

## Trial by Computer

Mrs. Paul Trent was feeding rabbits in her backyard when the saucer appeared. According to the McMinnville, Oregon, woman, she glanced up from her task on the evening of May 11, 1950, to see a huge, metallic disk gliding silently through the overcast sky. She called her husband, fetched a camera, and watched as he snapped two pictures of the craft before it accelerated into the west.

Those two photographs became fa-

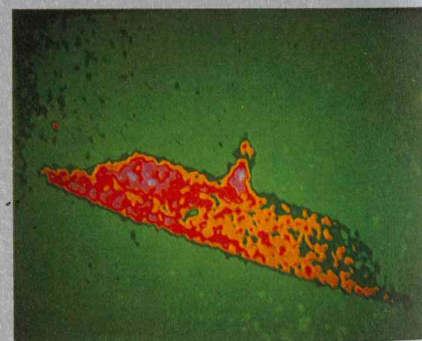
mous in the annals of ufology. For decades afterward they were scrutinized by a variety of investigators ranging from U.S. Air Force officials to *Life* magazine photographers. Most of those who studied the pictures agreed with the conclusions of 1969's skeptical Condon Report: "The simplest, most direct interpretation of the photographs confirms precisely what the witnesses said they saw." More recently, William H. Spaulding of Ground Saucer Watch Inc., a group devoted to the scientific study of UFOs, has subjected the pictures to a computer analysis that yielded even more evidence about the much-handled

photographs—evidence that seems to indicate that they are not a hoax.

Spaulding and his colleagues have used their computer to study more than 1,000 UFO photos, including the Trent pictures. First, they scan each photograph with a television-type camera that breaks the picture down into almost a quarter of a million pixels, or picture cells. The scanner measures the brightness of each pixel and assigns it a numerical rating. These values are entered into the computer's memory; the original picture can then be reproduced and manipulated on a computer screen.

Formerly difficult feats are easy with the computer. A technician can identify two points on the screen and ask the computer to calculate the exact distance between them, using a program that analyzes known points of reference in the photo. The user can also enlarge tiny details, revealing in some cases the telltale Frisbee trademark on a supposed UFO. Per-

*One of Paul Trent's 1950 snapshots (left) reveals the UFO's turreted form. Edge enhancement (below) brings out the odd shape (and scratches in the negative); color contouring (bottom) confirms the three-dimensional nature.*







*The second Trent photo (above) contains the classic disklike shape of a UFO but yields few details. Computerized edge enhancement (right) shows that the object had no supporting wires, and color contouring (far right) highlights its flat, evenly lit bottom.*

haps most useful is the computer's ability to stretch color values, brightening or darkening individual pixels to bring out details.

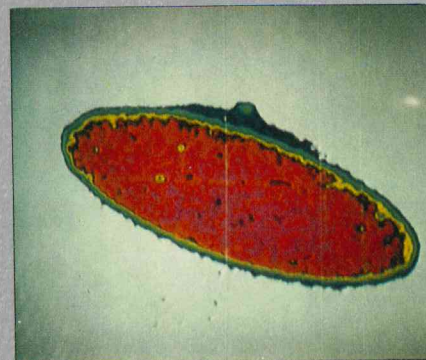
Among the many tests investigators applied to the Trent photos were two kinds of stretching procedures. The first was edge enhancement, which sharpens subtle details in pictures by increasing contrast in adjoining pixels. This technique often brings out supporting wires and other hidden devices in faked UFO pictures: For example, the computer can detect a string with a diameter of .009 inch at a distance of up to ten feet.

The second procedure, called color contouring, involves assigning thirty discrete colors to the shades of gray in the original photo. An object's indis-



tinct patterns of highlights and shadows, vividly transformed by the process, can tell investigators much about its actual shape, material, and density. A cloud can thus be distinguished from a solid craft, and a flat cutout from a three-dimensional shape.

The Trent photos passed Spaulding's test with high marks. Edge enhancement showed the UFO was not suspended by a string from overhead wires, as some skeptics had suggested. Color contouring indicated a three-dimensional shape with a flat, evenly



lit underside. Further comparisons of the UFO with objects in the foreground seemed also to confirm that it was at least one kilometer away and about twenty to thirty meters in diameter. Although some questions still stand about the time of day (the shadows seem to indicate morning rather than evening sun) and the general veracity of the witnesses (who had claimed UFO sightings before), Spaulding and his associates believe that the Trents' snapshots may in fact be that rarity—genuine UFO photographs.



## A Fakery Exposed

Paul Villa's handsome saucer photographs, long suspected of being fakes (page 89), may have received their deathblow at the hands of William Spaulding and his Ground Saucer Watch technology. Villa claimed to have seen a seventy-foot-wide spacecraft many times near Albuquerque, New Mexico, and to have spoken to its attractive, seven-foot-tall inhabitants. They told him they had come on a peaceful mission from the constellation of Coma Berenices; earth people had not discovered them because their

spaceships possessed antiradar devices. By 1963, Villa says, he was on such friendly terms with the aliens that they posed their ship for his camera.

Computer analysis, however, told a different story. In at least one of the photos, the spacecraft proved to be held aloft by a supporting wire or string. The sharpness of the image also suggested that the ship was close to the camera and no more than twenty

inches wide. The Villa photos are typical of those examined by Ground Saucer Watch. Of the more than 1,000 supposed UFO photographs analyzed by the group's computers, 605 proved to be hoaxes, and most of the others seemed to be misinterpretations of phenomena such as balloons. Only forty withstood the computer's scrutiny to remain, for the time being, bona fide unexplained objects.

*Relatively convincing in its original state, Paul Villa's UFO photo (below) takes on another look when subjected to edge enhancement (left): The ship appears to be held up by wire stretched between trees.*

