

The large number of sightings of unidentified objects and lights in the sky has inspired a considerable amount of serious study, as well as popular speculation. Books and magazine articles have appeared concerning the "flying saucer" phenomena, involving a range of explanations from mirages to extra-terrestrial space ships.

The U. S. Air Force investigated saucer sightings for several years and came to the conclusion that most of them could be explained in terms of natural objects such as weather balloons, mirages and kindred optical phenomena, hallucinations and hoaxes. There did remain, however, a residue of sightings which defied such explanation and seemed to support the theory that this earth is being visited by emissaries of some extra-terrestrial civilization.

At the time when the flying saucers first captured public attention the writer was engaged in a part-time investigation of the behaviour of electro-magnetic fields, and it seemed just possible that, if the saucers actually were space ships, they might be using the very magnetic principles being studied. Authority was requested and obtained to set up a classified project within the Department of Transport to pursue this matter further.

The project was classified for several reasons. The exchange of information with other parallel classified projects could thereby be facilitated; scientific personnel working along unorthodox lines prefer to work in camera, until their results can be proven; and furthermore, in the event that a new technology should be uncovered, its implications would have to be carefully assessed before pertinent

information could be made public.

Work to date appears to confirm that these investigations are on the right track, and that there does exist a new technology in magnetics, - whether or not the flying saucers are space ships, or even real objects at all.

The basic premise of this theory is that a magnetic "sink" or source can be produced into which (or out from which) will flow magnetic flux at a controlled rate. The passage of this flux through electric circuits will induce in them ordinary electric currents, and produce on these circuits powerful reaction forces. Such currents and forces may be handled by conventional electrical engineering techniques. The only unorthodox feature is the magnetic sink (or source), the basic principles of which are now being studied.

It is curious to note that most of the descriptions of flying saucers are in accordance with the design which would be required to exploit a magnetic sink. For example, they are described as generally round, disc shaped, and with a small central cabin. The sink could be located in the cabin and the flux flow through the rest of the ship would induce a current in it which would react with the moving field producing it, resulting in a force having a substantial component at right angles to the disc. Support and propulsion of the ship would then be a combination of this resultant force, the airfoil action of the ship as a whole and forces resulting from eddy currents in the body of the ship.

Navigation of such a flying saucer would be a very complex process indeed. The tilt of the saucer to get the reaction force in the wanted direction most probably would result in aerodynamic forces in some other direction. Interaction between the field of the saucer and the earth's field would tend to make the saucer line up with the external field and for which compensation would be required. Navigation, therefore, would resolve into a determination of these and possibly other forces and their relationship to the direction in which it was desired to travel. It is doubtful if a human pilot could manage to do all this rapidly enough to manoeuvre a saucer at the speeds and through the intricate motions which have been observed. It is therefore highly probable that the saucer control systems are semi, if not fully automatic, and most likely a push button effort.

There are many reports of saucers hovering in one spot for some time. For a saucer designed to operate as described, this would probably be its easiest manoeuvre, as it would be necessary merely to adjust the flux flow and tilt until the resultant forces exactly balanced the weight of the saucer and the turning moment due to the earth's field. There would be little or no aerodynamic problem in this case.

The only sound which would be expected from such a saucer would be a swish as of any object passing through the air, and with proper streamlining this could be reduced to a negligible amount. There would, of course, be no noise such as engine roar or propeller

beats as are usually associated with our aircraft.

Since the lift on such a saucer depends on the induction of a large circulating current in the disc shaped body of the ship, it follows that when much energy is being expended the metal shell could become visibly hot. Furthermore, the manner of inducing this circulating current would produce high potential differences between parts of the ship which, at high altitudes, could produce visible coronas.

Another factor which could contribute to the luminosity of saucers is associated with the primary energy source. This is tied in closely with the generation of the magnetic sink (or source). The primary source of power involves the direct conversion of mass to energy and would be accompanied by strong gamma radiation, of quite sufficient intensity to produce visible ionization in air. Such radiation would naturally be directed away from the ship as a safety measure for the occupants.

Application of these same basic principles could also be made for craft of other configurations, each designed to do a particular job. At this stage of development it is difficult to say if there would be any size limitation to the equipment. It might be possible that extremely small remote controlled units exist, and also gigantic ships. In fact, there seems to be considerable observational evidence for the existence of both extremes.

Much of the foregoing may appear as speculation, but it is reasonably well confirmed by the many saucer sightings, and is in line with a new technology in magnetics now being developed. Even if the flying saucers should turn out to be entirely mythical, which is highly improbable, we still have to thank them for pointing the way to what may eventually prove to be one of mankind's greatest triumphs over nature, namely, a space travel technique and an energy source to make it possible.