

THE UFO SURVEY OF BRAZIL - PART II

by *Olavo T. Fontes, M.D.*

Dr. Fontes here continues his detailed account of the visitations over Brazil in 1960. This article, and its predecessor which appeared in our March-April, 1961, issue, is reprinted with grateful acknowledgment to the *A.P.R.O. Bulletin* which is published from 4407, East Linden, Tucson, Arizona, U.S.A. This instalment appeared in their September, 1960, issue.

THE town of Acarau is located at the extreme north of Ceara State. At 7 p.m. on May 17, 1960, a strange green luminous sphere was observed in the northern sky. It approached at slow speed, hovered above the sea front of the town for about 30 seconds, then moved away to the south-east. Half an hour later, at exactly 7.30 p.m., a strange red glowing object approached the town from the west. As it came closer, it looked like a bright point of light (star-like), at the centre, enveloped in a kind of opaque halo. It passed over the sea, in front of the town, then stopped abruptly in mid-air. After remaining perfectly motionless for about 60 seconds, the object moved away to the east and disappeared. The sighting was witnessed by hundreds of observers from the town and surrounding areas.

If the coast of Ceara State is followed toward the south-east, a straight line starting at Acarau will pass exactly over the small town of Paracuru, ending in the suburbs of the State capital, Fortaleza. The events in the area of Paracuru were interesting for several reasons, but mostly because the UFOs involved were flying discs.

At 6.30 p.m., a farmer named Pedro Alves dos Santos was driving a herd of donkeys toward Paracuru along a dark road, with another member of his family. There was a starlit sky with no clouds. They were close to a small village called Taboleiro de Nazare, about 18 km. to the west of Paracuru (not shown on maps), when their attention was attracted to a strange phenomenon. There was a huge round-shaped craft silently following their caravan. It was a grey object with a bright blue light on top, flying very low. No sound came from it. It was a frightening spectacle, that "thing" following the caravan along the deserted road. The strange hunter tracked the group for about 18 km., always at the same dis-

tance, remaining in sight for about 20 minutes. Pedro reported the incident to the press: "I was travelling along the road, spotted that strange-looking 'airplane' with no wings, round in shape and appearing to be motionless in mid-air—watching us. At the end, it suddenly climbed up at tremendous speed and was gone," he said.

Meanwhile, at the same moment, a fishing boat with three people aboard was moving through the quiet sea, far from the coast. The sky was clear and cloudless; anything moving across the sky should be spotted easily from a large distance. Suddenly the attention of the fishermen was called to the strange-looking dark object that was coming down on the boat, out of nowhere. It stopped at 300 feet above the boat and became motionless, emitting a strong blue glow which illuminated the boat. There was no sound. It hovered over the frightened fishermen for about three minutes, then moved away toward Paracuru.

The incident at Paracuru

At exactly 7 p.m., more than one hundred excited citizens at Paracuru watched the appearance of a strange disc-shaped craft over the town. Flying about 600 feet above the ground, at low speed, the noiseless object manoeuvred over the town's main part in several directions. Once it even stopped in mid-air close to the town's church—in a strange tilted position. It was oval-shaped, almost circular, about 60 feet in diameter, and showed a smooth, polished dark-grey surface. There was a strong bluish light on top of it. After manoeuvring over the town for a long time, the disc-shaped object finally moved away at high speed and disappeared. This sighting caused fear, panic and hysteria among the residents of Paracuru and the surrounding area.

Others panicked when informed about the UFO's reappearance around that town about nine hours later—and about the landing that took place on a nearby beach at 4 a.m. on May 14.

At that early hour a fisherman, Raimundo Ursulino dos Santos, was leaving his residence to go to town about 8 km. away. He spotted *two* disc-shaped objects landed on a sandy hill of a nearby beach. The strange machines were aluminium in colour, and as he approached the beach Raimundo sighted *two beings of human appearance* outside the airships, talking with each other. They were *small* and very *pallid*. One of them was dressed in a blue suit and there was a kind of translucent glass-like helmet on their heads. Then one of them saw Raimundo, who had stopped, not believing what he was seeing. The being called him with gestures. The fisherman was too frightened to obey. He turned back and ran away as rapidly as possible, yelling for help. When he came back with other men, they found only the marks on the sand at the places the two discs had landed.

At 7.45 p.m. (May 13), while a flying disc was exploring the area of Paracuru, another one was hovering quietly over the outer limits of Fortaleza. It was spotted by a military jet plane from the Fortaleza Air Force Base. The pilot, Captain Frota, tried to intercept the UFO, but the "unknown" moved away in an evasive manoeuvre, at supersonic speed, and was gone in just a few seconds. The incident was kept secret by the authorities. It was not reported by the press. I obtained the information from a confidential source.

Many witnesses

At 8 p.m., a disc-shaped luminous object crossed the skies over Mombaca, Ceara. It appeared in the northern sky and was travelling from west to east. It seemed to be relatively small in size and was encircled by an eerie greenish glow. The phenomenon was watched by a large number of persons, including responsible citizens—Dr. Antonio Sisnando, Militao de Souza, Eduardo Evangelista, and many others.

There is a town called Petrolina at the extreme south of Pernambuco State, located at the northern margin of the Sao Francisco river, which marks, at that point, the frontier between the States of Pernambuco and Bahia. At the other side of the river and to the south of Petrolina, there is another town—Juazeiro—in Bahia territory. There is a very good UFO investigator living in the area; the Mayor of Petrolina, engineer Luiz Augusto Fernandez. Let us see his report about the events on the night of May 13:

“At 7 p.m., a strange luminous object was sighted in the skies of Petrolina by dozens of witnesses. Gliding silently through the sky, the UFO came from the north (or north-west) and was first seen about 10 degrees above the horizon. It was moving toward the north-east, at slow speed. It looked like a bright star encircled by a whitish mist (or cloud), which was almost circular in shape—having several other luminous points around it, not so bright. As that luminous mist approached the town it increased gradually in size, to become larger than the full moon. Then, when it was about 45 degrees to the north-east, it suddenly stopped in mid-air. The nebulous envelope vanished—remaining only the luminous points, which also began to lose their luminosity and finally disappeared into the darkness. The star-like nucleus remained in sight for a few minutes more, then was gone, just like a light that has been turned out. The phenomenon lasted for 12 minutes. The sky was clear and cloudless, and the visibility was perfect. The glow around the UFO didn't make any reflection—and this, together with the lack of noise, caused a vivid impression on all the observers. Incidentally, this was the fourth time that the passage of mysterious objects over Petrolina had been observed this year.”

The same object

According to the investigation made by Mayor Fernandez, the same (or similar) UFO was sighted that night over Juazeiro; also over Oeiras, far to the north-west, in the State of Piaui; also over Bonfim, State of Bahia—far to the south. According to travellers arriving at Petrolina during the following few days, this sighting was made at 6.35 p.m. The UFO was flying along a similar trajectory; from the north, toward the north-east.

The Petrolina observation was reported in the press, which also carried reports about the sighting of similar objects, that same night, over Salgueiro and Cabrobo, State of Pernambuco.

Incidentally, a straight line running from Petrolina toward the north-east will pass exactly over Cabrobo, Parelhas and Picui, State of Paraiba, and also over Macaiba, State of Rio Grande do Norte.

The Petrolina observation was very important. It was the only one reporting the presence of small luminous "points" around the larger object. They might be smaller craft flying around their huge "mother ship"—preparing to spread out in several different directions. They might be of the disc-shaped type reported from other areas. They were not seen around the cloudy objects

sighted from other locations that night.

That same night, a "ball of fire" was seen as it passed at high speed across the skies over Caninde and Marco, State of Ceara. A huge luminous sphere was observed over a farm around Morada Nova, also over Russas, moving at high speed. The State of Ceara was the obvious centre of UFO activity that night. The fact was discussed by a Fortaleza newspaper, *A Povo*, of May 17, which published a review of 13 sightings, including the ones briefly mentioned above. They concluded: "Unfortunately it is impossible to establish the trajectory of the object because the reports received from towns distant from each other, like Crateus, Redencao, Quixeramobim and Iguatu, state that the sighting occurred at 7 p.m. On the other hand, at Quixada the time was 6.45 p.m., at Acarau, 7.30 p.m., at Campos Sales, 6.30 p.m., and 8 p.m. at Mombaca. Besides, not even the chronological sequence of sightings could be used without danger of mistakes—for the directions or trajectories along which the object was flying do not coincide. The object was travelling either from north to south, either from east to west, or from west to east, according to the location considered—and this forced us to conclude it was making zigzags across the Ceara territory."

It seems evident to us that those newspapermen had never heard about a book entitled *Flying Saucers and the Straight-Line Mystery*, by the French author, Aimé Michel.

The meaning of orthoteny

To Aimé Michel, the students of UFO science must credit the discovery of orthoteny, a term suggested by the discoverer himself to mean "stretched in a straight line." Michel found that the places from which UFO sightings were reported for a given day, when plotted on a map of France, showed a very definite tendency to lie along straight lines. When sightings for a given day were unusually numerous, a network of such alignments could be discerned. Michel also observed that those alignments tended to cross at common points of intersection, called "stars," where three or more lines crossed each other (crossing of two lines was not considered a "star"); that those alignments—or arrangements of observations on a straight line—tended also to meet and end at terminal points, called "apices," where two or more lines met and ended. Michel believes that each network for a given day has a principal nexus point where many lines crossed, and that the phenomenon reported at these principal nexus points is uniformly a big cloudy flying cigar (or cigar-shaped UFO); and, conversely, wherever the big cigar is observed

standing still in a vertical position, that point will invariably prove to be the principal star of the day's network. But his more interesting discovery was the fact that the straight lines plotted on the map do not necessarily correspond to the uninterrupted trajectory of a single object: observations along a line are not as a rule arranged in chronological order (where they are the distances involved are usually short ones). Besides, the reported directions of movement almost always correspond with an orthotenic line passing through that point, from which the UFO's trajectory had been observed; for objects observed in the air, if the witnesses on the ground are not directly on the orthotenic line, they always locate the object seen in the direction of that line; for objects on the ground, they constitute the best aligned observations. Michel concluded that this phenomenon of straight-line alignments is ephemeral, seldom lasting for more than 24 hours—the "change-over point" apparently coming in the later hours of the night.

The sightings plotted

The unusual number of Brazilian UFO sightings on May 13, 1960, concentrated in the north-east, suggested a good opportunity to test the orthotenic theory. I decided to plot on the map the locations of 27 sightings reported in the press for that day (listed above), and to study the observations from the orthotenic point of view. In the absence of a gnomonic map of Brazil, I had to content myself, for the time being, with the nearest available approximation to represent the great circle lines of the earth's surface as straight lines. A map of Brazil, scale 1:5,000,000, of the Brazilian Institute of Geography and Statistics, on policonical projection, was used. The distortions involved, either of angles or distances or surfaces, are not too great so that the accuracy of lines drawn on this map was considered as more than sufficient for our purposes. Of course, to make a scientific study of the UFO phenomenon over larger distances, on a continental scale, the true gnomonic projection would have to be resorted to. But for an area not larger than the north-eastern region of my country this is not necessary.

In my preliminary study, only the cases reported in the Brazilian press were plotted on the map; the Fortaleza sighting was the only exception. Four observations were excluded because they correspond to very small villages (Acarape, Guaiuba, Marco and Barreira) not found on the map, all of them in the State of Ceara. There are 31 three-point alignments, four of four points, and one of five; they form a geo-

metrical pattern similar to the ones found by Aimé Michel. (See map in FLYING SAUCER REVIEW, March-April issue.) It is evident that this network of alignments confirms beyond any doubt the pattern found in the French observations in 1954. Of course, some of them might be accidental, but mere chance can never explain the geometric arrangement of the whole network. In fact, according to the studies of Alexander D. Mebane (from the Research Division, Civilian Saucer Intelligence of New York), pseudo-orthotenic patterns never show this orderly arrangement; they invariably have a jagged and irregular appearance. There can be no doubt: the pattern shown on the map is distinctly different from anything that chance could produce.

It is not necessary to discuss in detail the alignments and geometric figures drawn on the map. The reader can do it for himself on the basis of the data reported about each sighting included. Yet, it seems evident to anyone that the network established by those alignments appears to be somewhat incomplete. In fact, there are possible alignments (broken lines) which, if proved to be real, would make a much more perfect and regular network. These particular alignments are extremely important because—if the orthotenic theory is true—they can be predicted with absolute accuracy, even in the absence of the observations necessary to establish their reality. Why? For the following reasons:

1. Generally speaking, they correspond to the reported direction of movement of certain UFOs. Therefore, according to the orthotenic theory, they should correspond to real alignments passing over the places involved. If the theory is true . . .

2. The first broken line, for instance, corresponds to the trajectory of the greenish-luminous "sphere" that approached Acarau along a west-east trajectory, at 7.30 p.m. The second one refers to the UFO that came from the north, at 7 p.m., hovered above the sea in front of that same town for half a minute, then changed course and went away toward the south-east, along the straight line passing exactly over Redencao and Russas, where UFOs were spotted, too. If this three-point

alignment is prolonged still more, to the south-east, it will penetrate in the State of Rio Grande do Norte and meet there, exactly over the town of Currais Novos, with another possible alignment passing over Iguatu. From this last location, at 7 p.m., a UFO was observed, flying horizontally in an absolutely straight line—from west to east. If a single carefully-made observation is sufficient to establish the exact angular co-ordinates of an alignment—then the Iguatu observation must correspond to an orthotenic line running from west to east. A fourth possible alignment is suggested by the observation at Mombaca, where a flying disc was sighted at 8 p.m., travelling from west to the east; this straight line would pass also over Solonópolis, in the direction of Rio Grande do Norte—to intersect there, exactly over the town of Macaiba, with a fifty possible alignment coming from the south-east, from Petrolina and Cabrobo; as was said before, a UFO was seen over Petrolina at 7 p.m., coming from the north along the alignment Crateus, Petrolina, Juazeiro—then changed course toward the north-east, toward Cabrobo and Macaiba. Finally, if these last alignments are real, Macaiba would be an apex for the day's network; in such a case, a sixth possible alignment might exist to connect it with Russas and Caninde, where UFOs had been observed.

3. To conclude, if the possible alignments listed above were real, the day's network would be more complete from a geometrical point of view, spreading to the east to include the States of Rio Grande do Norte and Paraíba.

As a matter of fact, the scientific value of the predictions discussed above was established beyond any doubt. *All of the possible alignments suggested were confirmed later by factual evidence.* The only exception was the west-east line ending at Acarau, not yet proved to be real. This represents a startling demonstration of Michel's orthotenic theory. It also establishes the fact that we do not need three observations on a straight line to determine an alignment: *it is sufficient to have the exact angular co-ordinates on the UFO's trajectory.*

In our next issue, Dr. Fontes, having set out all the facts in his first two articles, sums up the situation and comes to a startling conclusion.

THE PRESENTATION OF PHOTOGRAPHIC REPORTS

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WE have read much about "traditional" scientists' view on the reality of unidentified flying objects, and much also on the validity of evidence that has been collected under "less than strictly scientific" conditions. Dr. Weber, in the Jan.-Feb. issue of the REVIEW, has pointed out many of the reasons why scientists hesitate to commit themselves on any aspect of a subject where reasonable control of conditions is impossible, and where admitted fraud has occurred.

But the enthusiasts who accept the existence of flying saucers often seem hurt when a scientist continues to be sceptical in the face of the so-called objective evidence provided by photographs, and for this we must blame, not the observer (who took the photograph), who is almost bound to be a layman, but the "expert investigator" of the observation, who so often presents an utterly inadequate analysis followed by a dogmatic assertion that his interpretation is correct. A scientist will always prefer to make his own, possibly inconclusive, assessment from the available information, than to accept the opinion of another who, with the best will in the world, may err in the handling of data on a subject on which he feels strongly (ref. 1).

The Jan.-Feb. issue also provides an excellent (or deplorable) example of such a report—that of Aimé Michel on the object photographed in Belgium. It is interesting to see what we get from an assessment of what is in front of us when we study the report. There are three photographs, obviously considerably enlarged. Presumably, as the order of the photographs is not known, they were taken with a roll film, not a 35-mm. camera (35-mm. film has edge numbers). We might then estimate the focal length of the lens as about ten centimetres. Working from the size and distance of the object given, we estimate that the image on the negative is about one millimetre long, and this must have been enlarged about fifteen times to give the photographs published. The grain of the photographs would support this.

The comments about the order in which the photographs were taken are confusing. If the observer states that the last photograph was taken with the object behind the vapour trail, this fixes photograph three as the last (assuming a truthful observer). That number two is said to be certainly the second indicates that the strip of film containing the negatives has not yet been cut up. If so, and if we can borrow the camera for an examination, we (if "we" are an experienced interpreter) should be able to determine the order.

The rest of the report is concerned mainly with descriptions of what has been said by experts. Such comments are not evidence; they are simply assertions. Any experts called in should be asked to sign their statements, and these statements must then be quoted in full. Unsigned statements infer insincerely held opinions and, if an expert is unwilling to sign any statement, one can only suggest finding another expert. It is true that people are likely to be cautious if they are required to sign statements, but this is no bad thing. For instance, if this author were asked to comment on the vapour trail in the photographs, he would probably content himself with photographing a vapour trail of about the same age, and presenting the photograph for comparison by readers.

Necessary details

Thus the amount of definite information obtainable from this report is small, if we work only from what is given. The reputation of the author is a guide to its validity, but it is not possible to judge the reputations of his anonymous collaborators. The frustrating aspect of such a report is that there is so much useful information that could have been included. What type of camera and lens were used? How big was the negative and how much of it was occupied by the image? Did the whole negative include the horizon? If so, we could calculate the elevation of the object, and so get an idea of its distance as well as its height. These and many other facts would have