



GOODBYE, REX HEFLIN

BY ANN DRUFFEL

On October 19, 2005 I received the sad news that Rex Heflin, a good friend of many in the UFO field, had passed away after a long illness. It was a shock because Rex had left a message only a couple of days earlier on my answering machine, wanting to catch up with what was happening with the four famous UFO photos he'd taken 40 years earlier on August 3, 1965.

The Heflin photos, as they came to be called, were widely known in the field and had been analyzed and then reanalyzed by numerous researchers during the years. More recently a team composed of Dr. Robert M. Wood, Dr. Eric Kelson, and myself had once again studied and reanalyzed Heflin's photos, both for their historical significance and then with state-of-the-art computer technology. Heflin's complete set of famous photos had been published from the complete set of originals for the first time in 2000, along with our findings, in a refereed scientific publication: the *Journal of Scientific Exploration*,¹ following the 4-year study.

Our updated analysis described in the *JSE* paper clarified several questions which various investigators and researchers in the UFO field had raised over time concerning the validity

of Heflin's Polaroid pictures. Never before, to my knowledge, had such intense investigation been directed toward any series of UFO photos.

But these photos, taken by a professional who used photography often in his work, had apparently revealed the close passage of an unidentified craft. Throughout the next 35 years, most investigative teams judged the photos "most probably genuine," but other investigators had raised doubts.

Rex Heflin was given the unexpected privilege of photographing the close passage of an extraordinary UFO shortly after 12:00 noon on August 3, 1965. He was a highway maintenance engineer for the Orange County Road Department based in Santa Ana, California and had been in the midst of his duties, which involved detecting possible hazards to highway traffic and keeping traffic signs clearly visible to motorists.

At an intersection of Myford Road in Santa Ana about a half-mile north of El Toro Marine Base, he noted tree branches obscuring a railroad-crossing sign. While sitting in his van, he attempted to report the obscured sign to his supervisor on his work radio and to request a road crew to clear the obstruction.

FIGURE ONE: HEFLIN'S FIRST PHOTO, FROM FRONT WINDOW OF HIS WORK VAN.



YOUR PHOTOS REMAIN

For some unexplained reason, his radio failed. At about the same instant an unidentified flying craft flew across his field of view, coming from behind him. The craft had a shiny dome and rim which reflected sunlight, and a broad black band circumvented its midsection.

Intrigued, Heflin reached for his work camera—a Polaroid 101 loaded with 3000 ASA film—from the right passenger seat and snapped a picture (*Figure 1*) through the windshield. As the craft spun off northwards from his position, it tipped, revealing a dark underside with a greenish-white light beam rotating clockwise around the bottom from the center out to the rim.

He took a second picture (*Figure 2*) through the van's passenger window. As the craft moved further away, the sun-lit features were less distinct, but the unusual black band still showed clearly, and Heflin took a third picture (*Figure 3*).

The craft seemed to “wobble,” as he later described it, then stabilize and gain in speed, heading quickly toward the northeast. It traveled directly over the Santa Ana Freeway that cut across the landscape about 1½ miles away and disappeared from his view.

Heflin assumed that it was some kind of experimental aircraft from El Toro Marine Base, but then he saw a ring of bluish-black smoke in the sky in the same position where the craft had disappeared from sight; he wondered if it had “blown off” its black band.

Still intrigued, he drove about a half-mile toward the smoke ring, which was gradually rising in altitude. Outside his van, he photographed the ring as it slowly traveled northeast at an angle of about 50° elevation (*Figure 4*).

The only reference points in the fourth photo, besides clouds from the overcast sky, were a telephone wire and a small limb of a tree in an orange grove. Heflin judged the ring to be three to four times larger than the diameter of the craft which had apparently emitted it. It was bent out-of-shape by light winds, but Heflin was nevertheless surprised at the smoke ring's solid appearance; it did not dissipate like ordinary smoke.

Still thinking he had photographed an experimental plane, he noted that his radio worked well again. He could not wait and watch the smoke ring because of work demands, although he was intrigued with its cohesiveness—like nothing he had ever

seen before. He continued on with his work, leaving the smoke ring in the sky.

Later at his Santa Ana office he showed the four Polaroid pictures to colleagues at the Highway Department; it was then that the first three photos began to be regarded as a possible UFO. The fourth photo of the enigmatic smoke ring was met with skepticism and negative remarks by some colleagues, however. Heflin stopped showing it, thinking that “three photos were enough for one day.”²

Rex had little or no interest in UFOs at the time and continued to think that the object he’d photographed was an experimental craft from El Toro Marine Base. Within a few weeks, however, many people had become interested in the photos, and some of Heflin’s relatives gave the first three photos, which Heflin had lent them, to the *Santa Ana Register*, a prominent newspaper in Orange County.³

A reporter from the *Register* checked at El Toro Marine Base to determine if anyone on the base had seen the craft. El Toro officials denied that any UFO reports had been received; they also denied that the object could have been an experimental aircraft from their base.

unidentified craft. According to Heflin’s superior Herm Kimmel, the sudden cutoff was akin to “button-release,” except that there was no so-called *blip*, a sound occurring when the button was released normally.

All aspects of the photos—the event in general, as well as a thorough investigation of Heflin’s veracity—resulted in their being regarded widely in the field as among the clearest and most-detailed photos ever taken of a UFO. Early on, objective researchers had realized that only reports with documented proof would convince the scientific community at large that the UFO phenomenon constituted a scientific problem that called for serious, interdisciplinary study. Only by presenting empirical evidence—the next best thing to hard scientific proof—could adequate funding be brought to solving the problem.

Lay investigative groups like NICAP, the Aerial Phenomena Research Organization (APRO), and Civilian Saucer Intelligence (CSI) were among the few pioneer groups of skilled investigators possessing the necessary professional skills to thoroughly investigate UFO reports. However, from the early 1950s, as is now well-known, the government denied that UFOs existed at all, and scientists in general simply dismissed the subject.

FIGURE TWO: HEFLIN’S SECOND PHOTO TAKEN THROUGH SIDE WINDOW, PASSENGER SEAT, AS THE OBJECT TIPPED.

Copies of Heflin’s first three photos were made from Heflin’s originals by the *Register*’s chief photographer Clay T. Miller; these were published for the first time in that newspaper on September 20, 1965 with an objective account of the event. Heflin was never asked for permission to print the photos, and even though they were subsequently published widely in journals and magazines throughout the world, he never copyrighted them or asked any remuneration for their use.

Investigators from the National Investigations Committee On Aerial Phenomena (NICAP) were the first to research the event. At that time the Los Angeles NICAP Subcommittee (NICAP-LANS) was headed by noted biophysicist Dr. Leslie K. Kaeburn and later by Idabel Epperson, a talented and objective investigator whose public-relations skills were vital to the subcommittee.⁴

Other NICAP-LANS members and I contributed peripheral research on other aspects of the case. Orange County NICAP investigators Ed Evers and John Gray, both aviation engineers employed at North American, and Dr. Robert M. Wood thoroughly investigated every aspect of the sighting, including on-site study. During the next 3 years five expert teams of photographic analysts around the country studied them with what was then state-of-the-art technology and failed to find any evidence of a hoax.

The van’s radio interference was also thoroughly investigated and found to be unexplainable. It gradually became regarded as possible electromagnetic interference caused by passage of the

One class of sightings that held out the hope of proof to early civilian investigators and the few scientists who studied them were the photo cases that held up under the most careful study *via* the photogrammetric techniques available at the time. As a consequence, very few potential UFO photos survived this scientific analysis.

During the ensuing years almost constant harassment from curiosity-seekers plagued Heflin because his photos continued to receive media attention. Through it all, he maintained his remarkably calm and good-natured equilibrium. He changed his telephone number several times to ward off crank calls and strangely, his unlisted number was soon discovered by curiosity seekers. The Santa Ana Road Department was also swamped with calls.

Within months Heflin was visited by several governmental sources including Marine Corps Intelligence, the U.S. Navy, and the Air Force. The Air Force conducted an official inquiry on behalf of Project Blue Book, which at the time was the only publicly known official governmental group studying UFOs.

Captain Charles F. Reichmuth copied the photos for Project Blue Book and returned them to Heflin, as did the Navy and Marine Corps Intelligence. Reichmuth checked with Heflin’s supervisors and learned that Heflin was a valuable employee—mature, alert, and trustworthy.

Reichmuth noted in his report that he “could find no evidence to disagree with this estimate” and “from all appearances, he



[Heflin] is not attempting to perpetrate a hoax.” He sent his report to Project Blue Book at Wright-Patterson AFB in Dayton, Ohio.⁵ Through it all, Heflin displayed no interest in publicity, but whenever he was questioned by objective researchers he was always forthright and helpful.

In spite of Reichmuth’s report, Blue Book’s “Photo Analysis Report” described a comparison shot made by other Air Force officials of a 9-inch vapor tray tossed into the air at 15–20 feet distance. This evidently satisfied Project Blue Book because it officially listed the Heflin photos as a hoax, in spite of Captain Reichmuth’s positive report.

On September 20, 1965 a man representing himself as a NORAD colonel phoned Heflin and arranged to meet him, warning him “not to discuss the event further with the press.” On the appointed evening two men in civilian clothes came to his door.

One of them flashed a salmon-and-green card which Heflin thought looked similar to those carried by El Toro Marines. He did not remember the name on the man’s ID but noted that it didn’t have a photo. The second man did not participate in the conversation.

Heflin obligingly lent the self-styled NORAD men the three pictures of the craft, fully expecting that they would be returned, just as the USMC, the USAF and the U.S. Navy had done. No mention was made of the fourth photo of the smoke

ring (Figure 4), since it had received little publicity.

The “NORAD” men, however, failed to return the three photos. Heflin tried to track them down with the assistance of NICAP-LANS members, but NORAD disclaimed any knowledge of them. Heflin’s congressman, Representative James B. Utt also inquired on behalf of Heflin and was assured that NORAD offices had been searched “from top to bottom” with no results. The identity of the two “NORAD” men remains unknown to this day.

Consequently, Heflin and the UFO field were left with only copies of some of the most promising photos that have ever come to light. He was criticized by some in the field for lending out his originals in what they considered a careless fashion, but Heflin was used to working with government and military officials in the course of his work and was by nature a trusting individual who at first had been rather indifferent about the photos.

A natural skeptic, for weeks after the event he continued to think that the object was probably an experimental aircraft. Not until scientists and engineers connected with NICAP and other organizations took interest in the photos, particularly after they were borrowed by the so-called NORAD men, did he begin to think he had photographed something highly unusual—*i.e.*, a UFO.

In the spring of 1966 a highly respected scientist, Dr. James E. McDonald publicly entered the field of UFO research and began working closely with objective lay researchers, engineers,

and scientists in the field. As senior physicist at the Institute of Atmospheric Physics (IAP) at the University of Arizona, Tucson, he was a talented scientist who persistently pursued unanswered questions in science.

According to McDonald, the government's apparent neglect of UFO reports was unsound and seemed to be a "grand foul-up." Since 1958 he had quietly conducted an 8-year study of the phenomenon and had come to the conclusion that UFOs were a serious scientific question that the establishment at large was neglecting badly.⁶

Jim McDonald worked closely with NICAP-LANS, as well as with NICAP in general on the Heflin photos. He came to the eventual conclusion that Heflin was completely reliable and that his photos were among the very few UFO pictures taken to that date which could be considered "most probably genuine." He included them in his list of one hundred best cases, which he sent to the Condon Committee staff in 1967.

Extremely dubious of the Air Force hoax explanation, McDonald wrote in his own Heflin file: "Wonder if anyone had taken Rex's camera, set it for 15 feet, shot a 9-inch vapor pan, then checked for blurring of the freeway power lines visible in

midity and temperature in that locality, he became convinced that the clouds in Heflin's photo of the smoke ring (*Photo 4, Figure 4*) could not possibly have formed in the sky on that date. Because the smoke-ring photo had not been printed in the *Santa Ana Register's* original article, he slowly began to suspect that Heflin had taken the fourth picture at another time and place.

Idabel Epperson of LANS, a principal correspondent with McDonald, explained the negative reaction of Heflin's coworkers to Photo 4. Early on he had lent the curious fourth photo to NICAP investigator Ed Evers to be copied along with the other three, but it had not been copied by any other source except LANS.

Idabel Epperson had also checked weather data concerned with Heflin's sighting. G. W. Kalstrom of the U. S. Weather Bureau at LAX International Airport had assured her that thick clouds could form in portions of the Los Angeles Basin when the rest of the sky was merely overcast. The main reason for the difference in the appearance of the sky in Heflin's photos lay in the fact that the first three were taken inside Heflin's work van, where the automatic light meter on his Polaroid camera tended to minimize any features in the sky, whereas Photo 4, showing

FIGURE THREE: HEFLIN'S THIRD PHOTO, TAKEN AS OBJECT MOVED TOWARD THE NORTHEAST.

Heflin's photos?"⁷ Photogrammetric analysis on the photos had already shown that the telephone lines and the UFO—as well as the distant freeway—were in sharp focus, indicating that Heflin had held his camera steady as he snapped his four photos.

McDonald reinvestigated the interference on Heflin's van radio and learned that other Highway Department radio systems in the area had been affected at the same time, including that of Heflin's superior Herm Kimmel, who was in a mobile Traffic and Planning vehicle on the Santa Ana freeway north of Heflin's position.

The radio trouble was not normal static or interference; the system was "just dead."⁸ After consulting University of Arizona colleague Walt Evans, McDonald found it "quite conceivable that a strong [electromagnetic] field at the same frequency Heflin was calling out on could blank the system because the type of amplifier usually used in first-stage would simply block or saturate at very high receiver signal strength and transmit nothing at all."⁹

McDonald began to wonder, however, why the first three pictures of the craft in flight, taken from inside Heflin's van, apparently showed flat overcast skies while the fourth photo, which Heflin had taken outside his vehicle about a minute later, showed what McDonald's meteorologist's eye identified as "substantial clouds" in the vicinity of the smoke ring.

He checked every available weather service within 50 miles of the Myford Road site, and from scientific data concerning hu-

the smoke ring, had been taken outdoors.

Epperson showed McDonald how her copies of the photos, particularly Photo 1, showed quite heavy clouds, while McDonald's copies, which were a different generation showed a flat sky. The differences between Epperson's and McDonald's images lay in the fact that the two copies had been made by different film developers using different degrees of exposure.

Since the so-called NORAD men had stolen the originals of Photos 1, 2, and 3, investigators had had to rely on copies. McDonald remained doubtful, possibly because he was an expert in atmospheric physics, not photography. Up to this time, no analyst had published any version of Photo 3 which showed the black particles, presumably from the object's black band, which had begun to separate from the craft just before it flew quickly into the northeast and disappeared from view.

LANS members, who were familiar with McDonald's fierce persistence when bird-dogging a case, assured Heflin that it was typical of McDonald to affirm and reaffirm every possible aspect of sightings which captured his interest. In addition, McDonald had written personally to Heflin: "As you know, your 1965 photos remain the outstanding photographic evidence yet submitted concerning UFOs."¹⁰

By November 1967 NICAP-LANS had done a 2-year check on Heflin's character and work record; his superiors and coworkers testified that he was a straightforward individual with 15 years of responsible duty in the County Road Department.



The fact that Heflin had an offbeat sense of humor and joked at times in a deadpan fashion, especially when irritated, in no way detracted from his truthful and responsible nature.

In November 1967 McDonald investigated the Heflin case on-site with William Hartmann, PhD, a University of Arizona faculty member who had been selected by the Condon Committee to be in charge of UFO photo cases. They interviewed officials and radar technicians at El Toro Marine Base and learned that the investigating officer there had also checked Heflin's character, work record, and reputation and had conducted photographic analysis on copies of Photos 1, 2 and 3. McDonald was assured that the unidentified craft had not been viewed on radar by El Toro or by any other nearby military facility.

At Electronics Communications Maintenance, they met with a Marine lieutenant and another person McDonald described later as "a fellow in civvies." He wrote in his Heflin file: "The latter seemed to have the dope, but refused comment till got clearance."

The fellow in civvies was later identified as Paul Schaeen, who apparently got clearance and talked freely when the three men went on to the Radar Air Traffic Control Center, a joint FAA-USMC facility. McDonald was told by Marine Corps personnel at the base that the surface winds at the time of Heflin's sighting were from the NNW at 4 knots, an exactly *opposite* direction from the one that several meteorological sources in the Santa Ana area had reported to LANS investigators and McDonald himself.¹¹

At a LANS meeting that evening at Epperson's home, thirty scientists and UFO investigators gathered to discuss ongoing research of the Heflin photos. McDonald, Hartmann, and Heflin were guests of honor. Among the attendees was Dr. Robert Nathan, a scientist who had considerable interest in the UFO phenomenon who had attended LANS meetings from time to time.

He had analyzed all four Heflin photos at Jet Propulsion Laboratory (JPL), using what was, at the time, state-of-the-art computer enhancement equipment. His interest was unofficial and had nothing to do with his JPL association. He had concluded that the black band around the UFO was particulate matter—possibly atmospheric pollutants picked up by the craft as it flew through smog-ridden Orange County.

Nathan also speculated that the black smoke ring—which he called a vortex ring—left in the sky after the object's departure was most likely the remains of the black band around the object in the first three photos because the smoke ring in Photo 4 was also composed of particulate matter. He had discovered that the object, although in sharp focus, had an unexplained fuzziness around it which was not due to camera motion or motion of the object itself.

Nathan had speculated that this effect might possibly indicate a layer of ionized air around the craft. Researchers had hypothesized for years that UFO propulsion systems possibly ionized the layer of air surrounding them while in flight. Nathan had also enhanced a wedge-shaped portion of light against the solid

black of the UFO's underside in Photo 2 which was not visible ordinarily in that photo. This corresponded with Heflin's description of a "revolving light-ray" seen around the UFO's underside.

Other scientists at this November 1967 NICAP-LANS meeting speculated that perhaps the particulate black band was held around the craft by some type of electrostatic effect, possibly associated with the craft's propulsion system. Addressing McDonald's growing doubts about Photo 4 based on what seemed to him to be conflicting cloud data, Nathan countered that he saw no reason to doubt that the four photos had been taken within 2 minutes of each other, as Heflin stated.

Some of the scientists present at the LANS meeting that evening were not generally part of the LANS investigative team. NICAP investigators knew how to interview witnesses with objectivity and professional courtesy. These other scientists who had gathered to interrogate Heflin were not aware of proper interviewing techniques and asked him illogical and repetitive questions, some openly expressing doubts about the photos. In spite of his sturdy character and remarkable good nature, the constant hammering affected him to the extent that he went out in the Epperson's back yard for a while

himself as "Captain C. H. Edmonds." His ID card was salmon and green and had no photo, similar to ID the "NORAD" men had used two years earlier.

Talking with him on the porch, where the man stood to one side, Heflin noted a dark blue '65 or '66 Chevy parked at the curb about 30 feet away, directly in his own line of sight. The auto had dark-on-dark lettering on the door which Heflin was unable to read.

He saw movement in the back of the vehicle, which seemed to be a second man dimly lit by a purplish glow emanating from the back seat. Heflin's visitor, "Edmonds," asked about the "NORAD" men who had "borrowed" his three original photos and also asked various personal questions, chatting rather idly. While they conversed, Heflin heard crackles and pops coming from the hi-fi in his living room, which he'd been listening to when "Edmonds" knocked on his door. He'd never noted interference like this on his hi-fi and inwardly wondered if it was somehow linked to the purplish glow in the back seat of the parked vehicle. Later, he wondered if he had been secretly photographed or recorded.

As the NICAP-LANS meeting continued toward midnight, McDonald dropped a final bombshell, voicing open objection

FIGURE FOUR: AS OBJECT DISAPPEARED INTO THE NE, A BLUISH-BLACK SMOKE RING WAS VISIBLE IN THE SKY.

for a little quiet time until he recovered his usual good humor and patience.

McDonald brought up the fact that the Marine Corps personnel had told him that morning that the winds had been blowing from the NNW and asked Heflin why he had testified that the smoke ring left by the object was moving slowly in a northeasterly direction. Heflin answered that the smoke ring was blowing in a northeasterly direction, that the winds in the El Toro location had been checked by NICAP-LANS early in their investigation, and El Toro officials had told them that surface winds at the time of the sighting were blowing from the SW at 4 knots. This had been confirmed beyond doubt both by NICAP-LANS and McDonald. The apparent attempt by El Toro Marine personnel to throw McDonald and Hartmann off track was never explained.

This November 1967 meeting, plus the years of research which went into studying Heflin's set of photos, show the unprecedented importance of the Heflin case in the UFO field. Never before had so much technical and scientific expertise been directed toward a set of UFO pictures. McDonald also asked Heflin to describe the recent visit of a "U.S. Air Force man" to his home.

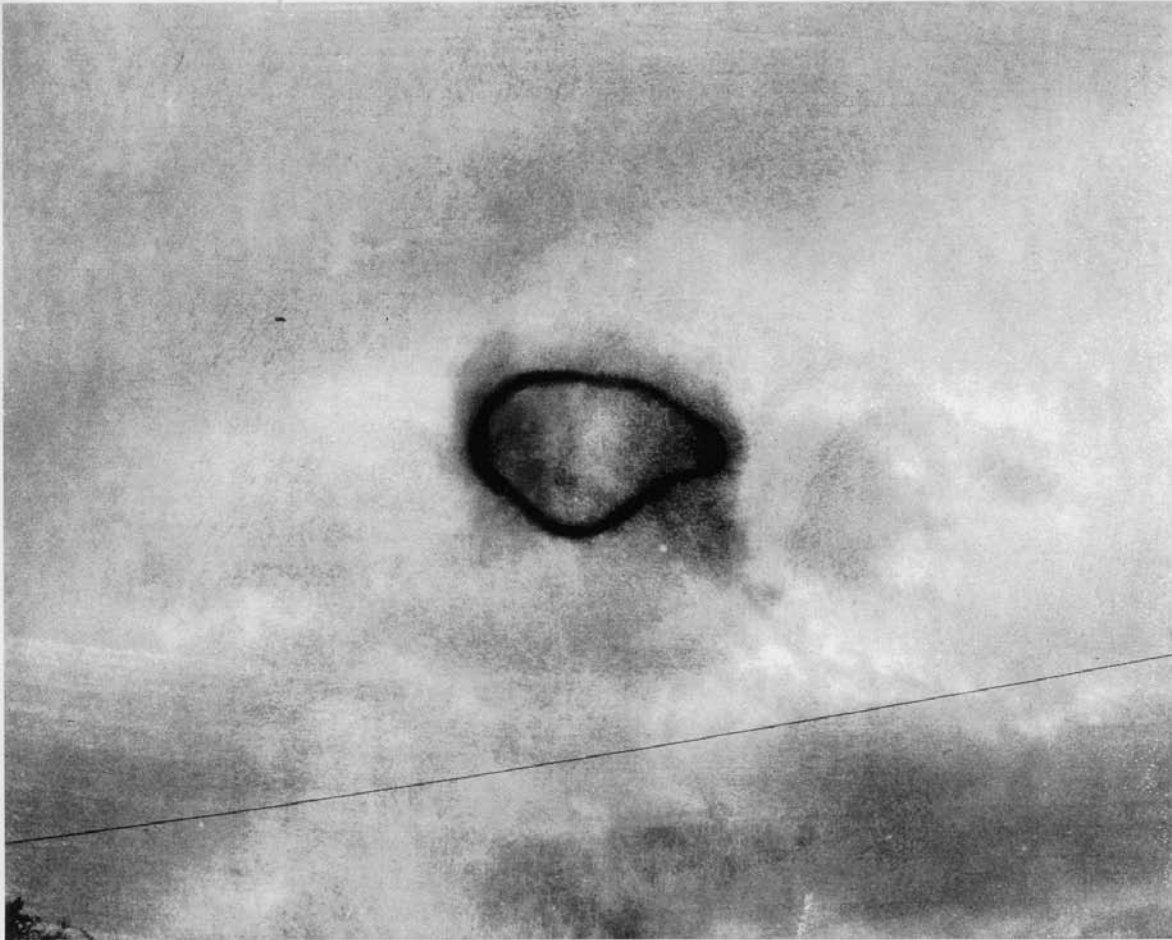
Heflin had confided the event to LANS, but it was unknown to many at this meeting. On the evening of October 11, 1967 a man in a U.S. Air Force uniform came to Heflin's door, identifying

to Photo 4 on the basis that he had received information from reliable weather sources that there could not possibly have been any substantial clouds at the time of sighting like those visible in Photo 4. McDonald emphasized that he'd cross-checked all possible cloud observation sources concerning Los Angeles area mesometeorology and the role of mean-inversion depth and dry suprainversion air. The scientific terms didn't impress Heflin.

"The meteorologists are going to have to find some clouds to go in these photos!" he told McDonald. He wasn't claiming there were clouds beyond the smoke ring; he simply hadn't noticed. But he had photographed the smoke ring only about a minute after taking his three photos of the UFO, and if the photo contained clouds, then there had to be clouds!

Various LANS members showed McDonald again that in their own copies of Photo 4 the clouds were not as dark as in McDonald's copy, demonstrating that different generations processed from the now-lost originals had been made at different degrees of exposure. They also demonstrated that in some of their copies of the photos clouds were visible in Photos 1, 2 and 3. McDonald still needed definitive answers.

Traveling back late that night to Santa Ana in John Gray's car, McDonald tried to mend his strained relationship with Heflin, pointing out the numerous aspects of the case which were positive. He explained that, as a scientist, he needed to maintain strict objectivity in the investigation, because it was only by



carefully weighing the pros and cons that the true facts would emerge. He also assured Heflin that another multiwitness Orange County sighting, investigated by LANS—the Ralph Joseph sighting—had occurred around the same time and date as Heflin’s and that other possible confirmatory sightings were being investigated.¹²

The following day McDonald, Heflin, Hartmann, and two visiting BBC documentarians, Philip Daly and a Dr. Black journeyed to the site where Heflin had taken Photo 4. McDonald measured the telephone poles shown in the photo. They were about 30-feet high and he estimated that the smoke ring had been photographed at about 400 feet altitude.

The position of the smoke ring confirmed the wind data gathered by both himself and LANS: That the wind had been blowing from the SW and that the Marine base had given false data. Hartmann and Black began making test shots using small models on strings, attempting to duplicate Heflin’s Photos 1, 2, and 3, even though Nathan, using 1965 state-of-the-art computer-enhancement equipment, had demonstrated that there were absolutely no strings or other supporting mechanisms visible in Heflin’s photos.

Quietly watching Hartmann and Black photographing the models on strings, Heflin did not visibly show annoyance. However, when Black began to ask him questions, beginning with the inquiry, “Are you religious?” Heflin replied that he

was a Christian Scientist, adding that his religion “didn’t let [him] recognize laws of the state.”

This statement puzzled Black, but he didn’t follow it up. He then asked Heflin if he was married. Heflin replied straight-faced, “More than once, but I don’t want you to refer to it on camera lest my five wives find out where I am.” McDonald wrote all this down for his Heflin file, realizing that Heflin was employing his own offbeat sense of humor which he typically used when irritated rather than displaying open anger. NICAP-LANS and other friendly colleagues had also recognized this, but the two BBC documentarians hadn’t a clue.

Dr. Black wanted to film an interview, and Heflin allowed them to film a very brief segment in which he stated that he understood why various investigators were interested in the photos and that everyone had the right to draw their own conclusions. He explained how the automatic light meter on his camera had allowed the sky to appear flat and featureless in the first three photos taken inside his van, but showed the cloud cover in Photo 4 which was taken outside the van. Black pressed him for a fuller interview, but Heflin flatly refused, stating that an American producer, John MacDonald, had already done a credible job for ITV. Why didn’t they simply borrow his film? Bewildered, Black stopped talking to him.

Why did Rex Heflin act in this enigmatic way? For two and a half years this honest, affable man had been hounded and

harassed because he'd photographed a UFO at close quarters and presented to science a fine set of UFO photos showing features on the disc and other inexplicable effects. Since he was not a person who showed anger easily, his instinctive defense was deadpan humor. It was not his fault that the photos contained more data than scientists could absorb. The enigmatic smoke ring was not his fault; neither was the fact that the automatic light meter on his Polaroid camera made the overcast sky appear virtually featureless in the first three photos and as a clouded sky in the fourth.

Back in Tucson McDonald pursued the puzzle of the ID presented by the self-termed "Air Force man." The FBI and OSI in-

covered fully in my book *Firestorm! Dr. James E. McDonald's Fight for UFO Science* (Wildflower Press, 2003).

Through a series of doubtful contacts he was told about a so-called atomic-bomb simulator allegedly used at military bases on celebratory occasions which reportedly produced a vortex ring similar to Heflin's Photo 4. McDonald never found any adequate documentation about this device, no proof that it actually existed;¹³ nonetheless, he also never became convinced that Photo 4 was a picture of the black ring around Photos 1, 2, and 3 that had been apparently blown off by the unidentified craft.

LANS and other researchers around the nation and in foreign countries respected McDonald, and their personal regard for

FIGURE FIVE: COMPUTER-ENHANCED, ENLARGED OBJECT IN PHOTO THREE SHOWS SMOKE TRAIL BEHIND.

formed him that no official investigating agency had ID cards without photos and none were salmon-colored. Therefore, the "Air Force man" and the earlier "NORAD" men who "borrowed" Heflin's three photos were impostors from unknown sources.

Philip Daly and Dr. Black continued to wonder whether Heflin was serious about his religion and his "wives." Both thought Heflin was completely serious, but Black thought that Heflin had not had five wives but rather five relationships which Heflin regarded as "marriages" in some odd legal sense.

Unbeknownst to the two British documentarians, McDonald had phoned Epperson to get her reaction on the "wives-religion" question. "She had talked to John Gray on all this, and John had guffawed at the five-wife bit," wrote McDonald in his Heflin file. They had recently learned from Heflin that he was a Christian Scientist, but still a bachelor, and they felt rather sure that he was pulling the leg of the BBC because he was inwardly seething at being called out there to witness the hoax tests.

Epperson stressed again how cooperative Heflin had been with LANS and reminded McDonald that Dr. Robert Nathan had essentially replicated Hartmann's experiments 2 years before and had found no evidence of any string or other supporting mechanism. He'd told Hartmann about this, yet Hartmann omitted this from the Condon report, choosing instead to term Heflin's three photos "inconclusive."

In spite of his concern about the smoke-ring photo, McDonald continued to think that Heflin's Photos 1, 2, and 3 were most probably genuine. He realized, as did all objective researchers in the UFO field, that it was impossible to declare a UFO photo as authentic unless one had the actual UFO nearby to compare it to. Hoax pictures can be replicated; authentic UFO pictures cannot.

For the next 3 years McDonald pursued the question of the smoke ring, attempting to prove it had been photographed by Heflin at another time and place. He seems to have been led on a trail of false information, possibly perpetrated by intelligence agents connected with the U.S. government. This situation is

him kept the controversy from destroying their amicable cooperation with this remarkable scientist. That relationship continued until his tragic death in June 1971. Epperson, Gray, Evers, and the other NICAP-LANS members remained convinced of Heflin's integrity, as well. His first three photos of the metallic craft survived as an example of an apparently genuine unidentified flying object and in this, McDonald shared our views.

However, McDonald's doubts about Photo 4 affected other lay researchers. In the mid-1970s William Spaulding, who headed an organization called Ground Saucer Watch (GSW), obtained copies of Heflin's photos and had them computer-enhanced. Where he obtained his copies was never clarified, and he may have been working with third or fourth generation copies. GSW's analysis, conducted by GSW photographic consultant Fred Adrian, was published in a mid-seventies issue of *GSW News Bulletin*. The analysis stated that Heflin's photos "represent both crude and grandiose hoaxes [sic] or photographic anomalies and should not be considered evidence of UFO existence [sic]."¹⁴

Spaulding's assessment of the Heflin photos was based on what he called "a string" extending from the top of the UFO to the top of one of the photos. Epperson and David Branch of LANS and researcher David Schroth of St. Louis, Missouri, among others, strongly challenged Spaulding's findings, pointing out that several photo experts, including Dr. Robert Nathan, had found no evidence of a string or any supporting mechanism.

All these experts had worked with confirmed first-generation copies which had been made directly from the originals before they disappeared. Spaulding admitted to Epperson in a September 29, 1977 letter that the linear structure seen on the photographs was possibly a scratch and not a string. He also admitted that the copies of Heflin's photos which GSW analyzed were from an undetermined source. However, he never withdrew his hoax assessment of the Heflin photos, causing a split in the UFO research field. Many otherwise objective research-



ers tended toward the hoax explanation while the original investigators and others in the field continued to regard Heflin's images as among the best UFO photos ever obtained.

The Heflin photos were reprinted in many books and journals in the UFO field and reappeared in subsequent follow-up *Register* articles throughout the years, but the fact that the original Polaroids had disappeared thwarted attempts to re-study them in greater depth as photogrammetric technology advanced.

Heflin worked for the Orange County Traffic Department for 15 more years, but eventually, 30 years of outdoor work on Southern California streets and freeways caused a serious health condition, diagnosed as the accumulation of tetraethylene lead in his bone marrow, *i.e.*, lead poisoning. This condition can be seen in individuals such as policemen and highway engineers who spend decades working on freeways and major highways; it has no cure and no standard medical treatment.

Suffering from fatigue, difficulty in breathing, and other symptoms associated with this medical condition, Heflin, who was now married, moved to a small town in Northern California where the air was relatively pure and where an experimental treatment was available at a local hospital on an outpatient basis. However, the AMA did not, and still does not, recognize it as an verified medical condition and most health-insurance plans, including Medicare, do not cover costs of alternative treatments currently available.

Heflin maintained his equable nature, however, and kept contact with LANS members who were by this time mostly now members of MUFON. NICAP had been essentially destroyed by 1970 as an effective research organization by the covert action of secret FBI and CIA operatives hidden within its staff.¹⁵

Heflin also maintained contact with a few other objective UFO researchers. One day in 1993, the phone rang in his Northern California home. A woman's voice asked, "Have you checked your mailbox lately?" Then the call was abruptly terminated. He went to the mailbox and found it empty. About a half-hour

later the same unidentified woman called again with the same question, hanging up immediately.

Heflin went out to his mailbox again and found a plain 9 by 12-inch manila envelope with no postage or other marks indicating manner of delivery. Inside, he found the long-lost originals of Photos 1, 2, and 3 that had been taken by the "NORAD men" in 1965!

Their size, texture, and general appearance matched Photo 4 of the smoke ring which he had always retained. He had numbered the four photos sequentially "1" through "4" right after he photographed them, using blue ink in the lower left hand corner. The three photos which had been mysteriously returned had markings "1" through "3" in the identical place as the "4" on the original of the smoke-ring photo, which he had retained for 28 years.

There were other markings, however, on the backs of the three originals which had been so mysteriously returned. Each had "ORIGINAL" printed in capital letters across the top, written apparently by the same person using a white or ivory-colored grease pencil. The letters had been pressed lightly into the pictures, so that they showed only slightly on the photo side.

Also, each of the three originals had the number "13" written on the back with soft black pencil; these markings did not disturb the photo side. One of the "13" marks was so carelessly written that it could be taken for a capital B. These marks had apparently been put there by the person(s) who had possession of the photos from September 22, 1965 to that day in 1993. The "4" was the only marking on the back of the photo of the smoke ring which Heflin had always retained.

The three photos of the craft were in good condition, considering their age. Photo 4 had developed light brown stains, particularly around the smoke ring—a result of its age and also of the fact that several researchers and photogrammetrists had borrowed it from Heflin to copy and study, subjecting the smoke-ring image to bright lights. The three returned

originals also showed similar light brown stains, particularly along the lower portions, but the UFO object in these returned photos was not as deeply stained as was the smoke ring in Photo 4.

Heflin was in a quandary. His health was failing and he had no funds available for further expensive experimental treatments for the lead in his bone marrow. To add to his financial troubles, his pension and other funds resulting from long-term employment in Orange County had been temporarily cut off because that large California county had gone bankrupt. Heflin suspected he would not live much longer; he wondered what to do with the originals of his UFO photos. He realized, like many other UFO researchers with whom he was acquainted, that these photos were perhaps the finest photographic evidence of the existence of UFOs.

Learning about the return of Heflin's photos from Dr. Robert M. Wood, I contacted Heflin with the suggestion that the originals be analyzed with state-of-the-art computer enhancement

5). This trail became apparent upon digital contrast enhancement of Heflin's third photo (*Figure 3*).

The procedure involved a standard process in which the image is first scanned and subsequently displayed to emphasize detail. In the unenhanced original Photo 3, the intensity values for the trail and background sky were close enough to each other that the corresponding shades of gray were difficult to distinguish and so were not detected in prior studies in the 1960s and 1970s.

The trail was readily and indisputably visible, however, when Dr. Kelson reassigned the output intensity range so that the darkest sky pixel became black and the brightest sky pixel became white. This trail is extremely visible in an enlargement of the object printed in the *JSE 2000* article.¹⁶

The smoke trail in the enhanced version of Photo 3 (*Figure 5*) seems similar to the particulate matter in the black band surrounding the object as well as the particulate matter in the smoke ring itself (*Figure 4*). This constitutes rather firm evidence that

HOAX PICTURES CAN BE REPLICATED; AUTHENTIC UFO PICTURES CANNOT.

equipment, since such technology had recently become available in the Los Angeles area. Happy that scientific study of the original photos was now possible, Heflin also expressed his concern about how the photos could be preserved for the future so that other scientific analyses could be made on them as new technology became available. Heflin trusted me as a veteran UFO researcher involved with his case from the beginning, and he entrusted the four originals into my care.

Since we were now able to work from the originals, a team was formed to reanalyze the Heflin photos. The team consisted of Dr. Robert M. Wood, Dr. Eric Kelson and myself. We re-studied the history of the case, focusing on the following: first, the so-called string which Spaulding and GSW claimed to have found; second, the problem of the flat sky in the first three photos; and third, that enigmatic smoke ring.

The question of Spaulding/GSW's string-and-hoax theory was quickly laid to rest; state-of-the-art enhancement demonstrated beyond doubt that there was no string or other supporting mechanism visible in any of Heflin's photos. Computer contrast studies of the sky backgrounds in all four photos revealed similar overcast and cloudy conditions in all of them, the major point which had prevented James E. McDonald from accepting the fourth photo as part of a set. Our analysis also revealed the so-called wedge of light on the dark bottom of the craft in Photo 2 in the same position where Dr. Robert Nathan first detected it and which, shortly afterwards, Dr. Wood had also detected in an independent study.

By March 1994 Dr. Kelson also found a trail of black particulate matter in Photo 3, streaming behind the unidentified craft and denser in the immediate area just behind the craft (*Figure*

the ring around the object was beginning to separate before the object emitted the entire smoke ring, seen in Photo 4.

Computer enhancement also confirmed that the UFO in Heflin's photo is a large object, approximately 20 feet in diameter and more than 100 feet from the camera as first estimated by Heflin. Kelson also independently detected an unusual blurring effect around the craft which he stated was not due to motion, camera focus, or to the gaussian effect. This correlates with Dr. Nathan's finding 30 years ago of an unexplained fuzziness in the craft image.

Our reanalysis of the Heflin UFO photos in 2000 has led to the following conclusions:

1. The photos are totally consistent with Heflin's written and verbal testimony regarding the sighting.
2. The photos depict a solid unidentified craft which is moving through the air, leaving a trail.
3. William Spaulding's hoax conclusion in the mid-1970s was derived from faulty data.
4. The smoke-ring photo is linked by computer-enhancement data to the other three, by cloud and trail data which were previously unavailable.
5. There is evidence that for 28 years, three of the original four photos were in the hands of unknown persons who took good care of them while possibly accessing data from them. Why they were returned to Heflin under totally inexplicable circumstances remains an unsolved mystery.

The UFO field's study of Rex Heflin's incomparable photos continues, and will continue in years to come. Ongoing studies into more technical aspects are being conducted presently by Dr. Kelson, and there is more evidence emerging that the un-



explained blur around the object might possibly be evidence of ionization, long speculated by many researchers and scientists in the field to be involved in UFO propulsion.

Other studies are obtaining information that ionization around UFOs might possibly be related to so-called angel hair, *i.e.*, unexplained strands of whitish material which quickly sublimates, an effect seen many times by witnesses viewing UFOs in the sky, possibly involving a process called *electropolymerization*.

Heflin entrusted his four original photos me to be preserved in perpetuity for the use of the UFO field. Other scientists and researchers are awaiting their turn to reanalyze them. Dr. Kelson continues his studies, having given an update on the 2000 reanalysis at the 2004 NUFOC Convention, which is held yearly in Southern California.¹⁷

We thank Rex Heflin for his friendship and his good-humored objective attitude during our 40 years of investigation of his incomparable photos. We thank him for his willingness to give his photos to science with no thought of any benefit for himself.

In the near future, Rex, your invaluable and beautiful UFO photos will yield more and more data and eventually we will learn all they can reveal about the UFO mystery. In the meantime, happy journey home. **UFO**

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2. Brief quotes are taken from numerous taped and transcribed interviews with Rex Heflin.
3. Now renamed *The Orange County Register*.
4. Dr. Leslie K. Kaeburn died in 1968 and Idabel Epperson succeeded him as NICAP-LANS subcommittee head through 1971. She later filled a similar position in the then newly formed MUFON Los Angeles Investigative Subcommittee.
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6. For an authorized biography of Dr. James E. McDonald's unmatched contributions to UFO research, see *Firestorm! Dr. James E. McDonald's Fight for UFO Science*, by Ann Druffel (Wildflower Press) 2003.
7. McDonald, James E.; Heflin file in James E. McDonald personal collections, University of Arizona Library at Tucson, Arizona. Archived by Ann Druffel under a grant from FUFOR and now available to the public. Contact Curator Roger Myers at the UA Library.
8. *Ibid.*
9. *Ibid.*
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13. Any reader who has information about the atomic-bomb simulator is invited to contact the author at ann@anndruffel.com or by letter c/o the publisher.
14. Spaulding, William, "August Summer News Bulletin: Result of Computer Photo Analysis," (undated) p. 2.
15. *Firestorm!* pp. 449-483.
16. Letter from Dr. Kelson to author dated June 8, 1997. Also described in detail, with accompanying enlargement of Heflin's Photo 3, as reproduced in "Reanalysis of the 1965 Heflin Photos," *Journal of Scientific Exploration*, Vol. 4, No. 4, 2000. (See Reference 1, above).
17. To inquire about obtaining a DVD of Dr. Kelson's 2004 talk, email Lisa Davis, NUFOC Conference Chairman, at lisadavis@nufoc.org.