

Socorro...a Template for Misidentification?

History was made on the 16th of July 1969 when Neil Armstrong first placed a human footprint upon the surface of another world. Following this singularly most significant event in human development, a further eleven men placed their own footprints in the grey dust of the moon's surface. The total should have been fourteen of course, but as most of us of a certain age will no doubt vividly recall, Apollo 13 created its own unscheduled and unique place in human as well as NASA's history by unwittingly embarking upon the ultimate 'seat of the pants' ride!

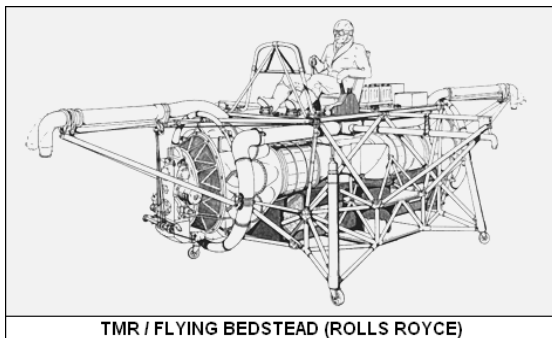
Apollo 13 ultimately tested the ingenuity of NASA's engineers and mission specialists to the very limits in terms of adlibbed solutions. Basically, the landing craft attached to the capsule's nose now had to become quite literally a 'lifeboat' from the moment of the disaster, to the astronauts' eventual safe arrival back outside earth's atmosphere.

The outcome of this testing situation proved beyond a doubt that the L.E.M (Lunar Excursion Module) was a consummate 'cosmic' all rounder, and became equally as much a glowing tribute to the skill of the designers and engineers at the Grumman aviation company as NASA'S technical staff.

The story of the moon lander began during 1960 for Grumman, when they initiated their own study of the concept. Then in 1962 NASA invited numerous companies to tender for a contract to design and build a vehicle capable of landing upon the moon's surface. Having previously looked into this concept then, Grumman naturally offered their tender to build such a vehicle and were (not unsurprisingly perhaps) awarded the contract in September of that same year.

Whilst the development of a moon lander got underway, NASA also required a vehicle capable of both training their potential astronauts in the use of such a unique craft, and at the same time developing their own understanding of the specific requirements the ultimate product would need to meet. On such a basis, the training vehicle would clearly need to be (amongst other things) VTOL capable (vertical take off and landing) as well as being able to manoeuvre whilst descending or ascending. At this point in time, NASA had an edge in the fact that VTOL technology wasn't exactly unheard of or a novel concept itself in 1962.

THE VTOL CONCEPT



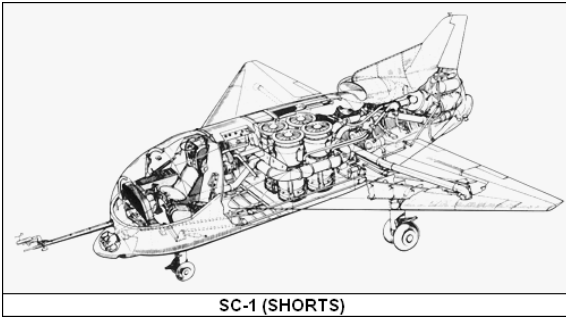
TMR / FLYING BEDSTEAD (ROLLS ROYCE)

Across the Atlantic in Britain, VTOL development had already been established in the shape of a bizarre device known as the 'flying bedstead'. This peculiar looking machine had been built as a means of measuring the effective thrust from jet engines and made its first successful engine run whilst tethered to the ground during August 1953, followed one year later by its first 'free flight' in August 1954. By 'bleeding' exhaust from the jet engine, a degree of stability could be maintained by the pilot (yes, they found volunteers to sit on top of this contraption and 'fly' it!). By 1954, this method had been improved enough to allow a fair degree of manoeuvrability in free flight form.

At this point in VTOL developments, we're ten years away from the Socorro incident, but off to an encouraging start. The diagram above shows us how the 'bedstead' actually looked in 1953 (not looking particularly conducive to a good night's sleep that's for sure!) and perhaps adequately highlights the somewhat bizarre shapes that certain elements of aviation research required and often adopted.. This is perhaps an important point to keep in mind as we further explore the subject.

By 1957 then, the vertical take off and landing concept had yet to reach any kind of generally reliable or practical level of employment within aviation, but was none the less still being actively and quite successfully pursued by the British as well as, to varying degrees, by the French and the Americans. The Short Brothers of Belfast had been looking into the VTOL concept for some time themselves, and by 1957 had developed an experimental aircraft known as the SC-1. Although adhering to a basic jet aircraft format, the SC-1 was none the less distinctive enough to set it apart from other jet aircraft currently in service at the time by virtue of its diminutive size and bulbous nose section.. This machine flew first with a conventional rear thrust engine on the 2nd of April 1957, then having acquired an additional four downward thrusting engines, performed its first tethered vertical flight on 26th May 1958 followed by its first successful untethered flight during October of the same year. Despite unfortunately costing the life of one pilot, the SC-1 represented a considerable leap forward for VTOL development and ultimately continued to fly up until 1964.

The Short SC-1 diagram clearly shows the radically different appearance between it and the 'flying bedstead', yet both were successfully exploring and expanding upon the VTOL concept.. The Short design, although looking far more 'conventional' in aviation terms, still presented a vastly different appearance to the public than what they would be more used to seeing in and around airbases or public airshows.



SC-1 (SHORTS)

Across the channel meanwhile, the French were also playing with the vertical take off and landing concept. In 1957 the SNECMA research team produced a machine described as looking something like a futuristic 'Mars rocket ship' which successfully flew to 'dangerous heights'. What constituted a dangerous height would, like anything else really, be a subjective issue but clearly somebody (perhaps the pilot) thought so at the time!. Whilst the French were reaching apparently dizzying vertical heights, across the Atlantic in American VTOL research was producing its own success story in the shape of the Ryan X-13 'Vertijet' project. Although making a previous successful flight in normal flight mode, the Vertijet performed a hugely successful vertical take off

and landing flight on the 11th of April 1957 at Edwards AFB. Starting from a vertical position, the Rolls Royce Avon powered aircraft took off and having then acquired a 'normal' flight attitude, remained airborne for several minutes before returning to the launch site and landing in vertical attitude once more on its launch ramp.



Ryan X-13 "Vertijet"
USAF Museum

Although not as 'bizarre looking as other VTOL project aircraft (or perhaps more appropriately 'vehicle' in relation to the 'bedstead' project), as a secret project the Vertijet could none the less have presented a distant observer with quite a visual conundrum at the time. If observed by unfamiliar witnesses suddenly altering its attitude after lift off or prior to descent and then reflecting sunlight off its distinctive silver triangular bodywork as it did so, the potential existed for an aircraft such as this to cause a degree of excitement and possible misidentification, particularly during an era when jet aircraft simply didn't do such things as far as the general public were concerned!

Alongside the Vertijet, American designers had been working on a particularly unusual flight concept since 1955 in the shape of a series of one-manned devices known as the 'Pawnee' VZ lifting platforms. Anyone familiar with the table top soccer game of Subbuteo, will have an immediate idea of the basic design. The Pawnee machines were essentially circular one manned lifting platforms with landing rails rather than wheels and upon which a 'pilot' simply stood upright at the controls and flew in VTOL/Hovercraft fashion. Variations of this same vehicle consisted of different depths of platform to

accommodate various enhancements to their engines in a bid to increase performance.

Development of the Pawnee continued until 1963. (As flying pallet trucks, these things could have revolutionised the global warehousing and furniture removal industry!)

Back across the Atlantic again in France, we had the C400 AND C450 'tail sitter' aircraft under development, the latter with the added feature of an annular wing, whilst in Britain, significant VTOL developments of a different kind were about to be initiated in 1957 by the Hawker aircraft company, producers of the immortalised 'Battle of Britain' Hurricane Fighter. In combination with Bristol aviation engineers who were developing an advanced engine capable of sustaining successful vertical take off and landing as well as normal horizontal flight, Hawker produced a prototype aircraft with the simple designation of P1127. As a result of its first successful vertical take off performed on October the 21st 1960, Hawker had created the unique Harrier jump jet!

The aircraft and vehicles itemised above represent just some of the sundry VTOL design concepts being produced and tested around the world. The common denominators in each case are unusual to bizarre appearances, along with (for the time) highly unusual and somewhat unexpected flight characteristics. In an era when jet fighters had only recently established themselves as an everyday part of life on a global basis, the quest for VTOL perfection was still, by and large, a hidden and decidedly experimental branch of aviation development. On such a basis, the scope for a largely uninformed public to chance upon and witness one of these unknown aircraft performing highly unusual manoeuvres was perhaps better than in today's ultra covert, multi complex security oriented military environment.

NASA AND THE LANDER PROGRAM

This then, was the background against which NASA began their Apollo moon project at the start of the sixties. As previously highlighted, part of their requirement was for a vehicle capable of simulating the flight characteristics of an eventual moon lander craft which could also be effectively operated by trainee/candidate astronauts. To that end the Bell aircraft company, who had previously designed and built their own successful free flying VTOL vehicle, were approached and subsequently funded by NASA to conduct preliminary design studies on their particular concept in 1961. Bell obviously came up with the goods, because NASA eventually awarded them a contract to construct two such vehicles designated the title of LLRV (Lunar Lander Research Vehicle) in 1962, which Bell finally delivered to the Flight Research Centre (FRC) at Edwards Airforce Base in April 1964.



The LLRV going through its paces



The LLRT, highlighting its modified cockpit

The LLRVs proved themselves to be highly successful both in terms of candidate training and valuable flight research for NASA. They were so successful in fact, that NASA placed an order for an improved version of the same design incorporating updated requirements learned from the LLRV program. Consequently, in December 1967, NASA took delivery of the advanced LLRT (Lunar Landing Training Vehicle) which brought the trainee astronauts even closer to the ultimate techniques they would need to employ during the moon landings. The LLRT differed visually from the LLRV in having a more prominent and enclosed cockpit section, as well as less obvious developments and improvements to the control systems. These important system upgrades brought the trainee pilots as close to the actual control and maneuverability of the eventual LEM spacecraft as possible without actually going into space.

Both designs ultimately resembled much larger and more refined versions of the 1953 British 'Flying Bedstead', and though no evidence has been found to suggest that either design flew beyond the immediate vicinity of the Edwards AFB test range or other equally specialised proving grounds, both none the less represent further examples of bizarre flying machines that ultimately sit well beyond the familiar configuration of general aviation.

Importantly, in terms of UFO activity anyway, both of these advanced training vehicles sit safely beyond implication on the day of Officer Lonnie Zamora's incident on the edge of Socorro as well. Zamora witnessed his craft on April the 24th 1964 whilst the LLRV, though actually arriving at Edwards AFB during the same month and year, didn't make its first free flight until October the 30th, some six months after Zamora's sighting. The LLTV didn't make its first appearance until 1966 in Houston, then finally with the FRC at Edwards AFB to supplement the LLRVs in 1967.

Unless aviation history has it all wrong, the development and subsequent deployment of these vehicles satisfactorily rule them out as potential culprits for the Socorro incident (as has frequently been suggested by numerous people, including those with specific ufological interests). Equally it would be unreasonable to expect NASA to allow or sanction the use of these vehicles in anything less than a specialised and strictly controlled environment, particularly as the LLRVs had initially cost them \$3.6 million, whilst the later LLTVs cost \$2.5 million each. Even by 1964/67 standards this represented a vast amount of American tax payers money, which even at this early stage, had begun to raise a few questioning eyebrows and comments within the political arena.

AND FINALLY...

The LEM, or any prototype craft possibly built along the same lines had effectively ruled itself out of the Socorro picture by the very nature of its design specifications and requirements. Although admittedly sharing a potential resemblance to the Socorro object (particularly if viewed from a distance) the LEM, albeit as the crux of the whole Apollo project, still had to be designed from the very beginning around overall mission parameters as well as its own specific requirements. The first and foremost issue concerned

weight. This was a particularly vital factor in terms of the Saturn V rocket's size, and the sundry limits its mission specific payload exacted upon the five primary rocket engines combined ability to lift the whole plot off the ground and reach a required escape velocity upwards of 17000 mph.

The LEM's own specific requirements involved men, vital systems, back-up systems, lunar surface experimental equipment, eventual rock samples and a need to both descend to and ascend from the lunar surface. The solution to this was to make the LEM a two part craft, which in turn then obviously required two engines powerful enough to do their individual jobs, yet light enough not to impose undue weight penalties up the Saturn Rocket at lift off.

The problem was naturally solved by building two engines with just enough power to operate successfully in the vacuum of space and nominal gravity of the moon alone. This, as a result, made them totally inadequate for the job of overcoming earth's gravity. For NASA to have made a craft capable of operating in both environments, the weight and size of the LEM would have gone through the roof in relation to launch limitations. As a result, NASA never undertook such a design concept, instead employing the previously highlighted LLRV/TV vehicles.



The famous Lunar Excursion Module

For the record, the LEM made its very first successful deployment in space on the 22nd of January 1968 (an unmanned deployment primarily to test various systems) The first manned deployment occurred on the 3rd of March 1969.

CONCLUSIONS

So, having taken a look at the history of VTOL designs and the Apollo lunar lander program, what, you might now be wondering, has this all got to do with Socorro and the flying egg witnessed in 1964? In reply I would say (in the style of Paul Daniels the Magician) "not a lot!", either directly or perhaps indirectly. We have though, through highlighting the development of NASA's requirements and eventual realisation of those requirements, clearly shown that the time line involved effectively removes their particular devices from the potential culprits list.

If we add to this suggestion the fact that although Edwards AFB figured quite a lot in the NASA LLRV/TV program, they were approximately 560 nautical miles away from Socorro and using highly specialised vehicles with extremely limited flight duration and capability. Clearly then, NASA are beginning to put quite a distance (deliberate pun) between themselves and the Socorro story.

However, in this modest exploration of the quest for VTOL/vectored thrust technology, we do find some ground upon which we can offer up a tentative link to the Socorro story. The Harrier jet remains perhaps the most highly publicised and frequently seen example of VTOL technology in action. Equally as memorable as its unique ability to act like a helicopter, is the accompanying and ear splitting roar from its engine as it performs its ever popular routine at yearly airshows around the western world. If we then read of the apparent behaviour of our mysterious egg on that April day in 1964, we are informed by our primary (and generally accepted by all involved as reliable) witness that the object roared like a jet and emitted what seemed like a visible blue exhaust thrust as it suddenly rose vertically from the ground before changing its attitude and speeding away into the distance. Apart from placing it firmly beyond Sgt Zamora's ability to issue a second speeding ticket within the space of a few minutes, (he had apparently been in the midst of chasing a speeding vehicle before breaking off to investigate a strange object he noticed several hundred yards off the highway, near a dynamite shack!), our egg would seem to be comprised of a propulsion system surprisingly reminiscent of the Harrier and most other VTOL based aircraft as well as exhibiting surprisingly similar flight characteristics! The egg also seemed to support a crew of two, whilst the examples of VTOL flight capable aircraft/vehicles highlighted in this article were/are all designed for one manned operation alone (except the Harrier of course).

We do, however, have a rare occurrence in terms of UFO sightings down through the years to supplement the oddness of the Socorro object, in that Zamora's egg appeared to display a curious and noticeable red symbol upon its structure. The symbol Zamora saw was seemingly comprised of a semi circle within which sat what appeared to be a vertically pointing arrow, and a horizontal line running beneath, as highlighted below (this basic rendition is based upon previously seen diagrams of the symbol).



Not a particularly dynamic symbol by comparison to the decidedly more obscure 'alien' symbols sci-fi often depicts upon the hulls of star ships and sundry other craft, the Socorro symbol actually reminds me of a military designation, something in fact rather reminiscent of the old British W/D (war department) emblem stamped upon military equipment during WWII. Alternatively, and from distance enough to blur or blend such an apparently defined symbol, one can almost see part of the American airforce 'star and bar' emblem (see the 'Vertijet' image in this article) This emblem was also employed on military vehicles in the form of a white circle and a solid white star within.

White obviously isn't red, which is the colour Zamora claimed the symbol to be, but variations upon a theme are not unusual or unknown within military insignia guidelines.

This is of course just speculative thinking on my part, and ultimately proves or suggests nothing in the overall scheme of the event. Yet logos and symbols are a distinctive feature on anything from a fridge to an aircraft, and designed to both denote and be noticed or recognised. In civilian terms we are basically advertising whilst the military are employing a universal identification of nationality as well as offering its own service an instant visual record for identification of type, assigned unit or squadron and individual identity within such a specific structure.

Within our familiar frames of reference then, the Socorro object displayed features suspiciously comparable with successfully established technology of the time like jet propulsion, VTOL, vectored thrust manoeuvrability, distinctly mechanical mechanisms like retractable landing legs and of course an identification symbol. What wasn't typical of such experiments around that time, however, was the apparent inclusion of a co-pilot. On such a list of earth bound comparisons, five out of six isn't a bad result for what would have appeared to have been a UFO!

The probability of finding an answer to Socorro hasn't been particularly high until now. With the increasingly frequent discoveries being made within countless secret documents released under the FOI act in America as well as back here in Britain, however, I suspect it is now only be a matter of time before vital clues emerge as to the origin of Zamora's sighting on the 24th of April 1964.

Until then, and as this brief look at the state of VTOL technology from 1953 to 1964 indicates, we have to consider the fact that Socorro contains enough similarity with known technological achievements around that time to offer itself as a potential template for misidentification born out of unfamiliarity with very real and often highly successful 'earthly' experimental concepts.

(For those not fully familiar with the Socorro sighting, type **Socorro incident** into a preferred search engine, and more than enough related titles should appear to cover the story)

Robert Rosamond.