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Unidentified Spherical Flying Objects in the Skies of Brazil on May 19, 1986

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Abstract

The night of May 19, 1986 was famous globally. As many as twenty one unknown objects were seen and tracked by ground radar and many jet airplanes over several states in southeastern Brazil. Unidentified radar returns were tracked by airports in São Paulo and the Integrated Air Defense & Air Traffic Control Center I (CINDACTA I) in Brasilia. Two F-5E and three Mirage jet fighters were scrambled from Santa Cruz AFB in Rio de Janeiro state, and Anápolis AFB in Goiás state. It was the first time that government authorities of any country published the existence in their air space of unidentified aerial phenomena. On that night, CINDACTA I radars that cover the whole Southeast Area, besides the Federal Capital of Brasil captured as many as twenty one unidentified plots, many of which demonstrated very uncommon flight profiles. In order to identify them five fighter aircrafts were scrambled Santa Cruz's Air bases, in Rio de Janeiro, and in Anápolis, in Goiás. This map (Figure 1) shows the area in the which the contacts, the location of the radars that made the contacts and the positions of the unidentified flying objects that were targeted and seen visually. Table 1 presents a resume of these events.



Figure 1. Region Where UAP were Detected

What impressed the Brazilian Air Force that night was not the fact that the objects that they couldn't identify were reported by numerous aircrew and ground radar installations nor that these phenomena were not predicted within their areas of military jurisdiction, but that a considerable number of unidentified contacts were occurring in different locations during the night. The speed and behavior of these signals were completely different from the signals that are normally seen on their radar screens. The objects were described as spherical in shape and a self-luminous white, green, or red (red-orange) in color.

"...I arrived close to the object, positioning me about six miles away from him, far enough to make a necessary verification, still at night. The object stopped moving in my direction and it began to climb. I didn't lose the initial radar contact and I started to climb with him. I continued following the contact up to about 30 thousand feet, when I lost my radar contact then I was just visual. But, at that moment, that strong light became confused a lot with the lights of the stars..."

This is the verbal report of one of the combat pilots of the Forca Aerea Brasileira (FAB) who was scrambled to intercept radar contacts with unidentifieds that invaded our air space on May 19, 1986. Over twenty years have passed since that enigmatic episode, without any further conclusive explanations on the subject. What really happened on that autumn night?

The First Sighting

On the night of May 19, 1986, the radars that control the Brazilian skies in São Paulo, Rio de Janeiro and Anápolis suddenly began to register strange things! Even until today the phenomena of those few frenzied hours have not been explained. Besides the operators of CINDACTA I radars, fighter pilots and civil aviation pilots participated in an attempt to identify these inexplicable (radar) plots; they succeeded with visual contacts, but even today there are no concrete explanations for what happened.

The situation had began at about 19:00 hours, when the Colonel Aviator Ozires Silva commanded what could be one of their last flights in an Embraer airplane, since he was leaving the presidency of the Embraer Company to assume the presidency of the state owned Petrobrás oil conglomerate.

After almost two hours piloting an Embraer Xingu airplane Colonel Silva and copilot Alcir Pereira da Silva were approaching the Wells of Caldas at 22 thousand feet altitude. They were surprised with a question radioed to them from CINDACTA I. The controller of the Center asked about a possible visual contact with three unidentified objects, that had appeared on their ground radar.

Not seeing anything they decided to maintain their vigilance as they approached São José dos Campos in the direction requested by the controller. Then they sighted something that looked like a star; it was a very strong light suspended in space. Its color was a yellow with tendency to the red... "not at all like stars or planes."

About 22:00 hours, the longer they approached the object, the more it vanished, until it disappearing entirely. Then they decided to fly east crossing the Aerodrome of São José dos Campos. They were now headed for a second object that was apparently located to the south of Taubaté.

Below their flight level and about 600 meters above the ground, they came across a new and bright source of light with the appearance of a fluorescent lamp. It was difficult to believe that the controller had that object in his radar because of its low altitude.¹ After about thirty minutes they gave up the chase and landed.

The night was clear in Vale do Paraíba. Vectored by flight control, a F-5E Fighter II of the First Group of Aviation took off from Santa Cruz's Air Base enabled its (post-combustion) afterburner and pursued a luminous red point suspended over the Atlantic ocean. Captain Aviator Márcio Brisola Jordão flew the F-5E, one of several that was scrambled in alert that night.

This event was just the beginning of a mysterious night, in which five fighters of the Brazilian Air Force were used in an attempt to identify these luminous spherical objects. This type of event is not usual, but the urgency in identifying the radar plots was decisive so that CINDACTA I decided to scramble the fighters that night.

The radar returns that the controllers were seeing on their screens at that moment didn't constitute commercial airplanes² nor clouds. Those radar screen "blips" were not generated inside the configurations of the computers of the Air Traffic Control as a habitual radar return so the situation was coordinated by CINDACTA I immediately in Brasília; they transmitted the information to the Center of Operations of Aerospace (CODA) Defense.

It was 21h20m when the Chief of CODA, then Major Aviator Ney Antunes Cerqueira, (he had already been informed about the occurrences) arrived at the Center of Military (COpM) Operations. His first action was to activate an airplane standing alert at Santa Cruz's Air Base, in Rio de Janeiro, so that it might intercept the unidentified object immediately.

In Rio de Janeiro, the pilot of the alert jet was Lieutenant Aviator Kleber Marinho³. Later he wrote, "As alert pilot on that day, I was contacted by the permanent official, in the Town of the Officials. The last information (that I was given)⁴ was only that the (other) alert pilot had been scrambled and then, for (reasons of) doctrine and training, I went directly to my airplane and only after takeoff did I receive the specific instructions required for my mission. Alert pilots don't need to fill out the paperwork of a normal flight. The airplane is already prepared for the takeoff."

With the engines roaring, the F-5E took off heading for the mantle of the night. It was then 22h10m. At the same time another object was detected to the northeast of Anápolis, in the State of Goiás, and a fighter pilot based in the Air base of that city was also scrambled. The first to take off in an F-103 Mirage was Captain Aviator Rodolfo da Silva Souza.

It is important to stress that the radars at that time were developed to detect objects of at least two square meters area, i.e., they did not have a resolution that would allow the proper identification of the actual size of the targets.

¹ At this point it was only 250 km from the radar antenna at Sorocaba.

² All commercial airplanes are required to have transponders that positively identify them on radar.

³ Today he is First-Lieutenant of the Reserve Squadron with 250 hours flown in the F-5 fighter and a total of 900 hours in the Air Force:

⁴ Inserts in parentheses added by Editor for clarification.

At the Santa Cruz Air Base, a second airplane was scrambled. "It was a tremendous coincidence", said Captain Márcio Brisola Jordão, the second pilot of an F-5E to take off that night. "I was not flying because of the alert but I was already at Santa Cruz to conduct certain flight training procedures. When the alert came through, I thought that it was related to training and I continued studying, until someone came with the information that they needed another pilot to fly. He only said that there was some situation of detection of contacts ignored in the radar and that the refueled aircraft should be scrambled."

"We always have an airplane armed and prepared", Jordão said, "in this case, who was not prepared? It was me, the pilot! But because I was in that squadron I went. Kleber was the first. For us, it was a normal training, but, with the evolution of the situation, another F-5E was (also) scrambled."

Before taking off, Captain Jordão called the Center of Military Operations in Brasília, to find out what was happening. The information was that the radar systems were plotting numerous radar contacts in different positions of the Brazilian sky, and it was with the expectation of contacting some of these objects, that he took off at about 23h15m. The order given to the pilots was to intercept without assuming an aggressive posture. In these cases, it is standard procedure, we take off armed with cannons but without the intention of using them.

Two more aircraft piloted by Captain Armindo Souza Viriato de Freitas and Captain Júlio César Rozenberg took off from the Air base at Anápolis, totaling five different interception attempts.

"The takeoff was normal, I was around 20 thousand feet (altitude and travelling) in the direction of São José dos Campos. For the orientation of the aerial defense, I turned off all of my on-board equipment: radar, navigation lights, etc.⁵ I was just linked with them by communication radio", recounted Lieutenant Kleber. He continued, "As the objects didn't possess any means to transmit any electromagnetic wave energy, it was not possible to know their altitude. The only orientation that was given to me was that I should try to make visual contact."

"In agreement with the radars of Brasília,⁶ I should look at my 2 o'clock and 11 o'clock high and low positions. But I didn't see anything (there)." When closer to São José dos Campos, the radar controller started to give more incisive instructions so that the pilot looked to his left: "I was well above the factory of Embraer and had sighted nothing until then. Because of numerous radar targets detected on my left, the controller asked me to do a curve to the right and back towards Santa Cruz, with 180 deg. Turn."

As soon as he settled down in this curve Lieutenant Kleber was instructed to look to his right,⁷ and yet still did not see anything. As the controller had the objects on the radar, he instructed the pilot to fly over the (location of the) radar targets, with the nose heading away from the sea: "I made the curve, I stabilized the aircraft on the heading that he had recommended and, as requested, I began to do a visual sweep. It was at this time that I

⁵ The exact meaning of this statement is unclear. (Ed.)

⁶ One source (Hall, 1988) stated that ground control initially vectored de Freitas toward 10 to 13 unidentified targets at a distance of 20 miles.

⁷ Hall (1988) stated that ground radar personnel saw six targets stationed on one side of his airplane and seven on the other that (all) later followed his airplane at a distance of 2 miles.

sighted a very intense light that was brighter than all the lights along the coast. It was a little lower than I was. The clear impression that I had at that moment was that the object moved from the right to the left."

Night vision is very critical because it can leave the pilot (with) a series of evaluation mistakes and the F-5E doesn't possess an auto-pilot. Lieutenant Kleber was very careful in stabilizing the aircraft at that time. "I looked at that light; its movement was very evident for me."

"I asked the Aerial Defense Command if there was traffic in that section at that time, due to the proximity with a commercial air route called the "ponte-aerea" between Rio de Janeiro and São Paulo. I was informed that there was no commercial traffic. Aircraft didn't exist in that locale or at that hour... Then I told the controller that I was really seeing a light moving in my interception route, at the 2 o'clock position (to my right), a little lower than the altitude of my aircraft. It was at that moment that I could gain a notion of the height of the contact, something around 17 thousand feet. Immediately I received the intercept instruction to continue with the approach and his possible identification."

Then Lieutenant Kleber activated the afterburner of his F-5E, reaching supersonic speed and he began to go towards the light that remained visible on the horizon: There "... was not a long time to think, nor to feel fear. It is the adrenaline that works at that time. You have the airplane to fly, it is a supersonic night flight and (one is) subject to space disorientation. I admit that I don't have exact memories of my feelings at that moment. The only thing that I knew was that I had to climb above the object and, as the things were going and due to our training, my reactions were a little automatic... I began to descend, going directly toward the object, but being on the whole careful and considering the possibility of an optical illusion, due to the darkness. I could be seeing a light under water, a large ship with a spotlight or any other thing. For this reason I didn't want to rely only on my visual impressions so (I) tried my radar, even without instruction to do so. And, really, at about 8 to 12 miles away, an object appeared on the screen, confirming the presence of something solid in front of me. This coincided with the direction of the light that I had sighted visually. In the radar systems that equipped the fighters of that time, the size of the plot is in general agreement with the size of the contact. The radar indicated an object of about 1 centimeter (screen image size), that means something in the span of a Jumbo (Boeing 747)."

"I arrived close to the object, positioning me about six miles away from him; this is still far enough away so that I can accomplish a necessary verification at night. The object stopped moving in my direction and it began to climb. I didn't lose my initial radar contact and I started to climb with him. I continued following the contact up to about 30 thousand feet, when I lost the radar contact; I could still see it. But then the strong light became merged with the lights of the stars."

"My navigation radios (selected for Santa Cruz) were already out of reach. At a certain moment, the needles of my ADF (See Glossary no. 1) stopped indicating direction (but pointed only forward) and they indicated my own heading. The instrument panel's distance measuring equipment (DME) window (see Glossary no. 2) showed a flag and indicated 30 (fixed) miles, without any reason. My fuel level was already showing in the (lower) limit, due to the great consumption of the supersonic speeds and so I had to return (to the air base). In less than a minute (now flying toward Santa Cruz) my ADF again stopped providing correct information and the DME flag remained hidden.

Already at the Anapolis Air Base, inside Goiás, a similar situation was about to happen. The alert pilot that night was Silva's Captain Aviator Rodolfo and Souza (he possessed at that time about 500 hours of F-103 flight time). He was at his home at the moment the alert call came in.

The bip⁸ that he carried emitted a call sign and a message of the alert that had been authorized at about 23:00 hours. The pilot drove immediately to the air base. Later he wrote, "When I arrived I went, together with the other members of the alert team, immediately to the hangars, where two F-103E aircraft were positioned. The maintenance team had already completed their work and (were) waiting for us at the foot of the stairway, with the aircraft armed and ready for the takeoff. I completed the checks for takeoff and I got in touch with the Official of Operations (OPO) Permanence to inform him that I was ready. Immediately, I received the order to start the engine and to take off alone. The second airplane remained on the ground in the alert state.

When beginning the taxi, Captain Rodolfo got in touch with the control tower. He received instructions to curve, after takeoff, toward the northwest section of the aerodrome, and begin his ascent at maximum speed for the flight level 200 (20,000 feet): "Soon afterwards, I made contact with Anápolis. They immediately passed me to the frequency of COpM that would control the interception. The first information that I received was that my objective was at a distance of 100 miles of my present position. I did notice that the weather was good, there were no clouds and the Moon wasn't visible. The sky, completely starry, made a beautiful counterpoint with the darkness of the night."

When I was informed that the object was already within reach of my on-board radar, Captain Rodolfo started to observe the screen intently, looking for the plot to indicate its presence. But nothing appeared. The distance [to the object(s)] decreased and as it did we didn't get contact on my board radar, at the same time I started to accomplish a visual search in the air space around the informed position I had received from the COpM. Once again, nothing appeared."

The pilot was in a situation of confused plots. This occurs when one is flying and an object is the less than a mile away and there (still) is no visual contact. Captain Rodolfo received instructions to enter into an orbit about the point where the object was supposed to be, and to continue the search. He wrote that he was... "still in that procedure, without success, when I received the controller's information that the unidentified object had changed its position and was now in another location some 50 miles away! Then I received instructions for that new interception."

When he reached the place where the object supposedly should be, there was no contact by the on-board radar nor did he see anything. The given orientation was such that the pilot descended altitude and went into another orbit in search of some visual contact with the object. "Without success in that procedure, I was again informed of another change in the position of the object and I received new instructions for a third interception."

"Once again, there was not any radar or visual contact. I was commanded to descend still more, staying in orbit around a certain point, and continue the search. After remaining there some time continuing in that search, and in view of the fact that my fuel level was running

⁸ Pilots carried special equipment (called "bip") allowing them to be contacted in an emergency.

low (it reached a level just allowing my safe return to the aerodrome), I received instructions to return."

At about 22h45m, therefore a little after Captain Rodolfo's Mirage took off from Anápolis, Captain Armindo de Souza Viriato de Freitas, piloting another F-103, took off. In agreement with reports, contact with the object was made by his on-board radar but with no visual contact. What surprised the pilot most was the incredible speed of the object, and its sudden disappearance.

Without seeing anything, after a few minutes Captain Rodolfo's Mirage⁹ landed at the air base at Anápolis (Goias State). Later he wrote, "After I landed I made a phone call to my controller as part of a routine debriefing of the mission. Only then did I become aware of the other F-103 that they had sent aloft. It took off after me, for the verification of several radar contacts, plotted on CINDACTA I screens, at locations different from the Midwestern Region.

"When finishing the procedures I filed a report about the incidents. I was liberated and authorized to return home, where I arrived at about 1h30m. One hour later, I was wakened by a new alert call through the bip. It was another alert."

"When arriving at the Base and entering once again in contact with CoPM for a flight orientation this time it was such that the alert was maintained and the aircraft was ready for takeoff. My airplane and the second one remained like this for about 45 minutes. Almost at 4:00 o'clock in the morning, we received the information that the alert was suspended, and we were liberated."

The second pilot to take off from Santa Cruz's Air Base, did so at about 23h15m. It was Captain Márcio Brisola Jordão who reported his personal experience as follows. "The thing that got my attention that night was the clarity of the sky. I had never seen one night so egg white. The night was so bright that one could drive an automobile on the road without even needing headlights. I was able to see the Vale do Paraíba all the way to São Paulo. There were no clouds. It was possible to see the outline of the mountains in the ground. I have seldom flown in such clear conditions."

"Going towards São José dos Campos, I was instructed by Brasília to do an armament check. It was there that they informed me that there were about five contacts in front of me, at about 15 miles distance. I didn't see anything on the radar nor outside, but the information was that they were approaching me closer and closer. Ten miles, five miles, three miles, and I thought that it was not possible, on such an exceptionally clear night not to be seeing such a contact."

The controller then informed the pilot of F-5E, "Now they are behind you, accompanying you, as if they were in your line". But the pilot still didn't see anything.

"I had authorization to do a 180, and I continued without seeing anything. I went to São José dos Campos, flying at about 15 thousand feet, and I began to do orbits (there). I called Kleber on our tactical (radio) frequency to know if he had sighted something. He said "yes, but that, when he tried to go behind it, the contact disappeared."

⁹ This jet interceptor was equipped both with Sidewinger and Martra missiles.

"When I was above São José dos Campos, I looked towards to Ilha Bela and, for the first time, I saw a light red that had stopped. For me, it was at the level of the horizon, but I was looking at the ocean; I thought that it could be a boat very far away, or some other type of illumination source. It looked something like the anti-collision beacons used on the top of buildings at night. The light did not move, change color, or blink. I informed the (flight) control that I was seeing a light ahead of me, 90 degrees towards the ocean. They confirmed that their radar also showed the object in that position. I was instructed to go in that direction."

"I accelerated to supersonic speed; the light didn't move. I was told that it was moving at the same speed as I was. I continued maintaining this navigation until reaching my minimum fuel (level), and so I had to return. For me, that take off with the expectation given to me by Brasília, it was the greatest frustration of my life. The light that I saw could be a boat in the horizon or, who knows, to be same some other thing. But it is frivolous to try to arrive at any definite conclusion."

In Anápolis, a fifth pilot also participated in the interception mission, Captain Aviator Júlio César Rozenberg, at that time with 1,900 hours of flight time in his fighter aircraft, a Mirage 550. "It was a normal day in the First Group of Aerial Defense, until that hour near dawn when that blip appeared. The alert had gone off. I was sleeping and I got up without knowing what time it was. It was just part of the normal routine. I got dressed and (while driving on) the road of the air base I was questioning myself that would be just one more test."

"I hoped to fly, after all, there is nothing more annoying than to go to the alert airplane hangar and then be released. We must consider every mission of the Aerial Defense as a real one even if it is canceled, so I put on my anti-g flight suit and vest and the mechanic confirmed that the aircraft was ready. The airplane was also ready and fully armed with weapons. Only 22 minutes had elapsed since the alert had been given. I got ready to take off only imagining what might happen."

"Because of the proximity (of the radar contact) with Brasília,¹⁰ I imagined that the alert was probably related to some commercial flight, so if I went, I would have sighted the jet's anti-collision lights. I took off and followed all of the controller's commands. The night was beautiful, with limitless visibility. It was possible to see everything there below, from the cities to the lights of the cars."

"I was instructed to climb. I verified the onboard radar once again and I went down a little (and) the swept the antenna of my radar back and forth. I continued to cross check the onboard radar with something visible. A ground controller told me that the object was only three miles away and I continued without seeing anything. I thought that they (probably) were F-5E airplanes of the Fighter Group coming to attack the Base as part of a training mission."

"I asked the controller for permission to approach (the radar plot location) still more until the plots (the object and my own airplane) were "confused as , I arrived from behind. I thought the contact would leave. Finally I turned on my lights. After all, they should be hearing the interception the (radio) channel of the Aerial Defense. Ground control announced (it was) a mile ahead, but I didn't have anything on my radar and I still didn't see anything..

¹⁰ Brasilia is the Capitol of Brasil and has a busy International airport.

My flight lasted about 30 minutes and, after the search attempts, I returned to the air base, without making any kind of contact." At about 3:00 in the morning everything calmed down at the various air bases of the country when, seemingly, the Brazilian skies were frequented by nothing more than a cargo flight of Varig, that had taken off from the Guarulhos Airport at São Paulo bound for the Galeão Airport at Rio de Janeiro.

The Commander of Boeing 707 cargo ship, Geraldo Souza Pinto, copilot Nivaldo Barbosa and Guntzel, Flight Engineer and Captain Aviator Oscar Machado Júnior,¹¹ didn't have any idea of what was happening. Later Commander Pinto wrote, "When we crossed about 12 thousand feet, CINDACTA I called us on the radio and asked if we confirmed that we saw some visual traffic at our 11 o'clock position. It is normal that this happens, but I found it strange that after we answered negatively he said, "For your information we have a UFO (Unidentified Flying Object) at that location."

"We looked at each other, thinking that we had not correctly understood what we had heard over the radio; we asked that the information be repeated. The control confirmed the information and said that beginning at about 22:00 hours that night unidentified objects were appearing as plots on their radar. It was then that we realized that the Air force had already been working (the situation). At that hour I admit that I felt an indescribable emotion."

"We asked if the contact was on their radar and the answer was positive. The controller told us that, "... the position of the unknowns was, at that moment, at the 11 o'clock position relative to our own aircraft and he asked if we could see it. It was at this position that I saw it. A very strong light shone, a white light. The emotion that I have even until today I get confused with the certainty that he (the object) was listening in to our conversation over the radio. At the same moment that the ground control asked us if we were seeing the traffic and I answered, the object blinked, so to speak (to say): I am "here!"

"We didn't have any notion of the altitude of the traffic, because the radars of the commercial airplanes are meteorological and different from those installed on fighter airplanes. We have a lot of difficulty detecting another aircraft. They are not made for that purpose. The controller also could not know the altitude of the object since, without a transponder, everything that he sees is an only a two-dimensional point of the radar, without altitude."

"The object was close to Santa Cruz and our distance was around 90 miles away. The one thing that I can say is that he (the object) was, visually, some 20 degrees higher than us. We reached our cruise altitude of 23,000 feet and during the remainder of our flight the air traffic controller was telling us of the position of the lights in real time.

The crew members of the Boeing airplane lowered their cockpit lights and turned their external (landing) lights on looking for the contact visually. We were, "four crew members in the dark cockpit of an airplane cargo ship, expecting to see the lights and find an explanation for what might have approached our 707. Suddenly, I looked at Nivaldo and saw his facial expression as if he wanted to show me some thing. He said that he saw something outside the cockpit that left a luminous trace but it could be a meteorite which would be very common."

¹¹ At this time he served in the 2°/2° GT and was in flight instruction for the B-707.

"Then the controller informed us that the object had suddenly moved to our right at a very high rate of speed, reaching in a fraction of a second, an incredible speed, something above Mach 5. A human being could not tolerate an acceleration of this magnitude. He would die with such displacement." The object, at this time, disappeared right to the side, and later it went back exactly in front of our airplane, but at a smaller distance (than before). According to the pilot, "We were some 30 miles from the object. The impression that we had was that the contact was (now) moving at a low speed, and that we were approaching him."

"The approach continued. The radar continued to inform us of the (separation) distances: fifteen miles, ten, five... In the best of the hypotheses we would enter for the History!", Commander Souza Pinto plays. "But I looked, he looked and didn't see anything else. Then the controller said: 'Three miles, two, ah... Varig, the traffic is merging with the plot of your (own) airplane.' We looked upward, down and we didn't see anything! We were told by ground control that the object was passing behind our aircraft, but his transmission began to have a lot of interference and the radar lost him of view."

Discussion

This whole case was discussed openly by high ranking government officials. It was first reported by Colonel (Ret.) Ozires Silva, president of the state-owned oil company Petrobrás, who was flying the executive Xingu jet mentioned above, when he and the pilot saw and pursued unidentified objects for about 25 minutes. The incident was covered widely in the Brazilian media, leading to a press conference at the Ministry of Aeronautics in Brasilia on May 23, with air traffic controllers and air force pilots who were involved in the scramble mission.

The Minister of Aeronautics, Brigadier General Otávio Moreira Lima, was very outspoken. He said, "Between 20:00 hrs. (5/19) and 01:00 hrs. (5/20) at least 20 objects were detected by Brazilian radars. They saturated the radars and interrupted traffic in the area. Each time that radar detected unidentified objects, fighters took off for intercept. Radar detects only solid metallic bodies and heavy (mass) clouds. There were no clouds nor conventional aircraft in the region. The sky was clear. Radar doesn't have optical illusions."

"We can only give technical explanations and we don't have them. It would be very difficult for us to talk about the hypothesis of an electronic war. It's very remote and it's not the case here in Brazil. It's fantastic. The signals on the radar were quite clear." The Minister also announced that a commission would study the incident.

Air Force Major Ney Cerqueira, in charge of the Air Defense Operations Center (CODA), was equally candid. He said, "We don't have technical operational conditions to explain it. The appearance and disappearance of these objects on the radar screens are unexplained. They are Unidentified Aerial Movements.... The technical instruments used for the identification of the lights had problems in registering them. CODA activated two F-5E and three Mirages to identify the objects. One F-5E and one Mirage remained grounded on alert. A similar case occurred four years ago [the Commander Brito VASP airliner radar-visual incident in 1982]. The lights were moving at a speed ranging between 250 and 1,500 km./hr. [150 to 1,000 mph] The Air Force has not closed the case."

An Aeronautics Commission report was not released. However, the accounts of air force pilots and radar controllers were published widely in the press and later studied by Brazilian

researchers. A comprehensive report was made by Capt. Basílio Baranoff, an airline captain, member of the ATC

These are the basic known facts surrounding the multiple UFO/UAP jet scramble incidents over southeastern Brazil on the night of May 19-20, 1986. It is noteworthy that Captain Baranoff added that "two nights after, ten to eleven unidentified luminous objects returned for a new round over São José dos Campos; they were observed visually and detected by the São Paulo, ACC-BR and by CINDACTA 1 radars". At this time there was no official confirmation from Air Force authorities. Lacking the final Ministry Commission report with all the pertinent data, it is difficult to make a final conclusion about this case. Many hypotheses were offered in the Brazilian media by skeptical astronomers and scientists, ranging from a meteor shower, a reflection of the full moon and ball lightning, to radar malfunction, space debris and spy planes. Most of these explanations seem quite insufficient to explain the events of May 19. One of the more plausible explanations was one offered by British space researcher Geoffrey Perry. According to Perry, the Soviet space station Salyut-7 ejected several boxes of debris on that night, which re-entered the earth's atmosphere around central-western Brazil. The re-entry of NASA's Solarwind satellite was also discussed in the Brazilian press.

However, Brigadier José Cavalcanti from Brazil's Air Defense Command, was not impressed with the Salyut-7 and Solarwind explanations. He told the weekly magazine *Veja*: "It could have been space debris, but it wasn't only that. A metallic box with space debris can be detected by radar, but it will always fall in the same direction and at constant velocity. That was not the case of what was seen in Brazil, where the objects detected by radar had speeds that varied from very slow to extremely high."

Another interesting view is the final comment in a short message from the USDAO (U.S. Defense Attaché Office) in Rio to DIA (Defense Intelligence Agency) on the subject, entitled "BAF [Brazilian Air Force] has a Close Encounter of the First Kind":

Comment

Three visual sightings and positive radar contact from three different types of radar systems, leads one to believe that something arrived over Brazil the night of 19 May. Pilots or ground personnel reports no EMI effects due UFO/UAP presence.

Conclusions

Two decades have passed since the "Night of UFO's" as it has come to be known. Nobody has arrived at any scientific conclusion about what happened. The considerations of those who lived this experience perhaps are in the best position to evaluate the facts and of reaching their own conclusions. What flew over the Brazilian territory on that night will probably continue to be a mystery for many years.

The Minister of Brazilian Aeronautics at that time, Brigadier Octávio Júlio Moreira Lima, said that even until today, even with the pilots' reports and those of the controllers, no one has reached a definitive conclusion. There are a lot of hypotheses. It might have been an electromagnetic phenomenon, any interference, but the situation continues indefinite. I only find it important to remind us that optical illusions don't register on radar!"

"Yes, pilots still at night, are subject to fantastic optical illusions. Flying over water, for instance, you see the sky there below, so that he has to fly on (the basis of) instruments. There are many reported cases where strange things have been seen, but most of them are really imaginative. Authorities have to be very careful to not turn something that is already alarming into a critical situation."

"When somebody comes across a (radar) contact, they inform the air traffic, who report it to the integrated centers, located in Curitiba (PR), in Brasília (DF), in Recife (PE), and in the Amazonian. These centers are in permanent communication. Everything is automated. I was informed immediately. When a situation happens of this kind the General Command of the Air soon (thereafter) gives science information to the Minister. Only then are interception procedures enabled."

"And as soon as it happens the fighters take off with a verification order. At any moment an aggressive posture is maintained. How could we shoot at something that has been ignored? The lights were plotted on the radar and we had to try to identify them. That concern doesn't exist with missiles taking off as (occurs) in the films. Our permanent airplanes usually have armed cannons. They are (ready) 24 hours a day with the pilots at the ready; they can be launched in minutes but, initially, without an order to shot."

The opinions about the facts vary from person to person. The same is true for those who didn't have any visual contact (with the phenomena) at all. They have their own ideas. This is the case of Captain Júlio César Rozenberg, today Colonel in the Air Force Reserve, who later wrote in hearing the strange reports: "The following day, I saw the headline news on television and (heard) on the radio about several interceptions of UFO's that happened during the previous night. Although the (other) pilots talked about their great interest in these UFO incidents I didn't see anything. But I arrived close (to their locale). I think about these (objects), in an infinite Universe, with several possibilities, why do we have to be alone?"

Brigadier Moreira Lima expressed similar thoughts: "A lot of times I am asked if I believe or not in the presence of unidentified flying objects on that night", revealed the Brigadier. "I don't believe nor do I discredit, therefore, as far as the Universe (is concerned) there is something besides our understanding. There arrives a point in which things extrapolate our understanding and it is like this that the speculations begin. I always say the following, we are products of the Universe. Products chemical, physical, of all forms. Will it be that this product only exists here on the Earth? There are trillions of stars and planets thereabout."

Lieutenant Kleber, today an official in the air force reserve and flying for Varig as a commander, even after having made his report, he admitted that he did not come to any conclusion about it. "I had visual contact and electronic contact. It was something solid. They say that in that place there is a lot of magnetic anomalies, but I don't believe that is what it was. These anomalies had irregular, random movements... In my report, I asked that it should be determined whether or not there was some aircraft carrier near to the coast or some aircraft that could be flying in our air space, making electronic counter-measures, one that put a plot on the radars."

"Anything than I (had) presumed was confirmed. Since then, to affirm that I believe in UFO's, or that it was in fact a UFO, is already another thing. Each person will have his own opinion about it. I think that the Universe is very big and some believe that only we exist in it. It would be very selfish on our part to believe that, but the truth is that we're on a very

tenuous line. That was the position that I held at that time (along with) my personal convictions. So I prefer to refer just to the technical part."

Who accompanied (us in the air) and who participated at the backstage of history before the screens of the radars? As Major Aviator Ney Antunes Cerqueira, Colonel in the Air Force Reserve, has said, there was something (flying) over Brazil that night: Only we cannot "affirm what it was. But, by the coincidence of detections by different (ground) radars and simultaneously the detection by on-board radar, we cannot deny the existence of something. It so happened that we didn't have technical means to verify the identity of the objects in spite of the visual contact that the pilots made."

"How to explain, for instance, the instruments on board the F-5E airplane, that were affected during the close encounter? The radio, however, it didn't suffer anything, and the communication was maintained the whole time."

"There were, besides, the radio tapes containing the conversations between controllers and pilots. They were analyzed exhaustively. A report was also made, at that time, but I cannot affirm where the tapes are now. Probably they don't exist anymore. When I left the position of Chief of CODA, the investigations had already been closed.

"Analyzing (these incidents) as a technician of our nation's Aerial Defense, because during this era the function that I carried out, I can say, is that we only worked with what was real. After everything that has happened I always confirm the presence of the objects. If we remove the conclusion of technical analysis, even after evaluating the recordings of the radar equipment at Brasília, Santa Cruz and Pick of Couto, in Petrópolis, it is possible to verify that a strange event really happened."

"For a time the object stopped in the sky then it developed speeds above Mach 3. The variations were sometimes instantaneous, other times more gradual. The objects surrounded the aircraft and they changed direction in relation to them. These movements didn't allow closer approaches (to be made). Everything that was sighted were lights with intense variations. I even could say that, in some way, they wanted, yes, to be seen. Then, it is still the unknown. That it existed, it existed. Something? I cannot affirm. But they are events that embed themselves in people's minds because they are very uncommon facts. Me, with certainty, I won't ever forget about that May 19th."

The Commander of the Boeing cargo airplane, Geraldo Souza Pinto, after having made his (official) report, was not asked to give any explanation. Later he said, "Most of the people don't know that at 3:00 o'clock (in the morning) an object was still up there. Actually, a lot of people don't like to talk about that, but the thing that I saw was (there). Sincerely, I find it a privilege!" he said. He also confirmed the fact that pilots face a lot of optical illusions: "I got tired of seeing Venus appearing deformed and a lot of people think it is a UFO. The airplane flies through different air densities and this causes refraction effects, and the things seem to be moving or changing in (various) ways."

"That time, however, there was the confirmation in the radar system, which is the proof that it was not an illusion. Could it be an airplane? In the beginning I thought "yes." It could be a smuggler, an espionage airplane, I don't know."

"At that time, there were several interviews with people of different backgrounds, each one trying to explain in agreement with their own field of knowledge, usually attributing to the phenomena physical, chemical or spiritual extents. Even so, I myself am not convinced. And that acceleration? The necessary location ahead of us? The contact radar? The "coincidence" of becoming visible just when radio contact was made? (It) doesn't fit. It was really something out of our understanding. It could be from another planet, of here, of the Earth even, finally, it remains to me at least just to end (my views), that it was an Unidentified Flying Object, an UFO" said the commander.

For Brigadier Moreira Lima, his clear manner of talking about the subject - after all, he was one of the first world authorities to assume the presence of UFO's openly - was one of the main reasons for the appearance of so much speculation: he said, "I said that I would hold a press conference and I did. I told what I knew, what in fact happened to me, and that even to today I cannot explain. Who knows... one day...."

"In the age of cannibals, lightning was a form of information of the gods. I think for everything an explanation exists, but I should assume that the displacement of those lights was really absurd and it is very difficult to understand. We can imagine anything. I should admit that, in that aspect, I am a little skeptical, I don't impress myself easily. If the (field of) physics doesn't explain them today with certainty, it will explain them tomorrow."

And us, simple earthlings, we will be waiting!

Table 1

Resume of Sequence of the Events

May 19, 1986:

18h30m: First visual sightings by control TWR personnel at the APP-SJ (São Paulo state). Controllers notice two intense red-orange lights aligned with the runway axis at 330 degrees azimuth and approximately 15 Km (10 miles) distance from the TWR and at 2000 meters (6.561 feet). Observed by binoculars the UAP's have defined borders and color variations in red-blue and intense white.

19h00m: The São Paulo TWR (APP-SP) and Brasília TWR (ACC-SP) confirms to São José dos Campos (APP-SJ) the presence of tree primary targets (TRÁFEGO HOTEL) in radar scope, unknown in origin (no transponder identification). Also, there is no aircraft traffic scheduled in those areas

19h40m: APP-SJ make visual contact of more two luminous UAP's moving from North to East who aligned with airport track, in azimuth 330° stopping above the two first UAP's. Then, the four UAP's stay aligned with airport track for a long time

20h00m: The APP-SJ, APP-SP and CINDACTA I detects up to eight targets (echoes) on its screens.

20h30m: the APP-SJ call CINDACTA I due the various radar and visual targets unknown in origin. In this moment another "big" UAP target appear in radial 120°, above the horizon line. This UAP have a defined border and color red-orange. The UAP approaches about 20 km of the APP-SJ TWR and then retreats

21h00m: civil aircraft Xingu PP-MBZ (EMBRAER) piloted by Commanding Alcir Pereira da Silva, ask APP-SJ for landing instructions. Aboard the aircraft was also Cel. Ozires Silva (ex-Petrobras and Varig president and founder/president of EMBRAER). The aircraft is interrogated by APP-SJ for unknown traffic. The aircraft confirms that they made a visual contact with intense luminous UAP at azimuth 330° (this UAP is the same radar target confirmed by APP-BR, APP-SP and CINDACTA I). The aircraft try to follow UAP for 10 minutes without success, because the UAP disappeared “instantly”

21h10m: the civil aircraft Xingu return to airport for landing when new “big” UAP at azimuth 290° heads toward. The UAP was very red brilliant and moving slowly in direction of Mogi das Cruzes (city in state of São Paulo) and when UAP approach of APP-SP, disappear. In this moment, the APP-SP informs two echo-radar: the civil aircraft Xingu and one UAP. After 15 minutes, the UAP disappear of the radar scope

21h20m: the civil aircraft Xingu return to second landing maneuver when APP-SP informs the existence of one UAP in course 180° to South. The Xingu made visual contact with UAP and try to follow. The UAP has red color and disappear in a few minutes. The ACC-BR informs the Air Defense Command about the situation

21h30m: the civil aircraft Xingu return to third landing maneuver by south-southwest of APP-SJ when ACC-BR alerts the TWR of APP-SJ of the existence of some UAP's to 30 Km. The Xingu was at 3000 meters of altitude when made visual contact with three luminous UAP's at azimuth 65° near Petrobrás refinery, below the aircraft, in low altitude. The commander Alcir Pereira da Silva and Cel. Ozires Silva observes the displacement of the UAP's heading towards Serra do Mar when the UAP's disappear at azimuth 90°. The Xingu finally landing in São José dos Campos airport

21h40m: visual contact with a “big” luminous yellow object surrounded by some small luminous white objects, at azimuth 320° of APP-SJ

21h50m: visual contact with the same objects at azimuth 110°. The objects are in the “line formation” now

22h23m: departure of first F5-E from the military air base of Santa Cruz (Rio de Janeiro). The pilot was Lt. Kleber Caldas Marinho

22h45m: departure of second F5-E jet fighter from the military air base of Santa Cruz (Rio de Janeiro). The pilot was Captain Márcio Brisola Jordão. The two jet fighter's go to APP-SF to intercept UAP's radar targets

22h55m: ATC of military Air Base of Anápolis (Goiás) make radar contact with UAP's and the first Mirage aircraft, piloted by Captain Armindo Souza Viriato de Freitas and armed with Sidewinder and Matra missiles is sent to intercept UAP's. The Mirage piloted by Captain Viriato does not make visual contact with the UFO/UAP, but a target is detected on its onboard radar. Captain Viriato later explained at the press conference in Brasilia that he was chasing the UFO/UAP at 1.350 km./hr (850 mph), approaching the object up to a distance of 6 miles (9.5 km). The object was heading up front and moving from one side to the other (zig-zagging) on radar scope. Suddenly, the blip disappeared from radar scope

23h15m: the first F5-E aircraft make visual contact with some UAP's and try to pursue then

23h17m: departure of second Mirage aircraft from Air Base of Anápolis (Goiás) to intercept the UAP's radar targets

23h20m: Lt. Kleber's F-5E makes visual contact with a ball of light and chases the UFO/UAP at Mach 1.1 (1.320 km/h or 850 mph). Lt. Kleber later declared at the press conference: “I

had one visual contact and one contact with my aircraft radar of something that looked like a luminous point, which was 12 miles (19 km) in front of me, a distance confirmed by ground radar. The object was moving from left to right and then began to climb. It was at 10 km (6 miles) of altitude and flying over 1,000 km/h (600 mph). I followed it up to 200 miles (320 km) over the Atlantic Ocean (limit of Brazil's territorial waters). I wasn't afraid because I like the unknown". The F-5E aborts the pursuit due low fuel

23h36m: departure of third Mirage aircraft from Air Base of Anápolis (Goiás) to intercept the UAP's radar targets

23h50m: Captain Jordão's F-5E establishes radar contact. At the press conference a few days later, he stated: "Near to São José dos Campos, my onboard radar detected several targets, 10 to 13 targets, at a distance of 20 miles (32 km). The sky was clear but I didn't see anything. Ground radar informed me that the objects were closing in: 20 miles, 15, 10, 5, suddenly there were 13 objects behind my aircraft, 6 on one side (left) and 7 on the other (right), during several minutes. After I maneuvered the aircraft, the objects had disappeared". Captain Jordão flew for 1 hour and 20 minutes and return to base

May 20, 1986:

00h00m: the Mirage aircrafts returns to base without success in pursuit of UAP's

01h00m: By this time all jet fighters have returned to their bases

Glossary

1 - ADF (Automatic Direction Finder) is the simplest of the air traffic instruments. It is used to receive nondirectional radio beacon (NDB) signals of commercial AM (broadcasts) radio stations that informs the pilot (of) the direction of the issuing antenna of the signal whose frequency happens to be tuned to. This allows the pilot to determine the angular position of the prow (or of the longitudinal axis) of his aircraft in relation to that issuing point and, consequently, to adjust his course. It is the system through radio waves that determines and displays, in nautical miles, the distance that the aircraft is from VOR (Very High-Frequency Omni-directional Range) (of Multi-directional Reach) transmitting stations.

VORs are an important aid to air traffic and consist of a base of terrestrial radio that transmits multi-directional radio signals in VHF frequencies (ranging from 108.0 to 117.95 Mhz; 50 kHz spacing), following a horizontally oriented circular array of directional sweep, forming the 360 Radial (of straight lines) corresponding to the 360 magnetic degrees. In the aircraft, those signs are received by the VOR navigation system when they are tuned in to a particular frequency from the VOR broadcasting station.

2 - DME (Distance Measuring Equipment) – This is a system of aid to pilots that supplies the distance (in nautical miles) between the ground transmitting station and the aircraft. It is the simplest of the air traffic instruments and is used to receive NDB (Nondirectional Radio Beacon) signals or signals of commercial broadcast AM radio stations that inform the pilot (about) the direction of the transmitting antenna whose frequency is tuned in. This allows (the pilot) to determine the angular position of the prow (or of the longitudinal axis) of the aircraft in relation to that issuing point and, consequently, to adjust his course. It consists of a pointer that rotates within a display case divided in 360 degrees, with marks 5 degrees apart. Each mark indicates a Relative (MR) Demarcation and the numbers there presented should be multiplied by 10 for the reading to be had in degrees (3=30th, 6 = 60th, 33=330th, etc). If the pointer is appearing exactly upward, (or forward) it means that the aircraft will be flying

Towards the TUNED IN (upward of her even) STATION; if it is pointing RIGHT exactly to the side, it means that the tuned in station will be 90 degrees to the right, in other words, in SLANT, and so on.

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Senior Editor's Note

In my files I have an additional commercial pilot's sighting report for the May 19, 1986 incident that has never before been published. Captain J.A. wrote me, "About the event of this report, it happened in May 1986 at about 20:00 hours, in a night full of stars with rare clouds (stratus) and so with an ample horizontal and vertical visibility. We had taken off from Foz de Iguacu and were approaching the frontier between Parana and Sao Paulo provinces enroute to Guarulhos, Sao Paulo airport. It was then that our meteorological radar detected some contact points which is rare since it normally detects (only) meteorological formations. At that moment we changed radio frequency to Brasilia Center and overheard their notifications to other civilian aircraft about the sighting of lights moving at high speed, a lot of them as well as radar confirmation."

"We turned down the internal (cockpit) lights to see outside better. We saw many lights with many colors, following different trajectories at high speed with sudden changes (also) at high speed. This movement went on intensely until we initiated our descent into Guarulhos. I was not interviewed (about this event) after landing."

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