewers due to such factors as nighttime viewing conditions, distance, motion and various physical orientations of the object in space. Perhaps the differences in reported details result from the appearance of one object in different operating conditions, the effects of propulsion systems on the atmosphere.

Lights or craft? One unified phenomenon or many? Nature or machine? Whatever the final answer, the facts will not come only from statistics, correlations and pattern recognition, but from a proper analysis, interpretation and integration of the reports in any test of any theory. For still, regardless of the use of powerful computer programs in analyzing data points, until wide-ranging scientific instrumentation (hardware) is brought to bear on the physical properties of the UFO subject, and until other scientific methodologies are devised to attack the puzzle in all its dimensions, the UFO phenomenon will remain based solely on human testimony.



EPILOGUE

In April 1983 I began writing this report. Since then, the report was re-drafted several times, leading to this final version. In 1983 I had begun exploring the concept of a natural geophysical force behind many of the Reservation sightings. But several events occurred starting in April of that year that made me pause.

First, let us go back to that summer of 1983. At that time the fire lookout, K.L., was at Sopelia Tower watching for fires. One morning she found that the few, small, flat stones that form a walkway in front of the metal outdoor bathroom 25 yards west of the station were freshly shattered. Also, the metal door on the bathroom was bent and would no longer close properly. I knew that K.L. had experienced ground tremors at the station before. Therefore, I interpreted these recent events as signs of earthquake activity in the area. Although this conclusion fit the logic of the tectonic strain theory of UFOs, I was uneasy. . . .

Because in June Vogel had written to me about a strange set of concentric circles that had appeared on the hood of his pickup truck (I describe this trace in an appendix). It so happens that these circles had appeared on car hoods twice before, in 1976, and at the house of the witness Bill Smith who had experienced a number of seeming paranormal events, including beeping noises (also detailed in an appendix). I wondered if the circular trace on Vogel's car, followed later by an apparent ground disturbance at Sopelia Tower, were related. A strange fact, however, was the strand of hair on Vogel's circles. It was the same type of hair that had appeared on Smith's circles. If Smith had not had paranormal experiences at

his house where the circles had appeared, the tectonic link would have been the likely cause. But a doubt kept nagging. . . .

On September 2, 1983, rain fell on Sopelia Mountain. The next morning was still damp as K.L. stepped outside and started down the road that leads up to the station. At a point opposite a familiar tree, she noticed a dry spot in the dirt road. The spot was oblong, shaped like a foot and about 10 inches long. Small ridges were in the heel, and the foot had distinct toes. To K.L., the spot looked like a Bigfoot track—although much smaller in size. Because a car had passed over the impression, K.L. told herself that the trace had to have been made by a rolling tire; the tire must have dislodged some small rocks, forming the toes as it passed. The print was facing east and was near the edge of the road. On either side of the road were pine needles and wild grasses. A search for other tracks in the road and vegetation uncovered nothing. She placed rocks around the track, and a week later the impression was still well preserved. A few days later, rain washed it away.

On September 22 K.L. took another walk. In the same road about 300 feet north of the Bigfoot track (now gone), she came upon a man's fresh footprint, "like he'd dropped out of the sky," she wrote Vogel. This time there were no tire tracks; and no other bootprints were evident. K.L. then heard a "rumbling, like a car in the distance" to the south, "like a vehicle might be coming up the hill." But the vehicle never reached the top. K.L.'s dog stopped in its tracks and looked in the direction of the sound. K.L. started down the hill, but the dog refused to move. About that time, the fire lookout experienced "an eerie feeling" and turned back to the station.

April 17, 1983, 10:25 p.m. . . . it was months before all these events had occurred. I was driving southeast out of Toppenish on Highway 22. I had spent the day with two fire lookouts reviewing their UFO report logs. Afterwards, I had met with Bill Vogel to review his UFO photographs.

The windows were rolled up; it was a cool night with a few hazy clouds and a full moon, and the stars were bright and prominent. As was my habit, I watched intently at the sky as I drove. I have never consciously sought a UFO experience, but it would be foolish not to always watch the skies—especially those over the Reservation.

At about 10:30 p.m., a few miles outside Toppenish, a flicker of very pale yellow light in my left window attracted my attention. Even before I stopped the car, I heard myself saying, "What's that?" It was not a reaction of anticipation of what was about to happen next, but oddly, a sense of knowing what was to follow. I don't know how to exactly explain the feeling, but it was natural, and I wasn't surprised when I pulled the car over, rolled the window down, leaned out and immediately sighted a tiny light to the north—about a quarter of a mile away, gliding west across the sky. The light reminded me of a small aircraft on its final approach to the airport.

The problem was that the light was perfectly round—I want to emphasize this—not like an aircraft's running or landing lights; not a cold, hard, broken light with shimmer, scintillation or glare. This light was pale, soft, and dirty white with a slight brownish or extremely light orange tinge to it. The apparent size of the absolutely round object was that of the point on a slightly dulled No. 2 lead pencil

held 12 inches from the eyes—quite small, but precisely defined, clear, and unmistakably round.

The light seemed to be floating, not driven, not attached to something; it was close to the earth's surface and making its way toward Toppenish. I had the unsettling feeling that the light was purposely turned down, as if it did not wish to be seen.

As the light continued west, it seemed to follow the highway, and finally vanished behind the obscuring tangle of tree branches on the other side of the highway. Eight to ten seconds had elapsed. I judged the speed of the light at 60 to 80 miles per hour.

I suppose I didn't turn around and chase the light because of the dark road conditions and my eagerness to get home. I feel I missed a valuable opportunity to study a possible UFO. Although I consider this a low-grade sighting, and I am not even convinced I saw a UFO, I was struck by the sense that I was attracted to the light by the brief flicker in the window. And my visual detection of this very small light in a wide, dark night sky seemed like a terribly easy, simple, even planned act.



APPENDIX I: FIRE LOOKOUT UFO REPORTS

Since 1958, fire lookouts on the Yakima Indian Reservation have seen unexplained lights and objects, and have experienced other strange events. Two-thirds of the total documented Reservation sightings are composed of fire lookout reports. This Appendix includes the reports that have originated from the fire lookouts themselves (as diary or log entries, or letters to investigators), or from W. J. Vogel, David Akers, or this author. The reports are listed chronologically and identified by number. The location of the fire lookout(s) during the sighting is then given, followed by the date of the sighting when known (month, day and year), the total duration of the event, if known, or the beginning and ending times of the sighting. The sighting is then summarized. All fire lookout diary or log entries are quoted exactly, and where appropriate, whole or portions of investigative reports are extracted from the originals. Finally, the source of the report is designated with initials, for example, D.A. (David Akers), W.V. (W. J. Vogel), G.L. (Greg Long), B.S. (B. Ann Slate). Fire lookouts, who remain anonymous, are S.D., K.L., M.H., P.N., and L.G. Unknown-source reports remain uninitialed.

1. Signal Peak, date unknown. “A lookout pinch-hitting for the regular lookout on Signal Peak reported a heavy, night-long rain with everything soaked, but when he got up in the morning, there was a perfectly dry piece of open ground not far from the lookout tower. . . . He had heard no noise or seen no lights during the night, but something had kept the rain off the ground.”—Sam Churchill,

columnist, "Sam's Valley," *Yakima Republic*, possibly 1972.

2. Signal Peak, date unknown. Bright light observed to south over Cedar Valley. Bright orange ball circled cabin and traveled toward bright light. Both lights then went out.—W.V.

3. Signal Peak, 1958. Night. A "big blaze" sighted south of Mt. Rainier near Packwood "strung out" along side of a mountain. "Fire" had color of flames but did not behave like a fire. Fire "rolled itself up into a ball" and ascended to hang stationary in sky and changed colors from orange to yellow. "Went out like electric light."—G.L.

4. Signal Peak, 1959 or 1960. After midnight. Purple shaft or beam appeared over cabin. Lookout unable to go out door—experienced sensation of two repelling magnets. After a period of time, the lookout was able to go out door. Satus Peak lookout received radio call concerning beam.—W.V., G.L.

5. Satus Peak, 1961. 1:00 a.m. Wife of lookout saw "hairy face" looking through window. Window was 8 to 10 feet above ground. Lookout and wife had heard "baby crying or woman screaming" several times while on Satus Peak.—G.L., B.S.

6. Satus Peak, Fall 1961. Daytime. Five to seven metallic, teardrop-shaped objects observed flying at treetop level between Simon Butte and McKay's Butte. A black spot on side of each. Approximately 300 miles an hour. Went out of sight to east.—G.L.

7. Satus Peak, 1964. Night. L. G. observed aqua-blue light approach lookout cabin at high speed from Ahtanum Ridge. Long, blue streak like "laser beam" tore by west window.—G.L.

8. Sopelia Tower, July 24, 1964. 2:40 p.m. Several minutes. "At 2:40 I looked west and saw a big puff high above the pine tree. I thought I had a fire and went to window to see better. Then I saw a round, silver object size of pie tin which you see up close. I ran to get binoculars, but when I got back to window it was gone. Then I heard a swish noise for what I thought about a minute and a noise like a tin can hitting a rock. I looked out door but couldn't see a thing. Then noise stopped instantly. Must have been a UFO." Distance of tree about $\frac{1}{4}$ to $\frac{1}{2}$ mile. Swish sound was above lookout station. While standing in doorway, lookout had feeling ("communication"?) she should not step outside.—S.D.

9. Satus Peak, August 2, 1966. 3:30 a.m. to 4:00 a.m. 30 minutes. "Watched what I thought might be a fire in Medicine Valley. Never changed its size but orange. So tried to go to sleep but didn't sleep much." Note: Log entry indicates watched until 4:30. Entry above from diary.—S.D.

10. Satus Peak, August 30, 1966. About 9:00 p.m. "Saw a long string of seven lights about half way up Ahtanum Ridge. West of road to Wiley City about 9:00 p.m. ???"—S.D.

11. Satus Peak, August 17, 1967. About 9:25 p.m. "Got woke up by radio at 9:25. D— called from guard station and said a fire had been reported in the hills west of White Swan. I looked and looked and couldn't see anything and told her I'd keep looking. S— had called and told her. Bill Vogel told a White Swan car to go and look around. I could see one little light in northwest. It wasn't usually

there. It was a Webb water truck watering roads. They said it was covered with lots of lights. They couldn't spot a fire either. Bill [Vogel] told me to look around in the morning for any smokes." Note: S— told S.D. later that she had seen a UFO.—S.D.

12. Satus Peak, September 29, 1967. 4:00 a.m. Very short duration. "Saw a bright light go across the sky south to north. Must have been a meteor."—S.D.

13. Satus Peak, October 16, 1967. 9:25 a.m. "Saw a funny-looking long thing going northwest to southeast, silver color, long like a snake. Above the tree tops. Very uniform in size and evenly spaced." The lookout also drew in her log a horizontal string of 12 circles, the first lefthand circle twice as large as the 11 others which were all the same size.—S.D.

14. Satus Peak, May 27, 1969. 9:30 p.m. "I watched a bright, reddish stationary light in the sky southeast for a long time. It wasn't a star."—S.D.

15. Satus Peak, September 4, 1970. 8:30 p.m. "Saw what looked like a fire on south slope of Mount Adams. Sat at table, watched it. Then it disappeared. At 8:50 Car 73, D— C—, called Bill Vogel and said he saw it from Wapato. Bill told him to call me. He did, and I said I watched it, too. Bill said to mention it to M. H. [another fire lookout] tomorrow." Note: The fire appeared to be located on snowy slopes.—S.D.

16. Satus Peak, July 16, 1971. 9:45 p.m. "Sitting on the bed, I saw two big red glows come and go on the other side of Ahtanum Ridge. Wonder what it was. It came up just west side of Wiley City dump. At 10:05 saw a red object in the sky in southeast way east of Sopelia Lookout. Watched it for a long time. Saw a little light come to it from above and then leave at a right angle."—S.D.

17. Satus Peak, July 21, 1971. 10:45 p.m. "Saw that red light in southeast sky again." (See Case 16.)—S.D.

18. Signal Peak, June 7, 1972. Between 9:30 a.m. and 12:30 p.m. Seven miles north near south fork of Toppenish Canyon, spherical-shaped object observed going up and down, bouncing. Had a bluish (metal-flake blue) sheen and was at least 30 to 40 feet across. Disappeared with big flash of light arcing into air. Cloud-to-cloud lightning observed after 2:00 p.m. Pet dog reacted strangely, as if ears hurting, for about one hour on evening following the observation, but nothing visible.—D.A.

19. Satus Peak, June 12, 1972. 9:50 p.m. "As I started to get ready for bed, 9:50, I saw a big, bright orange light southeast above Bickleton Ridge. It turned white and finally disappeared."—S.D.

20. Unknown, June 29, 1972. 10:30 p.m. Object sat for about 10 minutes. "Kind of pear-shaped" with fairly sharp outline. About four minutes before it moved, yellow, red and green lights were observed. The object was sitting motionless and then shot straight up to a high altitude. Object next shot straight east. Sharp angular motion and very high speed. Weather was clear with variable westerly wind. 17-mile visibility.—D.A.

21. Satus Peak, July 15, 1972. 10:00 p.m. "I watched an airplane flying north by Ahtanum Ridge close to ground, and lights would blink on the ground." Possible airplane although lookout thought it acted as if it were looking for

something lost, in addition to flying over sagebrush and playing a light beam on the ground.—K.L.

22. Sopelia Tower, July 31, 1972. 9:05 p.m. “A very strong white light about the size of a baseball was floating along just north of my lookout, down the slope from east to west, north of the trees on the deep canyon side about 6 to 10 feet below the tallest trees. I watched it as it went by between the trees. It really looked like someone could have been out for an evening stroll with a light in their hand. But nothing to stroll on but air. So this light must have been floating along. No noise at all. All quiet.”—M.H.

23. Unknown, August 2, 1972. 9:10 p.m. Big “blob” with no definite shape observed near Yeakle’s Pasture for 10 minutes before it shot straight up, made an instantaneous turn and shot north. 15-mile visibility.—D.A.

24. Satus Peak, August 3, 1972. 10:00 p.m. 75 minutes. “Bed 9:30. Got woke up at 10:00 by the radio. Saw a big white, bright thing come and go in sky. Would be dim, then get brighter and brighter and brighter, then like something melting fast and disappear, then gradually appear. No moon but bright streaks or rays. So light in lookout I could see radio and Kleenex box on table from bed and other objects in room. Looked like cloud but was not cloud. Dark above and below it. I watched it until 11:15 [at which time she went to bed].” Note: Rays came from circumference of roundish NL. Lookout compared NL to glow of headlights seen coming above hill but not breaking into full view. NL hovering during entire sighting.—S.D.

25. Sopelia Tower, August 11, 1972. 12:30 p.m. Less than a minute. Lookout was awakened by what she thought was lightning. At cabin door she saw a hemispherical object with multicolored, stippled streamers hanging from its bottom, or tail. Nose was silvery. Disappeared almost instantaneously into clouds. Altitude about 1,000 to 2,000 feet.—M.H., D.A., G.L.

26. Sopelia, August 18, 1972. 2:30 a.m. “Saw that bright star (?) [lookout’s question mark] southeast of Toppenish at 2:30 this morning. Watched it for quite awhile.”—K.L.

27. Satus Peak, August 19, 1972. “At 10:50 Bill Vogel called and said that fire reported by sheriff was a UFO previously reported in same area always about the same time.” Note: The UFO referred to (the “egg”) appeared several times at the base of Toppenish Ridge at the end of McKinley Road (see Chapters 4, 8 and 12).—K.L.

28. Satus Peak, August 25, 1972. 11:20 p.m. “At 11:20 p.m. Dave Akers called, ‘10-50 [code name for UFO] northwest.’ Just before he called, about 2 minutes, I saw what looked like an airplane headed east over Ahtanum Ridge. Couldn’t see anything else. Did catch a brief light in the wrong place.”—K.L.

29. Satus Peak, Sopelia Tower, Toppenish, August 29, 1972. “Lots of skip on the radio (Spanish speaking????) and dead silence on radio for quite awhile??? P. [lookout at Sopelia] told Bill Vogel about it [who was at fire control office in Toppenish]. I had mentioned it to Ernie [workman visiting Satus Peak], and Bill Vogel called me to check his radio. He thought his was turned down. Dave Akers (he was at 532 [Sopelia Tower]) called and asked if I had that skip over here and

dead silence. At 9:25 p.m. I saw two new bright lights in Medicine Valley area. At 9:27 saw a light on Bickleton Ridge, then in sky above ridge.”—S.D.

30. Satus Peak, October 14, 1972. 7:45 p.m. “I went to bed. Didn’t go to sleep ’til after 10:00. Watched big orange light on Ahtanum Ridge, 13 degrees. Then two lights. Then one again.”—S.D.

31. Satus Peak, October 28, 1972. 6:00 or 6:30 p.m. 30 minutes. Lookout observed a “two-story”-sized object hovering over Medicine Valley. The object was “above the surrounding ridges although not very high.” A “dark shape of a body” was discernible although exact form was unknown. With the naked eye, the lookout saw a very bright, steady white light on the bottom end. Through binoculars, she saw a flashing red light on top and a steady red light on the lower portion of the side facing her. After 30 minutes, lookout grew tired of watching as she was continuously watching through binoculars, and she went inside lookout.—W.V.

32. Near White Swan Ranger Station east on Highway 220 (Fort Road) outside White Swan, March 13, 1973. 7:11 a.m. About 10 minutes. Fire lookout, P.N., observed metallic-gray object shaped like “old dinner bell with a handle on top” hovering over Satus Peak Lookout Station, eight miles to the south. After 5 to 10 minutes, UFO moved slowly northward in a series of jerks lasting approximately 15 to 20 seconds. Passed west of observer and moved out of sight west of Yakima (see page 28).—W.V.

33. Vicinity of White Swan, week prior to April 4, 1973. Evening hours. During a series of nighttime brush fires in the area, small white balls of light, about the size of tennis balls, or larger, were observed by fire lookout, P.N., coming out of the dark, circling the fires several times, and then moving back into the darkness.—W.V.

34. Satus Peak, June 22, 1973. Late afternoon. The fire lookout observed a bright red object south-southeast of the lookout over Logy Creek, 9½ miles away. “I was looking out the window in the door [in southeast corner of the building] when I saw this ‘thing’ come from behind a cloud. The bright red color was what caught my eye. My first thought was ‘What on earth is that?’ At almost the same instant, I ran, got my camera, opened the door and quick-like took a picture. As I took the camera away from my eye, it [the object] was heading behind another cloud. It was headed from southwest to northeast. It had an extra bright red glow or light or whatever; I can’t exactly say, except it was brilliant red and large. Maybe I should have looked better rather than thinking ‘I must get a picture.’ It was moving quite rapidly.” The camera was a Kodak 35 with an adjustable f3.5, 50mm lens. Lens set at f3.5 at 1/25 sec. High-speed Ektachrome, daylight film.—D.A.

35. Satus Peak, Sopenia Tower, July 20, 1973. Evening hours. Both fire lookouts observed a very fast-moving light traveling from southeast to northwest between the lookout stations. Very short duration. Lightning observed to north of Satus earlier in evening.—D.A.

36. Satus Peak, July 21–22, 1973. 11:45 p.m. to 3:00 a.m. 3 hours, 15 minutes. “At 6:00 p.m. M. H. called and said Dave Akers would be up. He got here

at 7:30. We visited, and I fixed him a cup of soup, crackers and cookies. At 9:30 we both saw two flashes close together behind us. He thought it was from refrigerator but said if it was, I should see it all the time, which I didn't. I asked him a million questions about UFOs. Just about gave up looking for UFOs when at 11:45 I saw a light southeast on north slope of Horse Heaven Hills where I've never seen one before. We watched it go off and on. Then another light. Then farther east another light. Altogether there were five lights at the most at one time. Mostly one, two, and three at a time. Dave very mystified. Sometimes lights close together, other times far apart. Activity stopped at 3:00 a.m."—S.D. Note: Akers counted three lights, which flickered and moved slightly. Lights would disappear and reappear 20 minutes later nearly at the same time. Distance from observers estimated at 18 miles.—D.A.

37. Satus Peak, July 24–25, 1973. 11:45 p.m. to 1:00 a.m. 1 hour, 15 minutes. "Woke up at 11:45. Saw an orange light north below me where I never saw one before. Watched it 'til it went out at 1:00. Took two pictures."—S.D. Note: Light seen between lookout station and Mill Creek Canyon where no roads are. Nothing showed up on film.—S.D.

38. Sopolia Tower, October 1, 1973. 8:00 p.m. "Saw lightning, probably sheet, northwest of S.D.'s [Satus Peak] a long ways. Think I saw a UFO traveling fast northwest."—K.L.

39. Satus Peak, June 17, 1974. 12:35 a.m. and 12:53 a.m. Very short duration. "At 12:35 and 12:53 this morning I saw two UFOs traveling in an easterly direction. The first one faded out, but the other one I watched out of sight. They were white lights traveling high. I could have thought the second one was a satellite if it hadn't followed the path of the first one."—K.L.

40. Satus Peak, July 19, 1974. 2:45 to 2:48 a.m. 3 minutes. "I was looking around while watching lightning. I saw a bright, kind of orange light over Goat Rocks area. Called K.L. at Sopolia Lookout, but she couldn't see it. Bill Vogel heard us talking and asked me the location. I gave it, and he said he'd check. Just then the light went out, and I didn't see it anymore though I watched quite a while."—S.D.

41. Satus Peak, July 20, 1974. 11:15 p.m. 20 minutes. "I saw a bright light in southeast over Horse Heavens. Looked reddish so took a picture. Think maybe it was a planet. Watched it 20 minutes and then bed again."—S.D. Note: Ten minutes before the sighting, Bill Vogel radioed: "You had a visitor up there last night. . . . It was about 2:00 or 2:30 [a.m.] for 5 or 10 minutes." This was a sighting by Vogel and a deputy sheriff of a stationary orange-red light west of Satus Peak which turned white and "went out" (see pages 27–28).

42. Satus Peak, July 21, 1974. 3:40 a.m. to 3:41 a.m. 1 minute. "I was sitting up in bed looking around when I saw an extra-large, bright-white light flashing in Deer Butte area. I thought it might be a reflection from the east. When I realized it wasn't, I jumped out of bed and went to the west windows. Just as I got my face to the windows to avoid reflection, the light stopped. I watched 25 minutes but didn't see it again."—S.D.

43. Satus Peak, July 21, 1974. 8:50 a.m. to 8:50:30 a.m. 30 seconds. "I was

sitting at my table looking west toward Mount Adams when I spotted a light-colored, silver, or gray object moving fast south to north, real low, just west of Mill Creek Guard Station. I grabbed the binoculars and looked at it through them. Just then, it disappeared behind a rise south of Deer Butte into the north fork of Toppenish Creek Canyon. I watched quite a while but never saw it again. This was in the same area where I saw that bright light at 3:40 a.m. this morning. A few minutes later I called P.N. at Mill Creek Guard Station [about 3 miles west of Satus Peak] and asked her if she heard a jet go over. 'Negative.' It didn't look like a jet."—S.D.

44. Satus Peak, August 10, 1974. 12:35 a.m. "Dave's [Akers] gadget [magnetometer installed in station] started whistling. Surely is eerie. I wanted to turn it off. It kept going until about 1:45 [a.m.]. Didn't think I could go back to sleep but I did. I looked but never saw anything."—K.L.

45. Satus Peak, August 12, 1974. 2:15 a.m. "Dave's gadget came on once."—K.L.

46. Sopelia Tower, August 16, 1974. 10:00 p.m. (approx.). "Saw two white lights traveling together northeast of me. They were high. They both went out almost simultaneously. Called S.D. but she couldn't see them."—K.L.

47. Sopelia Tower, August 17, 1974. 9:40 a.m. "S.D.'s whistle [magnetometer] went off [at Satus Peak]. I acknowledged, 'Don't see anything.'"—K.L.

48. Satus Peak and Sopelia Tower, August 18, 1974. 9:30 p.m. "K.L. [Sopelia] said, 'Look east, high.' In a bit saw a big, bright light moving east quite fast. Soon went out."—S.D. "Saw either a satellite or UFO. Called S.D. [Satus] and she saw it. Northeast of me and east of her."—K.L.

49. Satus Peak, August 28, 1974. 7:30 p.m. "Heard rumbling noises again. No wind at time."—S.D.

50. Sopelia Tower, September 29, 1974. 8:00 p.m. "While I was on [water] tank, a strange voice called [on radio]. I jumped out and answered. 'Do you have any reports for Dave?' 'Negative.' I wonder if it was Dave Akers. Talked to K.L. about beautiful sunset and Mount Hood. Later Bill [Vogel] said to let him know when there were pretty sunsets so he could get pictures. Later I saw a bright light by Goat Rocks. Called K.L. and she saw it. It soon went out. A voice said, 'Little green men.' [Akers over radio from his position in Valley.] Soon I saw a bright light in east above Sunnyside and told K.L. She spotted it. Bill Vogel piped up. 'Where?' Little later said David [Akers] wanted an azimuth reading from K.L. and me, and to take pictures, three or four. It stayed in same place for a *long* time. T.F. kept making remarks [Signal Peak lookout]. Even Grayback lookout [Washington state fire lookout just south of Reservation] had remarks to make and how much she enjoyed us girls and our humor."—S.D.

51. Satus Peak, October 14, 1974. 5:30 p.m. "Can hear loud rumblings." 7:00 p.m. "K.L. called, and we talked a bit. She heard rumblings, too [at Sopelia]."—S.D.

52. Signal Peak, October 28, 1974. 4:00 a.m. Fire lookout T.F. was awakened by "a loud squelch noise" coming from her two-way radio. Noise was constant, lasting 22 minutes. "Skip" is not unknown on the Reservation radios, but

Vogel considered this as extremely unusual, given its duration and time of day.—W.V.

53. West on Branch Road near White Swan, April 12, 1975. Approx. 8:00 p.m. While driving her car, the fire lookout observed over “The Narrows” in Medicine Valley [to the northwest] what appeared to be a fire on a hillside. She stopped car for better view, and saw that the “fire” was a hovering, orange-yellow light 6–7 miles distant. Light began moving easterly toward Wapato and Toppenish. Light neared within 2–3 miles and was below top of Ahtanum Ridge. Not moving at an “excessive rate of speed.” Estimated size was that of a Ford or Chevrolet Econoliner van. Moved east and passed from sight.—W.V.

54. Sopolia Tower, June 28, 1975. 9:00 p.m. 15 seconds. “On Saturday [date and time above] on the southeast side of Mount Adams just above the ridge between us, I saw a huge, round, fog-like ball. Five seconds later it disappeared. At 10:00 p.m., same place, a huge orange light was seen which lasted about 30 seconds. Odd, eh!”—M.H.

55. Satus Peak, July 5, 1975. 11:00 p.m. “Woke up and saw lightning along Columbia River. Saw a red ball by Ginny’s Butte. Watched it awhile, several minutes, and called K.L. She answered and I said, ‘Look towards Ginny’s Butte.’ She saw it, too. Then it disappeared.”—S.D.

56. Sopolia Tower, September 12, 1975. 9:00 p.m. “Ready for bed. Saw a light-orange light north of the Horse Heavens. Disappeared.”—K.L.

57. Satus Peak, October 7, 1975. 4:15 a.m. “Heard H— S— on law-and-order channel say he saw a UFO and wanted it recorded in log book. One had been seen a couple of nights ago, too.”—S.D.

58. Satus Peak, August 5, 1976. 9:15 p.m. “9:15 I went to bed. Supposed to be my last night in this lookout. Watched a red bouncing light northwest of Fort Simcoe for a couple of minutes. Then light went out.”—S.D. Note: Fire lookout drew a series of connected inverted U’s in her log to depict the light’s flight pattern. The light was traveling from the southeast to the northwest.

59. Satus Peak, August 22, 1976. 9:55 p.m. to 10:18 p.m. 23 minutes. “Saw what I thought was a fire on Ahtanum Ridge along the Wiley City road. Watched through binoculars. It was a big orange light that pulsated. Took a shot with firefinder, 22 degrees 21 minutes. It crossed [was hovering over] where power line crosses road. 10:18 the light went out.”—S.D.

60. Satus Peak, August 31, 1976. 9:10 p.m. “Saw red light low, east of Toppenish Mountain go [here fire lookout drew in her log a long horizontal line] and disappear.”—S.D.

61. Satus Peak, October 3, 1976. Time unknown. “I saw a big orange light low in south, and Mona [visitor to lookout] saw it, too.”—S.D.

62. Satus Peak, October 26, 1976. 8:00 p.m. Fire lookout observed across canyon to the west a fairly large strobe-like type of white light. No reason for such a light to be in this area; no lights determined to be in this area at the time. Light was “quite bright.” After a few minutes, it went out.—W.V. Note: S.D. entered in her log: “Saw a bright light west, 257 degrees 20 minutes—on ground.” Time: 7:55 p.m.

63. Satus Peak, October 26, 1976. 9:15 p.m. “Bill Vogel had called me at 9:00 and said, ‘There’s quite a bit of activity in your area. So watch.’ I said, ‘I’m looking.’ At 9:15 saw a red glow behind Simon Butte or the next butte south. Then a thing shot up into the air and disappeared. I saw it just for a couple of seconds. Real eerie looking.” At 9:30 the lookout saw “Glow east of Toppenish Mountain.”—S.D. Note: The glow outlined the butte and was a much deeper red than a fire’s. The object rising from the center of the glow was tubular or cigar-shaped and moving at an extreme rate of speed. The glow vanished after the cigar shot skyward.

64. Satus Peak, October 30, 1976. Approximately 8:00 p.m. A few seconds. Fire lookout and guard at Mill Creek Guard Station [$5\frac{1}{2}$ miles west of Satus Peak] observed “a large, bright-orange, round ball of light approximately 9 miles SE of Satus Peak. The light was above the ground but below the horizon. The light was only visible for a number of seconds, coming on and then disappearing. It did not move.”—W.V.

65. Satus Peak, November 1, 1976. 7:30 p.m. Fire lookout and guest observed “a bright red, round light leave ground and go *straight* up into the sky and disappear. It moved at quite a high rate of speed.” Light was north-northwest of Fort Simcoe.—W.V.

66. Satus Peak, November 3, 1976. Approximately 6:15 p.m. Fire lookout and guest observed “a bright, white light moving north to south at a very high rate of speed” 16 miles east of Satus Peak Lookout. Light moving parallel to Satus Creek and U.S. 97 just above ground. Traveled about 5 to 6 miles.—W.V.

67. Satus Peak, June 15, 1977. 9:50 p.m. 2 seconds. “A bright light went east to west south of me. Looked like about south fork of Logy Creek canyon. Didn’t appear to be moving too fast. Pressed radio button and said, ‘Did you see that, P—?’ She did and was trying to figure if it was a spotlight.”—S.D. Note: Light moved downwards at 45-degree angle. Sighting lasted about 2 seconds. Satus Peak fire lookout believed the light was not a meteor.—S.D.

68. Satus Peak, September 23, 1977. 8:15 p.m. “Saw an orange light southeast toward Holwegner’s Ranch [approximately halfway between Satus Pass and Toppenish] about on power line. Called K—. She looked and looked but couldn’t see it.”—S.D.

69. Satus Peak, June 30, 1978. 11:00 p.m. to 11:05 p.m. The Sopelia Tower fire lookout saw lightning west of the Lake Beds and an “orange light” also to the west. She called the Satus fire lookout. “Can you see the red glow west of me?” “No, but I saw a large orange ball by Goat Rocks,” Satus responded. Also told the Sopelia lookout to “look at it. Then it [ball] went out.”—S.D., K.L.

70. Satus Peak, July 4, 1978. 9:30 p.m. “Big, orange ball east of microwave tower on Ahtanum Ridge. At 9:47 saw big, orange ball again about same place. 11:00: Saw big, orange ball west again [toward Goat Rocks].”—S.D.

71. Satus Peak, July 27, 1978. 9:02 p.m. “Looked north and saw a streak of light over Ahtanum Ridge. I think it was a meteor but am not sure.”—S.D.

72. Satus Peak, August 8, 1978. 12:30 a.m. “Woke up, looked around and saw a beam of light shining up in air in direction of Starvation Flats [3 miles

southwest]. Too much reflection [on windows] to see what or where it was.”—S.D.

73. Sopelia Tower, September 3–4, 1978. Approximately 9:00 p.m. to 4:00 a.m. 7 hours. Fire lookout reported hearing “the sound of underground turbines or engines.” Lookout’s dog was extremely nervous. Lookout had heard same sound during summer 1978, but during day.—W.V.

74. Satus Peak, September 9, 1978. 2:30 a.m. 13 minutes. “Saw a big orange light, low, just north of Toppenish. Watched it 12 minutes. Then it disappeared. After it was gone, I could see rays coming down from where it was [had been] for about a minute.”—S.D.

75. Satus Peak, September 29, 1978. Approximately 11:08. Less than 10 minutes. Fire lookout observed a sequence of light effects on what may have been a single dirigible- or oval-shaped object hovering over the Goat Rocks. Sighting is detailed on pages 89–90.—W.V., K.L.

76. Satus Peak, October 4, 1978. 9:00 p.m. “Saw a strange row of lights southwest-west of McKay’s Butte. Waited for it to come behind next north butte, but it never did. But didn’t see it anymore. It wasn’t moving fast.”—S.D. Note: The lookout compared the lights to “train windows.”

77. Satus Peak, Sopelia Tower, October 10, 1978. 5:45 a.m. “At 5:45 K—said, ‘S.—!’ I said, ‘Yeah?’ She said, ‘Get your glasses!’ I saw a beam of light going up in the air west of her. I jumped up but couldn’t see it anymore or anything else except light reflections every place. Terrible!”—S.D.

78. Satus Peak, May 24, 1979. Approximately 9:00 p.m. “Heard on scanner White Swan Fire Department went to sagebrush fire in Stevenson Road [near base of Ahtanum Ridge to her north]. Looked with glasses. All I could see was a small orange light (UFO), which soon went out.”—S.D. Note: The fire lookout also saw flashing red lights of fire vehicles as they neared location of orange light. Fire personnel found no evidence of a fire.—W.V.

79. Satus Peak, May 28, 1979. 1:30 a.m. “Heard the strangest noise. Went out on catwalk and listened. Sounded like big drops of water hitting a paper, or two sticks hitting together. Loud. Noise sounded like it was bouncing around different places. Real spooky. I even looked in the sky for something.”—S.D.

80. Satus Peak, September 12, 1979. 10:15 p.m. 5 minutes. “Saw orange ball just above horizon between Mount Rainier and Goat Rocks.”—S.D. Note: Vogel recorded that the ball was observed between the Goat Rocks and Mount Adams. It did not remain stationary but “slowly moved in a number of different directions before fading from view.” Ball was observed about 5 minutes.—W.V.

81. Satus Peak, September 13, 1979. 12:15 a.m. “Still looking around in sky at 12:15 a.m. when we spotted what appeared to be a light close to top of butte south of Simon Butte. All of a sudden an orange ball rose up in the air from behind the butte. We watched it for about 15 seconds. Then it went out. We kept watching. I kept saying, ‘Come back again, come back again!’ In a minute or two, it appeared again for about 15 seconds and went out again. I’m so glad Iona saw it. Then we went to bed about 1:00 a.m.”—S.D. Note: Vogel interviewed the lookout and recorded that two large, luminescent balls appeared at the same time from behind the butte. They remained above the skyline and moved in an erratic manner in a

small area. “Within a number of seconds after the two appeared, an orange glow appeared behind the butte. Then a third orange-colored ball rose from behind the butte and hovered just above it. . . swinging slightly as a hovering balloon does. After approximately 45 seconds, all three faded from sight.” About 5 minutes later, the third ball reappeared in the same location. It was visible for 30 to 45 seconds and faded from view. Vogel eliminated the possibility of flares based on the size of the objects.—W.V.

82. Satus Peak, September 19, 1979. 9:50 p.m. “Saw one big orange ball northwest between Goat Rocks and Mount Adams.”—S.D.

83. Satus Peak, October 2, 1979. 8:00 p.m. “K— called me on CB from home. We saw a bright, large, green thing fall in northwest.”—S.D.

84. Satus Peak, October 9, 1979. After midnight. “Sometime after midnight, we [S.D., Dave Akers, and two others] saw a light southwest over the second butte south of Simon Butte. It was orangeish, and lights radiated out from it. We all went out on the catwalk and looked at it through binoculars.”—S.D.

85. Satus Peak, October 11, 1979. 6:30 p.m. “Out on north side of catwalk. Heard a loud humming noise. Could not see anything. Eerie sounding.”—S.D.

86. Satus Peak, October 16, 1979. 12:15 a.m. “Saw orange ball again.”—S.D.

87. Satus Peak, October 22, 1979. Approximately 9:30 p.m. Something “emitting a high-pitched whine passed directly over the top of the lookout. Whatever it was, passed quite closely.”—S.D. and her relief, K.L., who both heard the sound, stated that it was definitely not a jet. The sound was not ear-splitting but loud enough to be discernible.—W.V., S.D.

88. Satus Peak, July 4, 1980. 10:00 p.m. “Saw orange light northwest.”—S.D.

89. Satus Peak, July 9, 1980. 10:10 p.m. “Saw a big light between me and Signal Peak.”—S.D.

90. Satus Peak, August 18, 1980. 1:35 p.m. “Heard that motor sound again, like underground. First time this year.”—S.D.

91. Satus Peak, September 9, 1980. 3:25 a.m. “Woke up and looking NW saw a bright flash and orangeish streak headed towards Mount Rainier. *Was not* a plane or falling meteor! Don’t know what it was. It must have been a UFO!! Sure eerie!”—S.D.

92. Satus Peak, September 15, 1980. 8:50 a.m. “At 8:50 in the morning watched three long, shiny, silver objects flying high in the sky. *Not planes.*”—S.D.

93. Satus Peak, October 9, 1980. “My radio went crazy. Loud squelch noise and lights flashing. It kept up, so turned it off a while. Turned it on again, and it still did it. So turned it down as low as I could.”—S.D.

94. Satus Peak, June 22, 1981. 8:35 p.m. The fire lookout was sitting at her table looking north when she saw “a large, white, round light float down from the SE.” It was first seen just above Brownstown, heading towards Ahtanum Ridge at a 45-degree angle. The light entered into or went behind “a small, thin, not very long, dark cloud” that appeared to be over Ahtanum Ridge or Yakima. The light did not come out of the cloud. The light was too slow for a meteor and did not have

“the same color” as that of a meteor.—S.D.

95. Satus Peak, June 25, 1981. 11:00 p.m. “I saw an orange light up around Signal Peak. It looked like near Mount Adams.”—K.L.

96. Satus Peak, June 25, 1981. Around midnight. “I thought I might have felt a tremor, a small earthquake.”—K.L.

97. Satus Peak, July 1, 1981. Approximately 10:00 p.m. 15 seconds. Fire lookout was looking east when she saw about over Granger or Sunnyside “a large bright light, larger than an airplane light, for about 15 or 20 seconds. Then it went out.”—S.D.

98. Sopelia Tower, Satus Peak, Signal Peak, July 4, 1981. Between 10:15 and 10:30 p.m. At 10:00 the Sopelia fire lookout saw a storm over the Columbia River southwest of Goldendale, Washington [15 miles to the south]. A portion of the storm was also southwest of her lookout station. At 10:15 she observed “a big, orangeish light” just south of Goldendale. Through binoculars it appeared on the north side of the ridge bordering the river, to be “a little higher than the top of the ridge,” and to have three or five orangeish lights on it. At this time, the Signal Peak fire lookout radioed, and the light went out. Sighting time was 10 to 15 seconds.

At this time, the Signal Peak fire lookout radioed a fire control officer in the Valley, stating that she saw what appeared to be a fire. She was instructed to climb the lookout tower to “get a shot.” At about 10:30 the Sopelia fire lookout saw “another big orangeish light just west” of the first light; this NL went out after 3 to 4 seconds. Also at approximately 10:30, the Satus Peak fire lookout saw two bright orange lights in the southwest. The lookout wrote: “I thought one was a [Washington] state fire that Signal Peak saw, but it didn’t really look like a fire and soon went ‘poof.’ I took an azimuth shot on it. The next morning when I looked at my line of shot, I *knew* it wasn’t a fire, because it was right in line with Mount Hood, and snow doesn’t burn! About the same time, I saw an orange light through the dip on the north side of McKay’s Butte. It soon disappeared. They were two different lights.”—S.D., K.L.

99. Signal Peak, Satus Peak, and a residence 5 miles west of Toppenish, July 15, 1981. 10:53 p.m. The fire lookouts on Signal Peak and Satus Peak, in addition to a fire control officer and his daughter in the Valley, observed a strange NL which twice approached Signal Peak and moved off to the north and west. A flame and sound like that of a rocket launch was associated with one of the lights. See pages 90–91 for details.—W.V.

100. Sopelia Tower, July 20, 1981. 10:00 p.m. “I saw bright light southwest [west of Goldendale]. Appeared to remain stationary. Then went out.”—K.L. Note: Possible landing light of plane.

101. Sopelia Tower, July 29, 1981. 9:45 p.m. The fire lookout observed an NL to the east between the station and Lone Pine Butte located two miles away. The NL was traveling in a northerly direction at 500 to 750 feet above the ground, was bright white and had several pale or lime-green lights on its edges although the fire lookout could discern no definite shape to the light. As the light flew along, it periodically went out for about $\frac{1}{2}$ second and came on. After coming on, the light was now at a location 90 degrees from its previous location, having moved about

1,000 feet. The light “jumped” in this manner as it moved “fairly slowly” to the north—up, sideways, down, sideways, and so on. Eventually the light disappeared over Toppenish Ridge.—W.V.

102. Satus Peak, September 25, 1981. 8:20 p.m. “L— B— called me on CB. While talking, I saw a bright, blue-green light come down from sky over Harrah area, like a meteorite [sic], except different color.”—S.D.

103. Sopenia Tower, May 21, 1982. Approximately 10:40 p.m. “Saw an orange ball southwest of me for about 30 seconds. Then it dimmed away.”—K.L.

104. Sopenia Tower, May 25, 1982. Approximately 11:15 p.m. The Satus Peak fire lookout recorded in her log: “K— said she saw UFO lights last night (May 25) about 11:15 p.m. SW of her.”—S.D.

105. Satus Peak, July 15, 1982. 10:00 p.m. and 3:00 a.m. “Just as I was crawling into bed at 10:00 p.m., north of me I saw an orange ball with a streak behind it, go across the sky E to W, not very high, parallel to lookout. At 3:00 this morning I saw a light streak and ball just like it, do the same thing S of the lookout. What are they, I wonder?”—S.D.

106. Satus Peak, July 16, 1982. 9:37 a.m. “Heard a rumble.”—S.D.

107. Satus Peak, July 19, 1982. 11:00 p.m. 15 seconds. “While talking to L—B—, I saw a big, orange light in Goat Rocks area. Got up to see it better, and it went out.”—S.D.

108. Satus Peak, August 25, 1982. 7:45 p.m. “Smelled that pig pen smell again. First time this year. Wonder what it is?”—S.D.

109. Satus Peak, August 25, 1982. 9:10 p.m. “Bright light in SE about second crossing of Satus Creek—higher in air. Looked down, and when I looked up it was gone. L— B— saw it, too.”—S.D.

110. Satus Peak, September 1983. Approximately 6:30 a.m. “I was checking the rain gauge about 6:30 a.m., and I heard soft music for a bit. *I really did* and looked all around wondering if a car was parked someplace with a radio on but couldn’t see a thing.”—S.D. Note: Rain gauge is 40 feet from lookout station.

111. Satus Peak, September 8, 1982. 8:35 p.m. “Saw a bluish white light going E to W, SE of Poisselle Butte area. Came down at an angle and not fast. Out before ground level.”—S.D.

112. Satus Peak, September 9, 1982. 10:00 p.m. (?) “L— called me after they got home. D— [L’s son] looked through his telescope last night at large light I saw in northwest. Said he could see windows in it.”—S.D.

113. Satus Peak, September 14, 1983. 1:50 a.m. “. . . I was sitting up in bed looking around. All of a sudden, a bright, white light came on in the south, west of the microstation several miles. I saw what looked like a beam shoot up in the air for just a second. Then the light went out. A minute or two later, the bright, white light came on again about over the Lake Beds area. It turned to an orange light like I see once in awhile and went out. This was just above the south boundary horizon. I had the binoculars right beside the bed and grabbed them and looked, so saw it good. Just wish it would last longer.”—S.D. Note: The beam was like a “huge spotlight.” It went out a few seconds after the fire lookout observed it

through binoculars.

114. Sopelia Tower, September 15, 1983. 10:51 p.m. Awake in bed, the fire lookout felt a 15- to 20-second tremor.—K.L.

115. Sopelia Tower, September 20, 1983. Approximately 10:00 p.m. A clear night with a full moon. To the west and quite high in the sky, a dim, starlike object was observed traveling fast south to north in a straight line. It then zig-zagged erratically before fading out. Sighting duration was about 10 seconds.—K.L.

116. Satus Peak, October 2, 1983. Approximately 9:30 p.m. The fire lookout, while lying in bed, felt “a slight tremor, like an earthquake.”—S.D.

117. Satus Peak, July 18, 1984. 9:40 a.m. “I heard my ‘truck noise.’”—S.D. Note: Fire lookout was sitting at table. Upon hearing noise, she walked to the window to see if a vehicle was coming up the road to the top of the peak. No vehicle was observed.

118. Satus Peak, Summer 1984. Lookout observed a white light on Mt. Adams before and during a flash of lightning. A second after the lightning flash, the light was gone.—S.D.



APPENDIX 2: BEEPING SOUNDS

One evening in the early 1970s, Bill Smith (pseudonym) was lying in bed in his home in Toppenish. He was reading and facing the west wall. Unannounced, a beeping sound similar to the electronic tone of digital-dial telephones began at a point near the southwest corner of the bedroom wall and ceiling.

Smith immediately lifted his book up in front of his face. The intensity of the sound increased as the beeping approached him. When the beeping was within three to five feet of him, Smith dropped the book and looked. The beeping slowly retreated, the intensity of the sound lessening as the distance between it and Bill increased. It dwindled into nothing as it appeared to pass through the wall and into the night air outside.

Some days later, Smith was sitting on the living room sofa with his wife and daughter watching television. Suddenly, the beeping sound started, this time near the living room wall. It gradually faded away. Smith checked the telephone receiver; all was normal. A few moments later, the sound resumed again, but quickly ceased within a few seconds.

For years Smith had been the percipient of many inexplicable sounds in and around his house, as well as witness to a range of other Fortean and UFO events. Among these were unexplained markings on his cars. These are described in detail in Appendix 3.

At about 5:00 a.m., September 19, 1974, the Toppenish police department began receiving calls from citizens about a strange "beeping" noise. It was being heard mostly in the northeast part of town. Witnesses described it as the "busy

signal” on the telephone line.

An investigating patrolman reported to his dispatcher at 5:10 a.m. that the sound was loudest in the vicinity of East Toppenish and Asotin Avenues.

The Zillah assistant marshall happened to overhear the radio conversation and was looking for the source of the sound. To him it was “quite loud” by the Tree Fresh Company at the southwest edge of Zillah. (Zillah is a few miles from Toppenish.)

The Toppenish patrolman kidded to the dispatcher that “it was the little men from Mars.” She replied that he should be sure and take some pictures so she could see what they looked like. The press of other duties interrupted the search at 5:20 a.m. Vogel had no reports of unusual objects at the time.

Almost five months later, February 4, 1975, Vogel received a call from a woman living in Buena, about two miles north of Toppenish on the north side of the Yakima River.

The woman reported that almost nightly for the past four to six weeks she had been hearing a beeping sound somewhat like the “busy signal” on the telephone line. She usually heard it about 10 p.m., but on February 3 it appeared at 6:00 p.m. She heard the sound only when she was outside.

Vogel reported: “(T)he sound comes from overhead. The source seems quite close and yet nothing can be seen. The source will leave the area, moving off in a southerly direction at a fairly rapid rate until the sound becomes inaudible.”

On February 3 her cattle began running the length of the pasture and her dogs vigorously barked. They stopped when the sound crossed the river and faded away.

On April 21, 1975, Vogel heard the sound along with the Yakima County Deputy Sheriff. After parking in front of the Seattle First National Bank in downtown Toppenish and opening his door, the deputy sheriff called attention to a beeping sound similar to the busy signal on the telephone line. Vogel listened to the noise with the deputy sheriff for a minute or so.

Vogel reported that the sound came in a series of five or six pulses, followed by a short pause, and then another series. The sound permeated the air, and Vogel could not pinpoint the direction of its source. After three minutes, the men left the area on a call.

Vogel noted that none of the pedestrians on the street noticed the sound, although this was understandable given the busy part of the day in the business district. Vogel discounted a beeping sound associated with construction work.

Beeping sounds are commonly heard during UFO sightings. For example, starting April 6, 1967, a metallic “beep beep” was heard every night for over a month in the town of Hoogdal near Sedro-Woolley, Washington.¹ The beeping seemed to quiet the crickets and frogs, and livestock became restless. A midget saw-whet owl was offered as an explanation, although a saucer-shaped object with lights was seen on the night of May 12 in the vicinity of the beepings. Betty and Barney Hill of Portsmouth, New Hampshire, who related a classic UFO abduction experience to psychiatrist Benjamin Simon, also heard strange beeping noises as they attempted to elude a UFO and after they regained consciousness in their car.²



APPENDIX 3: STRANGE MARKINGS

In Appendix 2, I described the experience of Bill Smith who heard beeping sounds in his house in Toppenish. Smith experienced many other strange events in and immediately outside his house. In several instances, Smith also observed bright light bathing the ground outside his house and penetrating his windows. Twice he heard rapid, guttural-sounding male voices outside the windows. The full range of his (and his wife's) experiences are too extensive to include here.

Needless to say, on May 9, 1976, a visitor pointed out something odd to Smith as he was leaving the Smith residence. There were strange markings on the hoods and fenders of Bill's two cars which were parked side by side near the house. Bill looked at them and then notified Vogel.

"The first thought a person got upon looking at the tracks," Vogel wrote, "was that someone had walked around on the vehicles with a pair of crutches." Each marking was made of dust and was perfectly round and composed of a series of concentric circles. The markings were scattered across the hood and windshield of one vehicle. On the second vehicle, they were found on the side of the right and left fenders and on the hood and the windshield, including the left "roof lip" above the driver's door.

Vogel found no markings on the ground although he discovered a single marking on a large soft-drink bottle which was on the ground next to the car closest to the house.

The markings measured from larger than the eraser of a pencil to 3½ inches

in diameter. On many of the markings were several strands of what appeared to be dog hair. Bill's two watchdogs (German shepherds) had been tethered near the cars on the night of May 8–9. Smith was emphatic that they would have vociferously responded to any intruder who entered the yard, animal or human. Yet the dogs did not bark that night. Vogel wondered if the hairs could have been from the dogs.

Wondering if the strange traces were caused by insects, I checked with the biology departments at Washington State University, Central Washington University and the University of Washington. Answers ranged from “misguided” aquatic Mayflies laying eggs on the autos, moths making circular motions and an electrochemical reaction where positively charged pollutants landed in the midst of like-charged particles, triggering the patterns. However, none of the scientists felt his explanation was conclusive.

Vogel discovered that Kathy Smith (Smith's daughter) had been awakened on the evening of May 8 by a “thud” outside against the side of her bedroom, which was near the cars. A few seconds later, she heard the sound of “breaking glass,” as if a large terrarium had been dropped on a sidewalk, but no broken glass or out-of-place object was found the next morning. The next night, May 9–10, 1976, Smith reported that the dogs had been very restless all night, barking almost continuously. The dogs were looking off into the dark, but Smith observed nothing unusual.

On November 27, 1976, Smith discovered similar circular markings of the kind observed in May. These were scattered across the right front fender and half way across the hood of one of his cars. They were the size of a nickel, and strands of hair clung to a number of them. That evening, Vogel received several reports of strange “beeping” noises coming from the general area of the Smith residence (see Appendix 2 for other reports).

In June 1983 Bill Vogel wrote me. He said:

Do you remember those funny perfect circles that Bill Smith had all over his cars? Well, the other morning I found one just like them on the hood of my pickup. It also had a piece of fuzz or something like a strand of dog hair sticking to it, as did his. That's the first time I've noticed such a thing around my home. . . . This one was about an inch and a half in diameter. I took several pictures of it. . . [see Plate 13].



APPENDIX 4: CAR LEVITATION?

Vogel reported that in the fall of 1975 the gate guard at the Mill Creek Guard Station and her 14-year-old son experienced an odd occurrence at the station. The mother and son had returned from town in their automobile. The mother parked the car near the station in the parking lot, which is made of gravel and is level. She put the car in park, put on the emergency brake and removed the keys. Then mother and son carried groceries from the car into the station.

Upon returning to the car, the mother noticed that the car was now in the far corner of the parking lot. The emergency brake was still on and the car was in the "park" position. There were no car tracks visible in the gravel. "The above occurrence," Vogel wrote, "has no logical explanation that this investigator has been able to ascertain."



APPENDIX 5: VANISHING HOSE

Vogel included in his files a copy of a news story entitled “Vanishing Garden Hose Has Satus Family Perplexed,” *Toppenish (Wash.) Review*, July 24, 1974. The reporter wrote that on July 14, 1974, 10-year-old Dave Nelson (son of Mr. and Mrs. Don Nelson of Satus, Washington, just outside the Reservation) was playing in the corral on the family farm when he saw a hole about the size of a half dollar in the sandy ground. Thinking the hole was the work of a snake or insects, Dave laid the nozzle of a hose running with water next to the mouth of the hole.

The reporter stated that the hose was sucked into the hole. Dave said that he tried to retrieve the hose, but the harder he pulled, the harder the hole “held on.” “It pulled my hand right down the hole,” Dave said. At this point, Dave let go of the hose and called his father.

Mr. Nelson turned off the water. The hose was about two feet in the ground. Mr. Nelson pulled on the hose, but when he let go, “it was sucked further into the ground.”

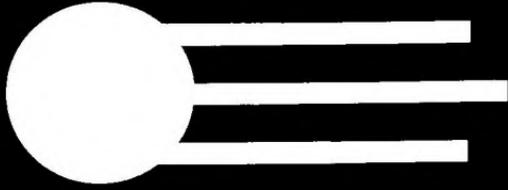
“About 15 feet of hose had gone down when Nelson hitched his horse to the hose,” the reporter wrote. “Whatever gripped it from beneath the ground was apparently stronger than the horse. He could not pull the hose out, and finally the tension snapped the hose in two.”

Nelson tried digging the hose out, but gave up after digging down three feet. “Was it some sort of underground vacuum. . .?” the reporter mused.

The story shows pictures of six to eight inches of hose protruding from the

ground, and the Nelson boy trying to pull the hose out of the ground.

I include this report because it may have bearing upon the geological characteristics of the area and provide a clue to the puzzle of orange balls of light in the Yakima region.



APPENDIX 6: BIGFOOT SIGHTINGS

Beginning in 1974, witnesses began approaching Bill Vogel concerning Bigfoot on the Reservation. Most of Vogel's focus was on UFO investigations. However, he collected reports of Bigfoot sightings whenever he could. This appendix is composed of report summaries based on Vogel's files. In some cases, the reports were general and brief, and the summaries reflect this.

In a letter to Peter Byrne, Director of the Bigfoot Information Center, The Dalles, Oregon (no longer operating), Vogel wrote:

One problem with Bigfoot sightings, etc., is the Indian people are very reluctant to disclose or talk about them. This is particularly true of the older people. It has something to do with some of the Tribal beliefs regarding such creatures. And then, of course, there is the normal reluctance one finds among people because of fear of ridicule. So I feel safe in saying that the number of Bigfoot encounters on the Reservation have been many, many times more than just the ones which have come to our attention.

1. Year unknown. John Jay (Chapter 9) came across some large, five-toed tracks in Toppenish Canyon. The maker of the tracks had evidently been hurt as one toe was missing on one foot, and tracks made by that foot were bloody.

2. Year unknown. A fire guard was riding horseback in the hills rounding

up cattle when he came across strange, large, manlike tracks. He decided to follow them and eventually caught sight of something that was large and definitely not a man. As he was by himself, he decided then to “forget the whole thing” and quit following it.

3. Spring 1963. In *Bigfoot*, B. Ann Slate documented a sighting by a woman in her ranch house south of Hembre Mountain, a prominent peak on Toppenish Ridge about two miles east of U.S. 97. It was about 10:00 p.m. The woman sat reading while her husband slept on a nearby couch. Feeling uncomfortable, as if someone were watching her, the woman glanced at the window. There she saw an ape-like face peering in at her quizzically. It seemed to be kneeling at the window, for the woman could see the form from rib cage up. The window was four feet from ground level. The creature’s girth filled the entire pane. The face was partially hairy, the color of a golden or reddish cocker spaniel. Its nose was somewhat flattened; the mouth was humanlike, as were the teeth. The left eyelid drooped over amber-colored eyes as if it had sustained an injury. The woman screamed, and the face disappeared. Her husband grabbed his gun and jerked open the door. The couple’s dogs dashed into the house between the husband’s legs. Outside, he found no sign of the creature; the ground was covered with pea-sized gravel, making any identification of tracks impossible.¹

4. Middle of the 1960s. In an area north of White Swan, sheep and dogs were mysteriously killed over a period of time. One man, a deputy sheriff who lives at an isolated ranch, had clothes taken from his clothesline, and a number of his puppies and grown dogs were “brutally slain.” Coyotes were not the culprit. Several sheep in the same area were also slain while with their flocks.

5. 1971 or 1972. Two men were driving on a road in the hills west of Fort Simcoe on the Reservation. They had been drinking, but according to Vogel “were in control of their senses.” “As they came out into an opening, they observed ahead of them two large hairy, ape-like creatures. They said one appeared to be the male and one the female. The female was dragging what appeared to be an old blanket. As soon as the creatures observed the approaching vehicle, they quickly moved into timber at the edge of the opening and disappeared. The two men were quite frightened and shook up (and sobered up) by their encounter, and reversed directions and sped to White Swan to tell their story. Since they had been drinking, their story was met with only skepticism and sneers—this attitude even though the men were obviously frightened. They couldn’t get anyone to return to the area with them.”

6. 1971 or 1972. A group of high school students was camped out northwest of Goldendale, Washington, near Kaiser Butte. At dusk, one of the girls wandered from camp. As she passed a large tree, a large, ape-like creature grabbed her. Her screams brought her classmates on the run. She was able to squirm out of her coat and get away. The creature disappeared into the woods. (Vogel was skeptical of this report.)

7. 1972 or 1973. A local Indian rancher was camped for the night with his dogs near the Camas Patch in the Dry Logy area. He was sitting by his campfire when his dogs suddenly rushed, barking, into the dark woods. Shortly, they came

pell mell back to camp and shakenly crowded up against the rancher. The dogs were frightened and made no sound as they quivered at his feet. Suddenly, the rancher was aware of a large, hairy thing standing at the edge of the fire light. The creature was about seven feet tall and gave off a terrific stench. The creature stood in one position for about 90 seconds looking at the man and the dogs. It then turned and left. The rancher could hear it moving off through the woods. Badly shaken himself, the man immediately broke camp and returned to the Valley. He said the stench was overpowering; it took several days before it left his nostrils.

8. 1972 or 1973. An Indian couple who lived several miles from the incident in Case 7 observed an ape-like “thing” skulking around their backyard one night. When they went out into the yard with guns and lights, it fled into the hills.

9. 1973. Two couples were camped in McCormick Meadows near a marshy area. In the middle of the night, they were awakened by the sound of something or someone approaching through the marsh. Waiting, they thought it might be someone coming for help for a disabled vehicle. Whatever it was went past their tents. The witnesses could tell by the sound of the walking that it was a heavy creature. The sound, they said, was definitely made by a two-footed creature. They didn’t attempt to locate the tracks the next day, but left the area.

10. 1973. A forester, while walking through a timber area, was followed by something for three miles. When he would stop, he heard the thing behind him. The forester tried circling the thing, but could never get a look at what it was. He convinced himself it was a cow or other normal animal, but admitted that animals normally don’t stop as soon as a person does every time. The thing was possibly a cougar as they can track a man for miles; but usually they are quiet and a person doesn’t know they are behind him. In contrast, whatever followed the forester caused rocks to roll and twigs to snap.

11. 1973 or 1974. Just after dark, two young Indian men stopped at Vessey Springs to answer a call of nature. Standing by their pickup, they heard something running towards them down the road to their rear. The footsteps were heavy, bipedal and coming fast. Frightened, the men hastened into their pickup. As they sped away, they heard the footsteps almost to the rear of their truck. Turning, they saw a large hairy creature. They were quite shaken by the experience.

12. Letter from Vogel to a Bigfoot researcher, September 16, 1974. “There is an area off the Reservation west of Yakima where they (citizens) are supposed to have had quite a few sightings. Understand, this is just hearsay... It is up the south and north forks of Ahtanum Creek. This person who told me about it said that the residents can even smell them at times. The area is more or less timbered and residents are scattered.”

13. Letter from Vogel to a Bigfoot researcher, April 17, 1975. “There is an area northwest of Yakima in the vicinity of the town of Wiley City on Ahtanum Creek where in the past there have been Bigfoot encounters.” Note: Roger Patterson lived in this area.

14. Possibly 1975. (Vogel to Slate, June 12, 1975). Several Reservation residents were camped out near Smith Springs on the Reservation. They were awakened by a “hair-raising” cry. . . a “crying, growling type of sound. It went on

for almost the rest of the night and seemed to circle their camp. Even being hardened outdoorsmen, they were frightened and upset." The sighting area is near that in Case 15 below.

15. May 1975. (Vogel to Slate, June 12, 1975) A woman from the Reservation was visiting her parents on the Hoopa Indian Reservation, California. "Suddenly, there was a loud thud on the side of the house, and the dog quit barking." Checking the next day, they found the dog next to the house, dead. "Something had thrown him against the house with such force that it caved part of the siding in. His head was also split open from the impact."

16. May 1975. (Vogel to Slate, June 12, 1975). Vogel refers to the Bigfoot cry outside the Millers's house (Chapter 6). Vogel loaned a tape of a Bigfoot cry (from Slate) to the Millers. The Millers said the sound on the tape came close to the "cry" they heard. I have a copy of the tape. It originated from Stan Gordon in Greensburg, Pennsylvania, where orange balls of light and Bigfoot creatures were being sighted in the early 1970s.

17. Letter to a Bigfoot researcher, September 24, 1975. "I have been told about a number of encounters with such creatures in the canyons of the Mule-Dry and Dry Creeks areas in past years. Strangely, this is within the same areas where our UFO activity has been the heaviest."

18. February 23, 1976, between 3:00 p.m. and 4:00 p.m. A mother and her young daughter, while returning from Glenwood, Washington, on Highway 97, saw a creature about seven feet tall ascending a bank of Toppenish Ridge at a distance of 300 to 400 yards. The creature went up the fairly steep bank in large strides with relative ease. The creature then hurdled a fence with no effort, and was lost from sight as it went down a slope on the other side of the fence. The creature was dark brown and "moved like a man on its hind legs and at no time dropped to all fours." Peter Byrne and Lynn McKinney of the Bigfoot Center, The Dalles, Oregon, investigated and found no definitive tracks (Chapter 6).

19. March 4, 1976, about 10:30 p.m. While in their house, the Millers heard a noise outside which they first took to be a vehicle pulling up into their driveway. However, no vehicle entered the yard. At this time they noted considerable unrest among their cattle, horses and dogs. Shortly, they heard several piercing whistles from outside, then heavy footsteps at the back of the house. Mr. Miller went outside to investigate, and passed through an area at the corner of the house where a smell burned the inside of his nose. Vogel did not know if tracks had been found; but the ground on the property is hardpacked and gravelly (Chapter 6).

20. During week of November 14, 1976. In the Goat Rocks Wilderness Area southwest of Rimrock Lake, a sergeant of the Yakima police department and companions had been deer hunting in the area. After killing a deer, they hung it by a heavy rope from a tree limb to cool. They camped a short distance from where the deer was hung. During the night, their pack animals (horses) began raising a considerable fuss. They got up and looked around, but detected nothing unusual. However, the next morning they discovered that the deer's entrails had been removed from where they had left them near the deer. The following night the same disturbance occurred. The men discovered that the rope that held the deer

carcass had been snapped. All that remained of the deer was a rear thigh and leg, which was on the ground. The remainder had been consumed, and all that remained were picked-clean bones. There were no animal tracks.

21. September 24, 1977. A Yakima Tribal judge and his hunting party were in a cabin in the Klickitat Meadows area just north of the Yakima Indian Reservation. The Klickitat Meadows has fairly steep, forested hills on all sides. A steep slope rises to the north behind the cabin. Late in the evening the cry of a creature believed to be Bigfoot filled the night air from an area halfway up the slope behind the cabin. The cry echoed and re-echoed throughout the area. The reverberating cry was repeated four times over a period of several minutes. Members of the hunting party answered the cry, and it ceased. Sometime during the night the cry was heard again from the same location, but this time only once. The judge stated that during the night he was awakened by heavy footsteps passing by the cabin; they were definitely not those of a four-footed animal. The party was unable to look for tracks in the morning because snow started falling and forced them to leave the area before they were snowed in.

22. May 1, 1978. A man about 22 years old was fishing on Logy Creek on the Reservation, about 25 miles south of Toppenish in a fairly isolated range-timbered area. He had parked his car and walked about a mile up the creek towards Logy Creek Falls. He was sitting on the bank fishing when he heard a noise in the brush behind him. Thinking it was another fisherman, he turned around. Standing there was a seven- to eight-foot-tall Bigfoot creature with a face resembling a gorilla. It had a sapling in one hand. As they eyed each other, the Bigfoot suddenly let out a blood curdling screech. Terrified, the man vaulted right out into the stream and across the other side. In his haste, he tore his clothes and punched holes in his rubber boots. As he proceeded to his car, the Bigfoot followed him on the other side of the creek until the man almost reached his vehicle. The creature then moved off into the brush. When he got home, he was still shaking and white as a sheet. Vogel noted that "several other sightings of Bigfoot and strange animal-like sounds have been reported from this same general area over the past number of years."

23. August 19, 1978. The brother of the Tribal judge in case 21 above was camped with his (the brother's) family on Logy Creek near Logy Creek Falls where the man in Case 22 had been fishing. During the night of the 19th, the brother and his family were awakened by loud growls and screams just outside the perimeter of their camp. The man and his family were seasoned campers; they said the sounds were definitely not a cougar's. An overpowering stench was also permeating their camp. They were sufficiently frightened that they immediately broke camp and departed for home.

24. August 23, 1978. Vogel received from a woman reports of continuing harassment of berry pickers in the Potato Hill area of the Reservation. The people camped there were subjected nightly to growling and screams which were not those of a cougar. The witnesses found a number of three-toed Bigfoot tracks outside the perimeter of the camping area. The harassment apparently went on for several weeks.

25. November 27, 1984, about 11:00 p.m. At Lateral B and Marion Drain

Roads, the Johnson family (pseudonym) were in their bedroom when they heard a loud guttural growling sound moving through their yard. It was of sufficient volume and strength to vibrate their bedroom windows. However, they did not go out to ascertain the cause. There had been heavy snow earlier on the 27th. The following morning the Joneses found very large tracks cutting through their yard. The tracks came from Toppenish Creek, cut through their yard and went up a bank onto the Marion Drain Road. A relative arrived on the scene and measured the tracks. There had been some thawing, and the tracks were not all of good quality. He was unable to tell where the tracks had come out of Toppenish Creek since cattle in the area had destroyed some of the tracks. The tracks measured 14" long and 5" wide and were 63" to 73" apart. Heel drag marks preceding some of the steps were about 34" long. The tracks had flattened the snow completely where they had appeared. Vogel concluded that due to the length of the stride, it would have been impossible for a human to have faked the tracks.



APPENDIX 7: YAKIMA INDIAN LEGENDS & UFOs

Jacques Vallee hypothesizes in *Passport to Magonia*¹ that the modern, global belief in UFOs and their occupants is identical to an earlier belief in the fairy faith. Reports have existed for centuries of aerial ships and flying races who pilot them. These global legends refer to invisible worlds, or a parallel universe called Magonia, that coexists with our own.

Vallee cites examples of beings inhabiting these worlds who have been known to abduct people and to steal animals and objects. The beings also assume many forms, traveling through the air and appearing and disappearing at will. A supernatural race, the inhabitants of Magonia are inquisitive and malicious.

I met many witnesses on the Reservation who mentioned the Indian belief in the Stick Indians, beings who are seldom seen but whose antics are well known. The Yakimas report sleeping in the woods and being awakened during the night by subjects standing beside them. As soon as the interrupted sleepers stir, the Stick Indians fade back into the darkness. Any number of occurrences are attributed to the Stick Indians, such as suddenly collapsing tents or disappearing objects; the campers will leave a gift, such as cigarettes or food, on a rock for the elusive beings.

According to A. J. Splawn, author of *Ka-mi-akin*, a history of the Yakima Indian wars and the settlement of the Yakima Valley, the Stick Indians were held in superstitious awe. "They were seldom seen, only glimpses being caught as they bounded from crag to crag, disappearing down some yawning abyss, which led many to believe they had wings."²

On November 20, 1966, a story appeared in the *Yakima Herald*, apparently as a result of local UFO sightings. Entitled "UFOs? Blame the Little People," the author wove together several tales of the Stick Indians. The following bears attention:

Kiutus Jim, now dead, father of Robert Jim, told of experiences with humming objects at night. One time he was caught by darkness in a snow storm. One of the objects whizzed close by. Although frightened, he disregarded the unexplained whizzing object, the proper way to deal with the Little People. Then it struck him, almost knocking him down. He took a stick and probed ahead and found he was on the edge of a precipice. He said that was not the only time one of the Little People had saved his life.

. . . The venerable Indians merely shake their heads knowingly when they hear stories of flying saucers, or UFOs. "The Stee-a-ha (another term for the Stick Indians) are about again. Be careful."

Vogel often told me that local reports of UFO sightings were part of Yakima Indian legends going back generations. One legend told of a large man with red eyes and miraculous powers who came to live with the Indians. When the stranger was old and dying, he asked to be taken to a specific location. The tribe fulfilled his wishes and soon after the giant died, a "large, flying object" came down from the skies and flew off with the body.



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34. Ronald D. Story, *The Encyclopedia of UFOs* (New York: Doubleday, 1980), 39.
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37. Larry K. Lepley, "The 'Earth Stress' Theory," *The A.P.R.O. Bulletin* 31, no. 5 (June 1983), 4–5.

Chapter 13. Statistics & Conclusions

1. Richard F. Haines, *Observing UFOs* (Chicago: Nelson-Hall, 1980), 126.
2. *Editor's note*: These findings correlate well with other studies:
 - (a) Peak at 9:00 p.m.–12:00 midnight, 441 EM cases, 1909–1979. Mark Rodeghier, *UFO Reports Involving Vehicle Interference* (Evanston, Ill.: Center for UFO Studies, 1981), 95–101.
 - (b) Primary peak between 8:00 and 10:00 p.m., with secondary peak between 10:00 and 12:00 midnight, 56,490 UFOCAT cases, 1947–1977; majority of sightings between 8:00 and 10:00 p.m., 113 UFOs in Hendry's sample. Allan Hendry, *The UFO Handbook* (New York: Doubleday, 1979), 249–51.
 - (c) Peak at 7:00–9:00 p.m., Type I reports; peak at 8:00–9:00 p.m., Type III reports; peak at sunset, Type IV reports, 362 worldwide cases, 1947–1962. Jacques and Janine Vallee, *Challenge to Science* (Chicago: Henry Regnery, 1966), 152–54. Peak at 8:00 p.m., 375 worldwide Type I cases, 1963–1970. Claude Poher

and Jacques Vallee, "Basic Patterns in UFO Observations," *Flying Saucer Review* 21, no. 3/4 (November 1975): 8–13.

(d) Peak at 9:00 p.m., summer cases; peak at 7:00 p.m., winter cases; 241 Northern British reports, 1975–1976. Jenny Randles and Peter Warrington, *UFOs: A British Viewpoint* (London: Robert Hale, 1979), 175–77.

(e) Peak between 9:00 and 10:00 p.m., 591 French cases, 1906–1977. Michel Figuet and Jean-Louis Ruchon, *OVNI: Le premier dossier complet des rencontres rapprochés en France* (Paris: Editions Alain Lefevre, 1979), 736–37.

(f) Of 213 Iberian cases, 1935–1985: 22 cases before 1960, only 36% were between 7:00 p.m. and 2:00 a.m.; 35 cases, 1960–1969, 63% from 7:00 p.m. to 2:00 a.m.; 127 cases, 1970–1979, 64% from 7:00 p.m. to 2:00 a.m.; 29 cases, 1980–1985, 90% from 7:00 p.m. to 2:00 a.m. Vicente-Juan Ballester Olmos and Juan A. Fernandez Peris, *Enciclopedia de los encuentros cercanos con OVNI* (Barcelona: Plaza y Janes, 1987), 42–43.

(g) Peak at 7:00–10:00 p.m., 861 physical trace cases worldwide, 1663–1975. Ted Phillips, *Physical Traces Associated with UFO Sightings* (Evanston, Ill.: Center for UFO Studies, 1975), 115.

3. James M. McCampbell, *UFOlogy: New Insights from Science and Common Sense* (Belmont, Calif.: Jaymac, 1973).

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6. Harley D. Rutledge, *Project Identification: The First Scientific Field Study of UFO Phenomena* (Englewood Cliffs, N.J.: Prentice-Hall, 1981).

7. Note 4(t), Chapter 12.

8. Note 4(x), Chapter 12.

9. Note 4(v), Chapter 12.

10. Chris Rutkowski, "UFOs As Natural Phenomena," in *UFOs 1947–1987: The Forty-Year Search For An Explanation*, ed. Hilary Evans and John Spencer (London: Fortean Tomes, 1987), 278.

Appendix 2. Beeping Sounds

1. Ted Beauchamp, "Happening at Hoogdal: An Unidentified Beeping Object," *Look* 31 (14 November 1967): 42–43.

2. John Fuller, *The Interrupted Journey* (New York: Dial, 1966).

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Appendix 7. Yakima Indian Legends and UFOs

1. Jacques Vallee, *Passport to Magonia* (Chicago: Henry Regnery, 1969).

2. A. J. Splawn, *Ka-mi-akin* (Caldwell, Id.: Caxton Printers, 1980), 424.



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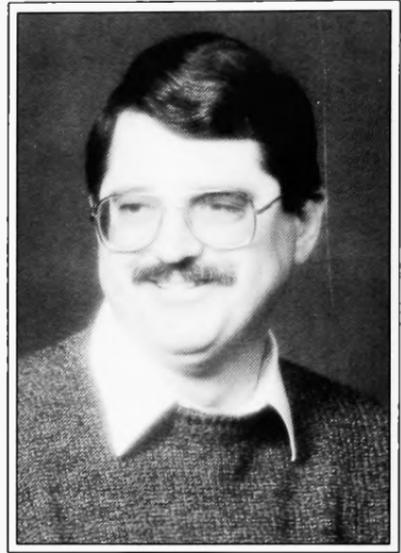
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