

Challenging the Paradigm

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Abstract—During the last 30 years I have made several attempts to publish UFO-related articles in conventional science journals. Most of my papers or letters have been rejected. However, quite by luck, in my opinion, I was able to publish two short articles concerning the New Zealand sightings of December 1978 in the journal *Applied Optics*. This paper presents the story behind the publications.

Keywords: UFO—paradigm—New Zealand sightings—Applied Optics

Introduction

In their recent article, "Challenging Dominant Physics Paradigms," Campanario and Martin (2004) pointed out the difficulties in publishing information that conflicts with the accepted paradigm. In the case of UFO sightings, the conventional paradigm is that reports of UFOs are not reports of some new and novel phenomena. Instead, each sighting has a conventional explanation. That is, each sighting results from a mis-identification (failure by the witness and by the sighting investigator to correctly identify what was seen) or from a delusion (mental state of a witness) or from a hoax. Therefore it is not surprising to find that journal editors are biased in favor of articles that offer conventional explanations for UFO sightings, even if those conventional explanations conflict with some (or much) of the available information about the sightings.

Several times, beginning in 1974, I have "tangled" with editors over the publication of UFO articles in which I claimed that there are no conventional explanations for some sightings. Most of my articles have been rejected. This article presents the history behind my one success.

Denting the Paradigm

The November 1, 1978, issue of the staid technical journal *Applied Optics*, a publication of the American Optical Society (OSA), had a startling cover and an astonishing article of an investigation into UFOs. So surprising was this that it was even featured in major news media, including the CBS *Evening News*. The cover photo showed a beetle impaled on a Tesla coil with corona around its antennae and other appendages. In the article, two entomologists advanced the theory that at

least some glowing night-time UFOs were electrified swarms of insects flying between electrically charged clouds and the ground (Callahan & Mankin, 1978). I call this the Buggy UFO Hypothesis (BUH). So convinced were Callahan and Mankin of the validity of their theory that they recommended that entomologists track UFO sightings to learn about the migrations of insect swarms. This is not the place for a discussion of the BUH itself, but it is necessary to mention the article because it sets the stage for what happened later.

I read the article and within the month submitted a letter to the editor in which I argued that the BUH was not a satisfactory theory for UFOs. The editor responded in early December in a positive way: he said my letter, perhaps with some modification, would be an acceptable response, but he wanted to wait several weeks to see if there were any other letters. Along with the publication of the chosen letter(s), he would include an editorial statement that said the discussion of the UFO topic was closed unless new optical phenomena were presented "in a scientific way." The editor stated that he didn't want *Applied Optics* to become a "stamping ground for the UFO believers who are 99 and 44/100ths percent kooks." There the matter rested for several months, and may have rested forever, if it weren't for a significant UFO event.

The year 1978, which is particularly noted for the October disappearance of pilot Frederick Valentich over the Bass Strait south of Melbourne, Australia, under suspiciously UFO-like conditions, ended with a UFO bang. During the early morning hours of December 31 (1:00–3:00 AM local time), there was a series of sightings of strangely behaving lights seen over the ocean and (apparently) detected on radar near the east coast of the South Island of New Zealand. The witnesses were on board a freighter aircraft flying about two miles above the ocean and east of the South Island. They included the experienced air crew (pilot, copilot), two TV news reporters (one from Australia and one from New Zealand), a cameraman with a professional 16-mm movie camera and color film, and a sound recordist. Two further witnesses to the events were radar operators at the Wellington Air Traffic Control Center. During the sightings, both the reporter and the air-traffic control-control-center made tape recordings of the events as they occurred, and the cameraman shot many minutes of movie film. After the sightings were over, the Australian reporter interviewed the captain, took the movie film to Australia, and incorporated it into a half-hour documentary on the sightings. The Australian reporter claimed this was the first movie film of UFOs and the TV company that employed him sold the immediate news rights to news organizations throughout the world at the "going rate" of \$50,000 for one showing.

The New Zealand sightings made a big splash during the next few days and weeks. They were featured in major newspapers and magazines and on TV throughout the world. During the CBS *Evening News* broadcast on January 1, 1979, anchorman Walter Cronkite devoted the last five minutes to a brief presentation of some of the film and an interview with Dr. J. Allen Hynek, who for many years had been the consultant in astronomy to the Air Force's Project Blue Book. Detailed information on the sightings can be found in books written

by the witnesses, one by the pilot (Startup & Illingworth, 1980) and another by the Australian reporter (Fogarty, 1982). A description and analysis of one of the major sighting events has been published by Maccabee (1987). Further information is available at my web site. At http://brumac.8k.com/NEW_ZEALAND/NZSB.html there is a technical discussion of the sighting which is discussed below, including copies of the *Applied Optics* articles that resulted from this sighting. Another part of my web site, http://brumac.8k.com/NEW_ZEALAND/NZFlashingLight.html, provides further history and illustrations of another sighting (Maccabee, 1987) that occurred the same night.

The reaction to the claim of filming UFOs, interpreted as interplanetary vehicles, was immediate and intense. Consistent with the paradigm, skeptics from all over the world offered explanations based on conventional phenomena. These explanations ranged from the simply wrong ("unburned meteorites" proposed by Sir Bernard Lovell of Jodrell Bank Observatory in England) to the ridiculous ("light reflected from the breasts of mating mutton birds" by a New Zealand ornithologist). Other explanations reported in the news during the next several weeks suggested drug runners, light reflected from cabbages (!) and, yes, glowing insects were mentioned. In the first press report, a New Zealand astronomer was quoted as claiming he was 99% certain that the witnesses had seen Venus, given that it was rising in the morning on that day. When he learned that the sightings had occurred before Venus rose, he proposed Jupiter as the explanation. An atmospheric scientist proposed that the sightings were a mirage of distant lights from the Japanese squid fleet that was in the ocean about 150 miles east of the South Island (the squid fleet uses bright lights to lure squid to the surface; one squid boat could emit incandescent light from many 1,000- to 10,000-watt light bulbs, corresponding to as much as 200,000 watts of electrical power).

My investigation of these sightings began about a week after they occurred, when an Australian reporter brought the film to Washington, DC, for analysis by the National Committee on Aerial Phenomena (NICAP). As the NICAP analyst, I viewed the original film and talked with several of the witnesses by telephone. Then I went to New Zealand and Australia and talked to all the witnesses. After several months of concentrated effort (I took a month off from work), which involved hours of witness interviews and weeks of technical analysis, I concluded that none of the proposed explanations were valid. Examples of these analyses have been published (Maccabee, 1987) and are at the above-mentioned web sites. The analysis of one series of radar and simultaneous visual sightings is presented in the second half of another publication (Maccabee, 1999).

The conclusion that there was no conventional explanation was presented at a press conference in New York City in early March 1979. Although this received a small amount of press attention, including a short article in the *New York Times*, I wanted to publish the result in a scientific journal. The first to come to mind was *Nature*, which had published a short news story on the New Zealand sightings soon after they occurred. The news story featured several of

the suggested explanations which I now knew were wrong. In the middle of March, I sent *Nature* a short technical paper entitled, "Photometric Properties of an Unidentified Bright Object Seen off the Coast of New Zealand." In that paper I presented a calculation of the extreme brightness of the unidentified light that had been filmed northeast of Christchurch. The editor responded at the end of April with a rejection note. He wrote, "This is not because I have any preconceptions concerning what it is. It simply reflects a feeling I have had on reading and rereading your manuscript that the item of information you present, although fascinating, has to be part of a much larger survey that is presumably being conducted," to which my immediate mental response was something like this: "Yes. I am carrying out that 'larger survey' and here is a piece of it." Then the editor pointed out that there was "endless pressure on space" in *Nature*, which I interpreted as "take it elsewhere." Chalk one up to the paradigm.

About the time I sent off the short manuscript to *Nature*, I received another letter from the editor of *Applied Optics*. He wrote that he had contacted a "very senior man" in the Optical Society who had said that a response to the BUH should be allowed, provided there were no further articles on this subject "unless they presented new data involving optics." The editor wrote that no other response had been received and so my rebuttal of the BUH could be published after a few modifications. At the time I received his letter, I had not thought about the BUH for quite a while, so I put it aside while I waited for a response from *Nature*. However, I realized the brightness calculation I had sent to *Nature* was more directly related to the subject matter published by *Applied Optics*. Therefore, as soon as I received the rejection from *Nature* I revised the article and sent it to the editor of *Applied Optics* in early May 1979. I included a cover letter in which I wrote that, although this article did not respond directly to the BUH, nevertheless it was an indirect response (e.g., here is a sighting which the BUH cannot explain) and, furthermore, "this article contains some physical data about an unusual light source and, since the data are primarily of an optical nature, the article is suited to your journal."

Wonder of wonders, the editor accepted my argument. A few days after I sent my article, I received a hand-written note: "I am much more comfortable about the present manuscript than I was about the earlier one. I will show it to someone, but it is my feeling it is probably OK. I remember that event. . . (it was) shown on the Walter Cronkite news program. I watched this flickering, bouncing hand-held camera shot and I'm glad I don't have to try to explain it."

It was as if I had accomplished a "bait and switch" by offering a rebuttal to the BUH and then replacing it with a different type of UFO article. Of course I was delighted because, for the first time (as far as I know), a technical analysis of a particular UFO sighting would be published in a refereed journal. It was published in August (Maccabee, 1979; see http://brumac.8k.com/NEW_ZEALAND/NZSB.html). By an unexpected stroke of luck I had won a skirmish against the paradigm. But the real battle was yet to take place.

The Paradigm Strikes Back

As part of the scientific process, in July 1979 I sent a preprint of my paper to two scientists at the New Zealand Department of Scientific and Industrial Research (DSIR). While in New Zealand in January 1979, I had visited the DSIR headquarters near Wellington and discussed the sightings with these gentlemen. They had not agreed with my conclusion that the light which was the subject of my paper was unexplainable. They had claimed the film showed Venus rising ten or more minutes before it should as a result of unusual atmospheric conditions. When I visited them, I pointed out that the refraction of the atmosphere could not be great enough to cause Venus to appear ten minutes early; but even if it did, Venus would be very dim or hardly visible because of the extended optical path through the atmosphere. (Consider how much the brilliance of the sun is diminished by passing through the atmosphere at rising, and this path distance through the atmosphere corresponds to the sun appearing only about two minutes early.) This argument convinced them that the film did not show Venus. I thought that settled the matter with the DSIR. Nevertheless, knowing of their skepticism, I was not surprised when I received from the editor a copy of a paper by two of the DSIR scientists that claimed to have identified the light. They agreed with my brightness calculation and proposed a new explanation: the light was from a solitary squid-boat fishing near Christchurch. The editor wanted me to review their paper and respond to it. I immediately sent the editor my letter of approval for publication and indicated that sometime in September I would send a response.

I did send a response a few weeks later, but the editor complained that it was longer than the DSIR article. He wanted me to shorten it. Near the end of October I responded that I would write a shorter response, but that, at that present time, I was waiting for more photographic data from experiments that would be done in New Zealand, experiments which would test the squid-boat hypothesis. Unfortunately these experiments could not be done before the Japanese squid fleet began fishing in the vicinity of New Zealand during the Southern-hemisphere summer. Therefore, I expected to be able to respond in December or January. As it turned out, my lack of immediate response to the DSIR article almost proved fatal for the publication of my proof that the light was not from a squid boat.

The DSIR article was published in December (Ireland & Andrews, 1979), while I was still waiting for the experimental data. In late December, the editor sent me a copy of a letter of "congratulations" which he had received from a professor of electronics who was also a well-known senior member of the OSA. The member had written: "I want to express gratitude to Ireland and Andrews for their trenchant discussion—one might more accurately say destruction--of Maccabee's earlier report of an 'unidentified bright object' seen off the coast of New Zealand . . . as a regular reader of *The Skeptical Enquirer* and as an individual concerned over the widespread acceptance of

pseudo-science I would hate to see *Applied Optics* inundated in a flood of communications of this caliber. The scientific and technical trappings of Maccabee's report cannot, in my judgement, hide its essential triviality and lack of believability. The only conclusion from the exchange seems to me to be that the initial letter ought never to have been published."

Of course, I was dismayed at the attitude of the professor, so I wrote directly to him in early January 1980. I pointed out that I, too, was concerned about pseudo-science, but my concern was with the "pseudo-science" done by authoritative scientists who publicized explanations for sightings without thorough analyses that would show whether or not the proposed explanations were satisfactory. I pointed out to him that the authors of the article which he had cited as destroying my report had initially claimed the witnesses had seen Venus, rising ten or more minutes early. It was only after I pointed out to them that it was physically impossible to see Venus ten or more minutes before its rise time that they began to investigate other possible explanations.

The experiments I had requested to be done in New Zealand had not been carried out as of the end of January, and it seemed they might not be done for several months, so I submitted my rebuttal to the DSIR article in early February, fully expecting that it would be published. (The experiments were eventually done, but they were performed too late for inclusion in my rebuttal.) Therefore I was astonished to read the response from the editor several weeks later: "I am writing again about your manuscript. It is my present feeling that perhaps it is better simply to leave matters as they now are (i.e., without the reply). The reason for this is that the reply is not particularly convincing in negating the earlier comment and if I proceeded with it I would feel obligated to involve (the professor) who wrote me a letter in late December concerning the (DSIR) comment."

Naturally I was disappointed to learn the editor would end the discussion in this way without letting me respond to the critics. I called him on the phone. During the ensuing conversation, he made it clear that his main concern was that he would be publicly criticized by the irate professor if he published my response. At this point I realized nothing I could do would convince the editor to publish my response. Therefore I decided to try appealing to outside help. I knew the professor worked at Stanford University, so I called Dr. Peter Sturrock to find out if he could talk to the professor. Peter knew him and said he would contact him directly. He would also write to the journal editor with a copy to the professor.

The Paradigm: Down But Not Out

Before continuing, I should back up a bit and finish the story of the BUH, because it probably affected the ultimate decision to publish my rebuttal. In April 1979, the editor received another reply to the BUH article. This was a well-written paper by an entomologist (Tha Paw U, 1979). It was published in

August 1979, two weeks after mine, along with responses by Callahan (Callahan, 1979) and Mankin (Mankin, 1979). Thus, in that case, the journal had published the original BUH article, the rebuttal to the original article, and the authors' responses to the rebuttal. In his early March 1980 letter to the journal editor, Sturrock pointed out that it seemed "only fair that Maccabee should have the same privilege" of responding to the critics as had Callahan and Mankin. Sturrock also wrote, "Most scientists are quite uninformed about the UFO phenomenon. None of the established scientific journals provides a forum for the presentation and discussion of relevant evidence. In my opinion you have provided a real service to science, in its broadest scope, in agreeing to publish the papers of Callahan, Mankin and Maccabee and the discussion which followed. I hope that you will continue to publish articles dealing with optical aspects of anomalous phenomena as well as conventional phenomena."

About a week later the editor received a letter from the professor, who wrote that he had been thinking about what to do "on the Maccabee controversy" while "trying to be principled and fair" in spite of his "personal conviction that this is a scientifically foolish piece of work." The professor clearly understood that the point of my response to the criticism was to prove the light moved and therefore could not be a squid boat. He wrote that the "discussion may or may not be science," but at the very least was not optics and so was "not appropriate to an optics journal." Nevertheless, he suggested there was a reason to publish my rebuttal to the DSIR article. He wrote, "On the other hand, despite my own confidence that Maccabee's rebuttal simply makes clear how inane the whole discussion is, I am aware of (even if I totally disagree with) the claims that the scientific establishment refuses publication and suppresses discussion of these allegedly scientific observations. Indeed, if I feel that Maccabee's rebuttal is inane, perhaps I ought to support rather than oppose its publication, with the confidence that making it available in print will simply let others reach the same judgement." He then went on to propose that the editor publish my rebuttal along with an editorial statement that this would end the discussion in *Applied Optics*.

In late March I received a letter from the editor. He included a copy of the professor's letter and indicated that he would follow the recommendation. I responded that, although I was unhappy to learn that my rebuttal was "inane," nevertheless I would accept the editor's decision. I made a few more minor revisions to the rebuttal, which was now a better paper than my original submission months before, and it was finally published a year and a half after the sightings (Maccabee, 1980).

To some it might seem that I had actually beaten the paradigm, but this would be wrong. Yes, three short articles were published in which a particular UFO sighting was discussed, and yes, the concluding article was "allowed" to claim that the phenomenon that had been seen and filmed was unexplained. Nevertheless, in the long run the paradigm won because of a lack of interest. Although I essentially claimed that this UFO was "real" (without, however,

making any statement as to what it might be, e.g., there was no mention of the ET or another hypothesis), I cannot recall one request for a reprint of the article, nor can I recall any requests for further information by scientists in general. Publication in a technical journal such as *Applied Optics* did not result in widespread dissemination of this positive UFO information, even though an earlier publication of a negative UFO article had received widespread attention. Furthermore, publication of these articles did not lead to the publication of other similar UFO articles in the conventional science journals. So far as I know, these three short articles in *Applied Optics* are still, twenty-five years later, the only series of technical articles on a single UFO sighting in the conventional science literature.

I have had other "run-ins" with the paradigm, the most notable being when I tried to publish a response to an article that appeared in the early summer of 1980 in the *Journal of Atmospheric and Terrestrial Physics*. The author of the article, a well-known atmospheric physicist, used only a few of the initial press stories as his sources of technical information. From these he deduced that no one had suggested that atmospheric refraction or mirage could explain the sightings, so in his article he proposed, in a qualitative way (no explicit data or calculations), that a looming mirage of distant squid-fleet lights could explain the sightings. In my response I pointed out that atmospheric refraction had, in fact, been publicized in early New Zealand press stories as a possible explanation. I also pointed out that my thorough investigation ruled out all the published explanations, including the mirage explanation. The referee of my short response recommended that it not be published because, in his opinion, my article, unlike the original article, contained "no real science." I was astonished at this opinion and complained to the editor that, whereas the original article was based on newspaper stories that contained incomplete or simply false information, my paper was based on a thorough investigation that included calculations such as were presented in the *Applied Optics* paper. Which article, I asked, contained "real science," my article, which was based on a thorough investigation followed by analyses of all the proposed explanations, or his non-investigation, which was based upon a few newspaper stories and speculation about what might have been seen?

I went through several iterations with the editor, all to no avail. In 1985 I attempted to duplicate my success with *Applied Optics* by submitting another calculation of brightness, this time the brightness of an unidentified high-altitude light-source photographed by a Royal Canadian Air Force pilot. The paper was rejected by two referees who claimed first that it was a sun dog and then that it was a reflection in a lake. Many years after the second rejection I submitted the paper to this journal and it was published (Maccabee, 1999).

For more information about my attempts at publication, see "Still In Default" at <http://brumac.8k.corn/stillindefault.html>. Look for the section entitled "Non-publication of scientific Papers," which is about halfway through the publication. There you will find more details of the *Applied Optics* controversy, the complete

controversy over the refusal of the Journal of Atmospheric and Terrestrial Physics to publish my short article, and the controversy over the refusal of Applied Optics to publish my article about the high-altitude bright light source.

Although the paradigm might have suffered a dent in its armor, it was not severely shaken and it still reigns supreme: from the conventional science point of view, UFOs are still an inane subject pursued by people who are 99 and 44/100ths percent kooks.

Note

As this paper was being prepared for publication, I had another publishing success (along with three co-authors). This new paper, about two and a half years in the writing, is published in the January–February issue of the Journal of the British Interplanetary Society: "Inflation Theory Implications for Extraterrestrial Visitation," J. Deardorff, B. Haish, B. Maccabee and H. E. Puthoff (JBIS, 58: 43–50). This may be the first paper published in the refereed literature to explicitly recommend examining high quality UFO reports for evidence of extraterrestrial visitation. It is of interest to note that, of the several UFO sightings that were cited in an early version of the paper, only one made it past the editor's chopping block: the New Zealand sightings of December 31, 1978. I presume this one sighting was allowed only because it had already been published in the refereed literature.

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