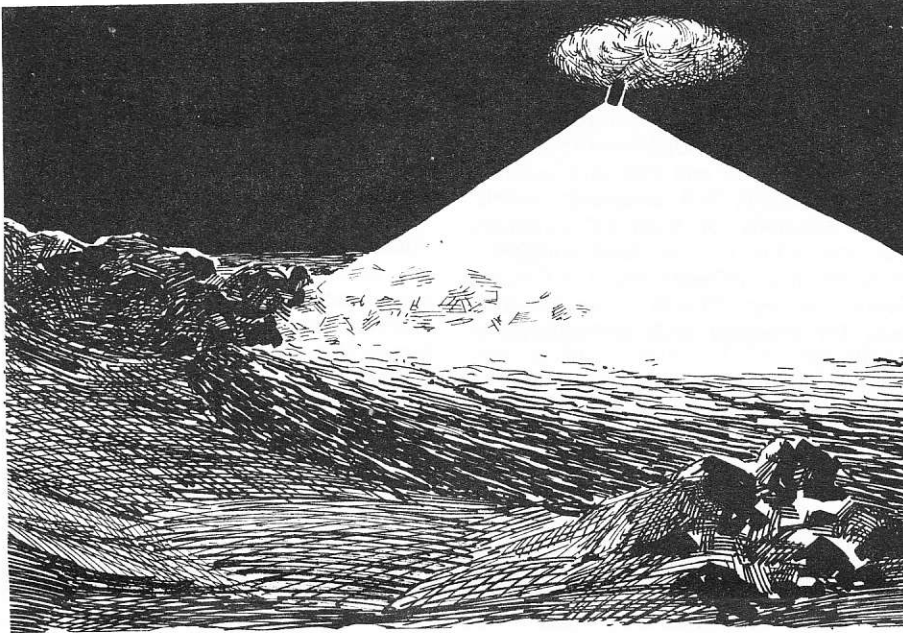


THE A.P.R.O. BULLETIN

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TUCSON, ARIZONA — NOVEMBER, DECEMBER 1970

OBJECT OVER GULF OF CALIFORNIA



Artist's rendition of the Cholla Bay incident by Lloyd Brewer

The following report is an example of the importance of field investigation in UFO research. The initial report was carried in a Phoenix paper and contained several errors. Mr. Lloyd Brewer, APRO Field Investigator, was asked to interview the one man who was mentioned. This interview yielded the information that many other people had observed the object, and the investigation is, in fact, continuing. The following is the testimony of two of the witnesses:

Mr. Albert Formiller, a retired Chicago policeman and a resident of Phoenix, about 70 years old, was at Cholla Bay, Mexico on the 5th of November. At about 9 o'clock, he said, he was startled to see that suddenly the ground and ocean were "lit up like daylight." He had been camped on the beach all day and was leaning against his pickup-camper about 25 feet from the water's edge.

Formiller could make out a beam coming from the sky but at first could not discern what it was coming from. Within a few seconds, however, he could make out the object itself, which was greyish-white, oval, and with a black or dark-colored tube, 12-16 inches in diameter, just to the left of center of the object and tilted to the left at a 5-10 degree angle from the vertical. Formiller said the object was cloudlike and appeared to "roll around" very slowly. Occasionally, he said, parts of it would billow out but never separate from the main body of the "cloud." No sound was heard.

At first the "searchlight" illuminated approximately ½ mile of the water and a small portion of rocky headland to the left of the witness. Almost immediately after he spotted it, however, the lighted area narrowed to a diameter of about ¼ mile. This lighted area and the beam fluctuated between 50 and 150 feet from the shore.

Shortly thereafter, the searchlight went out and a white light, weaker than the searchlight and described as a glow, illuminated the upper half of the object so that the underside could no longer be seen. Then the white glow disappeared and the object made a 180 degree turn, affording Formiller (because of its slight upward tilt) a view of the top and side of the object as it turned. This enabled him to observe a green glow or light that

Object Over Illinois Farm

Arthur J. Epstein and Joseph Gurney were the Field Investigators in the following incident which took place at 4:15 a.m. on October 5, 1970 on a dairy farm one mile east of Walsh, Illinois. The witness does not wish to have his name published.

At the time and date mentioned above, Mr. S. had turned on the lights which illuminate the yard where the cows stand before going into the milking shed. The yard is a cement affair. He walked over to put some feed in a feed bin about fifty feet from a sixty-five-foot high silo. He glanced up to see a light beam in a circular shape which had a red, fuzzy "neon" look. It appeared to have fog around it. At first he thought it was the moon but then remembered that there was no moon that night. There was a beam of light like a searchlight which appeared as one line going from top right to bottom left, right through the center of the red circular light. The whole sighting lasted about two to three minutes. Toward the end of it, a third beam of light, which was focussed directly on Mr. S. for about three seconds, seemed to come from the center bottom of the

(See Illinois — Page Three)

Mass Sightings In Brazil

On Tuesday, November 24, 1970, Mrs. Irene Granchi, APRO's Field Investigator in Rio de Janeiro, Brazil, received a call from her son Ludovico at his home at Itacuruca, State of Rio, which turned out to be the first in a series of sightings within a short space of time which spanned three states in Brazil.

Ludovico Granchi and others had viewed the object at 7:08 p.m. Shortly thereafter, Mrs. Granchi received another call from her son-in-law Jose Augusto, calling from a friend's home in Tijuca, where at 7:20 p.m. the lady of the house and practically everyone in the district had watched an unusual object which traversed the sky within the period of two minutes. While others watched the object, Jose Augusto was watching TV and noticed pronounced interference on the set. All of those at the home where Jose Augusto was visiting were UFO skeptics until they observed the object.

Mrs. Granchi set about to investigate the series of events, and contacted newspapers and radio and television stations to inquire concerning any calls they had received. She learned that they had received hundreds of calls which, if a

(See Brazil — Page Three)

(See Gulf — Page Three)

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AIAA Releases UFO Statement

The American Institute of Aeronautics and Astronautics (AIAA) UFO Subcommittee, formed in 1967, has published its long-awaited statement in the November issue of *Astronautics and Aeronautics*, journal of the AIAA.

As expected, the AIAA Subcommittee took a middle line, accepting the fact that there is a UFO problem but not accepting the extraterrestrial hypothesis (ETH) — or any other hypothesis for the moment. The Subcommittee found the UFO problem “buried in what appeared to be a maze of preconceptions, emotions, bias, hasty conclusions, and excessive and misleading publicity.” It criticized the National Academy of Sciences’ statement that the ETH is “the least probable” explanation when endorsing the *Condon Report*, saying: “There is no scientific basis for assessing such probabilities at this time.”

After discussing the *Condon Report* and its implications, the Subcommittee statement continues: “Taking all evidence which has come to the committee’s attention into account, we find it difficult to ignore the small residue of well documented but unexplainable cases which form the hard core of the UFO controversy.” It then goes on to compare the “hard core” UFO cases with other forms of controlled and uncontrolled laboratory data and points out that various members of the Subcommittee are familiar with uncontrolled laboratory research, such as is found in the study of the Earth’s atmosphere.

The Subcommittee found “no basis” for Dr. Condon’s prediction that nothing of scientific value will come of UFO research. A phenomenon which contains 30% unexplained incidents “should arouse sufficient scientific curiosity to continue its study.”

“The issue seems to boil down to the question (the statement continues): Are we justified to extrapolate from 0.99 to 1.00, implying that if 99% of all observations can be explained, the remaining 1% could also be explained; or do we face a severe problem of signal-to-noise ratio (order of magnitude 10-2)? In the opinion of the subcommittee, this question must be asked critically and objectively in each individual case. In those cases which do not fit the extrapolation alternative, the further question should be explored: ‘Are there common attributes to these cases?’ It appears to the committee that the University of Colorado group has made no serious attempt in this direction.”

The Subcommittee rejected the proposition of some scientists, including many in APRO, that UFO research deserves full

support, considering the possibility of the ETH, but likewise rejected the reasoning of those in the opposite band who claim that the ETH must be proven before the UFO problem can be studied. It found that “a better criterion for support of UFO related studies” was Dr. Condon’s statement (in the *Condon Report*) that “clearly defined, specific studies ... should be considered and supported.”

The Subcommittee then discussed the ETH, expressing its “disenchantment” with it “since there is not sufficient scientific basis at this time to take a position one way or another.” At the same time, it found no “convincing basis” in Dr. Condon’s statement that the Earth will not be visited by extraterrestrial intelligence for the next 10,000 years. “When does one start counting?” the Subcommittee asks!

Following the above, it expressed its “feeling” that the ETH, “tantalizing as it is,” should not be brought into UFO consideration “as it introduces an unassessable element of speculation.” However, the Subcommittee also “feels strongly” that: “... from a scientific and engineering standpoint, it is unacceptable to simply ignore substantial numbers of unexplained phenomena and to close the book about them on the basis of premature conclusions.”

In considering how to attack the UFO problem and avoid previous pitfalls, the Subcommittee expressed little confidence in either a short-time team approach, as attempted at the University of Colorado, or the efforts of a single individual. Instead, it recommended a “continuing, moderate level effort with emphasis on improved data collection by objective means and on high-quality scientific analysis.” The statement continues: “An economically and technically sound approach involving available remote sensing capabilities and certain software changes will require some thinking on the side of the aerospace engineering community. Proposals along this line are already in the hands of the subcommittee. The financial support should be kept at a moderately low level (it is estimated that a small fraction of the costs of the University of Colorado study is required initially) until reevaluation of the situation allows another assessment.”

The Subcommittee then went on to recommend that government agencies “consider sound proposals in this field without bias or fear of ridicule and repercussion” calling it “... perhaps our most important conclusion.” The final recommendation of the Subcommittee was that the USAF UFO files be handed over to a civilian agency (“either government or university”). A similar recommendation was made a year ago by a group of scientists, headed by an astronomer

(See AIAA — Page Four)

Gulf —*(Continued from Page One)*

extended 1/3 of the distance around the object on each side from a central point on what he took to be its "back." Again the top was illuminated and the bottom was not visible and the object began to move away. Formiller estimated the speed to be less than that of a jet, and it maintained a steady speed until it disappeared from sight into the west. Formiller made the logical assumption that the object must have been or at least could have been seen from San Felipe, Baja California, which is across the Gulf of California to the west.

There seem to be quite a number of supporting witnesses to the Cholla Bay incident and Mr. Brewer is continuing his investigation. However, we will include here the testimony of Norman Norris, retired policeman (20 years with the Phoenix Police Department) who, with his brother-in-law and his wife, Mr. and Mrs. Grady Hendricks, were driving to Cholla Bay and travelling south or southwest when they saw the object. Norris, who was sitting in the front seat, was the first to spot the object. His immediate reaction was that it was a streetlight but he soon realized that it could not be. Although the object made no apparent movement, it "may have" become brighter and then began moving, since it began to grow dimmer. As the object neared the horizon a blue-green "vapor trail" that followed in the apparent path of the object became visible.

Norris' description of the object varies slightly from that of Mr. Formiller in that he describes it as a white, oval-shaped light with a hazy, dark-colored rim running horizontally around its middle. He said its estimated apparent size was that of a silver dollar held at arm's length, and estimated actual size he felt was 30 feet in diameter.

The Norris observation lasted approximately 10-15 minutes during which no sound was heard (the windows of the car were rolled up). The Norris group were about 12 miles northeast of Pelican Point on the road to Cholla Bay.

Inasmuch as the Norris party was able to view the object from that distance, it is quite likely that the object may have been observed from Puerto Penasco (Rocky Point), which is a popular fishing and vacationing area about 250 miles from Tucson, Arizona. One of APRO's Field Investigators who is in charge of a land development project at Rocky Point, will continue the investigation at that end and any further information about this interesting case will be published in a future issue of the *Bulletin*.

We are indebted to Mr. Brewer, who is an art teacher, for the initial investigation as well as the sketch of the sighting.

Brazil —*(Continued from Page One)*

fraction of the actual witnesses, indicates that probably thousands of people witnessed the passage of a single object. Mrs. Granchi herself received over 100 calls, most of which she was unable to pursue because telephone trouble caused the phone to ring but when she answered the line went dead. One call which came through, however, was from an acquaintance, Benicio Guimaraes who reported that his brother in Santo Antonio de Padua, state of Rio, had seen a bright yellow UFO at 7:10 p.m. that night and that a UFO had also been seen at Porto Novo do Cunha at 7:18 p.m. In both cases the object was observed by the whole population of the area. Mrs. Granchi observed:

"What is striking about this case is the sequence of correct annotations of sighting hours — as if to make us believe there was in fact a sequel of the same UFO — but the very fact that people of different towns, districts and states all having noticed the time is so suspicious, for it is unusual. To wit:

7:00 p.m.: Belo Horizonte and State of Minas Gerais; towns with partial blackouts. This was the biggest sighting of all according to the newspapers of the next day.
 7:08 p.m.: Itacuruca, State of Rio
 7:09 p.m.: Santo Antonio de Padua (State of Rio)
 7:10 p.m.: Jardim Botarucu, Lajoa Leblon Ipanema (Rio)
 7:10 p.m.: Campo Grande
 7:18 p.m.: Porto Novo do Cunha
 7:20 p.m.: Botofojo-Tijuca (Rio)" Unquote.

Mrs. Granchi's son visited her a day later and she took his testimony and that of a fisherman at the island. The object was generally described as a domed object with a beam projecting upward, like a mercury vapor lamp, about the size of the moon, with the top portion being somewhat cloudy in appearance.

The solitary and bizarre nature of this occupant report suggests that it may be a product of mental aberration and may or may not have any connection with the other coincident object reports but it would seem unwise to ignore a given case simply because it is weird.

Further study of the details indicated that twenty towns in the state of Minas Gerais were visited by the UFO, Belo Horizonte suffered a blackout and there is an outstanding occupant case. In the state of Rio, starting with Ludovico's sighting in Itacuruca, there was one in Caxias, another in Paraiba do Sul, Santo Antonio de Padua and Porto Novo do Cunha. In Rio de Janeiro the object was seen at Campo Grande, Lagoa, Jardim

Botanico, Leblon, Ipanema and Tijuca. Except for the Minas sightings, the others were all referred to Mrs. Granchi personally either through witnesses or direct accounts.

The general description of the object in all accounts was that of a cloud emitting rays from the top, the "cloud" being compact and giving the impression of a physical or solid body behind it. (See the Cholla Bay incident, this issue). Some saw two "clouds" and lights; others, like the fisherman on Itacuruca Island, saw the body of the object with a light emanating from the window or port sideways from the object.

The occupant sighting involved one Moyses Santos of Belo Horizonte, who found himself surrounded by a half dozen 1 meter (about 40 inches) tall beings in his home who went around touching and upsetting everything and who "lit up in many lights" as they neared a table lamp (reflecting light?). They drifted about suspended in mid-air, and when away from the lamp, looked like ice. They finally disappeared *through the walls*. This incident took place as the UFO was passing over Belo Horizonte. Another effect of the passage of the UFO was the stalling of a bus which was loaded with passengers.

The one main and very odd detail of the occupant case was that one of the beings handed Moyses a paper on which he drew a flying saucer, without knowing why he did it, and then the little being took the paper back and went off with it. Moyses got outside before the UFO left and saw that it flooded his home and the area with brilliant light.

Mrs. Granchi will submit a more detailed report as information is available and a follow-up article will be published in a later issue of the *Bulletin*.

Illinois —*(Continued from Page One)*

UFO. He said he was standing in a circle of light about four feet in diameter. He could see the sides of the beam were perfectly straight. There were no other colored lights or moving lights. No sound accompanied the sighting and the cattle were not disturbed.

The UFO disappeared from sight by fading out. It had been about 25-30 feet above a tree which measured about 75 feet high. Mr. S. compared the object or light to the size of a volley-ball held at arm's length.

It was noted that five cows were on the other side of a three-strand electric fence, one strand of which was broken. No one was able to ascertain how the cows had gotten to that side of the fence.

AIAA —

(Continued from Page One)

mer (Dr. Thornton Page), who presented papers at the UFO Symposium of the AAAS in Boston. If a decision is being considered, it has not yet been revealed by the government. The Air Force Blue Book files are now in the historical archives at Maxwell AFB in Alabama.

The AIAA Subcommittee is formed by the following scientists and engineers: Dr. Joachim P. Kuettner (Chairman), Mr. Vernon Zurich (Secretary) and Mr. Murray Dryer, all at the Environmental Research Laboratories of the new U.S. Department of Commerce agency National Oceanic and Atmospheric Administration (NOAA), formerly ESSA; Mr. Jerald Bidwell of Martin-Marietta Corp., Mr. Glenn A. Cato of TRW Systems, Mr. Bernard N. Charles of Hughes Aircraft, Dr. Howard D. Edwards of the Georgia Institute of Technology, Dr. Paul MacCreedy of Meteorology Research Inc., Mr. Andrew J. Masley of McDonnell-Douglas Missile & Space Systems Division, Mr. Robert Rados of NASA's Goddard Space Flight Center and Dr. Donald M. Swingle of the Army's Electronic Command.

According to the AIAA, special care was taken in selecting individuals who were not committed on the UFO problem one way or another. Certainly none appear to have made any public statements concerning UFOs and, all in all, the AIAA UFO Subcommittee has probably brought together a team of specialized individuals who are not prejudiced.

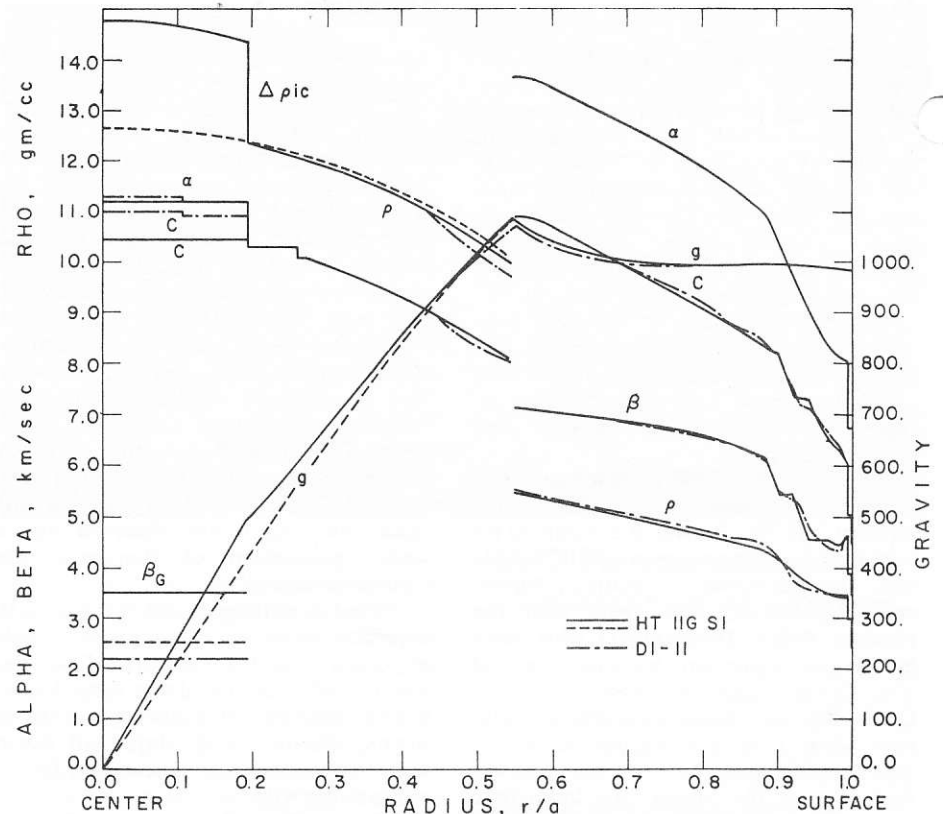
It will be interesting to see what "additional information" on UFOs appears in the AIAA journal in the course of time.

UFOs and the Hollow Earth Theory

by Dr. John S. Derr

Dr. Derr is a Research Scientist, Astrogeophysics Section, Space Sciences Dept., Martin Marietta Corp., Denver, Colorado and is Consultant to APRO in Seismology.

The idea that the Earth is hollow and contains an advanced civilization which is the source of flying saucers has been presented by Raymond Bernard ("The Hollow Earth," Fieldcrest Publishing Co., New York, 1964). This book is well written and contains many intriguing ideas, but there is ample physical and mathematical proof that the Earth is not hollow. For example, pictures taken by satellites in polar orbit have shown no openings. We even have proof for the planet Mars: one of the Mariner spacecraft in 1969 flew over the south pole and showed that the polar "ice cap" was



Distributions of compressional velocity alpha, shear velocity beta, sound velocity C, density rho, and acceleration of gravity g in the Earth. Multiple lines show the probable range of uncertainty. The sharp discontinuity at fractional radius 0.545 is the core-mantle boundary. In the liquid outer core, beta is zero and alpha equals C. In a hollow Earth, alpha and C would be about 330 meters per second, whereas beta, rho, and g would be virtually zero.

("dry ice") deposited on a rough surface. The pictures certainly disprove Bernard's contention that the Martian polar caps are entrances to a hollow interior.

Other observational evidence to disprove the hollow Earth theory comes from the field of geodesy. The orbital parameters of every natural and artificial satellite of the Earth are perturbed by its total mass and mass distribution. Detailed tracking of these satellites has proved beyond doubt that there are no significant voids in the interior. One quantity in particular, very valuable in determining the distribution of mass, is the reduced moment of inertia, I/MR^2 , where I is the central moment of inertia, M is the total mass, and R is the radius of the Earth. For a hollow shell, this reduced moment is 0.6667; for a solid ball of uniform mass distribution, like a ball bearing, it is 0.4000. But for the Earth, the reduced moment is 0.3306, less than half what it would have to be for a hollow shell. Thus, the reduced moment actually shows that the Earth's mass is somewhat concentrated toward the center, in complete disagreement with the hollow Earth theory which has the mass concentrated in the outer shell.

The field of seismology also provides ample proof of the lack of voids in the

Earth. By observing the times of arrival of compressional and shear waves over the surface after earthquakes and underground explosions, seismologists can derive the distributions of the velocities of these waves within the interior of the Earth. These distributions are given in the accompanying figure. Extensive observations over the past 80 years have fixed the levels of the major discontinuities: a solid crust of average 30 km thickness, a solid mantle down to a depth of 2894 km, a liquid outer core down to 5150 km, and a solid inner core to the center at 6371 km depth. One crucial test in particular is sufficient to prove the essential features of this model. An earthquake occurring at the antipode of a seismographic station sends a compressional wave diametrically through the Earth. This disturbance, the first to be observed at the station, arrives in 20 minutes and 12 seconds. If the Earth were hollow, this direct wave would not be seen at all; rather, the first arrival would be a compressional wave multiply reflected from the inner and outer surfaces of the shell, and would require almost twice as long a travel time. The fact that the direct arrival is observed with a travel time of some 20 minutes proves beyond doubt that the Earth is not hollow.

Theory —

(Continued from Page Four)

Another branch of seismology deals with the free oscillations of the Earth. A very large earthquake will excite these normal modes of vibration. They were recorded, for example, after the great Alaskan earthquake of 1964 by long period seismographs, strain meters, and gravimeters. To visualize these oscillations, think of the Earth as a big bell: if you hit it hard enough, it rings (oscillates) at a series of frequencies which are determined by the mass, composition, shape, and state of stress of the bell. The frequencies or normal modes of the bell are measured in tens or hundreds of cycles per second, whereas the modes of the Earth, because it is so much larger, are measured as periods of hundreds and thousands of *seconds* (per cycle). The longest period observed for the Earth is 3233 seconds, or about 54 minutes. It can be shown mathematically that a period this long requires the distribution of compressional and shear velocities and density shown in the accompanying figure (see, for example, Derr (1968), "Internal Structure of the Earth Inferred from Free Oscillations," *Journal of Geophysical Research*, Vol. 74, no. 22, pp. 5202-5220). The study of free oscillations, therefore, shows that a hollow Earth is an impossibility.

The proponents of the hollow Earth theory show a distressing lack of understanding of physics and a total disregard of observational evidence and mathematical proof which contradict their imaginative conceptions. As a final example, consider the hypothetical civilization living on the underside of the supposed shell. It is easy to show mathematically that the force of gravity inside a self-gravitating sphere or shell is always directed toward the center. The net force of gravity anywhere inside the Earth is, therefore, determined by the mass contained interior to the radius of one's position. The mass exterior to this position has no effect. Thus, a civilization attempting to live inside a hollow Earth would have to attach itself to the shell. Otherwise, either they would live in weightlessness, or, if one supposes a "central sun" to light and heat this inner world, they would fall into *their* sun! For the same reasons, any person or vehicle attempting to transit the supposed polar openings would not be able to follow the curvature of the opening into the interior, but would rather find himself going down a steeper and steeper hill until he slipped off and fell into the center. In addition, the Arctic Ocean would drain into the center! For these and other reasons, anyone who examines all the evidence carefully must conclude that a hollow Earth is a total impossibility.



Photo of October 6 UFO at Decatur, Alabama

Object Photographed In Alabama

Acting on a tip resulting from a newspaper article, Field Investigator Harold Green investigated a case which took place on the 6th of October 1970 at 8:15 p.m. and which resulted in what is considered to be a very good photograph of a night-flying UFO (see photo above).

Mrs. Dennis Billings of Decatur, Alabama, went out into her front yard to gather up the children's toys and seconds later, Mr. Billings who was in the house, heard her screaming for him to come out. He went out into the yard where his wife was pointing to the southeast, and saw a lighted object just going out of sight. It appeared to be at low altitude and Mrs. Billings said it came out of the north, headed south, then veered toward the east.

Mr. Billings got his camera out of his car and at that time another object, similar to the first, came down out of the sky, leveled off and slowly flew in the same direction as the other object. Billings adjusted the lens of his camera, walked to the back yard so that he could get an unobstructed view, focussed the camera and took one shot. He ran a block, almost under the object and took another but the second photograph yielded nothing.

Both the Billings' said that a dark mass was easily seen behind the lights on the object, and is often the case. The negative shows much more than the print which is reproduced here.

During the course of his interview with Mr. Billings, Mr. Green learned of a sighting which the Billings' had made on a Friday in September, 1966 at about 7:30 p.m., which resembled very much his

sighting of October 1970.

In this case, Mr. Billings had gone out the back door to take the garbage out, and was startled to hear sounds from the house on the other street. He said he could hear sounds like conversation, children playing, the rattle of dishes and silverware, etc., as if the sounds from the house (which was closed up, no doors or windows being open) were being amplified. Suddenly an object which apparently had been dark and therefore not immediately visible, lit up into an orange ball above the house from which the sounds were emanating. It dropped what looked like white sparks, then it dimmed out and lights came on around its edge. These lights were all colors of the spectrum, running from red, orange, yellow to white, and then the blue and green shades. The lights also blinked on and off in sequence. The object moved away, and while Billings watched it with binoculars, another object came over, hovered above the yard for 2 to 3 minutes, then started to move slowly away. He walked under it to the front yard and estimated that at that time its altitude was approximately 400 feet and it was between 50 and 75 feet in diameter. The underside of the object had a dome-like protrusion which Billings said looked like translucent glass and light seemed to come from it or perhaps was being reflected from the lights on the rim. There appeared also to be moving shadows, but Billings could not be certain that they were from inside the object or a result of the flickering lights or shadows from the ground.

The lights of the object (as well as the one photographed in October 1970) were arranged around the edge of the object, but there were none on the leading edge of it. Billings said that after the object was gone his eyes felt strained and tired

(See Alabama — Page Six)

Alabama —

(Continued from Page Five)

and burned for the rest of that night. He observed that the speed of the blinking lights seemed to be synchronized with the speed of the object; they blinked slowly when the object was traveling slowly, and faster as it speeded up. It moved across the sky toward a nearby airport, stopped and hovered for about 10 minutes, looking much like a star except for the changing colors. It then moved higher, getting considerably smaller, and when a Southern Airways plane went over the object followed it until it was near the Billings home again, then went back to its position in the vicinity of the airport. Billings noted the distinct difference between the object and the aircraft.

The object, by now discernible only as flashing lights, stayed in its position near the airport for another five minutes, moved very fast to the north where it hovered for 10 minutes and then appeared to fall to the ground. Billings continued to watch that area and about 15 minutes later the object came back up into the sky, hovered for a few seconds, then moved off to the west where it "met up" with another identical object; both hovered for a few minutes and then both moved off together.

APRO plans to have the photograph examined by Dr. Frieden, Consultant in Optics, and perhaps it will be possible to bring out more detail.

UFO Phenomena in Puerto Rico

APRO's Representative in Puerto Rico, Sebastian Robiou L., recently sent Headquarters his full reports on several investigations into UFO incidents on that Caribbean island. Below are summaries of two of his reports.

The first incident took place between 11 and 11:15 a.m. (local time) on the 6 of April, 1967, near Tortuguero, while two Cessna 150 aircraft were flying under unlimited visibility conditions. Aircraft A contained a flight instructor, whose name cannot be published, and flight student Alvaro Munoz. The names of the instructor and student aboard aircraft B cannot be published.

Aircraft A and B were flying in formation at 3,000 feet in an east-northeast direction, north of Vega Baja, on the north coast of Puerto Rico. Aircraft A was slightly ahead and 1,000 feet above aircraft B. While student Munoz was practicing "blind flying," his instructor observed an unidentified object behind and below aircraft B. He called the pilot of aircraft B, who then commenced a 180° turn, at which the UFO dropped sharply (estimated about 200 feet above

sea level) and passed under aircraft B without the pilot seeing it.

Aircraft A continued its normal route and the pilot observed the UFO pass him on the north side. He pointed the object out to Munoz, who exclaimed (in Spanish): "My God! That's a flying saucer!" The pilot then told Munoz not to lose sight of the object while he piloted the Cessna. Munoz got a good look at it as it passed on their north side, about 1,500 feet below them, while the pilot was attempting a turn to bring the object closer. The descending turn increased the speed of the Cessna from 90 mph to 140 mph, while the UFO appeared to be moving at least double their speed.

The pilot of Aircraft A leveled the Cessna out and the UFO made a sudden 90° turn without any pre-deceleration and disappeared. The pilot of aircraft B was meanwhile terminating his turn; neither the pilot or the student aboard aircraft B saw the UFO. The total sighting lasted between 15 and 20 seconds. The two witnesses aboard aircraft A described the UFO as "oval, not round" and with a dull-white, metal color. Comparing its approximate size to the Cessna B, the UFO was estimated to be 60 feet long (3 times that of a Cessna 150). It had an apparent size of 8 inches at arm's length. The two witnesses did not observe any other structural details on the object but they described it as "solid" and following "intelligent maneuvers, not erratic." Upon landing at San Juan, Munoz called his wife to tell her about the sighting, which she confirmed to Representative Robiou.

Munoz, who is now a flight instructor with the Isla Grande Flying School and Service Corp., says that the Federal Aviation Administration (FAA) gathered data on the sighting after it happened, but stated that they had not tracked any unidentified object at the time. Representative Robiou, who calls this "one of the most interesting UFO cases in Puerto Rico," notes that the pilot-instructor of Aircraft A does not want publicity; Munoz is more cooperative. Neither took UFOs seriously before their observation.

Mr. Robiou's conclusion is: "If we accept the statements of the witnesses as true, as they seem to be, we cannot find any explanation within our frame of knowledge. The object seen by the witnesses deserves the title: Unidentified Flying Object."

Another case investigated by APRO's Representative in Puerto Rico concerns an incident which occurred between 7:30 and 9:00 p.m. on December 31, 1968 on the PR-2 road, near "Los Quemados," Vega Baja. The witnesses are an 80 year old farmer and rancher and his nephew, a 38 year old dental mechanic and farmer. The witnesses do not wish their names to be made public.

The two witnesses were driving at about 40-45 mph from the town of

Isabela to San Juan. Shortly after passing Vega Baja, while they were on a straight stretch of road, their headlights illuminated a "clear white" object stationary on the right side of the road. The nephew, who was driving, exclaimed: "Look at that!" and then accelerated away from the object. He described it as white and round and a human-like figure was standing before it. For the few seconds that he had a clear view of the entity, he saw what he later described as "a midget" 5 feet tall. Its mouth gave him the impression that (like in elderly persons) it had no teeth. However, what he recalled mostly were the entities eyes, which allegedly shone brightly in the dark, "like a cat." The entity was supposedly about 10 feet from the Ford Cortina as they drove by.

The elderly uncle did not observe the entity standing before the object. However, he claims that as they drove away he turned back and saw that the object "lit-up" like a blue-green light bulb. He also claims that he saw the object begin to rise (it then had a reddish color) and he heard a faint sound, "no stronger than a car." The nephew, who was driving off frightened, did not hear or see anything further.

The nephew dropped his uncle off at his home in San Jose and went to his own home. However, he did not see the New Year in with his mother, as he did every year. Instead he went to bed and tried to sleep, as he was "very nervous." The next day he informed his wife and children of the incident. Today he says: "Nobody believes it." His uncle says: "It was something. What it was, I don't know."

Representative Robiou makes the following observations: both witnesses are natives of Isabela, from where they drove that night, and now live in San Juan. Vega Baja is about 25 miles from San Juan. Between 7:30 and 9:00 p.m., and especially on New Year's Eve, highway No. 2 was very probably void of traffic, as the witnesses claim. The elderly uncle wears glasses and is known to suffer from cataracts. Both witnesses said the object was about the size of a European car, but was definitely not a car; it was round, like "an ashtray turned upside down."

Mr. Robiou, who interviewed the witnesses separately, says they are honest, working people who do not want any publicity; they insist in what they saw, although their versions differ, "They very definitely saw something, what it was we don't know."

Another interesting incident in Puerto Rico took place on August 18, 1968, at 2:30 a.m. at Ramey AFB, and involves Sgt. Thomas Carulli, who signed a statement for APRO. The statement, which was obtained through APRO Field Investigator John R. Artie, an Air Force member now stationed at Beale AFB in California, goes as follows:

(See UFO — Page Seven)

UFO —

(Continued from Page Six)

"At approximately August 18, 1968, at approximately 2:30 a.m., off Borinquen Beach, Ramey AFB, Puerto Rico, fifteen other security policemen and myself observed what was believed to be known as an unidentified flying object.

"Visibility was unlimited. The UFO seemed to be rising from the ocean but when first seen it was appearing to be at a 45 degree angle above the surface and rising. While also rising it seemed to yaw to its sides emitting a very bright, almost florescent light which was similar to that of an unblinking strobe light.

ward from within its structures. The reason why it seemed this way was because there appeared to be struts or bars or (you could say) window panes. These struts were verticle and there were about six of them. They reminded me of the crown on the Statue of Liberty but their greatest width seemed to be in their center.

"When it reached its zenith, which in itself appeared to be no more than 1500 ft. off the ground, it lingered there for a few minutes; all the while it emitted this light which lit up the whole area which before was in complete darkness.

"It was circular or sphere-like, more like if you held only your fingertips and your wrists together not letting the palms of your hands touch. In fact, if you would do this with your hands and turn your hands to your face with the fingers at eye level this is what the UFO most nearly looked like.

"Its size was close to a half-dollar at arm's length. It emitted no sound. Lights around us didn't dim either. While in its zenith the UFO seemed to pulsate and fluxed from side to side or wobbled. Then another orb of light came from it.

"This was a light about the size of a dime held at arm's length. It stayed by the side of the first UFO, then it too fluxed or wobbled and shot straight upwards until it was nearly invisible. Then it just seemed to hang there almost indistinguishable from the other stars. After two or three more minutes passed, the first UFO wobbled, turned on its side and darted upwards and outwards in a north-north-westerly direction until it disappeared.

"This whole spectacular phenomenon took about 12-17 minutes in its entirety."

UFO Photos

APRO recently completed a new collection of UFO photographs for sale to members and subscribers. The prints, 3"x5" and black and white, are sold in sets of 5 photos each for \$2.00 a set (individual prints will cost 25c). Below is

a listing of the photos available from APRO:

Set 1:

1-5 — Barra de Tijuca, Brazil, 5/6/'52.

Set 2:

1-5 — Trindade Isl., Brazil, 1/16/'58.

Set 3:

1-4 — Itapoan, Brazil, 4/24/'59.

5 — Santos, Brazil, 9/'55.

Set 4:

1-4 — Yungay, Peru, 3/'67.

5 — Madre de Dios, Peru, '52.

Set 5:

1-4 — Santa Ana, Calif., 8/3/'65.

5 — Las Cruces, N.M., 3/12/'67.

Set 6:

1-2 — McMinnville, Ore., 5/11/'50.

3 — Gibbon, Minn., 10/21/'65.

4 — White Sands, N.M., 10/16/'57.

5 — Apacheland, Ariz., 3/27/'68.

Set 7:

1 — Mexico, 8/'65.

2 — Venezuela, '63.

3 — Guarico, Venezuela, 2/13/'66.

4 — Melbourne, Aus. 4/2/'66.

5 — Flippin, Ark., 7/16/'69.

APRO does not guarantee that all and every one of these photos depict a real UFO. APRO simply provides the photos and individuals may form their own opinions; they represent some of the best photographic evidence of alleged UFOs in existence.

When ordering, please include checks payable to APRO and indicate which sets and numbers are required. Print name and address clearly.

Philosopher Looks At UFOs

by Dr. Robert F. Creegan

Dr. Creegan is a Professor of Philosophy at the State University of New York at Albany, and is a Consultant to APRO in Philosophy.

As a logician, I am not at all happy with the term "unidentified flying object" because we could not converse in any organized way concerning something totally unidentified. Then, on the empirical side, it is a fact that we *do* know quite a bit about UFOs. For example, in many instances specific motions have been observed and we are currently comparing such motions with those of various types of better known objects. I refer to the so-called "falling leaf" motion, the "hover-and-dart" motion, the "yo-yo" motion and others.

The objects of our interest are not *totally* known. We do not understand their inner dynamics, though a number of speculations have been offered. And we do not know their origin or purpose. In a word, we may use the term "UFO" if we like, on the understanding that it does not imply complete lack of organized data, nor lack of an initial body of theory.

The possibility that the forces responsible for the UFO could simulate conventional aircraft presents a nightmare to the logician. In the UFO literature there are numerous reports of strikingly unconventional aircraft. Other reports are of more conventional appearing aircraft but whose location and/or performance is most puzzling. Simulation of other artifacts seems equally possible. Even simulation of organisms. There are data suggesting all these possibilities.

In the opinion of some, there is evidence that official circles discourage the investigation of these matters. That is an additional reason for carrying on with research, at least in my opinion. Any collusion between official science and the military-industrial complex in this matter would have ominous overtones. The integrity of a segment of official science has already been questioned; some of the personnel connected with the University of Colorado UFO Project, for example, had most peculiar credentials.

In contrast to the opinion offered here, some scientists recommended surrendering the whole problem to the military mind. Of course, the armed forces of the United States and Canada do take note of unconventional aircraft of all types, specially those appearing in polar regions, or in other remote or little populated areas and at least initially unidentified. However, the wider problems have been ignored by those who reduce the field to terms of defense. For example, the most *remote* indication of possible sentience from beyond the biosphere: merits serious, sustained attention from the philosophical viewpoint and from that of social science. What is required is a pooling of resources for a far more sophisticated approach to this set of vital problems.

Let me conclude with the observation that the investigation of the UFO must continue and open publication of cases and theories must continue. These things must be for the sake of scientific integrity, for the sake of civil liberties and perhaps even in the interest of our common security.

Electrical Engineering Consultants

APRO has appointed two new Consultants, Dr. Kenneth Hessel and Dr. Lorin P. McRae, in the field of Electrical Engineering.

Dr. Hessel obtained his B.S. in 1965, his M.S. in 1966 and his Ph.D. in 1969, all in Electrical Engineering at the University of Texas. With a strong background in the gravitational wave theory and tensor fields, Dr. Hessel is highly interested in possible UFO propulsion systems

(See Consultants — Page Eight)

Consultants —

(Continued from Page Seven)

and their relationship to the electromagnetic field theory and the unified field theory. Dr. Hessel is currently a Staff Member of the Sandia Laboratories at Albuquerque, New Mexico.

Dr. McRae obtained his B.S. in Electrical Engineering at The University of Arizona in 1961, his M.S. in Electrical Engineering at New York University in 1963 and his Ph.D. in the same field at The University of Arizona in 1968. He was formerly an employee of Bell Telephone Laboratories in New Jersey and was an Assistant Professor of Electrical Engineering at The University of Wyoming, Laramie, from 1968 to 1970. Dr. McRae is currently a Consultant in Biomedical Engineering at the Tucson Medical Center, conducting research in pre-stroke detection.

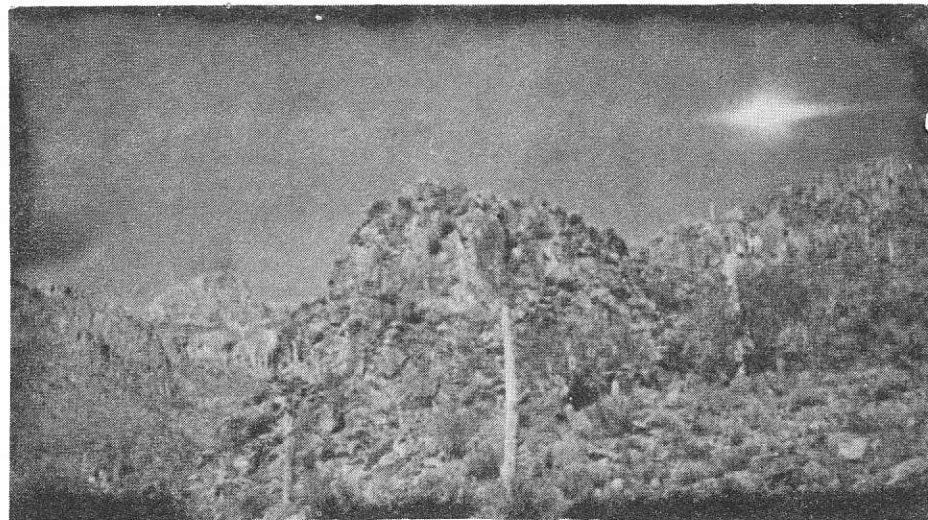
Book Review

UFOs and Diamagnetism

By Eugene H. Burt, Exposition Press Inc., New York; 134 pages, Illustrated

The author has a new but unproven theory that explains certain well known physical observations. The theory also explains the well known characteristics of UFO observations, including the rapid accelerations and intense light emissions. Basically the theory involves the concept of inverted magnetic fields generated by positive charges. That is, "the magnetic fields developed by opposite electrical charges are visualized to be inverted, or turned inside out, with respect to each other." An inverse cube-law force for fields due to positive charges is predicted. Present theory is that there is no difference between the magnetic field generated by a positive charge moving in one direction and the field generated by a negative charge moving in the other direction.

The author's theory explains diamagnetism (the property of certain materials to decrease magnetec flux density, i.e. negative relative susceptance), the elongated Earth's magnetic field, the tails of comets, the failure of electrons to be captured by nuclei, and some other scientific observations in terms of the inverted magnetic field. Mr. Burt feels the typical lens-shaped UFO could be two parabolic disks or covers separated by an insulated tube within which a strong positive current could be developed. The inverted field developed by the positive current would repel electrons. The rapid accelerations reported of UFOs may then be explained by the inverted magnetic



field repelling electrons with a force directly proportional to the number of electrons, which is proportional to the mass of the repelled object. Thus all objects would be repelled with an equal acceleration. The silence of the UFOs would result from the inverted field of the UFO repelling the electron clouds surrounding the air molecules in the atmosphere. The heat and light radiated by UFOs could be the result of deionization around the craft after ionization by the diamagnetic field. All these effects and others are indicated by the author to be somewhat speculative, but he feels they may indeed be correct.

Any of a number of physical considerations, such as what happens to conservation of linear momentum for the UFO, are not discussed. Although the theory is not defined as precisely as it might have been the author demonstrates an ample knowledge of electric and magnetic field theory. The book is fairly technical but should be understandable by UFO enthusiasts and members of the scientific community.

The author criticizes scientists for rejection of *all* UFO observations and their refusal to accept as valid any observations not immediately scientifically explainable. This is an old indictment but the author's points are well taken nevertheless.

Validity of the theory of inverted magnetic fields presented by Mr. Burt is debatable. Major criticisms of the theory are discussed and answered by the author. Skeptics feel that a difference between the magnetic fields developed by positive and negative charges would be very evident in the results of quantum theory and scattering experiments. Whether one agrees with the skeptics of Mr. Burt, the theory is precise enough that other experiments to test the theory could be performed directly.

Dr. Kenneth Hessel,
Sandia Laboratories,
Albuquerque, New Mexico.

UFO Photographed Over Superstition Mountains

The exact date of this case is not known, but it took place in March of 1968. At that time, Mrs. Marie Arnold, one of her wranglers (a cowboy) and two officials of the Pinal County Health Department were north of Apacheland, Arizona (which is located only a few miles south of Phoenix) taking photographs of rock outcroppings in the area.

The photographer was using a Polaroid Land 210 Camera with color film, and concentrating on rock formations in the lower right hand corner of the photo (see above). He had just taken a photo, found the image above on it, turned to Mrs. Arnold and jokingly said: "Ever see a flying saucer?"

He then looked up at the mountains to see what was in the sky and saw an object fly by again. He had used all his film and was not able to take another photo. The object was in sight for 5 seconds between the peaks of the left saddle. After it disappeared he heard a sound like "Whoomp," which lasted about one second.

The visual object did not have the brilliance of the object in the photograph and looked like a stubby cigar with no wings or tail.

The camera was ultimately checked for internal reflections but it was found to be normal. This photograph is one of several which Dr. Frieden is examining at the present time and any findings will be published in a future issue.

New Zip Code

Please note
APRO's new
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85712

Press Reports

The following are a representative selection of press reports which have reached this office within the last eight weeks. We would like to urge members and Field Investigators to forward clippings immediately after they have been found so that investigations can be undertaken within the shortest period of time.

On November 23rd, United Press International reported that England's Ministry of Defense is investigating a report that a UFO resembling a "fried egg" (yellow center and white around the outside) had flown over east London on the prior weekend.

The November 26 issue of the Algonquin College Paper at Ottawa, Ontario, Canada, featured a photo of what appeared to be two saucer-shaped objects in the sky. The date of the incident was not given but the paper stated that two students at the college had taken the picture just a few days before. Any member in that area is urged to follow this one up; at first glance the photo appears to be a good one.

The *Chicago Sun Times* for November 5, featured an article concerning the sighting of a UFO by Ron Swiderski at 11 p.m. on the previous Wednesday night. According to Swiderski, he had been adjusting his television antenna on his roof when he spotted the object in the southeast. He described it as looking like a bright star with many tiny stars around it. "The closest thing" (for comparison purposes) he said, "is a barge working the river at night with all its floodlights." As far as we have been able to discern, there were no other reports of a UFO in that area that night.

Quite a bit of newspaper space has been given to the report by Mohammed Ali (Cassius Clay), the controversial heavyweight and ex-world champion, who claims he saw a UFO at about 5 a.m. on the morning of December 1, 1970 while doing road work in Central Park, New York City. According to Clay, he and a United Press Sports writer who was with him, saw a brilliant "larger-than-star-size" light due east of Manhattan, and later Clay, the reporter and trainers watched a point of light streaking due north until it was obscured by trees.

On the same morning, a patrolman reported seeing a UFO hovering over Queens County, New York, but Police Headquarters told the press that no follow-up was planned.

The usual "star" explanations were tagged to this incident, but APRO Field Investigator Dick Ruhl is hard at work and his finalized report may indicate that something more exotic than an ordinary star was responsible for the furor. It is estimated that besides Clay, the reporter

and his trainers, policemen numbering in the hundreds, observed something unusual that night.

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More On Magnetic Models of Matter

By Dr. James A. Harder

This is another article by Dr. Harder, Professor of Civil Engineering at the University of California, Berkeley, and Consultant to APRO in Civil Engineering.

It was indeed interesting to find adjacent to my last article (in the Sept.-Oct. *Bulletin*) a comment by Dr. Robert W. Johnson on the Apache Junction Physical Evidence Case; please refer to it in reading the rest of this article. The fundamental magnetic unit of charge, as postulated by Professor Julian Schwinger of Harvard University and described in the Sept.-Oct. *Bulletin*, is enormously larger than the otherwise comparable unit of electrical charge (that of the electron); from quantum mechanical principles it should be 822 times as great, and the force between two oppositely charged elementary particles, if they exist, should be the square of this number times that of the force between the electron and a proton. Thus the forces that hold three "quarks" or "dions" together to form protons, neutrons, and electrons are on the order of fifty times the nuclear binding forces. This is an adequate explanation of why isolated magnetically charged particles have not yet been found, in spite of searches at several large particle accelerator laboratories.

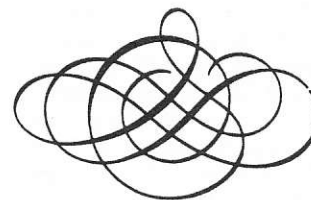
Were it possible to produce particles with a magnetic charge, which would be comparable to electrons, and somehow arrange for magnetic conductors for them (as we now arrange for conductors for electrons) one can imagine that enormously more powerful electrical machinery could be produced - sufficient to make some of the power handling capabilities reported in connection with

UFOs seem feasible.

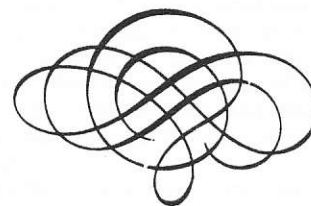
What kind of conductors would work? Are there any clues in the discovery that the Apache Junction artifact had an iron-manganese alloy wire core? Certainly a ferro-magnetic material would be a good conductor of the magnetic field, but we must remember that materials with a high dielectric constant (such as water and barium titanate) are not necessarily good conductors of electrons; thus materials with a high magnetic susceptibility, like iron, may not be good conductors of "magnetrons".

Further speculation, centered on the Apache Junction artifact: would a residue of magnetically charged particles interact with ordinary matter to produce the heat that melted the plastic box? Is calcite an insulator for such particles? Well, my speculation has gone far enough. *Bulletin* readers will no doubt supply more!

Next issue: What kinds of instrumentation could give us the most information about UFOs?



Beginning with this issue the A.P.R.O. *Bulletin* will contain nine pages of text instead of the previous eight, thus eliminating the need for a bulletin cover.



CORRECTION:

We would like to point out that an error was made in an article concerning APRO headquarters staff in our last issue. Mrs. Madeleine Cooper, our Membership Secretary is *not* a paid employee, but is one of the many volunteer workers to whom APRO is indebted for long hours of work keeping the correspondence flowing.