

in conventional accelerators an enormous amount of electrical power is wasted to generate the magnetic and electric fields. The use of superconducting magnets enables one to greatly reduce the electrical power consumption since there is no resistance to the flow of an electrical current in a superconductor and the size and weight of the current carrying wires or coils can be enormously reduced because of the absence of a requirement for carrying off vast amounts of wasted electrical energy as heat.

This may sound very theoretical but as it happens a number of papers have been published describing the benefits of having a magnet inside a vehicle and an electrically conducting fluid with which to interact outside the vehicle. The vehicle might be required to have a saucer shape rather than an airplane shape but that is the way the cookie crumbles. As noted earlier, seawater is an electrically conducting fluid. Interactions between seawater and a magnet inside a 9-foot long electromagnetically propelled submarine designed by Dr. Stewart Way, provided noiseless motion for the submarine in tests in the Pacific Ocean near Santa Barbara, California, and have been the basis for a number of published papers concerning very much larger, more efficient submarines propelled by electromagnetic forces.

Unfortunately, many of my scientific colleagues have not heard of the EM sub, are not really aware of the recent developments in the fabrication of large (18-foot diameter) compact superconducting coils able to easily generate very high magnetic fields. These fields are sufficiently strong (and the coils sufficiently light) to be used for silent propulsion and can be "charged" by an external source of power which need not be carried along with the magnet. This would provide a system like an electric golf cart which obviously doesn't carry along the power source which charges the battery - fortunately for the golf courses. My colleagues also seem totally unaware of published experiments and analyses which indicate that all the problems of high speed flight can be mitigated by the use of on-board electromagnetic fields - including heating, drag and lift control. Condon was referred to these references and also neglected them - par for the course.

MYTH: "No UFOs have ever landed on earth."

Many people including some who believe in the reality of UFOs have told me that no UFOs have ever landed. The non-believers get almost belligerent with the statements, "If they were real, they would have landed." "Since they haven't landed they must not be real." A strange sentiment indeed in view of the very numerous reports of UFO landings from all over the world. The ridicule problem "laughter curtain" is, of course, much worse for landings than for just plain airborne sightings and I am certain that only a small percentage of landings have been reported... especially by respectable, responsible persons unwilling to risk their reputations.

There are several excellent sources of information about UFO landings and the humanoids who are observed to get in and out of the UFOs. These are listed in the References section. Of special interest to me is the almost total unwillingness of other scientists besides myself and Jacques Vallee to talk about humanoids and landings. The issue was skirted by the other 11 scientists providing testimony to the congressional hearings on UFOs in 1968. Put bluntly, the evidence appears to be overwhelming that humanoids (meaning human-like creatures with 2 arms, 2 legs, a head, and a body) who were born on some other planet have been observed to walk on this earth. It is strange indeed that a large

NASA bibliography on the search for extraterrestrial life has no reference on UFOs.

One would expect that the most interesting of all UFO sightings for studies by scientists would be these landings. The appearance of objects in the air can be quite misleading. It is difficult to get very accurate estimates of size, speed, shape, distance, etc., since all one can really observe are relative values for each of these for things in the air. On the other hand if one observes something sitting on the ground one has a frame of reference which makes it relatively easy to determine size and distance. One of the intriguing aspects of the study by Dr. Vallee is that the estimates of the size of the dozens of landed saucer-shaped craft observed in France in 1954 zeroed in on 5 meters in diameter (around 16 feet). This dimension is not very different from the size of either the Apollo Command Module which landed on earth or the Lunar Excursion Module which landed in the boondocks on the moon. Vallee also found that the landings seemed to almost always occur out in the country away from inhabited areas. They were observed by men, women, and children going about their normal business. Testimony in a court of law of the same people on other matters would undoubtedly be taken at face value.

One of the more disturbing sides of the landings question is the cavalier fashion in which Ed Condon, Major Keyhoe, and Frank Edwards have each in his own way avoided the issue, especially in view of the potentially far greater amount of information derivable from landings than from things in the sky. Condon quotes and laughs at Frank Edwards' remarks about George Adamski but fails to even mention Vallee's study of 200 landings through I had informed him of it at some length. Frank Edwards who certainly believed that some UFOs were extraterrestrial and that the U.S. Air Force knows all about them, spent half of a lecture he gave in Pittsburgh a few months before he died making fun of all sorts of contactee and landing stories. I had introduced Frank and found out in a conversation after his talk that he had not seen the "Humanoids" special issue of the Flying Saucer Review. Keyhoe for a long time kept NICAP from vigorously pursuing landing reports and cases like the Barney and Betty Hill story. My feeling is that Edwards and Keyhoe had labored long and hard to make UFOs respectable and were afraid of being tarred with the kook brush if they seriously suggested that many landings have been observed - complete with little guys. Condon, on the other hand, was so prejudiced about UFOs and so angry at the many people who were in effect, publicly questioning his integrity (with good reason) - such as John Fuller, Dr. David Saunders, and Dr. Jim McDonald that he pushed out of his mind anything that might lead to a notion of UFO reality. Incidentally, in the Condon report he also failed to even mention published studies by scientists showing that travel to the stars is feasible and instead relied upon older, much less relevant or useful studies to help him conclude that one can't get here from there. Errors of omission are as serious as errors of commission.

MYSTERY: "If they have landed, why haven't they made contact?"

I had a very vehement astronomer at the Allegheny Observatory in Pittsburgh tell me angrily that UFOs couldn't be real. "No astronomer or other scientist has ever seen one; if they were coming here we would measure their orbits. If they were coming here they would be talking to us." He struck out by missing all three of these pitches. As indicated in the Industrial Research poll and elsewhere, many scientists and astronomers have indeed observed UFOs. One of the more interesting