

# The Worldwide UFO Wave of 1954

By Donald A. Johnson, Ph.D.

Fifty-five years have passed since the remarkable UFO events of 1954. Hardly anyone is still alive who remembers from personal experience what transpired. At the time I was less than two years old and have no conscious memory of anything from that period, so what I know is based entirely upon the accounts I have read, which is also true for nearly everyone else interested in the phenomena. To the best of my knowledge, no English language television documentaries have ever been produced about the worldwide UFO wave of 1954, and neither has the History Channel's *UFO Hunters* had an episode devoted to the topic.

Judging from online comments I have read it is also likely that the importance of the European reports is not well understood nor appreciated. As a general rule, Americans and Canadians are less familiar with events that transpire outside of their own countries, so many North Americans may be unfamiliar with the UFO experience from the European perspective. Furthermore, there is a danger that those who have become interested in the UFO phenomenon since the advent of the internet and satellite TV may have reached some erroneous conclusions about the early history of the UFO phenomenon. It is my belief that the widespread popularization of the Roswell crash/retrieval story, together with the UFO abduction phenomenon—both having forcefully entered the public consciousness since the 1980s—have had the combined effect of distorting the true picture. For these reasons it may be helpful to review some of the facts about the 1954 UFO wave and draw some more informed conclusions.

A few revisionists have gone so far as to characterize the UFO reports of 1954 as nothing more substantial than a flurry of misidentified lights in the sky. The characterization is that these poorly reported nocturnal lights then became elaborated into false reports of landings, car pursuits, and humanoid encounters as a result of the French press feeding a gullible public fabricated stories about Martians and other extraterrestrials in an attempt to sell more newspapers.<sup>1</sup> It is true that most of what we know about the 1954 UFO wave is based upon press reports, but while there certainly were scattered hoaxes, one gains the overall impression that the tone of the stories appeared to be have been matter of fact reporting of eyewitness accounts. In re-reading the published accounts, it becomes apparent that there was a serious attempt to understand what was going on, and there doesn't not seem to be the hint of ridicule, nor much questioning of the sincerity or sanity of the witnesses. Follow-up investigations by UFO investigators years later further suggest that there is not much to base such an allegation upon.

The 1954 UFO wave is generally known as the first large-scale European UFO wave, and especially a wave dominated by French reports. It was first popularized by Aime Michel's book, *A Propos des Soucoupes Volantes*,<sup>2</sup> which was translated into English and published in 1958 as *Flying Saucers and the Straight Line Mystery*.<sup>3</sup> However, it would be more correct to say that the UFO wave was worldwide in nature, because nearly 42% of the UFO sightings were made from locations outside of Europe. Table 1 shows the frequency of monthly reports by continent tabulated from the UFOCAT 2009 database. North America is broken down into two regional categories: those from the United States and those from Canada, but they follow similar trends with peaks occurring in July and August, respectively.

Table 1  
Worldwide UFO Wave of 1954

**UFO Wave of 1954**

Month	World Total	Europe	United States	Latin America	Australia	Africa	Asia	Canada
Jan	116	24	42	6	24	5	1	3
Feb	56	9	34	3	2	0	2	1
Mar	51	5	30	2	4	2	5	0
Apr	88	12	47	1	15	1	4	4
May	137	24	84	1	16	0	2	0
Jun	135	22	86	1	16	4	0	3
Jul	177	45	<b>91</b>	3	13	8	4	7
Aug	213	109	61	6	7	5	5	<b>11</b>
Sep	431	305	77	6	4	19	6	4
Oct	<b>1,150</b>	<b>961</b>	39	32	4	<b>36</b>	<b>27</b>	3
Nov	313	193	49	44	10	6	4	2
Dec	148	47	21	<b>60</b>	8	7	2	2
Year	3,015	1,756	661	165	123	93	62	40
Percent		58.2%	21.9%	5.5%	4.1%	3.1%	2.1%	1.3%

In 1954 the worldwide peak occurred in October with 1,150 reports. There were actually two peak dates, October 3 and October 14, both with 84 reports. Europe, Africa, and Asia all show monthly maximums in the frequency of UFO reports in October. We can safely say there was a worldwide UFO wave that reached its crescendo in October 1954, but it may have had its origin in the late spring and summer months in North America. Australia is a bit of a puzzle because it does not follow the same trend and appears to have had most of its reports in the first half of the year, peaking even earlier than North America.

One of the most surprising features of table 1 is the number of Latin American reports that occurred late in the year, with the peak coming in December 1954 with 60 reports for that month. The occurrence of a peak in South and Central American UFO sightings following a worldwide peak is a pattern repeated in another UFO wave, that of 1972 (see Table 2). In 1972 the worldwide peak was in July with 304 reports. Africa, Europe, Australia and Canada all show monthly maximums in the frequency of UFO reports for this month, followed by an August peak in the United States. However, Latin America doesn't peak until two months later in October. It is tempting to speculate that the phenomenon may have migrated to the Southern Hemisphere of the New World for a Latin holiday, after having completed its business in North America and the Old World.

Table 2  
Worldwide UFO Wave of 1972

**UFO Wave of 1972**

Month	World Total	United States	Europe	Latin America	Australia	Africa	Asia	Canada
Jan	137	42	62	4	16	0	0	11
Feb	86	32	28	9	9	3	2	3
Mar	129	44	66	3	8	0	3	5
Apr	130	54	35	5	22	2	3	7
May	99	38	26	6	19	1	2	6
Jun	111	39	35	4	18	10	0	3
Jul	<b>304</b>	97	<b>60</b>	19	<b>27</b>	<b>67</b>	0	<b>34</b>
Aug	261	<b>149</b>	39	13	21	8	4	26
Sep	156	48	27	28	24	0	9	17
Oct	182	53	48	<b>63</b>	8	2	1	6
Nov	104	33	33	21	2	8	0	7
Dec	96	34	28	23	5	1	1	1
Year	1,795	663	487	198	179	102	25	126
Percent		36.9%	27.1%	11.0%	10.0%	5.7%	1.4%	7.0%

Table 3 shows the monthly distribution of UFO reports in 1954 by European country. Europe had more than 58% of all reports for that year, so it is correct to regard 1954 as the year that Europe, and particularly France, first became well acquainted with the UFO phenomenon. Of the 1,756 European UFO reports in 1954, 1,159 or 66.0% came from France. This is followed by Italy (7.9%), Austria and Switzerland (7.7%), Great Britain (6.4%), Spain and Portugal (3.4%), Germany (2.2%), Belgium (2.0%), and the four Scandinavian countries led by Sweden (2.1%). Of those in the “other” category, 13 reports—including 11 for the month of October—came from Yugoslavia.

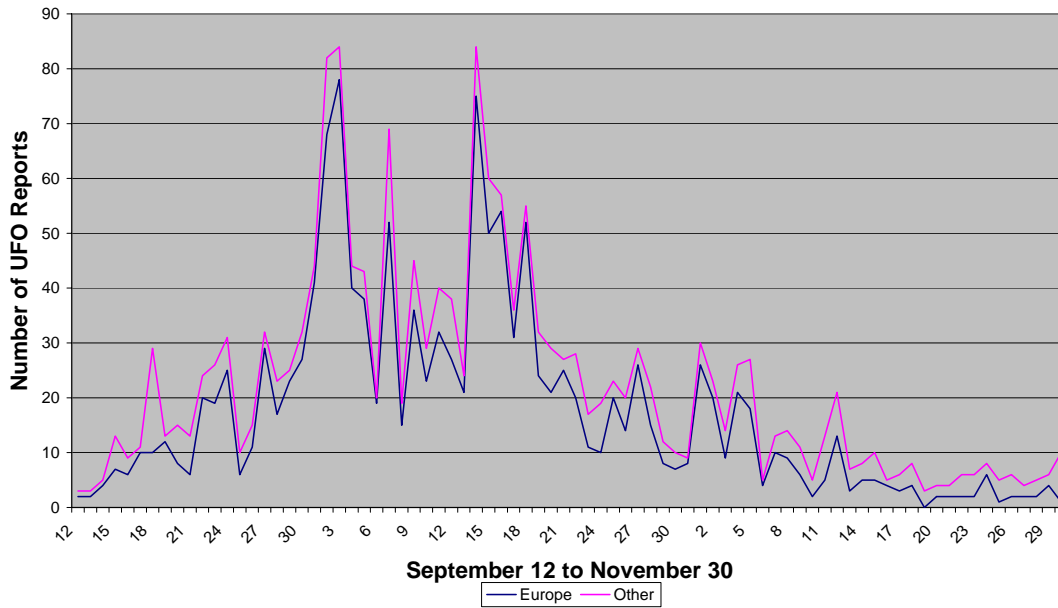
Table 3  
**UFO Wave of 1954 - Monthly Totals for European Countries**

Month	Total	France	Italy	Austria & Switz.	Great Britain	Spain & Portugal	Germany	Belgium	Scandinavia	Other
Jan	24	15	0	0	3	1	1	2	2	0
Feb	9	4	1	0	2	1	0	1	0	0
Mar	5	1	0	0	3	0	1	0	0	0
Apr	12	7	0	1	2	0	0	0	1	1
May	24	5	1	3	8	1	1	1	4	0
Jun	22	7	0	1	5	0	6	1	2	0
Jul	45	12	0	4	13	2	7	0	6	0
Aug	109	42	0	30	18	0	11	0	3	5
Sep	305	217	6	45	14	7	4	2	5	5
Oct	961	750	83	37	17	16	7	15	11	24
Nov	193	84	38	11	24	20	0	13	1	2
Dec	47	15	10	3	4	11	1	0	2	1
Year	1,756	1,159	139	135	113	59	39	35	37	38
%		66.0%	7.9%	7.7%	6.4%	3.4%	2.2%	2.0%	2.1%	2.2%

Figure 1 shows the daily distribution of UFO reports from September 12 to November 30, 1954 breaking out the European reports from the reports from other regions of the world. It clearly shows two modes or peaks on October 3 and October 14. The first date is a Sunday whereas the second date is a Thursday, so there doesn't seem to be a correlation with more reports occurring only on the weekends when perhaps more people would have been outdoors or would have had more leisure time to observe the sky. Therefore, there doesn't seem to be any readily apparent sociological reason for why these peaks in reporting should have occurred.

Figure 1

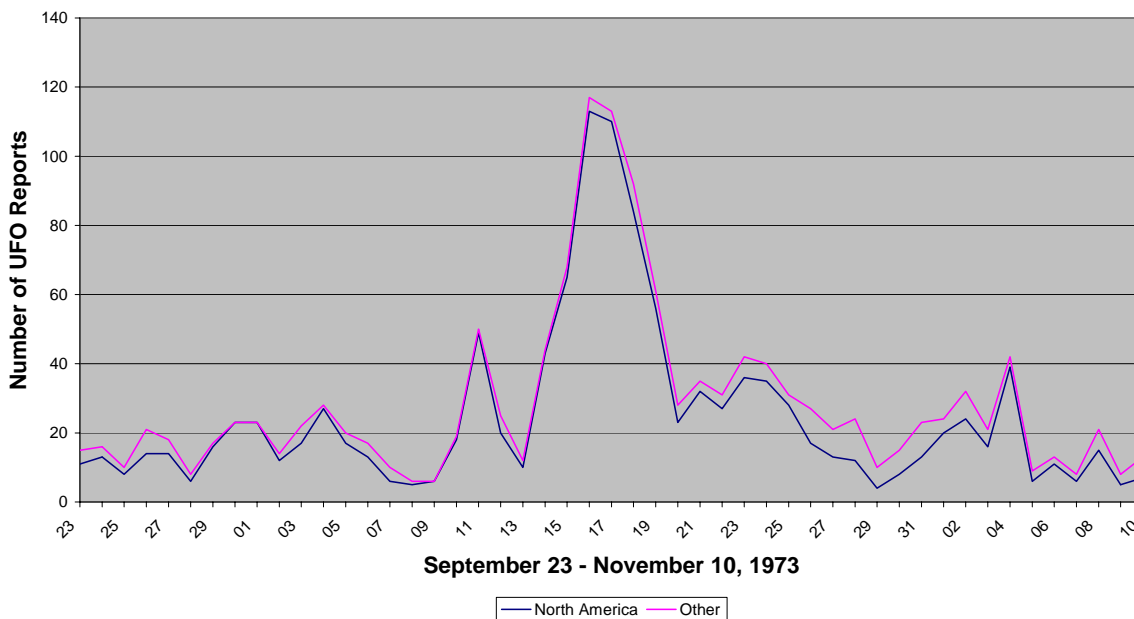
### UFO Wave of 1954



It is unusual for a worldwide UFO wave to have a bimodal distribution; it is much more typical for a worldwide UFO wave to have a single peak. See for example, Figure 2 below, which reports the daily distribution of UFO reports for 1973 from September 23 to November 10, 1973 broken out by North American reports and those from other parts of the world. It shows a very clear peak in reporting on October 16, 1973. What could cause such a dual maximum occurring almost two weeks apart? One possible scenario would be that we are dealing with two separate visitations by two different groups. To test this idea, let's look at a cross-section of the reports for each of the two peak dates.

Figure 2

### Daily UFO Reports for UFO Wave of 1973

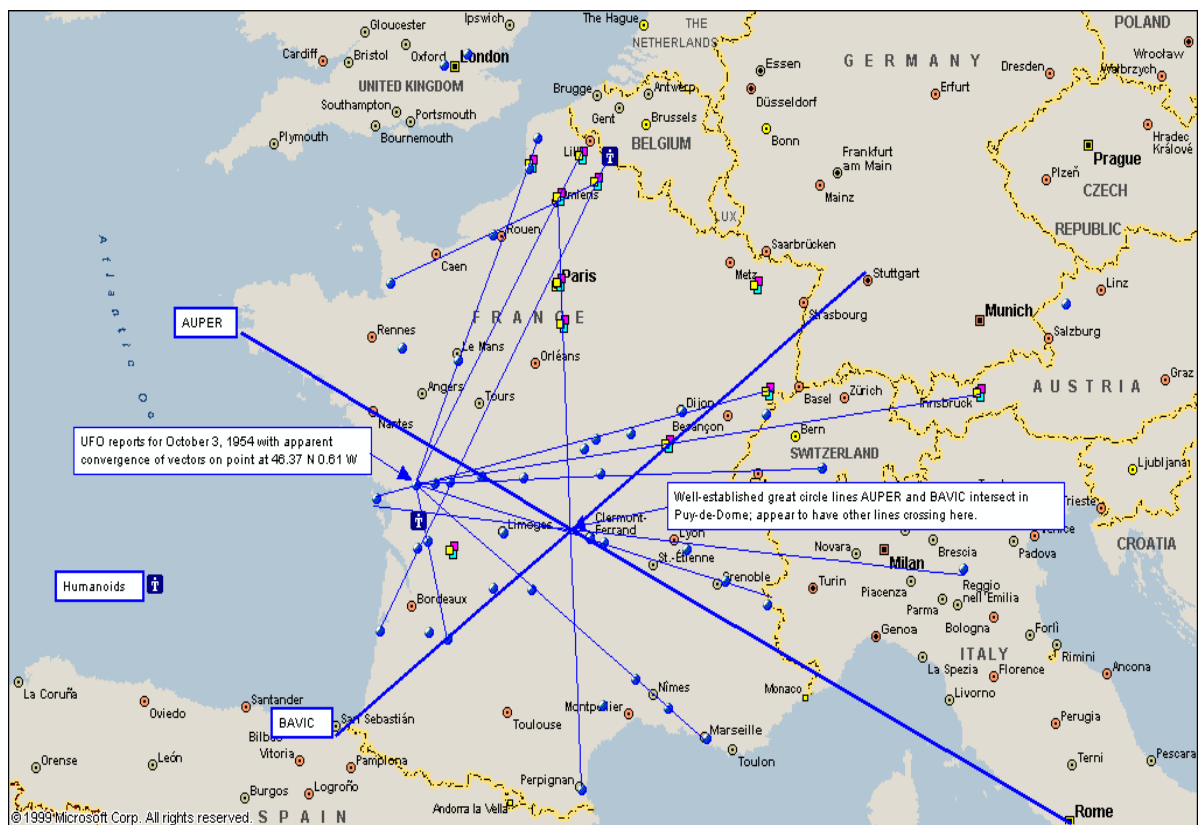


**October 3, 1954.** There were 84 UFO and humanoid reports recorded in UFOCAT for this day. There was one from India, one from Lebanon, one from Quebec, one from Switzerland, two each from England and Italy, and three from Austria. The rest were from France, which was most definitely the center of activity. When we plot these points on a map and connect points along straight lines with four or more

points, there appears to be a concentration of reports radiating from a point in eastern France with the coordinates 46.37 degrees N latitude, 0.61 degrees W longitude (see Figure 3). There also appears to be another north-south line that passes through Paris, and another east-west line passing through Lyon, that both bisect exactly the great circle lines of BAVIC (Bayonne to Vichy) and AUPER established by David R. Saunders on earlier dates in the 1954 wave.<sup>4, 5</sup>

Figure 3

Distribution of UFO Reports for October 3, 1954 Showing Straight Lines of Four or More Points



There were four humanoid reports, and all involved small spheres, cones or disc-shaped craft and dwarfish UFO-nauts who were between 0.9 to 1.0 meter tall, wearing diver suits. The first occurred at 12:15 a.m. in Nivelles, Nord, France.<sup>6</sup> A 20-year-old metallurgist, Marcel Senechal, witnessed a spherical object three meters in diameter land in a meadow near a canal. Two one meter tall beings were seen talking to each other. Their heads were very large, and they wore luminous suits. The second occurred at dawn when Angelo Girardo, a 55-year old stockyard worker, was going to work in Bressuire, Deux-Sevres, France. He saw a three meter diameter circular craft with a small figure wearing a diving suit standing close by. The object took off at a fantastic speed.<sup>7</sup>

The third humanoid report occurred at 6:45 p.m. Rene Coudette and B. Devoisin were riding bicycles with a third witness between Rue and Quend, Somme, France on Route D27, near the village of Vron, when they saw a glowing orange object, shaped like a beehive, on the road ahead of them. A small strange "man" wearing a diving suit, about 0.9 meters (3 foot) tall, was standing close to it. When they got within 70 meters of it, the object took off very fast.<sup>8</sup> Less than three hours later the same or a similar orange object chased a car down a road in Quend for eight kilometers, then flew away toward the sea. The witness was a butcher named Georges Galant. The fourth humanoid report occurred later that night and did not involve a UFO sighting. A young baker's apprentice, S. Pouchet, was approached by two small shadowy beings, about three feet tall, in Marcoing, Nord, France.<sup>9</sup>

There were also several other close encounter reports on October 3<sup>rd</sup> not involving humanoids. At 7:20 p.m. the crowd at a fair in Chereng, Nord, France saw a luminous object in the sky that arrived very quickly, stopped in flight, emitted sparks, and finally came down to ground level. As witnesses rushed to the

spot it took off again.<sup>10</sup> At 10:45 p.m. a small circular craft was seen rising from the roadside by Mr. Jean Allary, age 22, while riding a motorcycle between Montmoreau and Villebois Lavalette, Charente, France. It seemed to be gliding over the ground. It showed luminous spots and became completely illuminated when it took off. It stood about 1.2 meters high. Grass was found flattened and scorched over an area seven meters across.<sup>11</sup> Finally, near La Rochelle, France at 11:00 p.m. Mr. and Mrs. Guillemoteau saw an object, five meters in diameter and 2.5 meters high, hovering for several minutes one meter above the ground. The UFO then rose vertically. Oily marks were found at the spot.<sup>12</sup> In summary, these reports were consistently similar and consisted of relatively small objects that were orange or luminous.

**October 14, 1954.** On this second peak date there was a greater diversity of reports, both in the size and types of objects and the types of humanoids reported. There was one UFO report from Kenya, one from Morocco, two from Thailand, two from Sweden, an important aerial encounter from England, three close encounters from Italy, and a CE-III report from Iran. In general, the reports are more bizarre and the encounters closer, more direct and confrontational. For instance, there were three reports of vehicle ignition interference caused by UFOs, and it has long been my contention that these car stoppage events are deliberate acts and not the by product of the UFO propulsion systems. The concentration of reports had shifted to the east and south, with the most occurring in the Mediterranean departments of Gard, Vaucluse, Alpes-de-Haute-Provence, Bouches-du-Rhone, Var, and Alpes-Maritimes, but with a second concentration further north in Saone-et-Loire, Ain, Cote-d'Or and Jura departments (see Figure 4).

Figure 4

Distribution of UFO Reports from France & England for October 14, 1954



Of the humanoid reports, there continued to be reports of little men, but there was also one report of a stocky hairy dwarf and another entity that, although short, had a more human appearance. At 6:30 a.m. in Shamsabad, Iran a man was coming out of his house when he saw a luminous object like a bright star. When he got close, he saw that it was a 5-meter long object, next to which a "short young man" was standing on a circular piece of metal, laughing at the witness's terrified expression.<sup>13</sup> The witness was 20 meters away when the craft took off at unbelievable speed. In southeastern France several witnesses in Saint-Ambroix, Gard, France saw seven small beings flee into a luminous object when they were approached. It took off immediately. It was claimed that "unknown seeds" were found at the site.<sup>14</sup> At 3:30 p.m. in the Erchin Wood

in Lewarde, northern France a miner named Casimir Starovski met a short bulky figure with large slanted eyes. Its body was covered with fur. It also had a flat nose and thick lips.<sup>15</sup>

Landings were also prominent on October 14, 1954. At 12:15 a.m. five kilometers north of Nimes, France Mr. & Mrs. Dupuy saw an object shaped like a rugby ball resting on crutch-like landing gear. It was lit by a greenish light and had three portholes.<sup>16</sup> At 3:40 a.m. a brilliant, yellow machine in the shape of a mushroom, two meters in height and four meters in diameter, was seen resting on railroad tracks in Saint-Pierre Halte by a baker's assistant from Calais.<sup>17</sup> At dusk, around 6:00 p.m., a farmer in Angles, Vendee department, France saw a bright object, which came almost to the ground. When he tried to approach it the object produced an intense "screen of light" and vanished without a sound. Several other persons in Angles also observed the scene.<sup>18</sup> At around 7:00 p.m. Messr. Duvivier, a farmer in Meral, Mayenne, France observed an orange sphere land and he walked out to approach it. When he got close he found it was shaped like a flattened dome, 5.5 meters in diameter, and it gave off a blinding light, which illuminated the countryside for about 200 meters. It was also transparent, and a dark figure could be seen inside. After remaining at ground level for 10 minutes it left by flying to the north, while a bright cloudy misty material fell slowly to the ground at the site. When the witness arrived home he found his clothes were covered with a white film of adhesive substance, not unlike paraffin wax.<sup>19</sup> Just after dark, around 7:00 p.m., in Saint-Germain-du-Bois, Saone-et-Loire Messr. Lonjarret observed a luminous circular orange object on the ground near a corn field off of highway D91.<sup>20</sup> At 8:50 p.m. an engineer, Messr. G. Mouillon from Genelard, was driving between Ciry-le-Noble and Montceau-les-Mines, Saone-et-Loire when he witnessed an enormous luminous object that descended toward the ground without any noise.<sup>21</sup>

UFO reports involving car buzzings and vehicle electrical interference were reported several times. At 6:15 p.m. a municipal employee, Jose Casella, was riding home in Biot, Alpes-Maritimes, France when he suddenly found an oval-shaped aluminum object about 5.5 meters in diameter in front of him on the road, one meter high. As he applied the brakes, the object took off at a very high speed. Several persons confirmed the sighting. The object was described as a gray domed disc that emitted a soft whistling noise. When it took off the witness was only six meters away.<sup>22</sup> In Chazey Wood, south of Gueugnon, Saone-et-Loire department at 7:30 p.m. Messrs. Jeannet and Garnier saw a reddish fireball fly low over their car as their engine and headlights died.<sup>23</sup> Again in Saone-et-Loire department a short time later in Chazey Wood, Andre Cognard, who was coming from Gueugnon, was blinded by a light from a luminous disc-shaped object as it flew low over his car. The projected light beam was so bright and blinding that he was forced to stop his car.<sup>24</sup> Between Saint-Romain-sous-Gourdon and les Broses-Tillots, Saone-et-Loire a motorcyclist saw a circular craft shaped like an upside-down plate just after dark. At the same time the engine on his motorcycle stalled. After watching it for some time, he pushed the motorcycle down the road, where it could be restarted. In the same area an engineer also saw a luminous object coming down rapidly.<sup>25</sup> At 8:10 p.m. on the road between Thieulloy-la-Ville and Beauvais, Somme, Mr. Covemacker saw an object fly over his car as the headlights died. It went on toward the north, seemingly following a train.<sup>26</sup>

To summarize, the occurrences on the two peak dates appear to be part of the same general phenomenon. There is no convincing support for the hypothesis that there might have been two different sources or causes for these reports, so we need to look elsewhere for an explanation for why there were two crests in UFO activity. However, the events on the 3<sup>rd</sup> of October tended to consistently involve small sized objects and little men, whereas the close encounters of the 14<sup>th</sup> of October involved a greater diversity of more confrontational encounters, including stoppages of automobiles and at least one motorcycle, and quite often larger objects. Indeed, in one case the object was described as enormous.

**Day of the Week.** There is a noticeable difference in the number of reports by the day of the week, with a significantly lower number of reports for Tuesdays and Wednesdays, and a higher number of reports occurring on Thursdays and Mondays. Table 4 shows the tally of European reports by day of week for the 11 week period from Sunday, September 12, 1954 to Saturday, November 27, 1954. Why was the number of reports significantly higher on Mondays and Thursdays? Perhaps the weather was better and the viewing conditions clearer on these days; we would need to go back and check the weather reports for the period to find out for sure.



Table 4  
European UFO Reports by Day of the Week: September 12 – November 27, 1954

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Total	Chi-Square
192	225	162	157	250	202	203	1391	32.63 df = 6 p < .0001

Good weather alone doesn't seem to be a likely explanation, however, because when we look at the non-European UFO reports for the same period, we also see a significantly higher number of reports on Thursdays and a significantly lower number of reports on Wednesdays. The two peak dates for non-European UFO reports are Saturday, September 18, 1954 with 19 reports, and Thursday, October 7, 1954 with 17 reports. Table 5 shows the frequency of UFO reports from the rest of the world by the day of the week for the wave period September 12 through November 27, 1954.

Table 5  
Non-European UFO Reports by Day of the Week: September 12 – November 27, 1954

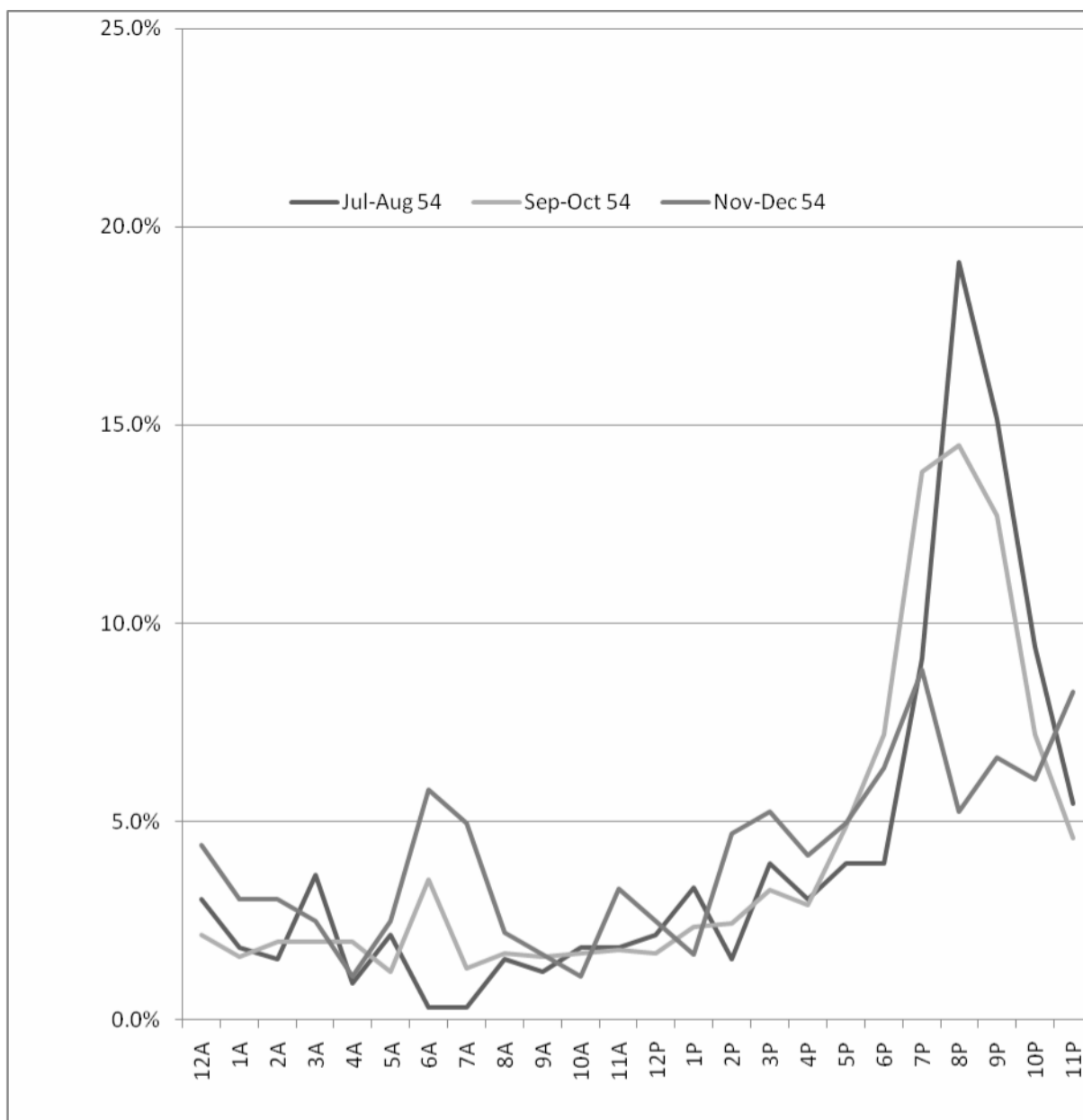
Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Total	Chi-Square
41	47	57	40	71	60	67	383	16.69 df = 6 p < .01

**Time of Day.** Another characteristic of UFO reports is that they are not equally distributed around the clock. Table 6 shows that during the 1954 wave the peak time for the occurrence of UFO sightings was in the early evening hours between 6:00 p.m. and 11:00 p.m. cresting at 8:00 p.m. There was also a second minor peak that occurred in the early predawn hours between 3:00 a.m. and 7:00 a.m. cresting at 6:00 a.m. Figure 5 reveals that the peak time changed from 8:00 p.m. during the months of July through October, to 7:00 p.m. during November and December, earlier in the evening when the onset of darkness occurred sooner in the day. The secondary peak also switched from 3:00 a.m. in the summer months of July and August to 6:00 a.m. in the autumn and early winter months of September to December, corresponding with the extended coverage of darkness and the delayed dawn.

Table 6  
UFO Reports by Time of Day – July to December 1954

Time	Jul-Aug	Sep-Oct	Nov-Dec	Total Jul- Dec 1954
12A	10	23	16	49
1A	6	17	11	34
2A	5	21	11	37
3A	12	21	9	42
4A	3	21	4	28
5A	7	13	9	29
6A	1	38	21	60
7A	1	14	18	33
8A	5	18	8	31
9A	4	17	6	27
10A	6	18	4	28
11A	6	19	12	37
12P	7	18	9	34
1P	11	25	6	42
2P	5	26	17	48
3P	13	35	19	67
4P	10	31	15	56
5P	13	52	18	83
6P	13	77	23	113
7P	30	148	32	210
8P	63	155	19	237
9P	50	136	24	210
10P	31	77	22	130
11P	18	49	30	97
	330	1069	363	1762

Figure 5  
Distribution of UFO Reports by Time of Day for July to December 1954



**Orthoteny.** Orthoteny, or the "straight-line mystery," was first discovered by the French UFO researcher and mathematician Aime Michel. Before 1954, like most students of UFOs, Michel was discouraged by the sporadic and unpredictable nature of UFO sightings. In his book published in 1958, Michel explained that the situation changed dramatically during the worldwide 1954 UFO wave.<sup>3</sup> From mid-August to mid-November 1954, Michel found that many of the sightings were located along great-circle routes which, when transferred onto flat maps of the areas involved, amounted to straight lines. He began his study by plotting five high-strangeness reports, all of which occurred on Friday, October 15, 1954. The sightings were in such widely separated points as Southend in England, Pas de Calais, Aire-sur-la-Lys in France, a site on Route N-68 close to the German border, and Po di Gnocca in Italy. Michel marked these five sightings on a globe of the earth and found that if a thread was stretched between the five points that thread extended in a great-circle line 700 miles long. When the same sightings were plotted on appropriate maps of the areas involved, adjusted to account for the slight curvature of the earth over the 700 miles, the five points lay on a "straight line." Thus Aime Michel's technique of orthoteny was born. The word orthoteny is derived from the Greek adjective "orthoteneis" which means "stretched in a straight line."

Of course, straight lines can easily be overfitted to any three points in a row because of the uncertainty or "wobble room" of the exact location of the witnesses or the UFOs involved, but Michel, being a mathematics teacher,

was aware that a five point straight line between UFO sighting locations on the same date was far beyond coincidence. Through successive plottings of multi-sightings on other days during the 1954 wave, Michel found many other multi-point straight lines, primarily in France and neighboring countries. From these results, he developed a hypothesis that the UFOs might be using a grid work surveillance pattern during their appearances, and were traveling or manifesting along straight lines because this was the most logical manner of surveillance.

Michel also found evidence of an additional phenomenon: at the intersection of these orthotenic lines, the object sighted was invariably of the class of UFO known as "cloud cigars." These huge cloud-enshrouded ellipsoidal forms, from which smaller glowing or metallic discs departed and into which they returned, were always viewed, in their motionless mode, where two or more straight lines intersected at a sighting location. The most striking example of this phenomenon occurred on September 2, 1954 when nine multi-point straight lines of French UFO sightings intersected at Poncey, France. Michel theorized that the "cloud cigars" were aggregations of UFOs, in other words, a type of carrier-craft mechanism which provided a rallying point for small discs which performed the surveillance maneuvers along the grid work lines.

As the years passed after Michel's initial study, the theory of orthoteny was argued pro and con in the UFO literature and other researchers extended the major orthotenic lines to other continents such as Africa, and North and South America.<sup>4, 5, 27-45</sup>

**Shape.** Table 7 shows the monthly distribution of reports by the shape of the UFO or UFOs sighted. Of the 3,015 reports in the database, there are 657 where the shape is recorded. Shape was not a field recorded in the early versions of UFOCAT prior to 1980, so many of the less well known reports from more obscure sources have not been revisited and are still uncoded. Nevertheless, these numbers reflect the shapes recorded for the best known reports and may well be representative of the entire sample. The most commonly reported shape described for UFO reports in 1954 was the disc, and it was reported 42% of the time. The next most common category was the cigar or cylinder shape, which occurred 15.2% of the time. The "other" category includes irregular shapes such as barrel, dumbbell, football, and parachute.

Table 7  
Monthly Distribution of 1954 UFO Reports by Shape of Object

Month	Total with Shape	Disc	Cigar, Bullet, Cylinder or Torpedo	Ball or Sphere	Dome or Domed Disc	Oval, Ovoid or Ellipse	Light or Lights	Other	Rectangle or Oblong	Crescent, Delta, Triangle or V-Shape	Cone or Top
Jan	26	14	3	6	2	0	1	0	0	0	0
Feb	15	9	1	2	1	1	0	0	0	0	1
Mar	20	7	4	3	2	1	2	0	0	1	0
Apr	24	11	2	2	1	1	5	0	0	1	1
May	20	10	0	3	1	1	2	0	1	2	0
Jun	28	10	3	5	3	2	4	0	1	0	0
Jul	31	13	5	7	0	0	1	1	2	2	0
Aug	54	28	3	7	3	6	2	0	3	1	1
Sep	113	44	19	19	10	12	3	1	3	2	0
Oct	216	83	46	24	21	27	3	5	2	1	4
Nov	74	31	11	11	9	5	2	4	0	0	1
Dec	36	16	3	3	8	3	2	1	0	0	0
Year	657	276	100	92	61	59	27	12	12	10	8
%		42.0%	15.2%	14.0%	9.3%	9.0%	4.1%	1.8%	1.8%	1.5%	1.2%

**Type of Report.** The most common type of UFO report is the nocturnal light (NL), and this was not an exception for 1954. Table 8 displays the monthly distribution of 1954 UFO reports classified by type of report, following J. Allen Hynek's original classification system but with a few additional categories. Nearly half (49.4%) of all reports were nocturnal lights. A new category for night time observation of distant flying objects that were clearly more than lights, the NO or nocturnal object, made up nearly one percent of the

reports. Daylight discs were 17.3% of the 1954 reports. Other non-discoid objects, such as cloud cigars, deltas, and other daylight craft or aerial phenomenon, comprised 2.3% of the reports. Close encounters of the first kind were 11.1%, followed by humanoid reports or close encounters of the third kind (10.6%). Close encounters with physical effects or traces were 5.5% of reports. The peak month for every category except radar cases and abductions (CE-4) was October 1954.

Table 8  
Monthly Distribution of 1954 UFO Reports by Modified Hynek Classification Code

Month	Total	Daylight Discs	Daylight Objects (not Discs)	Nocturnal Lights	Nocturnal Objects	Radar	CE-1	CE-2	CE-3	CE-4	Traces without UFO	Other Paranormal
Jan	66	17	4	36	1	1	1	2	3	0	0	1
Feb	42	10	1	17	1	4	5	0	2	0	2	0
Mar	42	16	5	15	0	2	0	1	2	1	0	0
Apr	59	18	2	24	1	1	10	0	2	0	1	0
May	105	25	2	61	0	5	2	4	4	1	1	0
Jun	114	36	1	51	0	5	14	3	3	0	1	0
Jul	107	29	3	57	2	2	8	1	4	1	0	0
Aug	171	38	3	95	2	2	14	4	10	1	1	1
Sep	324	53	12	179	3	3	30	11	27	0	2	4
Oct	782	<b>76</b>	12	<b>381</b>	6	1	<b>117</b>	<b>67</b>	<b>117</b>	0	3	2
Nov	217	35	3	99	3	5	25	14	30	0	2	1
Dec	87	13	1	31	0	2	9	9	20	1	1	0
Year	2,116	366	49	1,046	19	33	235	116	224	5	14	9
%		17.3%	2.3%	49.4%	0.9%	1.6%	11.1%	5.5%	10.6%	0.2%	0.7%	0.4%

The UFO wave of 1954 was notable for its reports of close encounters. We will explore the statistics on these by looking at close encounters of the first, second, and third kinds. There was a noticeable absence of abduction reports, or CE-IV reports, during this UFO wave. In fact there are only five cases recorded in UFOCAT for 1954: one in March, one in May, one in July, one in August, and one in December.

Table 9 shows the monthly distribution of close encounters of the first kind (CE-I) by region of the world, those that involved low level UFO encounters at close proximity (within 150 meters) but without physical evidence and without the presence of UFO occupants. Only reports with a recorded date are included, so the total is slightly reduced from the number shown in Table 6. Europe again dominates with nearly 75% of the reports.

Table 9

1954 CE-I Reports

Month	World Total	Europe	United States	Latin America	Middle East	Africa	Atlantic Ocean	Asia	Australia	Canada
Jan	1	0	0	0	0	0	0	0	1	0
Feb	3	0	2	1	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0
Apr	10	0	7	2	0	0	0	0	3	0
May	2	0	1	1	0	0	0	0	1	0
Jun	9	2	4	0	0	1	0	0	2	0
Jul	7	2	3	1	0	0	0	0	1	0
Aug	12	6	1	0	1	0	2	1	0	1
Sep	27	22	3	1	0	1	1	0	0	0
Oct	114	107	0	1	3	1	0	2	0	0
Nov	23	18	2	2	0	1	0	0	0	0
Dec	8	4	1	2	0	0	0	0	0	1
Year	216	161	24	11	4	4	3	3	8	2
%		74.5%	11.1%	5.1%	1.9%	1.9%	1.4%	1.4%	3.7%	0.9%

Table 10 shows the monthly distribution of close encounters of the first kind for the top producing European countries. France (with Belgium contributing only two reports in November 1954) dominates the scene with 82.0% or 132 reports, followed by Italy with 8.7% or 14 reports.

Table 10

**1954 European CE-I Reports**

Month	Europe	France & Belgium	Italy	Great Britain	Spain & Portugal
Jan	0	0	0	0	0
Feb	0	0	0	0	0
Mar	0	0	0	0	0
Apr	0	0	0	0	0
May	0	0	0	0	0
Jun	2	0	0	2	0
Jul	2	0	0	0	0
Aug	6	3	0	3	0
Sep	22	21	0	0	0
Oct	107	96	8	2	1
Nov	18	11	6	0	1
Dec	4	1	0	0	1
Year	161	132	14	7	3
%		82.0%	8.7%	4.3%	1.9%

The UFO wave of 1954 is the first time there was a large concentration of reports involving UFOs apparently causing electrical system problems for automobiles. These cases, together with landing cases leaving physical traces, involved low level UFO encounters at close proximity (within 150 meters) with some form of physical evidence, transient or otherwise, but without the presence of UFO occupants. Table 11 shows the monthly distribution of close encounters of the second kind, including vehicle EM interference cases, by country or region of the world. There were 89 reports from Europe (nearly 80% of the CE-IIs for 1954), and France again dominates with 64.3% of all reports, including one report from neighboring Belgium in November 1954. The only other country that produced a significant number of such reports is neighboring Italy, with 12 CE-II reports (10.7%).

Table 11

**1954 CE-II Reports Including Vehicle EM Interference Cases**

Month	World Total	France & Belgium	Italy	Spain	Great Britain	United States	Brazil	Canada	Asia	Africa	Australia	Central America
Jan	2	1	0	0	0	0	0	0	0	0	0	1
Feb	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0	0
May	4	0	0	0	1	1	0	0	1	0	1	0
Jun	3	0	0	0	0	0	0	1	0	1	1	0
Jul	1	0	0	0	0	1	0	0	0	0	0	0
Aug	4	1	0	0	0	1	1	1	0	0	0	0
Sep	11	8	0	0	0	0	0	1	0	1	0	0
Oct	65	53	9	0	0	1	0	0	3	0	0	0
Nov	13	6	2	1	1	2	1	0	0	0	0	0
Dec	9	3	1	2	0	1	2	0	0	0	0	0
Year	112	72	12	3	2	7	4	3	4	2	2	1
%		64.3%	10.7%	2.7%	1.8%	6.3%	3.6%	2.7%	3.6%	1.8%	1.8%	0.9%

The reports of UFO occupants or humanoids seen in the vicinity of UFOs, the CE-III reports, are also very interesting because there were so many of them, and because the descriptions bear a certain level of consistency. Table 12 shows the monthly distribution of European CE-III reports, while Table 13 shows the monthly distribution for the 51 CE-III reports from the rest of the world. There were 151 European reports for the year, with 97 occurring in October. France had the most cases with 108 or 71.5%, followed by Italy with 30 or 19.9%. Nearly half (49%) of the non-European humanoid reports came from South America: 10 from Brazil, 8 from Venezuela, and the rest from Argentina and Chile.

Table 12  
1954 Humanoid Reports for Europe

Month	Total	France	Italy	Great Britain	Spain	Norway	Portugal	Belgium	Germany
Jan	1	1	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0
Apr	1	1	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0
Aug	2	1	0	0	0	1	0	0	0
Sep	22	21	0	0	0	0	1	0	0
Oct	97	76	17	1	0	0	1	1	1
Nov	20	7	9	2	1	1	0	0	0
Dec	8	1	4	1	2	0	0	0	0
Year	151	108	30	4	3	2	2	1	1
%		71.5%	19.9%	2.6%	2.0%	1.3%	1.3%	0.7%	0.7%

Table 13  
1954 Humanoid Reports for the Rest of the World

Month	Total	South America	United States	Africa	Asia	Australia	Canada	Azores	Mediterranean
Jan	2	0	0	0	1	1	0	0	0
Feb	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0
Apr	1	0	1	0	0	0	0	0	0
May	3	1	1	0	0	1	0	0	0
Jun	1	0	0	0	0	1	0	0	0
Jul	3	1	1	0	0	0	1	0	0
Aug	1	0	0	0	0	0	1	0	0
Sep	4	1	2	0	0	0	0	1	0
Oct	16	3	2	5	3	1	1	0	1
Nov	8	8	0	0	0	0	0	0	0
Dec	12	11	0	1	0	0	0	0	0
Year	51	25	7	6	4	4	3	1	1
%		49.0%	13.7%	11.8%	7.8%	7.8%	5.9%	2.0%	2.0%

When we classify the descriptions of the UFOonauts reportedly seen in 1954, we find something startling: the Grey humanoids popularized by abduction accounts of the 1970s and 1980s, and especially by Whitley Strieber's book *Communion* and Budd Hopkins books *Missing Time* and *Intruders*, are conspicuous by their complete absence. Generally speaking, the UFO occupants fall into two broad categories: human looking men and women, including some described as looking peculiarly foreign, and dwarfish beings between three and four feet tall. There are of course other categories, including hairy dwarves, robots, non-humanoid "radish" looking creatures, very tall and very tiny entities. There are also reports of dark silhouettes backlit by bright lights or witnessed under other poor viewing conditions. However, it is remarkable that the relative size of these groups is similar when comparing the European and non-European reports, which can be compared by examining the percentages shown in the columns of Tables 14 and 15. The percentage of cases uncategorized is nearly the same, as are the percentage of cases for dwarves and hairy dwarves: 35% and 6% respectively. In both tables the next most common category after "dwarf" is "human", i.e. reports of beings with human or nearly human appearance, although their complexion and facial features, sometimes blonde or Nordic, sometimes olive-skinned, swarthy or Asiatic, may mark them as alien.



Table 14

**Monthly Distribution of 1954 European Humanoid Reports by UFO naut Category**

Month	Total	Not known	Apparition	Creature	Dwarf	Hairy Dwarf	Human	Non-humanoid	Robot	Silhouette	Very Tall	Tiny
Jan	1	1	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0
Apr	1	0	0	0	0	0	1	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	0	0
Aug	2	0	0	0	1	0	1	0	0	0	0	0
Sep	22	5	0	1	6	0	8	0	1	1	0	0
Oct	97	28	0	4	37	8	2	2	1	6	1	1
Nov	20	6	1	0	8	1	3	0	0	0	0	1
Dec	8	4	0	0	1	0	2	0	0	0	1	0
Year	151	44	1	5	53	9	17	2	2	7	2	2
%		29.1%	0.7%	3.3%	35.1%	6.0%	11.3%	1.3%	1.3%	4.6%	1.3%	1.3%

Table 15

**Monthly Distribution of 1954 Non-European Humanoid Reports by UFO naut Category**

Month	Total	Not known	Broad shoulder	Creature	Dwarf	Hairy Dwarf	Human	Robot	Silhouette
Jan	2	2	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0
Apr	1	0	0	0	1	0	0	0	0
May	3	1	0	0	0	0	1	0	1
Jun	1	1	0	0	0	0	0	0	0
Jul	3	1	0	0	0	0	0	2	0
Aug	1	0	0	0	0	0	0	0	0
Sep	4	0	0	0	3	0	1	0	0
Oct	16	6	0	2	5	0	3	0	0
Nov	8	1	0	0	4	1	2	0	0
Dec	12	2	1	0	5	2	2	0	0
Year	51	14	0	2	18	3	9	2	1
%		27.5%	0.0%	3.9%	35.3%	5.9%	17.6%	3.9%	2.0%

Table 16 shows the height of UFO nauts in feet, seen in 1954 by month. Although in 126 cases the height was not given, in many of those cases the height can be presumed to be not remarkably different from a normal height of between five and six feet. It is worth noting the short humanoids were more often described as a meter tall (3.3 feet) than between four and five feet in height.

Table 16  
Height of UFOs Seen in 1954 by Month

Month	Total	Not Given	1.0-1.9 ft	2.0-2.9 ft	3.0-3.9 ft	4.0-4.9 ft	5.0-5.9 ft	6.0-6.9 ft	7.0-7.9 ft	Over 8.0 ft
Jan	3	3	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0
Apr	2	1	0	0	0	0	1	0	0	0
May	3	3	0	0	0	0	0	0	0	0
Jun	1	1	0	0	0	0	0	0	0	0
Jul	3	1	0	0	0	0	0	0	0	2
Aug	3	1	0	0	0	0	1	1	0	0
Sep	26	15	0	0	6	2	3	0	0	0
Oct	113	73	1	1	23	10	3	1	1	0
Nov	28	18	1	0	6	1	1	1	0	0
Dec	20	10	0	0	7	0	2	1	0	0
Year	202	126	2	1	42	13	11	4	1	2
%			3%	1%	55%	17%	14%	5%	1%	3%

Lastly, table 17 shows categories of clothing or uniforms worn by the UFOs. The most often described uniform was a tight-fitting diving or diver's suit. White or silver metallic spacesuits were the next most often mentioned. Coveralls were described six times, and tunics three times. There was one report of a "Michelin Man" uniform which would occur in subsequent years. What the clothing seems to have in common is the need for some form of pressure suit to control for the rapid change of forces applied to the body, either through rapid compression or decompression. While exposure to the vacuum of outer space comes immediately to mind, this does not necessarily need to be the reason for such protection.

Table 17  
1954 UFO Wave: Types of Uniforms Worn by UFOs

Month	Total	Diver suit	White or silver metallic space-suit	Helmet	Cover all	Black robe	Tunic or Jacket	Flight suit	Red metallic space-suit	Mask or Goggles	Luminous	Michelin Man
Aug	2	0	1	0	1	0	0	0	0	0	0	0
Sep	8	4	1	2	0	0	1	0	0	0	0	0
Oct	31	11	5	5	3	1	1	1	2	0	1	1
Nov	10	0	2	1	2	1	1	1	0	2	0	0
Dec	1	1	0	0	0	0	0	0	0	0	0	0
	52	16	9	8	6	2	3	2	2	2	1	1
		30.8%	17.3%	15.4%	11.5%	3.8%	5.8%	3.8%	3.8%	3.8%	1.9%	1.9%

**Conclusion.** The UFO wave of 1954 was truly worldwide in nature, with UFO reports coming from every continent except Antarctica. Europe had more than 58% of the reports, but North America had over 700 reports. The wave of sightings peaked in the spring in Australia, in the summer in Canada and the United States, and then hit its crescendo in Europe, Africa and Asia in September and October. It then appeared to move to Latin America, peaking in December. The daily distribution of UFO reports show a bimodal distribution with two peak dates, October 3 and October 14, 1954. However, they seem to be caused by the same phenomenon. Sightings were most prevalent in the evening hours between 6:00 p.m. and 11:00 p.m. cresting at 8:00 p.m., with a second minor peak just before dawn. The UFO wave of 1954 was the first time there was a large concentration of reports involving UFOs apparently causing electrical system problems for automobiles. The 1954 wave was also the first time that anyone noticed an alignment of UFO

reports along great circle routes or “orthotenic” lines. These lines appear to be worldwide in nature and persist for longer than the duration of any one UFO wave of reports. Another surprising feature is that the Grey humanoids with large dark eyes, popularized by abduction accounts, are conspicuous by their complete absence from the 1954 accounts. UFO occupants primarily fall into two broad categories: human looking men and women of normal stature, including some described as looking peculiarly foreign, and dwarfish beings between three and four feet tall. Their uniforms were usually tight fitting, implying the employment of some sort of pressure suit.

## References

- <sup>1</sup>Carrouges, Michel (1963). *Les Apparitions de Martiens*. Paris: Fayard.
- <sup>2</sup>Michel, Aime (1967). *A Propos des Soucoupes Volantes* (4<sup>th</sup> Edition). Paris: Planete.
- <sup>3</sup>Michel, Aime (1958). *Flying Saucers and the Straight Line Mystery*. New York: S. G. Phillips.
- <sup>4</sup>Saunders, David R. (1972). Some New Lines in UFO Research. Paper presented at the 1972 MUFON UFO Symposium, Quincy, Illinois.
- <sup>5</sup>Johnson, Donald A. (2000). New Lines in UFO Research: Orthoteny Revisited. *International UFO Reporter*, 25, no. 1 (Spring 2000), pp.18-19, 32.
- <sup>6</sup>Sider, Jean, *Dossier 1954 et l'Imposture Rationaliste*, p. 181; Michel Figuet & Jean-Louis Ruchon, *OVNI: Le Premier Dossier Complet des Rencontres Rapprochees en France*, pp. 110-111.
- <sup>7</sup>Vallee, Jacques, *Passport to Magonia: A Century of Landings*, p. 215; Michel Figuet & Jean-Louis Ruchon, *OVNI: Le Premier Dossier Complet des Rencontres Rapprochees en France*, pp. 111.
- <sup>8</sup>Michel, Aime, *Flying Saucers and the Straight Line Mystery*, pp. 118, 116; Jacques Vallee, *Passport to Magonia: A Century of Landings*, p. 216.
- <sup>9</sup>Webb, David F. & Bloecher, Ted. HUMCAT: Catalogue of Humanoid Reports, case A0271, citing *Life Magazine*, November 1, 1954.
- <sup>10</sup>Michel, Aime, *Flying Saucers and the Straight Line Mystery*, p. 113; Jacques Vallee, *Passport to Magonia: A Century of Landings*, p. 216).
- <sup>11</sup>Michel, Aime, *Flying Saucers and the Straight Line Mystery*, p. 130; Jacques Vallee, *Passport to Magonia: A Century of Landings*, p. 216; Michel Figuet & Jean-Louis Ruchon, *OVNI: Le Premier Dossier Complet des Rencontres Rapprochees en France*, p. 114).
- <sup>12</sup>Aime Michel, *Flying Saucers and the Straight Line Mystery*, p. 131; Jacques Vallee, *Passport to Magonia: A Century of Landings*, p. 216).
- <sup>13</sup>Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 251.
- <sup>14</sup>Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 250; Michel Carrouges, *Les Apparitions de Martiens*, p. 104.
- <sup>15</sup>Jacques Vallee, *Anatomy of a Phenomenon*, p. 143; Jacques Vallee, *Passport to Magonia*, case # 252; David F. Webb & Ted Bloecher, *HUMCAT: Catalogue of Humanoid Reports*, case # A0301.
- <sup>16</sup>Figuet, Michel & Jean-Louis Ruchon, *OVNI: Le premier dossier complet des rencontres rapprochees en France*, pp. 159-160, citing *Le Provençal*, October 15, 1954.

- <sup>17</sup>Figuet, Michel & Jean-Louis Ruchon, *OVNI: Le premier dossier complet des rencontres rapprochees en France*, p. 160, citing *La Croix*, October 16, 1954; Aime Michel, *A Propos des Soucoupes Volantes*, p. 220.
- <sup>18</sup>Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 254, citing *La Croix*, October 16, 1954.
- <sup>19</sup>Aime Michel, *Flying Saucers and the Straight Line Mystery*, p. 174; Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 255, citing *La Croix*, October 16, 1954; Richard Hall, *The UFO Evidence*, p. 97; Coral & Jim Lorenzen, *Flying Saucer Occupants*, p. 31
- <sup>20</sup>Aime Michel, *Flying Saucers and the Straight Line Mystery*, p. 175; Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 256, citing Quincy; Jean Sider, *Dossier 1954 et l'Imposture Rationaliste*, p. 24.
- <sup>21</sup>Jacques Vallee, *Anatomy of a Phenomenon*, p. 130; Michel Figuet & Jean-Louis Ruchon, *OVNI: Le premier dossier complet des rencontres rapprochees en France*, pp. 166.
- <sup>22</sup>Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 253, citing *Paris Presse*, October 21, 1954; Michel Figuet & Jean-Louis Ruchon, *OVNI: Le premier dossier complet des rencontres rapprochees en France*, pp. 160-161, citing Jimmy Guieu, *Black-out sur les Soucoupes Volantes*, p. 219.
- <sup>23</sup>Aime Michel, *Flying Saucers and the Straight Line Mystery*, p. 175; Jacques Vallee, *Anatomy of a Phenomenon*, p. 130; Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 257.
- <sup>24</sup>Jacques Vallee, *Anatomy of a Phenomenon*, p. 130; Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 258; Michel Figuet & Jean-Louis Ruchon, *OVNI: Le premier dossier complet des rencontres rapprochees en France*, pp. 163-164.
- <sup>25</sup>Aime Michel, *Flying Saucers and the Straight Line Mystery*, p. 175; Jacques Vallee, *Anatomy of a Phenomenon*, p. 130; Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 259; Larry Hatch, U computer database, case # 3919; Michel Carrouges, *Les Apparitions de Martiens*, p. 128.
- <sup>26</sup> Jacques Vallee, *Passport to Magonia: A Century of Landings*, case # 259.
- <sup>27</sup> Vallee, Jacques (1962). Orthoteny and North African Cases, *Flying Saucer Review*, Vol. 8, No. 2 (March-April).
- <sup>28</sup> Vallee, Jacques (1962). Orthoteny, *Flying Saucer Review*, Vol. 8, No. 6 (November-December).
- <sup>29</sup> Michel, Aime (1963). Global Orthoteny, *Flying Saucer Review*, Vol. 9, No. 3 (May-June).
- <sup>30</sup> Michel, Aime (1963). The Vauriat Sighting, *Flying Saucer Review*, Vol. 9, No. 4 (July-August).
- <sup>31</sup> Ribera, Antonio (1963). BAVIC in the Iberian Peninsula, *Flying Saucer Review*, Vol. 9, No. 5 (September-October).
- <sup>32</sup> Vallee, Jacques (1963). Recent Developments in Orthotenic Research, *Flying Saucer Review*, Vol. 9, No. 6 (November-December).
- <sup>33</sup> Haythornthwaite, P. K. (1963). BAVIC Plotted as a World Circle Line, *Flying Saucer Review*, Vol. 9, No. 6 (November-December), 17-18.

- <sup>34</sup> Creighton, Gordon (1964). The Crooked Line Theory (editorial), *Flying Saucer Review*, Vol. 10, No. 2 (March-April).
- <sup>35</sup> Menzel, Donald H. (1964). Do Flying Saucers Move on Straight Lines? *Flying Saucer Review*, Vol. 10, No. 2 (March-April).
- <sup>36</sup> Michel, Aime (1964). Where Dr. Menzel Has Gone Wrong, *Flying Saucer Review*, Vol. 10, No. 2 (March-April).
- <sup>37</sup> Menzel, Donald H. (1964). Global Orthoteny: New Pitfalls, *Flying Saucer Review*, Vol. 10, No. 4 (July-August).
- <sup>38</sup> Vallee, Jacques (1964). The Menzel-Michel Controversy, *Flying Saucer Review*, Vol. 10, No. 4 (July-August).
- <sup>39</sup> Seviour, Peter (1965). Foundations of Orthoteny, *Flying Saucer Review*, Vol. 11, No. 2 (March-April).
- <sup>40</sup> Menzel, Donald H. (1965). Orthoteny, a Lost Cause, *Flying Saucer Review*, Vol. 11, No. 3 (May-June).
- <sup>41</sup> Michel, Aime (1965). Reflections of an Honest Liar, *Flying Saucer Review*, Vol. 11, No. 3 (May-June).
- <sup>42</sup> Saunders, David R. (1971). Is BAVIC Remarkable? *FSR*, Vol. 17, No. 4, (July-August).
- <sup>43</sup> Druffel, Ann (1983). Southern California's Straight Line Mystery in UFO Sightings, in MUFON Annual 1983 UFO Symposium Proceedings, "UFOs: A Scientific Challenge", Pasadena, California, July 1-3, 1983 (downloaded from <http://www.anndruffel.com/articles/skynet/straightlinemystery.htm> November 1, 2009).
- <sup>44</sup> Claude Mauge, Orthoteny: Lost cause, or a redeemed one? *International UFO Reporter*, vol. 25, no. 3 (Fall 2000), 24-28.
- <sup>45</sup> Johnson, Donald A. (2001). Orthoteny as a World Grid and the Intra-Ocular Impact Test, *International UFO Reporter*, vol. 26, no. 1 (Spring 2001). (downloaded from <http://www.ufoinfo.com/onthisday/papers/orthoteny.htm> November 1, 2009).