UFO's 1960

(A written version of the talk presented by J. A. Hynek to the Hypervelocity Impact Conference Banquet at Eglin Air Force Base, April 27, 1960)

I find it intriguing that at such a distinguished gathering as this I, an astronomer, should be asked to address you, not on the subject of satellite tracking - my work for the past four years - nor on stellar spectroscopy, stellar evolution, nor on the expanding universe - all topics to which I could do some manner of justice - but on Unidentified Flying Objects. Not that I am not qualified to speak on this topic. Perhaps, if I may be permitted to say so without incurring the charge of immodesty, I am uniquely qualified in all except one way to speak to you - and that exception is simply that I have never seen a UFO. But I have had as much experience, I daresay, as perhaps almost anyone with UFO's on their own plane of existence. And on that plane they are as real as rain. That plane is that of reports - for as far as any of us here are concerned - unless some of you in the audience have had personal experience - they exist for you and me simply as reports.

Some years ago the Air Force did me the honor of adopting - at least semi-officially - my definition of Flying Saucers. "A Flying Saucer is any aerial sighting or phenomenon that remains unexplained long enough for someone to write a report about it."

My acquaintance with Flying Saucers, as reports, goes back twelve years when, as an astronomer at Ohio State, and hence quite close to Wright Field and the Air Technical Intelligence Center, I was asked to review some 200 reports to see how many could be explained on an astronomical basis. Most unfortunately, the really interesting ones could not be. There were many meteors and fireballs, and occasionally the planets, as in one case where

Jupiter and its four bright satellites was reported as a mother space ship and its brood of small craft. But the real lulus, silver disks that sped across the sky, lights that wandered about the sky at night, luminous objects that landed and from which emerged little men, or as in the case of two FBI operatives I interviewed (quite a switch - usually they interview me) who were scared witless (the word is witless) by a large version of a child's Christmas toy top that buzzed them on a lonely road in South Carolina at 4 a.m. - none of these reports had, at least in my mind, a ready explanation.

Now mind you. I'm not saying that these things happened. I'm saying that they were reported to have happened - a very, very great difference. And the central problem to which I address myself tonight, and on which I want you to be the judge and jury, is simply - what on earth (or perhaps I should say, what not on earth) could be the stimuli that gave rise to these reports.

This is the problem which concerns me - largely as a matter of curiosity - because in our times there has been no more bizarre phenomenon, that attracted the attention of so many, than that of the waves of flying saucer reports that have from time to time occurred in the U. S., in France, in Brazil, Italy and lately, I hear also, in the USSR. It chills me to think that our Russian colleagues, if they address themselves to this problem, might come up with an answer before we do - that is, an answer to the problem of report generation.

In what field of human endeavor might the answer lie? In physics, in psychology, in meteorology, in optics, in ESP, or finally in astronomy, or

in the province of astronomy? It must lie somewhere - perhaps in many of these fields. (I mean the answer to where the stimuli for the reports lie.) The reports are real, and their cause must be real - even if the cause is mass hallucination, it is still a real cause.

What generated these reports? Here are a few things. (at this point in the talk slides of fireballs, illuminated cirrus clouds, balloons, artificial earth satellites were shown along with a number of cartoons from the popular press.)

What generated the others? What others?

Let us now grant that the great majority of reports are generated because people are simply not good observers, because they are easily mistaken in what they see, because they do not understand mirages, meteors, and strange meteorological phenomena. And also let us grant that some are generated because many people are downright superstitious, and what is more, because a great many people are wishful thinkers and, if the truth be known, lonesome. It might surprise us to realize how many people desperately want there to be other life in the universe and to be able to communicate with it. And hence these people will swallow any cock and bull story that by the remotest chance might be credible.

The universe of the astronomer today is a vast and frightening place. It was one thing when man had reason to believe that he was the king-pin in the universe and that he and the earth were the center of creation. But today, in his most uncertain world, fraught with ICBM's and the threat of annihilation, there are many of us who would like to think that we are not alone, that we can be friends with someone in the cold outside universe, and that perhaps through them make rapid strides in our science and even in our

politics. There are some who believe that if we could turn our attention to something absorbing away from the earth perhaps our fears of nuclear warfare among ourselves would diminish, and perhaps that this new focus of attention might even lead to the solution of all of our hard problems as inhabitants of this tiny earth. For it is tiny. May I digress for a moment and speak as an astronomer rather than as a UFO investigator, to summarize for you the astronomical situation, for it is a very necessary backdrop to our story.

The world's largest telescope is the 200-inch Hale telescope on Mt. Palomar; it can see out into space several billion light years. The light year in itself is hard to visualize, but perhaps it can be attempted if one imagines a string going around the earth's equator 236 million times. The length of that string would be one light year. It is important to remember that the nearest star to the sun is four and one half light years away.

The distances are so vast that it is only natural that we try to condense them and make a model of things to aid our own thinking. Suppose we were to try to make a model, to scale, of everything that is visible through the world's largest telescope. Let us give our imagination full play and assume that we could use the entire area of the United States on which to construct our model - a sort of supercosmic Disneyland. If we did this we should discover to our amazement that even in such a stupendous model the earth would be completely invisible, even through a microscope. Yes, indeed, even through an electron microscope. Faced with such a universe in which to live, it is no wonder that man as a sub submicroscopic speck feels isolated and alone, and afraid of the Russians, and perhaps it is understandable that he

might be desirous of seeking out and finding some understanding intelligence elsewhere. Indeed, there are few scientists, and particularly astronomers, who would not welcome bonafide evidence that intelligent beings did exist elsewhere and that there was a possibility of communication with them. (Think of the increased appropriations for scientists--and for UFO investigators!) Only our military friends, justly cautious, warn us, if this be the case, not to try to communicate first, lest our "friends" in space prove hostile and annihilate or at least exploit us. Perhaps we should be content to be alone in space!

(At this point in the talk a number of representative slides were shown depicting objects in the solar system, in our galaxy, The Milky Way, and clusters of galaxies out to the limit of the visible universe.)

Now we are through with our cosmic digression. I leave it for you to figure out for yourself how grossly <u>probable</u> it is that other life exists in the universe--somewhere in the countless other solar systems that, it would seem, statistically must exist--yet how <u>improbable</u> it is for such life to travel to us, and to communicate with us, unless it originates somewhere in our own solar system, or at very best, around some of the very nearest stars to us. There is, of course, always the outside possibility that other beings have invented means of extremely rapid transport, allowing them to travel with nearly the velocity of light. In this case, relativity points out that their time scale would be so short relative to ours, that to them it would appear as though they made a journey of many light years in just a few years. Although theoretically possible, this is yet too much in the realm of science fiction for us to consider seriously.

And now, with this stage setting, let us examine the reports--and again I emphasize that we shall be examining just reports, reports whose generating stimuli many of us would most dearly like to discover, for there may indeed be some very good physics hidden in them. Something caused these reports to be made. What was it? Were the causes related, or did one set of things generate one set of reports, say in France, and another in Brazil? Do Italian flying saucers bear the same stamp as those of the U. S. or of France? Let us examine the evidence.

I would now like to describe for you some French flying saucers. It appears that for about two months in France, from the middle of August to the middle of October, 1954, France was peppered with a barrage of UFO reports. Like mushrooms they sprouted all over France and likewise some in Italy and some in Germany. The reports of these, however, came in largely through the medium of French provincial newspapers. And it was only through the work of Aime Michel, an enthusiastic investigator in France, that these reports were collated, plotted, and compared. The compilation of these reports appears in a book by Michel, Flying Saucers and the Straight-Line Mystery. The Straight-Line Mystery in the title refers to the fact that when Michel plotted the reports for any one day on a very large-scale map, the reports had a devastating way of forming straight-line patterns on the map, most difficult to explain by chance.

I would not, of course, accept anything I read in a book without knowing something of the author. It chanced that I happened to be in Paris on other business and took two days off on my own to seek out Michel and talk with him. He lives with his wife and small son in a small modest Paris suburb apartment.

He is a radio engineer and, what I was particularly anxious to find out, of calm, rational deportment, quite unlike the typical enthusiast or crackpot with whom it has been my lot to come in contact from time to time. I went over with Michel many of his stacks of newspaper clippings, which he had purchased at his own expense, and his maps, and I, at least, am convinced that the reports are real; that is, that the reports do exist as such in various French newspapers on those dates. I firmly believe that hoax and a deliberate attempt to concoct a cock and bull story must be ruled out. It would save us much bother and worry if we could take this way out, namely to say that Michel manufactured the reports out of thin air and wrote the book just to make money. From the returns he has had, I might say in passing that his labors must have been done at coolie wages.

In any event I feel reasonably certain that some stimulus existed in France--whether political, scientific, extra-terrestrial, meteorological, or psychological--that in the space of two months generated several hundreds of reports, reports which show a definite thread of pattern.

So, with this preamble, let us travel to France, in the late summer, 1954. The curtain apparently went up on this fantastic show on August 23, at 1 a.m., 40 miles northwest of Paris. A businessman had just put his car away, and as he came out of the garage he was surprised to see a pale light illuminating the town which had been in complete darkness a little while before. The night was completely clear and the moon was at last quarter, and hence was rising at about that time.

Looking at the sky, he saw a huge, silent, motionless luminous mass, apparently suspended above the north bank of the river some 300 yards away.

"It looked", he said, "like a gigantic cigar standing on end. I had been watching this amazing spectacle for a couple of minutes when suddenly from the bottom of the cigar came an object like a horizontal disk, which dropped at first in free fall, then slowed, and suddedly swayed and dived horizontally across the river toward me, becoming very luminous. For a very short time I could see the disk full-face; it was surrounded by a halo of brilliant light."

A few minutes after it had disappeared behind him, going southwest at prodigious speed, a similar object came from the cigar and went through the same maneuvers. A third object, and then a fourth---and finally a fifth detached itself from the cigar which was still motionless. This last disk dropped lower than the earlier ones, to the level of the new bridge, where it remained still for an instant, swaying slightly. At that time he could see very clearly its circular form and its red luminosity--more intense at the center, fading out at the edges--and the glowing halo surrounding it. After a few second's pause, it wobbled like the first four, and took off like a flash toward the north, where it was lost in the distance as it gained altitude. During this time the luminosity of the cigar had faded, and the gigantic object, which may have been 300 feet long, had sunk into darkness. The spectacle had lasted about 3/4 of an hour.

Unbeknown to him, this observer reportedly had witnesses. Two policemen making their rounds at 1 a.m. also observed the phenomenon, as had an army engineer southwest of the town of Vernon.

The case was briefly described in the Paris newspaper, Liberation. Nothing more was done about it, except that Michel conducted his own investigation.

t.b.p.g.

Speaking of policemen: if those same two policemen had reported that they had seen two thugs beat up a victim and take to the woods, their testimony might be sufficient to send someone to the chair. But when something violently unusual comes up, like this, or if they had seen the angel Gabriel riding along on a nine-legged octupus, no one would, of course, believe them.

Oddly enough, policemen have figured in many sightings. I remember back in 1947, a policeman in Oregon who was feeding pigeons in back of the station house, observed some flying disks. It was 1:00 p.m. on the Fourth of July, just two weeks after Kenneth Arnold had reported the first real newspaper case in the U.S., on June 24, 1947--the classic case whence sprang the name flying saucer. He reported having seen "saucer-like objects" flying over Mt. Rainier.

To get back to France: How does one even begin to explain the first of the remarkable series of French reports? Well, if this case stood alone, it would have little significance. Science cannot deal with an individual case. There must be repitition and pattern.

Three weeks later, September 14, there was a repetition--in broad daylight and observed by hundreds of witnesses in a half dozen villages in the general area 250 miles S.W. of Paris. Only one newspaper mentioned it, and only by chance did it get investigated. Witnesses were mostly farmers and a few priests and schoolteachers. One witness reported:

"It was about five in the afternoon. Emerging from the thick layer of clouds that looked like a storm coming up, we saw a sort of luminous blue violet mist, of a regular shape something like a cigar or a carrot. Actually, the object came out of the layer of clouds in an almost horizontal position, slightly tilted toward the ground and pointing forward, like a submerging submarine.

"This luminous cloud appeared rigid. Whenever it moved, its movements had no connection with the movement of the clouds, and it moved all of a piece, as if it were actually some gigantic machine surrounded by mists. It came down rather fast from the ceiling of clouds to an altitude which we thought was perhaps a half a mile above us. Then it stopped, and the point rose quickly until the object was in a vertical position, where it became motionless.

"During this time the dark clouds went on scudding across the sky, dimly lighted from underneath by the violet luminosity of the object. It was an extraordinary sight, and we watched it intently. All over the countryside other farmers had also dropped their tools and were staring up at the sky like us.

"All at once white smoke exactly like a vapor trail came from the lower end of the cloud. At first it pointed to the ground but finally rose up to describe around the vertical object an ascending spiral. While the rear of the trail was dissolving in the air and being carried off by the wind, the source of the trail went up to the very top of the vertical object and then started to come down, again, turning in the other direction. Only then, after the smoke trail had vanished entirely, could we see the object that was sowing it--a little metallic disk, reflecting in its rapid movements flashes of light from the huge vertical object. The little disk then stopped turning around the luminous cloud and went down toward the ground again, this time moving away. For quite a few minutes we could see it flying low over the valley, darting here and there at great speed, sometimes speeding up, then stopping for a few seconds, then going on again, flying in every direction between the villages that were four miles apart.

Finally, when it was almost a mile from the vertical object it made a final dash toward it at headlong speed and disappeared like a shooting star into the lower part where it had first come out. Perhaps a minute later the carrot leaned over as it began to move, accelerated and disappeared into the clouds in the distance. The whole thing lasted about half an hour."

It would take us too long to quote from the other witnesses--about a hundred in all--but their stories were about the same.

At this point are you probably saying to yourselves, "Is this a serious scientist in front of us telling us a tall tale just to be entertaining? Could it be that he possibly believes this stuff?" Well, certainly, if it is a tall tale, it is not consciously told as such. It is told, remember, as far as we are concerned, as a report. We are all somewhat in the fix, perhaps, of members of an aboriginal tribe attempting to evaluate the report of a fellow member who had, in some unaccountable way, an encounter with a heliocopter, a device totally unknown to his fellow tribesmen. A tall tale, or did he really see something? Our only basis of judgment would be his past record of credibility, or the records of all those who reported having seen the heliocopter. There would certainly be no scientific way of judging their story. The easy way out, of course, would be simply to regard it as just that--a story. It would absolve his fellow tribesmen from the necessity of doing any serious thinking about it.

In our own case, and in the cases shortly to be before us, we can vouch only for the fact that the reports do exist, and that whatever stimulus generated them for a number of observers rather than a single individual.

Let us go on with a few more French saucers and then sample a few from this country and elsewhere. Let me capsulate a few:

September 7 at Amiens, 7:15 a.m.: "...my eyes were caught by a sort of

mound, two hundred yards away in a field. It looked something like an unfinished haystack, with an upside-down plate on top.

"That's a queer color for a haystack," I said to Yves, "look at it." All of a sudden I noticed that the haystack was moving a little, with a slight swing back and forth, like an oscillation. We both rushed toward the mysterious object. When we got close the object took off on a slant, traveled diagonally upward for about fifty feet, and then began to go straight up. We watched it for three minutes. The object was about 30 feet in diameter."

September 18: "...an object arrived at high speed over the horizon, stood still several minutes over the town, and then disappeared into the zenith."

September 19: "A circular object appeared suddenly in the north. It was flat, gray, and appeared to be metallic; it slowed, stopped, and remained motionless for about 30 seconds, during which time it swayed back and forth slightly. After a half minute it went off again in a northwest direction."

Same day, night: "A bright light crossed the sky, slowed down and landed. It seemed to be the size of a small bus. After staying on the ground for about 40 seconds, the light became reddish and rose vertically, and like a red ball, went off toward the southeast."

September 22: Under the clouds a huge, luminous ball hung motionless. Reddish and surrounded by a sort of moving smoke, also luminous. Watched for half an hour. Then suddenly from the lower part of the ball there emerged another, much smaller luminous ball; after a few seconds of free fall it slowed, turned obliquely and disappeared at high speed. A moment later dropped and went off--and then a third, and a fourth. Just then an airplane appeared in another part of the sky; it seemed on a collision course with the ball. The ball abruptly changed position and rose into the clouds and disappeared. The show was over.

September 26: The little dog began to bark and howl miserably. She saw it standing in front of something that looked like a scarecrow. But going closer she saw that the scarecrow was some sort of a small diving suit, made of translucent plastic material. Behind the blurred transparency of the helmet, two large eyes were staring out at her; the suit began moving toward her with a kind of quick, waddling gait.

She uttered a cry of terror and took to the fields. Looking back she saw a big metallic object, circular and rather flat, rise up behind nearby trees, move off nearly level with the wheat field, and then took off toward the north-east with considerable speed, gaining altitude as it did so.

Neighbors gathered quickly and at the spot where the aircraft had risen, they found a circle, ten or so feet in diameter where the shrubs had been crushed. Trees at the edge of this imprint had some branches broken and the bark rubbed off, and the wheat in the direction of take-off was flattened out in radiating lines.

In this last cited report, the original witness was found in a state of nervous collapse. She was put to bed where she remained for two days with a high fever.

Likewise: September 28: A tramp locomotive was running on a railway line from Nantes to Vannes. In the marsh close to the tracks a circular, flat machine was in rapid flight just above the ground. Luminous, dark red, tinged with violet. It soon reached the locomotive, flying only a few yards above it, and then followed it. Then it accelerated and disappeared toward the west at a terrific speed. For a few seconds the clouds continued to be illuminated by a violet light. The fireman, bewildered, was trembling so much that his place had to be taken until they reached the station. He had to be helped to his bed and for several days he suffered from nervous shock.

The climax of the French wave came on September 30 and October 1, 1954, a

wave which was over by October 18. But on those two days, hundreds of reports flooded in. But there was no mechanism whatever to handle them. No scientist would touch this tricky subject, and their official Air Force team began sorting reports by tossing out the "obviously incredible reports." They latched onto those cases in which they could foresee a natural explanation, a most human and understandable reaction.

This French wave of stories is reminiscent of another wave of strange stories that flooded France a century and a half ago--stories of stones that fell from heaven. Persistent stories came in, in waves, from time to time, of stones that fell from the sky. Now, how credulous can one get--stones falling from the sky, indeed!

But in due course the French Academy of Sciences appointed a committee to study the subject, and after a full examination of the stories, reported back to the Academy that there was nothing to it--the stones in question had not fallen from the sky but had been hit by lightning! This despite their much greater density and obvious difference from surrounding stones. When a group of people don't want to admit something, there's nothing quite as hard headed as a scientific committee, on which each man has his scientific reputation to protect and goimg out on a limb is certainly not the way to do it.

The great irony of it--and I choose the word irony with care--came just a few years later when the little town of L'Aigle France was literally peppered with iron meteorites. This time the French scientist Biot alone undertook the investigation, and in the face of incontrovertible evidence he and his colleagues finally were convinced. Since the year 1803 a meteorite can land in France with the full permission of the French Academy of Sciences.

Lest you think that all the cases I have are French, I will pass on to others, after just one more which bears some resemblance to a case which was reported from

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Louisiana, which, of course, was originally French territory.

It is October 4 and we are at Poncey. "It was about 8:00 p.m.," Mrs. Fourneret said, "and it had already been dark for some time. About 20 yards from the house, in the meadow, a luminous body was balancing itself lightly in the air, to the right of the plum tree, as if preparing to land. As well as I was able to judge, the object was about three yards in diameter and seemed elongated, horizontal, and orange colored. I was beside myself with fright and seized the boy, running with him to Mme. Bouillier's house where we closed the door tight."

The neighbors armed themselves, the report continues, and went out to investigate. Nothing was there, but they said they found an area over a yard and a half long, 27-inches wide at one end, 20 at the other, where the ground appeared to have been sucked up. On the fresh soil of this hole they said white worms wriggled, and the earth that had been torn out was scattered all around the hole in clods ten or twelve inches across over a radius of about four yards. On the inner edge of the hole similar clods hung down; the earth had been pulled out in such a way that about half way down the hole was wider than at ground level.

They reported further that the little roots and rootlets in this fertile soil were intact everywhere on the inner surface of the hole and that not one had been cut, as would have been the case if the excavation had been made in the normal way. At the center of the hole, they said, lay a plant with a long root, still attached by the end of the root to the soil at the bottom of the hole, with all its rootlets exposed to the air, completely undamaged. In short, if we are to accept this report made in concert by a small crowd and investigated by Michel, it looked just as if the mass of earth spread over the surrounding grass had been sucked out by a gigantic vacuum.

The report stated further that while the villagers still crowded around the

edge of the hole, a lad arrived on his bicycle, not knowing anything of what had been going on. "What a fright I just had," he said, "I saw some kind of a luminous object that was going toward the southeast and climbing. It was like an airplane without any wings, nothing but the fuselage. And the faster it went, the greener it was."

Time does not permit me to continue these tales. There were also a number of cases during this interval involving encounters with occupants of the craft that had landed. Descriptions from all over France were remarkably alike. Small men, in diving suit-like costumes--all non-hostile but ready to protect themselves. Frequently it was reported that automobile motors and lights went out when the object was nearby, and promptly came back into normal operation when the object had left.

This brings to mind the famous Hopkinsville case in Kentucky, investigated by a chap who was, quite inadvertently and unbeknown to me at the time of his hiring, employed by me in the satellite-tracking project. As time went on I got the full story from him and indeed I could have spent the entire hour tonight telling this tale, a tale so incredible that no sober scientist would care to be caught within ten feet of it. Yet it is one of the reports--and I stress again, reports, because my friend saw nothing himself, but merely interrogated, he having been at that time the announcer at their local radio station.

I have here some drawings that my friend composed from the descriptions given to him, independently, by the highly untutored people who reported they had had this outlandish experience. This brings to mind the report of Father Gill in New Guinea in which he stated that he waved to some creatures in a flying saucer and that they waved back!

By luck I seem to have known a number of people who were directly concerned with UFO cases, though unfortunately (or perhaps I should say fortunately!) I

have never had any personal experience with a UFO. There was the dozing passenger in the famous Chiles-Whitted case in Alabama about 10 years ago, and there is the balloonist, Charles Moore, who recently took the observations that established the presence of water on Venus. Speaking of balloonists, I happen also to know personally the man who launched the first Sky Hook balloon, in the days when these things were supersecret, and which particular balloon happened to cause Captain Mantell's death when on that fateful day he blacked out in attempting to identify it.

The Charles Moore case is of some interest in itself because of the high technical qualifications of the observer. He was preparing a site for the launching of a large test balloon at White Sands on April 24, 1949. He was checking on cross-winds in the valley between two mountain ranges and had launched a small weather balloon, watching it in a theodolite, keeping it on the cross-hairs. He had a new chap on the team who wanted experience in tracking balloons; and so Moore turned the theodolite to him, cautioning him to keep it on and not lose it, because Moore didn't want to waste a balloon. Shortly after, Moore looked up to check the balloon by unaided eye and thought he saw it moving off to the east. He yelled at the chap that he had lost the balloon, but the chap said, "Nope--it's still on the cross-wires." Moore looked and confirmed this, and then rapidly switched the theodolite to the strange object, catching it after it had "passed through" the sun. It was elliptical, two or three times as long as it was wide, moving along its major axis, and covered the entire sky from the southwest to the northeast in 60 seconds. Five others saw it and confirmed Moore's sighting. Moore checked his refocus of the theodolite and found it had been focused for infinity. In my talks with him, he has completely ruled out the possibility of aircraft, particularly since it covered the sky in 60 seconds. It went down to an elevation of 25 degrees and then just before it disappeared, which

it seemed to do quickly, it rose in elevation by 5 degrees, as checked by the theodolite.

This sighting has been classified as a mirage by some "experts" but the physics in this case certainly escapes me. Moore then launched another balloon and tracked it throughout its course to 90,000 feet. At no level were the winds from the southwest, so a balloon is ruled out.

I like to talk with and size up reporters of reports. I have talked with Adamski, and find him an out-and-out fraud, despite the fact that Queen Wilhelmina gave him a special audience. He is the gentleman who professes to have regular consort with sauchers and their inhabitants, and even to have taken a trip in a saucer. Long years of experience with people who come to the observatory, or write in about their theories--which I file in my file called novel ideas to avoid the possible libel implications of crackpot--have taught me how a typical fraud or crackpot chooses his words and phrases. Among other things, he cannot conduct a rational discussion, but resorts to constant repetition; he won't listen to the other person and cannot answerquestions rationally or intelligently.

I have never, however, attended a saucerian convention. The Sixth Interplanetary Spacecraft Convention was held in Yucca Valley, California, on last My 31 and June 1, with 10,000 in attendance. It was here that one newsman was wandering, bewildered, trying to find someone sane to talk to, and entered into conversation with one young woman who appeared to have sense; and so he discussed with her his interest in Mars, pointing out that he had a small telescope and often observed Mars. The young lady listened intently, making an intelligent comment occasionally, but the budding friendship ended most abruptly when she said, "How interesting--and when did you last visit Mars?"

At another convention, a saucer enthusiast distributed packets of hair clipped from a 385-pound Venusian dog. It's things like this that give saucers a bad name!!

Scarce wonder that the whole subject--which undoubtedly has some scientific paydirt in it--is so easily tossed aside by responsible people. And, oh yes, at another convention one could buy a book entitled, "My Saturnian Lover," photographs of saucers, the moon seen from an approaching saucer, moon scenery, and could buy a record of Saturnian music; and, if they stayed up late enough, the conventioners would see mysterious blue lights at play and observe a balloon-shaped saucer that rose opportunely from behind the barn.

We have gone from the sincerely attested reports, made by people highly respected in their communities, to sheer charlatanism--but one must take care to step carefully to distinguish the daisies from the cow dung.

I have ~~three~~ one more itmes to place before you, the jury.

"Last Monday night, about 10:30," Hamilton said, "we were awakened by a noise among the cattle. ~~I arose, thinking that perhaps my bulldog was performing some of his pranks, but upon~~ going to the door I saw to my utter astonishment an airship slowly descending over my cow lot, ~~about 40 rods from the house.~~ Calling ~~my tenant, Gid Heslip, and~~ my son Wall, we seized some axes and ran to the corral. Meanwhile, the ship had been gently descending until it was not more than 30 feet above the ground, and we came within 50 yards of it. It consisted of a great cigar--shaped portion, possibly 300 feet long, with a carriage underneath. The carriage was made of glass or some other transparent substance alternating with a narrow strip of some material. It was brilliantly lighted within and everything was plainly visible--it was occupied by six of the strangest beings I ever saw. They were jabbering together, but we could not understand a word they said.

"Every part of the vessel which was not transparent was of a dark reddish color. We stood mute with wonder and fright, when some noise attracted their attention and they turned a light directly upon us. Immediately on catching sight of us

of us they turned on some unknown power, and a great turbine wheel, about 30 feet in diameter, which was slowly revolving below the craft began to buzz and the vessel rose lightly as a bird. When about 300 feet above us it seemed to pause and hover directly over a two-year old heifer, which was bawling and jumping, apparently fast in the fence. Going to her we found a cable about a half-inch in thickness made of the same red material, fastened in a slip knot around her neck, one end passing up to the vessel, and the heifer tangled in the wire fence. We tried to get it off but could not, so we cut the wire loose and stood in amazement to see the ship, heifer and all rise slowly, disappearing in the northwest. We went home, but I was so frightened I couldn't sleep. Rising early Tuesday I started out by horse, hoping to find some trace of my cow. This I failed to do but coming back in the evening found that Link Thomas, about three or four miles west of Leroy, had found the hide, legs and head in his field that day. He, thinking someone had butchered a stolen beast, had brought the hide to town for identification, but was greatly mystified in not being able to find any tracks in the soft ground. After identifying the hide by my brand, I went home; but every time I would drop to sleep I would see the cursed thing, with its big lights and hideous people. I don't know whether they are devils or angels, or what; but we all saw them, and my whole family saw the ship, and I don't want any more to do with them."

Hamilton has long been a resident of Kansas and is known all over Woodson, Allen, Coffey and Anderson counties. He was a member of the House of Representatives. He staked his sacred honor upon the truth of his story. An affadavit follows: As there are now, always have been and always will be skeptics and unbelievers whenever the truth of anything bordering on the improbable is presented, and knowing that some ignorant or suspicious people will doubt the truthfulness of the above statement, now, therefore we, the undersigned, do hereby make the

following affadavit: That we have known Alexander Hamilton from one to thirty years, and that for truth and veracity we have never heard his word questioned, and that we do verily believe his statement to be true and correct.

signed--E. V. Wharton, state oil inspector; M. E. Hunt, Sheriff; W. Lauber, Deputy Sheriff; H. H. Winter, Banker; H. S. Johnson, Pharmacist; J. H. Stitcher, Attorney; Alexander Stewart, Justice of the Peace; F. W. Butler, Druggist; James W. Martin, Registrar of Deeds; and H. C. Rollins, Postmaster.

SUBSCRIBED AND SWORN BEFORE ME THIS 21ST DAY OF APRIL, 1897

This sighting was but one of a great many that took place during the great airship episode of 1897--the ship that was sighted and its progress watched all the way from San Francisco to Virginia. A look at the newspaper files of that day will recount the events. Homer — Signal To noise

Let us come to more recent times: Again--let me remind you that as before we are dealing at the level of reports. These are nothing but reports I bring before you--and on their level of existence, they are real--that is--real reports.

November 2, 1957, Levelland, Texas: At 10:50 the police station received a call from a local farmhand and part=time barber, Pedro Saucedo (a symbolic name), and his companion Joe Salaz. The story: We first saw a flash of light in the field to our right, and we didn't think much about it--then it rose up out of the field and started toward us, picking up speed. When it got nearer, the lights of my truck went out and the motor died. I jumped out and hit the deck as the thing passed directly over the truck with a great sound and a rush of wind. It sounded like thunder, and my truck rocked from the blast. I felt a lot of heat. Then I got up and watched it go out of sight toward Levelland.

Saucedo said the object was torpedo-shaped--like a rocket--and estimated it as 200 feet long. Afraid to return to Levelland for fear of encountering it again, the two men drove on to Whiteface, ten miles west of Levelland, where they

phoned in their report. Although Saucedo sounded terrified, the officer on duty did not at that time take the report seriously.

But an hour later the police got another telephone report. Jim Wheeler, about four miles east of Levelland, had seen a blazing 200-foot egg-shaped object sitting on the road ahead of him. At the same time, his car lights went out and his motor died. The object rose and disappeared. A few minutes later came a call from Witharral, ten miles north-northeast of Levelland; Jose Alvarez reported that his lights and motor had gone dead as he drove near a bright, egg-shaped object on the road. At 12:15 a.m. Frank Williams of Kermit, Texas, reported a similar encounter in the same area. While the officials were out investigating--and, incidentally, reporting strange lights themselves--the police station received a call from James Long, who reported that at 1:15 a.m. he had been driving on a farm road five miles N.W. of Levelland when he came upon a 200-foot-long, egg-shaped mass that glowed like a neon sign. His engine coughed and died, and his lights went out. As he got out and approached the object, which was less than a hundred yards away, it suddenly took off straight upwards. After the object was gone, his engine started easily.

These engine stoppings, we remember, also occured in the French incidents. The next day two more witnesses reported to the police that they had encountered a UFO. Texas Freshman was approaching Levelland at 12:05 a.m. when he noticed his ammeter jump to discharge and back--then his motor quit as if it were out of gas--and the lights went out. He got out and looked under the hood but could find nothing wrong. Turning around he saw on the road ahead an egg-shaped object with a flattened bottom--like a loaf of bread and glowing not as bright as neon. No portholes or propellers were visible. Frightened, Wright got back into his car and tried to start it, but without success. After a few minutes, the egg

rose almost straight up, veered slightly to the north and disappeared from view in a "split instant." After it was gone, the car started normally.

And now, let us come up almost to the present. This month (April at LaCamp, Louisiana, there was a sighting which bears some relation to those in France. There was, unfortunately, only one visual witness but several auditory witnesses. The object or objects--but witness says one object--came silently out of the north, and the attention of the witness was first attracted by loud explosions and a bright fiery red light at ground level about two or three hundred yards away. Witness stated that the object and light combined had the size of a nickel held at arm's length and that it appeared to circle, bounce, then turned and went off into space after it had made a number of momentary contacts with the earth. The entire phenomenon lasted only two or three seconds, but when daylight was available again pictures were taken of the impact points. On five of these, paint or metallic substance had scraped off but no other physical evidence was found. The area was searched by heliocopter and on foot for a quarter of a mile radius, but no hardware was found. Five craterlets were formed, each about 10 inches deep, 18 inches wide, and 30 inches long, which were fresh. Although the territory of impact was unimproved, the evidence seems clear that the marks were actually made at the time of the explosion. Close to one of the impact marks the bark had been scraped off a tree, one branch had been broken--presumably by the object--and leaves were torn off the top portion of the tree.

The investigation completed so far indicates that there was no aircraft whatever in the area and further that there had been no sounds previous to the time of contact. No aircraft, furthermore, had been noted on the night of the sighting. Evaluation of this report must await further investigation; but it does appear that for a space of some 120 yards some object traveled nearly horizontally, made contact with the earth, produced a considerable luminous phenomenon, and then

disappeared to the extent that no tangible evidence of it other than that already mentioned was found in the area. No radiation readings were obtained because of lack of equipment.

One would like to wipe this case off the books, so to speak, by proving definitely that it was a misfired rocket from some aircraft. This is about the only logical, normal explanation, since it was traveling far beyond terminal velocity for a freely falling body, and its path was far more horizontal than vertical. The lack of tangible hardware is likewise hard to explain on this hypothesis. Furthermore, there was no indication of any land-based or air-based rocket firing not only on that night but on any night of that season.

One might like to explain this as a meteorite, but almost certainly a meteorite would have been brilliantly visible before actual landing and would have fallen much more vertically than horizontally. Indeed, after terminal velocity takes hold of a meteorite, it simply falls to the ground as though it had been released from some high point in the vicinity of the landing place.

If we wish to be fanciful--fanciful not in the sense that it doesn't fit all the facts, but because our minds are completely unused to such concepts, we might say that just as we plan in some years hence to send a probe to some other planet to take a sample of the surface and return, so this might have been an interplanetary probe from elsewhere, which picked up its sample and went off! There is nothing in the facts that would contradict it, but I am sure that none of us here would accept that explanation without a great deal more corroborative evidence.

Herein the scientific investigator must differ from the UFO enthusiast who jumps to conclusions and largely because he wishes a thing to be so, he automatically adopts it as being so.

We still must address ourselves to the task of evaluating what the stimuli were that gave rise to the typical examples I have outlined to you. I should say, the typical "unknowns," since of course the most frequent stimuli for UFO reports are indeed perfectly familiar objects or phenomena that have been misidentified by the person making the report. We must remind ourselves again that a UFO is nothing more than any serial sighting or phenomenon that remains unexplained long enough for someone to write a report about it. We have been dealing with the reports that continue to remain unexplained.

What can we say of such reports in general? Does the problem of the stimuli that generated such reports fall in the province of science? We must remind ourselves that science can progress only when phenomena are repeatable, exhibit a pattern, and, particularly, when numbers can be assigned to the phenomena in the sense, for instance, of precise angular velocities, precise spectroscopic analysis of the light, detailed photographic evidence, and all of the many things that we have learned to associate with the progress of science. Science cannot logically be concerned with, for instance, religious miracles or indeed with any phenomena which are heterogeneous or singular. Let us suppose, for instance, that once every 100 years the earth were indeed visited, without fanfare, by interplanetary or interstellar beings. Unless all the paraphernalia of science were around at the time of the rare visit, that is, motion picture cameras, flood lights, spectroscopes, geiger counters, tape recorders, and at least 100 scientists who could cross-check on each other, the incident would be sure to be passed off as a figment of the imagination, an hallucination--mass hallucination if you wish--a hoax, or what have you. My point is that the visitation would have to be documented as no other human experience in order to be accepted.

And this quite rightfully is so. If such visitations occurred much more frequently, say once a week in various parts of the earth, but occurred at random

and without the presence of scientists and their apparatus, a thing like that could go on for dozens of years before a sufficient body of evidence and a sufficient pattern of behavior could be accumulated to be introduced into the court of science. We need remind ourselves only of the case of the meteorites to see that this is so. And the more "noise" in the background, the longer it would take to sift out a meaningful pattern. In the case of the UFO's we certainly do have our "signal" almost entirely submerged in "noise." It is well known to all how tricky it is to get a meaningful residue out of recorded "hash." The case of the radar reflections from Venus is the case in point: a formidable series of autocorvelation checks run on electronic computers was necessary to sift out mathematically the fact that in the total noise signal from Venus there was indeed very deep within it the faint radar echo.

We are faced with a similar problem, except that of course radar is an accepted phenomenon, Venus is known to be there, and the people in charge of the project were all highly reputable scientists of enviable past records. None of conditions prevail in the matter of the UFO. We have not the slightest notion that "Venus" is there in our case, and it seems highly unprofitable to expend vast amounts of energy and the time of scientists and engineers who might be more profitably employed otherwise, in attempting to find an answer to the question "What were the stimuli that gave rise to these reports?"

And yet when this "noisy signal" has been coming at us for the past dozen years at least and occasionally there seems to be a "blip" which rises well above the noise level, as in the case of some of the French sightings, one does indeed wonder whether the time has come to pay some attention to it. The role of the Air Force in the problem of the UFO in the past dozen years has been in line with its avowed mission, namely that of determining the potential hostility of any action in the air that cannot be immediately explained. Their verdict to date has been that whatever the stimuli for the unknown sightings may be, there is no

indication of hostility. And since the great preponderance of the reports are easily explainable as misidentifications of common objects, it seems almost justifiable to extrapolate a bit and cover the remaining two or three per cent and say that if sufficient data had been available, those cases, too, would have fallen into the category of basic misidentification.

This seems a mighty safe thing to do, and might turn out to be correct; but from my own personal standpoint, as one who has had a fair amount of experience in these things, I will not be satisfied until sufficient investigation shows that this is indeed the proper explanation. I think you will agree that many of the reports would be most difficult to explain as misidentification. Yet to continue such researches places one on what General Chassin, General Air Defense Co-ordinator, Allied Air Forces, Central Europe, NATO, has called "the difficult path of research that is temporarily in disrepute." He has further stated that "true, the reported sightings include observations of meteorites and balloons, and even lies and dreams; that is why vigorous examination of reports is essential. But after all the examination and screening is finished, we still have a percentage of observations that stubbornly resist every conventional explanation. We can, therefore, categorically say that serious objects have indeed appeared and continue to appear in the sky that surrounds us."

His conclusion would be correct if he were dealing with phenomena that occur in any other field of human experience, in law, in medicine, or in the many branches of the sciences. Evidence so well attested would certainly be accepted in court. But it is understandable why it cannot be as yet in the area in which we are dealing. We do need either a breakthrough here--and a breakthrough would consist of one or more sightings that occurred in front of a battery of scientists and their instruments, and which sighting also produced copious amounts of hardware--or we need a very careful and devoted study to the evidence already

at hand, even recognizing that the signal-to-noise ratio is extremely low and indeed less than unity. At least, it appears to me, that work should be done on testing some of the hypotheses that have been put forward in cases in which numerous witnesses were present and phenomenon lasted a reasonable length of time. It is, of course, very easy to say "mass hallucination." Under what circumstances does mass hallucination occur? To what sort of people does it occur? Do we have well attested cases of mass hallucination in which a dozen people, often independently, and often scattered over considerable geographic area, have been stimulated to make the same sort of report? Or, we certainly do know that we have mirages that can produce spectacular effects, particularly close to the horizon. But can a mirage travel from one end of the sky to the other, and play about for an hour or so? Tremendously unusual meteorological conditions would have to be predicated; we must at least ask whether such meteorological conditions existed at the times of such reports before we say that a mirage that looked like an unusual craft cavorted about the sky for a long period of time and was seen over several hundred square miles.

I have often stated in the past that the UFO problem, whatever it may be, is nonetheless a problem in public relations and that it presents to us an unparalleled opportunity for the demonstration of the application of the scientific method in action. A puzzling sighting occurs: what better service could we do to the public or to science than to show how the scientists, in detective-like fashion, go about gathering their clues and drawing their demonstrable conclusions. I would like to point out that it is not in the spirit of science for an investigator either to do a sloppy job or to, apriori, jump to a conclusion. He may be dead right, but in science conclusions are not arrived at by jumping; they are arrived at by a careful step-by-step analysis.

I would like to recommend, in concluding, that, since the UFO problem has

been with us for the past dozen years and is likely to remain for some time, certain selected reports (and at the risk of great repetition, let us remind ourselves that we are still talking solely about reports) be carefully chosen by a panel consisting not only of qualified physical scientists, but of a psychologist, a psychiatrist, a lawyer, and perhaps a prosecuting attorney, plus an educator, a public relations representative, and a man of the cloth. Such a panel, operating without stigma or implied ridicule, could address itself to the task of the problem of report generation--not in a study of flying saucers.