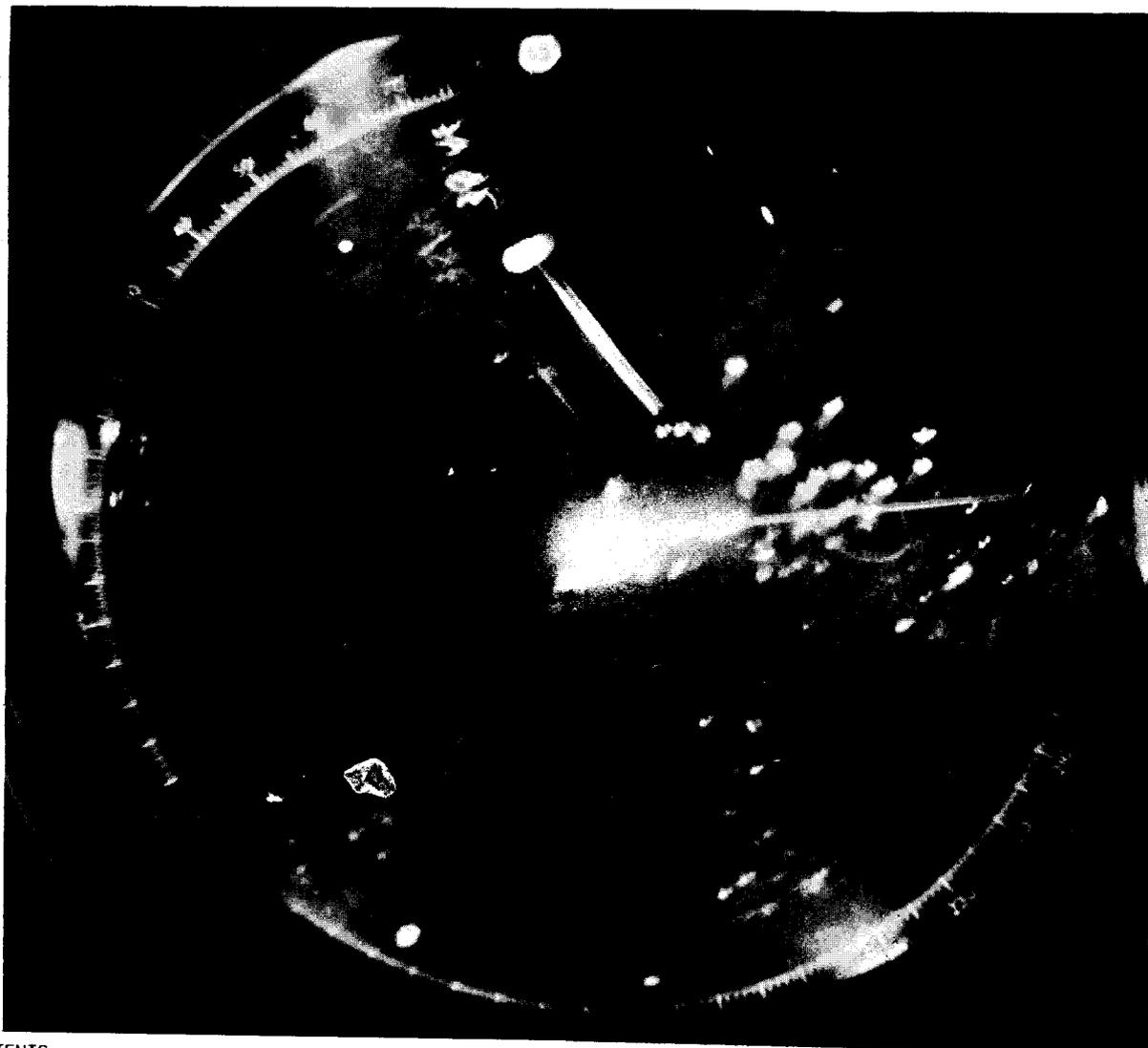


Journal of TRANSIENT AERIAL PHENOMENA



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Editorial



With a broad cross-section of members it is always difficult to satisfy 'all of them all of the time' and for several years BUFORA has received requests for the publication of longer research articles and in-depth case studies. Primarily through lack of space in the existing BUFORA Journal it has not been possible to comply with these requests entirely, although the material was reasonably plentiful.

Because of the situation and because the Research Department has always held strong views on improving the standards of UFO research in this country, the Council has now given the go-ahead to publish two editions per year of this complimentary Journal of Transient Aerial Phenomena to replace every third issue of BUFORA Journal. This type of journal is long overdue. We trust our membership will approve of these new arrangements. I feel sure this is a step in the right direction and will give us a far better chance of presenting the reality of the UFO phenomenon to the scientific community who have the expertise, the facilities and the financial resources to tackle the problem.

Though aiming to be topical, the new Journal will avoid printing the sensational 'scoop' reports which invariably turn out to be nothing more than the misperception of ordinary events when subjected to careful evaluation!

The first issue is devoted largely to providing advice and guide lines to potential researchers, and case studies and statistical analyses have had to take a back seat. But I can assure you that our new publication will improve in content balance and in quality and with the right support will undoubtedly herald a new era in the development of scientific UFO research in Great Britain.

I would like to take this opportunity of thanking the members of BUFORA Council for their help, advice and encouragement in launching this new venture, particularly Charles Lockwood Norman Oliver (Editor BUFORA Journal), Steve Gamble and Robert Digby, not forgetting Mrs. Audrey Edwins for her great patience in typing the manuscript. And for those who may still have doubts, I hope this first edition and the subsequent issues will speak for themselves.

Anthony Pace

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CLARIFICATION OF TERMINOLOGY

By Charles F. Lockwood

IN USING THE TITLE "JOURNAL OF TRANSIENT AERIAL PHENOMENA" WE ARE TRYING TO MOVE TOWARDS A LESS EMOTIVE TERMINOLOGY. WE STILL ARE TOO OFTEN PRESENTED WITH THE OBVIOUSLY TRIVIAL ARGUMENT THAT IF AN OBJECT IS UNIDENTIFIED IT DOES NOT FOLLOW THAT IT IS AN OBJECT FROM AN ALIEN CIVILISATION. IT IS CLAIMED THAT IN EVERY CASE MORE INFORMATION WILL ENABLE THOSE WITH THE APPROPRIATE EXPERTISE TO MAKE AN IDENTIFICATION OF THE OBJECT AS A MAN MADE OR NATURAL PHENOMENON. IT IS TRUE THAT MOST OBJECTS REPORTED AS STRANGE CAN BE SO IDENTIFIED WITH FURTHER RESEARCH, BUT THE WORD UFO NEEDS TO BE REPLACED, AMONG SERIOUS STUDENTS OF THE PHENOMENON, BY A TERM WHICH CANNOT BE USED IN THE TWO SENSES WHICH ARE NOW APPLICABLE TO UFO, I.E. AN UNIDENTIFIED FLYING OBJECT AND AN ALIEN AERIAL OBJECT. HERE THE WORD ALIEN SIMPLY MEANS FOREIGN TO OUR ENVIRONMENT IN ITS ORIGIN.

AUTONOMOUS CHARACTERISTICS

The research Department of BUFORA is interested in the study of all transient aerial phenomena in the hope that within this wide group we may be able to identify certain objects which have exhibited characteristics of autonomous behaviour. The word autonomous here refers to behaviour which cannot be explained by reference to known natural or man made objects, but which appears to correspond to behaviour which is not dependent on environmental conditions or on physical or engineering techniques which are currently available to mankind. An object with specific dimensions and mass, which changed to velocity very rapidly, landed, then took off again might well fall into the category of autonomous objects. It is possible for scientists to specify those characteristics which they would expect to occur in autonomous objects and for us to pay particular attention to sighting reports which involve those characteristics.

By specifying that subgroup of events which we wish to study we may be able to move away from the vague terms UFO and aerial phenomena, which are very valuable as generic names, in order to concentrate our attention on events which are like 'flying saucers', but avoiding this and other highly coloured terms.

We also feel that while we can obtain most of the reports on autonomous phenomena from observations of transient aerial phenomena, we wish to avoid the woolly, unscientific linking of these events with ghosts, the Loch Ness monster, and all manner of E.S.P. reports, many of which are very interesting, and are anomalous like UFO's, but are not always associated with the sighting of an unusual aerial object. It is clear that if there is such a thing as telepathic communication supposed alien technologists might have mastered it, but since we cannot produce such communication, we should eschew using the concept as if it were an explanation of an aspect of the reports.

HYPOTHESES

In describing above the main concern of BUFORA's Research Department we are not saying that we

have discarded the other hypotheses, proposed by the Association and published as an appendix in the Field Investigation Manual. The list of possible hypotheses is as follows :-

1. That the sightings involve misidentifications of objects which are man made or natural and are well known to experts.
2. That the sightings involve man made devices only known to their inventors.
3. That the sighting reports are hoaxes or involve fabrications.
4. That the sightings involve natural events which are not observed often enough for scientists to have produced suitable scientific explanations.
5. That the sightings are mental projections by or received by the witness.
6. That the sightings involve devices produced by one or more alien advanced technologies, which originate
 - A elsewhere in the Universe being
 - (i) within our Solar System
 - or (ii) within our Galaxy
 - or (iii) beyond our Galaxy
 - Or B in a Universe which is not obvious to us yet using conventional techniques and which is
 - (i) parallel to ours in space and time
 - or (ii) parallel to ours in space but not contemporaneous
 - or (iii) parallel to ours in time but not in space

That the sightings are of intelligent processes beyond our space time continuum and not explicable in any of the categories listed above.

BUFORA has for a long time worked on the assumption that the UFO reports made to us are mainly of category 1 and a few belong to categories 2 to 5 but that a small percentage of all reports may belong to hypothesis 6 and/or 7. We do acknowledge that it may be difficult or even impossible to propose test procedures which would enable us to verify the application of some of the sub-sections of categories 6 and 7.

However the positive elimination of categories 1 to 5 by test procedures may be easier and this would narrow the field for hypotheses.

We are anxious that interested scientists who read this journal should consider ways in which they could identify the characteristics of autonomous behaviour which we have discussed, and suggest how we can separate such behaviour from behaviour which is anomalous, or inconsistent with the behaviour of normal, natural phenomena, such as might be associated with, say, ball lightning.

UFO RESEARCH — A SCIENTIFIC APPROACH

By Peter A. Hill

UFO RESEARCH HAS BEEN DEFICIENT IN SEVERAL WAYS SINCE ITS INCEPTION. THIS IS PARTIALLY DUE TO ITS HAVING BEEN THE OCCUPATION OF THE DEDICATED IN SPARE-TIME AND WITHOUT REMUNERATION. THIS HAS LED TO ANY WITH SUFFICIENT ENTHUSIASM BEING ENGAGED IN RESEARCH WITHOUT THE POSSIBILITY OF SELECTION AND WITH MINIMAL TRAINING. SOME RESEARCH IS OF REASONABLE QUALITY BUT MUCH IS SUBJECTIVE AND LACKING IN THE BASICS OF SCIENTIFIC METHOD. THOSE INVOLVED WHO ARE SCIENTISTS BY PROFESSION HAVE GIVEN A HINT OF WHAT COULD BE DONE BUT HAVE LACKED COHESION, ORGANISATION AND ANY COMMON TERMINOLOGY, DEFINITIONS OR CLASSIFICATION. VALID COMPARISONS ARE THEREFORE NOT POSSIBLE AFTER 30 YEARS. IT IS TIME THAT UFO RESEARCH MATURED FROM HOBBY TO SCIENTIFIC DISCIPLINE.

1 INTRODUCTION

Research into the UFO phenomena began in the 1940's. Early investigations by the allied & axis powers of small lights or objects which were reported by aircrew of both sides to shadow their aircraft were believed by each side to be a classified artifact of the other.

After over thirty years little progress has been made in the investigation of the UFO. Much time is spent by thousands of people all over the globe in data collection. But, aside from the fact that much of this activity is of inadequate objectivity or detail, data collection is not an end in itself. It is a sine qua non, but is required so that the raw material if available for evaluation and analysis.

Too many collect data and subject it to no useful processing. This is not research but merely a collection. Standard terminology, definitions and classifications are essential for any progress and for international comparison in this global issue. Following resolution of these basic tools, statistical analysis is needed to seek patterns in the data and correlation with any other time-variable events.

2 DATA COLLECTION

Without a definition, one does not even know what it is that is to be collected. Definitions have been published by Condon¹, Hynek² and by others. But no standard definition has been adopted and, on examination, all the published definitions are deficient, ambiguous or inadequate in some respect. Even what is being defined varies. Condon¹ defines the UFO, while Hynek² defines the UFO report. The latter is the correct approach. For, whilst the UFO may or may not be a discrete, objective phenomenon, it is certain that we neither have one in a laboratory to study; nor are we able to conduct repeatable experiments with it. That the UFO report exists, however, is an undeniable fact. The report is our raw data and all we have to study. It is clearly the UFO report, therefore, that requires definition. The Condon Committee¹ despite some invaluable work, made this most elementary error from the start which coloured the entire report and made it less useful, and

more subjective, than it might have been.

After a definition of UFO REPORT is internationally accepted, the data can be more usefully analysed and the quality of collection can be drastically improved. This will require hard work by many voluntary bodies. However, what can be done even now is demonstrated by the useful investigation book produced by BUFORA.³

3 ANALYSIS OF THE DATA

Having gathered data, analysis is essential. BUFORA has a provisional system kept on edge-punched, manually sorted cards (Fig. 1.). As I maintain these for the Association, I am aware of a number of weaknesses. This is inevitable in a first trial, however, and it is a worthwhile venture to enable the principal faults to be identified and eliminated prior to moving to electronic data processing. Indeed I am against such a move until the known weaknesses are satisfactorily resolved.

The present card has 161 usable holes, single punching only, using a 7 4 2 1 field for several of the parameters. A card is maintained for each report held by BUFORA. From experience, it has been found that some bits of data to be punched are ambiguous or inadequate. For example, the item CONTACT (with occupants) was included in the card design. However, there is so far no satisfactory definition of 'contact'. Nor is it clear whether it implies that the reporter of the event believes to have had contact or that the investigators accept this. Yet, many reports are received in good faith but are misinterpretations of the actual stimuli received by the reporter. It is not uncommon for reporters to say 'I know what I saw with my own eyes', overlooking the complex of assumptions which take place in the interpretations of the light waves received by the eye when scanty data are processed by the human brain. An analogy is eye-witnesses of a road accident. They will often disagree on detail. That, however is not evidence that the accident did not take place. The whole field of human perception is so complex that it would be out of place here to go further into this problem.

4 COMMON TERMINOLOGY, DEFINITIONS AND CLASSIFICATION

It should be obvious that little progress is likely without international standard terminology, definitions and classifications. Terminology is fundamental; without standards here we do not even know whether we mean the same thing in English speaking nations, let alone when translation enters into the picture.

It is simply not good enough to write of 'close encounters' or 'physical evidence' without understanding whether you mean the same by the term as a colleague in the United States. A glossary of terms is required. This should give definitions which are not ambiguous.

The question of classification not only requires

resolution but there is a need for an early agreement which does not appear to be widely appreciated. This urgency is due to the micro-electronic revolution, based on silicon chip technology, which is already upon us. There is no doubt that the implication is that research societies throughout the world will take for granted the need for their own computing facility. This will become as commonly accepted during the coming ten years as the electronic pocket calculator has done in the last few years. It would be a mistake of incalculable magnitude not to use common systems and software. The opportunity is upon us for a breakthrough based on this technology. This opportunity will be thrown away if we do not standardise now to prepare for data linkage and exchange, by microfiche or other suitable means.

Fig.1

YEAR										SERIAL NUMBER										CORR.									
REPORT REFERENCE NUMBER																													
THE BRITISH UFO RESEARCH ASSOCIATION															LOCATION:														
REPORT ANALYSIS CARD															COUNTRY/STATE/COUNTRY														
SIGHTING TYPE					ANALYSED BY:					EVALUATED BY:					INVESTIGATED BY:					RECEIVED FROM:					DATE:				
BRIEF DESCRIPTION OF EVENT:															TIME:					MONTH					DAY				
WITNESS DETAILS															SOURCE OF REPORT:														
EFFECTS															ILLUSTRATION WITH:														
MOTION															HOUR														
MOTION															MINUTE														
CONTACT															NAME														
CONTACT															INITIALS														
CONTACT															ADDRESS														
CONTACT															CITY														
CONTACT															STATE														
CONTACT															COUNTRY														

5 STATISTICAL ANALYSIS

Statistical analysis of a modest sort can be carried out now. For example, I have taken 500 British Isle reports from my files and carried out analyses by a number of variables, such as time, colour, month, day of week, occupation of reporters and behaviour of the stimulus of the report. This suggests some

interesting patterns, of which some are predictable and fairly easily explained whilst others are not what one would expect.

Such a statistical analysis carried out on a random sample of adequate size would relatively quickly show patterns in the data worthy of further investigation. A number of workers have looked for correlations between reports and other variables, including oppositions of Mars and the sunspot cycle. To date, the latter is the only one which has shown even a slight similarity.

It is interesting that the hypothesis that there is a correlation between slowing sunspot rotation increasing solar activity and warming of the terrestrial climate should be considered to be worthy of serious study by Eddy.⁴ These parameters should all be looked at against the periodicity of the UFO report.

6 CONCLUSION

The data is in our hands. There is no shortage of it. All the evidence suggests that of the reports received some 93% are cases of misinterpretation and the other 7% unidentified. Hoaxes although they are known to occur, are relatively uncommon. The 7% unidentified could be some of the most important data which we have the good fortune to have. That we have made little serious attempt to find whether this is so is almost incredible. Posterity will not forgive us if we waste any further time tackling the job with the tools and the philosophy of scientific method.

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EFFECTIVE HANDLING OF PHYSICAL DATA

By Robert Digby and Steve Gamble

THE AUTHORS EXPLAIN THE REASON FOR THE CREATION OF BUFORA'S PHYSICAL DATA SECTION, AND DESCRIBE SOME OF THE PROBLEMS INVOLVED WHEN VOLUNTARY BODIES AND INEXPERIENCED INDIVIDUALS INVESTIGATE UFO EVENTS WHERE INDIRECT PHYSICAL EVIDENCE IS ALLEGEDLY PRESENT. EFFECTS ON THE ENVIRONMENT DIRECTLY ATTRIBUTABLE TO UFO PHENOMENA ARE RARE AND IT IS THEREFORE SO MUCH MORE IMPORTANT THAT THESE VERY INFREQUENT EVENTS ARE GIVEN PROFESSIONAL ATTENTION AT THE ONSET.

The minutes of BUFORA's council meeting of 4 February 1978 contain an item on the instigation of a Physical Data Section within BUFORA and the disbanding of the specialist photographic section. The reason for this change was one of rationalisation. The result of forming a Photographic Department was to immediately create a channel through which photographic cases could be passed. Those people involved with this project were astounded at the volume of work involved in dealing with what was a totally unexpected number of photographic cases. Whilst there have been willing helpers outside the group structure, it was realised that a unified effort was required to deal with the broader concept of physical evidence cases. Therefore, BUFORA has established defined channels for the handling of Physical Data, which comprise the group CLOSE ENCOUNTERS OF THE SECOND KIND in the Hynek classification system.¹

The objective is to have a network of people interested in direct and indirect physical evidence of the reality of UFO's. Also to seek the best possible sources of assistance for a given situation, working in much the fashion of the invisible college concept.² That is to say, the role of this group is one of filtering the wealth of material coming through the investigation network, identifying those cases which are most worthy of further study and taking the necessary steps for a more detailed investigation. Prior to the organisation of any such data gathering facility there was a tendency for materials of this sort to go to a wide assortment of individuals without co-ordination. Many investigators when confronted with Physical evidence show a complete lack of knowledge as to where these materials could be referred. Although there are a significant number of alleged physical evidence cases, of those we have studied none have been proven to be incontrovertible evidence for the existence of a UFO type phenomenon.

At the time of writing (July 1979) of all the cases considered, 73.7% were photographic, 25% were trace cases and 1.3% fell into neither categories. Of the photographic cases 5.35% of the total have proven worthy of further detailed study. One or more of these may indicate a new type of phenomenon outside the context of UFOs, possibly meteorological or atmospheric in nature. It is anticipated that detailed case studies dealing with this new Transient Aerial Phenomenon will be dealt with by this journal at a later date. Of the traces

cases 21.5% have been worthy of further study and of these only one has revealed anything unusual, again details to be published at a later date.

Unfortunately, of the traces cases submitted for study there is often no tenable link between the physical evidence presented and the alleged UFO occurrence. Indeed, in some cases the UFO was not sighted. An example of this latter type of case is the discovery of the remains of fifteen ponies on Dartmoor in July 1977.³ An investigation revealed that the ponies had died from natural causes and the apparent mutilation of the bodies was probably caused by them being dragged along the ground to the place where they were to be buried.^{4,5}

Another example was at Clapham Woods near Worthing. Some dogs had disappeared and a local UFO group had tied this in with several reports of UFO sightings and an entity sighting in the woods themselves. An investigation revealed the presence of a gamekeeper with an intense hatred of dogs off the leash encroaching on his property. One woman gave details of how her dog had been struck with a rifle butt by the same game warden. This was a more likely explanation of the events in this case. These cases either have no unusual characteristics or else an on site investigation reveals more likely explanations for the given event. One must call into question the abilities and capabilities of some investigators called in to deal with physical evidence cases. Our experience is that very often key details are overlooked or ignored in investigations of this type.

Another problem is where an investigator or witness is unsure how to proceed when actually confronted by the so-called evidence or need to produce it. Another example concerning a traces sample taken from an alleged landing site on the south coast, was that it was a year old before we heard of it. The witness had collected a small amount of powder from where he said he had seen a UFO land. This he placed in a twist of cling film. For some reason he believed the sample to be radioactive. He placed the sample inside an envelope, dutifully marked it RADIO-ACTIVE and posted it to the head of a UFO organisation. This further changed hands between two more people and was brought to London by train before finally arriving by chance at our laboratory. On other occasions single soil samples have turned up, for example, in old crisp bags. In none of these cases have control samples been provided. Everyone should realise that this is not the way to treat such evidence, if indeed that is what it is.

We do not understand fully the nature of the phenomena encountered, therefore, there is the possibility that there may be BIOLOGICAL, CHEMICAL and PHYSICAL hazards associated with a site. By BIOLOGICAL we mean for example viral, fungal, bacterial or other microbiological contamination of the site. We have access to facilities where

hazardous materials of this nature can be dealt with in reasonable safety. CHEMICAL hazards could include toxic vapours or corrosive liquids such as Formaldehyde or acids. By PHYSICAL we could mean radiation which could be particulate such as Alpha emissions or electromagnetic like Gamma or ultra-violet emissions. The available evidence has already shown that strange types of contaminations do occur in some samples associated with UFO event sites. This may not always be the case but we feel it much safer to be cautious and aware of the potential hazards.

Besides all this there are other areas of procedure of equal importance, such as specialised site photography, site surveys and perhaps on site soil mechanics. The measurements of impressions or other evidence are important. The force required for the formation of an impression may well be calculated from accurate data. The word force is used rather than weight simply because a light object may do more damage at high velocity than a heavier object at low velocity. A trained geologist might readily spot unusual rocks or minerals not normally associated with an area, something which could easily be overlooked by an untrained eye. Some traces may be extremely volatile and require special techniques to preserve them. Such traces might be preserved for example in liquid nitrogen, which boils at -196° . Despite the volume of material that has passed through our hands, the so-called 'real McCoy' concerning strange tangible evidence is rare. Probably less than 1% of the annual turnover of cases, either nationally or even globally, can be considered genuinely strange. Our job is to try to determine the nature and diversity of Transient Aerial Phenomena based on some hard data. The opportunities for doing so are rare.

To answer the question 'Which way UFO Research?' we would say that partly the presence of an underground or invisible college is one factor that solves the problem of having expertise and facilities to obtain hard data. This sort of thing is not directly within the scope of any UFO organisation, and is not likely to be for some time. Another factor is that the subject of UFOs is still 'poison' within the serious scientific community, whether in the private, industrial or university sectors; hence the evolution of an underground movement.

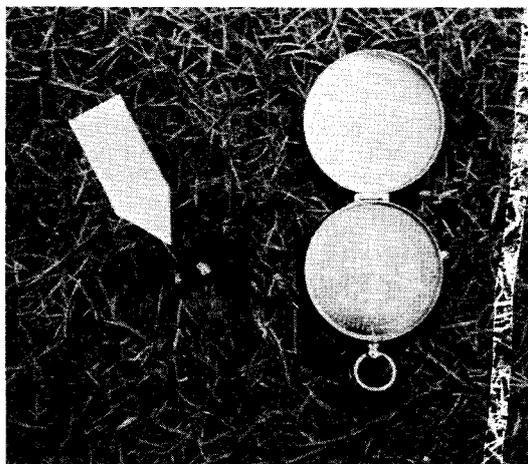
Attitudes of official bodies like the Police, Ministry of Defence, Department of Trade and Industry, the Universities and the degree of co-operation extended, most definitely depends on what assistance is being sought and by whom. Air traffic controllers at West Drayton for example, are fed up with people 'phoning about aircraft movements relative to UFO activity. Nearly always they are the same people! Some universities may analyse material from so-called UFO landing sites. Of course they will only carry out the investigations you specify and will charge you about £20 per day for time plus between £5-£10 for each test carried out on each sample.

When interesting cases are under investigation UFO investigators tend to pester the Physical Data Section for reports to publish in their magazines without considering the vast amount of complex, expensive and time consuming work which needs to be carried out if any meaningful results are to be obtained. So help is available if you know what you want and what you are doing. The Physical Data Section has a co-ordinator so that materials need not go astray or be delayed. There are lists of people with assorted expertise or knowledge in useful fields both within and outside BUFORA to whom we can turn for help. Unfortunately when a rational explanation is found for a given case, UFO magazines do not publish retractions very often!

We would conclude that slowly, very slowly we are going to see a more rational, productive approach which does not hinge on work being rushed through to meet publishing deadlines in 'Flying Saucer' magazines, but where quality of investigation takes precedence over quantity. Hopefully, properly trained, responsible investigators will obtain the information we seek. At the very least the subject will move out into the open for discussion and rationalisation.

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TRACE EXAMPLE

Small depression in lawn having the shape of an equilateral triangle (side $1\frac{1}{2}$ "). This was discovered by the witness after he observed a bright multi-coloured light 'take-off' Hanford, Stoke-on-Trent - 19.12.72
BUFORA JOURNAL Vol.3 No.10/11

GEPAN

Summarised and translated by Charles Lockwood

The following article is compiled from edited extracts from a 36 page booklet 'GEPAN and the study of the UFO Phenomenon' - February 1979. The introduction is taken from a paper dated 9 April 1979 entitled 'Towards a scientific approach' by Dr. Alain Esterle, who became the new head of GEPAN in October last year.

The main aims in publishing this booklet are to present GEPAN, its structure, its functions and methods and to describe its activities after 18 months experience. A further object is to encourage eyewitnesses to report their observations to GEPAN.

Introduction

On 1 May 1977 a new service was created at the National Centre for Space Studies (CNES) in Toulouse. This was the Unidentified Aerospace Phenomena Study Group (GEPAN). As it is not customary in Government to create new services fortuitously, it is important to enlighten the reader on the circumstances and the motives which have led to the creation of this new body. Let us say it was due to a combination of three favourable circumstances.

Firstly, there was an interest taken in this type of phenomena by certain members of the Government (one recalls the interview on this subject on French radio involving the Minister of Defence, Mr. R. Galley in 1974). Secondly, there was a growing curiosity by the French people. Finally, there was the vocation of CNES, spearhead of French space research, where certain engineers had been interested in the question for a long time. Naturally one of these, Dr. Claude Poher, became the first person responsible for GEPAN, up to his departure in October 1978.

Centre National d'Etudes Spatiales

Created by an Act of Parliament dated 19 December 1961, the National Centre for Space Studies began to function officially on 1 March 1962.

CNES is a public, scientific and technical establishment, with an industrial and commercial nature, whose basic resources come from state grants. Its effective complement amounts to a thousand CNES employees and roughly the same number of people belonging to organisations working in different centres.

The role of the CNES is to promote the national utilisation of space resources, to undertake and guide programmes of space applications. CNES decides French space policy and participates in all activities of the European Space Agency. Its social centre is in Paris and it has at its disposal, different departments sited at Toulouse (its technical centre), at Evry (ARIANE launch programme), at Kourou in Guiana (rocket launch site), at Aire-sur-l'Adour (Landes) and at Gap/Tallard (Hautes Alpes) for the launching of balloons.

In fifteen years of its existence CNES has released more than a thousand balloons, launched

more than three hundred sounding rockets, participated in the development of seventeen artificial satellites of which eleven have been put into orbit using its own launch vehicles.

How is GEPAN comprised?

First, there are two people who work full time - the head of the group and his secretary, and some tens of employees of the CNES who have offered their help for a small part of their working time (without counting the sacrifice of part of their leisure time). In addition there are a number of researchers scattered about the different centres of learning and research in France who have also agreed to dedicate to the activity of GEPAN an irregular part of their working time and leisure time. Finally, a Scientific Council has been appointed, composed of high level scientists whose role is to supervise and advise GEPAN on its activities and directions. It goes without saying that within GEPAN, as in the Scientific Council there is a wide spread of expertise in both physical and human sciences, so answering any doubt about the multidisciplinary approach.

Apart from GEPAN there are its sources of information. An essential role is played in this by the National Gendarmerie which has, since 1975, carried out an investigation into each unexplained sighting reported to it. A copy is sent to GEPAN which to date has handled about 600 normal investigations, a figure which is now increasing at an approximate rate of 300 per annum. Furthermore, the Civil Aviation body, the Naval Services and the Air Force have agreed to channel to GEPAN the sightings made in the course of their activities, on land (radar control), at sea and in the air (from pilots). For a long time private UFO groups have also undertaken the task of carrying out investigations and dealing with witnesses, and some of these have opened their records to GEPAN. The quality and thoroughness of these investigations are however very variable, and this variability increases still more when one depends on press cuttings re-counting the sightings. Finally, some witnesses take the initiative to telephone directly to GEPAN to report their sightings. It can be seen therefore that there is no lack of information thanks to a well distributed network covering the whole of French territory.

The unique nature of GEPAN

GEPAN is unlike previous official groups in several ways :-

- it does not act under military contract, but at the centre of a public, civil organisation
- it is not the result of the pressure of public opinion (it was created after a preliminary analysis of the records)
- it is not proposed to study systematically in detail the totality of sighting reports, but to give priority to those which involve aerospace phenomena which its experts have not succeeded in identifying.
- it is composed of researchers who have expressed

a wish to participate in these studies.

Present structure of GEPAN

To achieve its objectives GEPAN has adopted a structure of seven groups; rapid intervention, trace sampling, radar warning, evaluation, national catalogue, statistical analysis and 'Simovani'.

1. Rapid Intervention Group

Some four thousand brigades of the French Gendarmeries have received instructions asking them to contact quickly their Headquarters in Paris in the event of a sighting of a UFO which is particularly interesting (i.e. close encounters landings with suspected traces etc.). It is the Headquarters of the Gendarmerie which assesses the expediency of warning GEPAN in Toulouse, where the Rapid Intervention Group has installed a permanent system of alert for its members. Whenever intervention is decided upon, this group has the task, first of rapidly setting up a multidisciplinary team of investigators to go to the site of the observation to meet the witnesses and second to facilitate its work on the site (using adapted equipment). Since March 1978 this group has been called upon seven times, but has only intervened on two occasions, in June and July.

2. The Trace Sampling Group

Warned by the same route as the previous group the Trace Group is called in wherever various physical traces (whether on soil or plants) have been declared present by the Gendarmes after a presumed UFO landing. Its main function will be to carry out mechanical measurements at the site and samples of traces (by boring) which will be sent to specialist analytical laboratories. The workers in this group have a specialised procedure and have at their disposal specific equipment for this purpose. For obvious reasons it is imperative that this group intervenes with a maximum delay of 24 to 48 hours after a presumed landing. It has been called upon twice but the fact that information was provided too late, rendered its deployment useless.

3. The Radar Warning Group

The Radar Warning Group intervene in two ways, on the request of the Rapid Intervention Group following a visual sighting and on the direct alert from the air traffic personnel (pilots, air traffic controllers etc.). Its research operates along three channels :-

- military surveillance radar network
- civil radar network (air traffic, national meteorological etc.)
- theoretical calculations and studies

This activity has, as a basis, the research into sporadic echoes which are produced by the UFO phenomenon and the maximum exploitation of radar information in order to obtain material data concerning UFOs (consisting of echoes, response to certain types of radar, velocity, heading, acceleration etc.).

4. Evaluation Group

The first activity of the members of GEPAN consisted of the analysis of some hundreds of sighting reports transmitted to Toulouse by the services of the Gendarmerie. This group examines recent reports which reach GEPAN and regularly goes through the files at the disposal of GEPAN.

5. The National Catalogue Group

Its mission is to code all sighting reports categorised as type D with the aim of establishing a national information catalogue of UFO sightings. The method of coding is studied in co-operation with the Group for Statistical Analysis and also with the consultants outside CNES.

6. The Statistical Analysis Group

Composed of statisticians, mathematicians and professional information scientists of the CNES, this group aims to produce statistics from the national Catalogue as it is being elaborated. Its objective is to attempt to extract the characteristics of the UFO phenomenon from the analysis of these sightings taken collectively.

7. The 'Simovani' Group

With a view to facilitating the recollection of certain parameters characterising a UFO sighting (shape, angular dimensions, colours, position, azimuth etc.) GEPAN plans to bring into use a special optical instrument. This device, called SIMOVANI (contraction of simulator optical of Objet Volant Ni Identifie) will be utilised on the site concerned, and will bring considerable help to the investigators. It will have the appearance of a box, mounted on a tripod, and inside will be placed transparencies representing various shapes of different sizes and colours, which an optical system will superimpose on the observed countryside through binoculars.

The witness will be able to change the image at will and at the same time simulate his sighting whose principal characteristics will appear to the investigators in the form of numerical data. The task of the witness, and that of the investigators will thus be made much easier because language is often inadequate to describe an unusual sighting. Two optical specialists and an engineer are involved in this project.

GEPAN and the Private Groups

Following a proposal formulated by its Scientific Council, GEPAN invited representatives of the principal French private groups studying the UFO phenomenon to an information meeting on 12 September 1978. About thirty or so of these groups replied to this appeal by each sending two or three delegates. This one day session was the opportunity for GEPAN to present its structure, its work, its method of operation and to give an insight into its research projects and the results obtained. It was stressed that GEPAN had no intention of either forming a federation of French groups or of delegating tasks. The object of this meeting was to define a method of useful co-operation. The members of the groups revealed the difficulties which were associated with the collection of information, and showed concern that

they should improve the quality of their investigations. They recognised the necessity of contacting the specialist teams of GEPAN when the investigation seemed to them to require the employment of particular techniques or materials. They showed that they were wholly in favour of communicating to GEPAN, reports of their investigations. GEPAN took careful note of the wishes of the participants to be informed regularly of the progress of the work. Finally, GEPAN suggested the idea of the possible organisation of probationary periods for investigators and making the method of classification uniform.

Examination and Classification of Sighting Reports

Each report is analysed successively by two experts who assign it to a certain category and put their remarks on an evaluation form attached to each file. This classification permits the re-assessment of the report in four categories according to the experts estimate and is shown in the following ways :-

- Type A Phenomena
These are phenomena completely identified (e.g. CNES balloon, helicopter, planet, satellite re-entry etc.)
- Type B Phenomena
These are phenomena which cannot be identified with certainty but the characteristics described by the witnesses permit the association of the event with a well-known phenomenon (the experts believe that there is a high probability that a balloon, an aeroplane, or a meteorite etc. was involved)
- Type C Phenomena
These are phenomena which cannot be identified but the reports, lacking detail in certain respects, make further investigation impossible.
- Type D Phenomena
these are phenomena which the experts cannot identify in spite of relatively precise and complete reports.

When an expert considers that there is present a phenomenon of type D a second classification is then necessary. According to the characteristics of the sighting we distinguish six possible headings :-

- A. Relatively distant sightings
 1. Nocturnal lights
 2. Daylight discs
 3. Instrumental observations - radar, binoculars, astronomical telescope, camera etc.
- B. Close Encounters
The limit adopted - less than 200m - corresponds to that at which binocular vision does not allow the correct assessment of distances.
 4. Close encounters type 1 (O.R.1). No effect on witness or environment

5. Close encounters type 2 (O.R.2). Inter-action with environment involved e.g. effects on motor car lights, engines or radio, ground traces or burns, plants effected, animals affected and even human beings.
6. Close encounters type 3 (O.R.3). Those involving reports mentioning the presence of entities which could be occupants of the UFO.

This classification was proposed by Hynek, and has the advantage that it is used by many foreign researchers, thus facilitating the exchange of views.

Results of Preliminary Analyses

It can be said that out of the total sighting reports there remain, after analysis by the experts, 20% to 25% which really pose a question. These cases are for GEPAN the 'true sighting reports of UFOs', and they alone constitute the basic material of its work.

Analysis handled by experts at GEPAN

To the beginning of 1978 three hundred and fifty four sighting reports made by the Gendarmerie had been processed by experts at GEPAN and were divided as follows :-

4%	classified under Category A
37%	" " " B
34%	" " " C
25%	" " " D

Redividing Category D cases (89) gave :-

42%	Nocturnal Lights
4%	Daylight Discs
1%	Instrumental Observations (1 case of radar)
21%	Close Encounters type 1
28%	Close Encounters type 2
4%	Close Encounters type 3

A tentative classification of sightings of Category D in terms of relative credibility of witness gave the following results :

- high credibility 23% of cases
- medium credibility 67% of cases
- low credibility 10% of cases

Comment by Charles Lockwood

One thing which strikes the reader of this informative booklet is that the French aerospace scientists are way ahead of all others in the study of the UFO phenomenon. They have a civil, Government funded, scientific organisation working on this problem and they have the co-operation of Universities, Police, armed services and, most important, of all, the witnesses. If only we in Britain could establish a research unit with a similar non-military basis, attached perhaps to one of our Aerospace Departments, we could begin to be objective about this phenomenon. We, who are voluntary UFO researchers do not wish to prise from the Ministry of Defence their precious secrets about the latest fighters, or rocket devices! We are interested only in the strange objects, the UFOs, which are observed all over the world. We are looking at an international, not a national phenomenon, and we all hope that the British Government will not be left too far behind in this important field of study.

UFO EVENTS IN PEMBROKESHIRE — 1977

By Anthony R. Pace

THE FOLLOWING PAPER, ORIGINALLY GIVEN ON 16 APRIL 1978 AT BUFORA'S THIRD NATIONAL RESEARCH & INVESTIGATIONS CONFERENCE, NOTTINGHAM SUMMARISES MANY OF THE MORE INTERESTING UFO REPORTS FROM PEMBROKESHIRE DURING THE SPRING OF 1977. THE INTENSITY AND SIGNIFICANCE OF THESE EVENTS IS UNPRECEDENTED IN UFO RESEARCH RECORDS IN THE U.K. BUFORA INTENDS TO PRODUCE A DETAILED REPORT IN DUE COURSE.

Introduction

In 1967 Roger Stanway¹ and I investigated a large number of UFO reports in the Stoke-on-Trent area and from other parts of Staffordshire. These reports culminated in a peak which occurred at the end of August and the beginning of September.

In the U.K. as a whole 1967 proved to be an unprecedented year for the number of UFO reports, and the steep rise over previous years appeared to lend support to the approximate 10 year periodicity of UFO waves. In his paper² at last BUFORA conference in Birmingham in November 1976, Bernard Delair had considered evidence for what he called type 'A' waves with a 10 year period and type 'B' with one of 6 years. The next type 'A' wave he suggested would probably occur in 1977 or 1978 calculated from the events of 1967, though he thought this might begin around the month of June 1977. One should now ask whether we have found any evidence for this tentative prediction.

The answer is a guarded yes! The number of reports³ received to date for 1977 is in the region of 450 and late cases are still being added. The peak of reports appears to have come in the month of May. Naturally this figure represents raw unprocessed reports of which some 90% or more will be eventually explained. Nevertheless this number is even higher than the 1967 wave and tends to add some weight to the suggested type 'A' wave of 10 years periodicity. However, not only were the total number of reports made in 1977 greater than in any previous years, but their significance also were unparalleled.

Probably the most outstanding series of events in 1977 occurred in a very localised area in the county of Pembrokeshire, South West Wales, (principally near St. Brides Bay), and in my experience, is completely without equal in the annals of UFO research in this country!

BUFORA's local area investigator Mr. Randall Jones-Pugh did an extensive coverage of the events which stretched from January into May and even into later months. Intrigued by the unprecedented number of Close Encounter Cases of the Third Kind, and knowing the county very well myself, I decided to visit the area in August and again in September 1977 to interview the witnesses of the more significant cases.

There is not sufficient time here to cover all the reports - so I will restrict my summary to the interesting ones.

Drawings not to scale

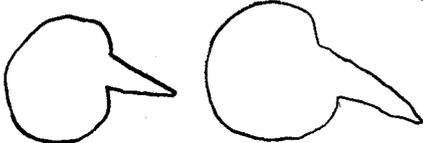


Fig. 1

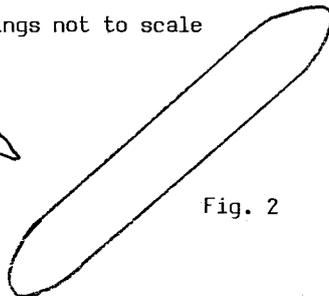


Fig. 2

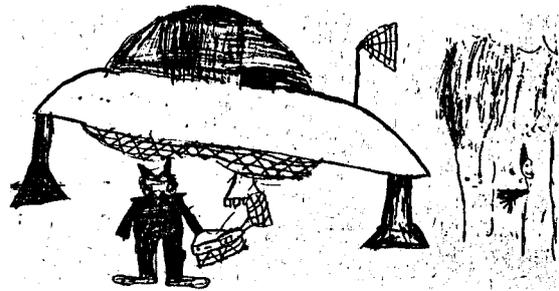
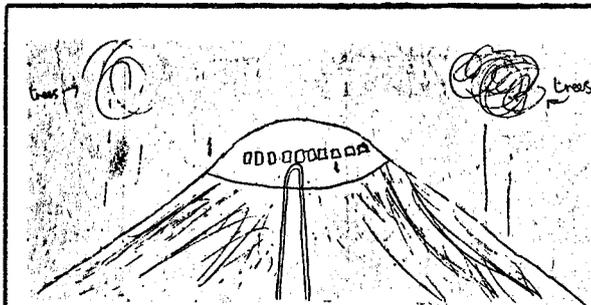
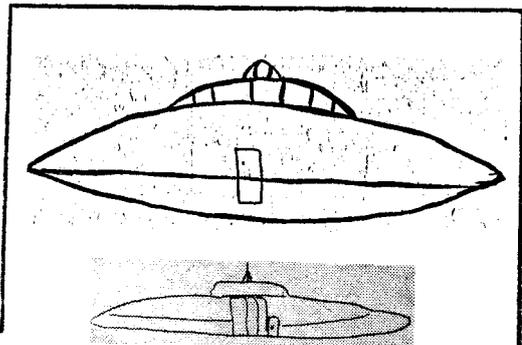
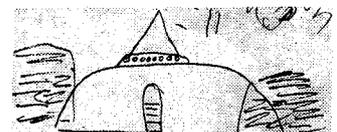
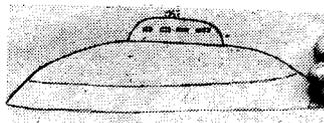
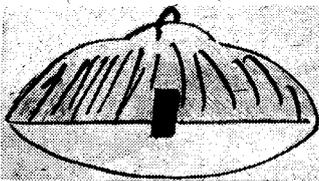


Fig. 3



UFO EVENTS IN PEMBROKESHIRE/continued

Case Summaries

- 10.1.77 Several people at the village of Clarbeston Road reported a **bright silvery** object travelling across the sky with an 'arm' projecting from **the right side**. The time was about 7.30 p.m. (Fig. 1)
- 3.2.77 A number of school children at Herbranston School witnessed a **cigar-shaped** object 'flying' over the school buildings during playtime. (Fig. 2)
- 4.2.77 Approximately 15-20 schoolboys at Broadhaven School observed a **disc-shaped** object complete with a dome and orange-red light across some wooded **fields** adjacent to the playground. Some of the boys maintained that they had observed a humanoid figure associated with the UFO. (Fig. 3)
- 9.2.77 A young man at Pembroke Dock heard a buzzing noise. The time was 8.45 a.m. He looked around and saw a 'plate or saucer-shaped' UFO in the sky. It had yellow-green lights on the side and the body was mostly silver coloured. On the top was a round thing shaped like an 'egg yolk' which was grey. He ran to find someone else to see the object but when he returned, it had **disappeared**. (Fig. 4)
- 10.2.77 Two boys were skateboarding on the Grammar School field at Haverfordwest, when they observed a blue light, like a workman's lamp on a stand. One of the boys threw a stone at it and the object rose into the air about 20 feet revealing an orange cigar-shaped bottom section. (Fig. 5)
- 17.2.77 At about 10.30 a.m. a school teacher, Mrs. Morgan, while leaving Broadhaven School, was attracted by some shiny object in the sky. She stopped and observed a large oval object with a small dome. The colour was metallic and the UFO appeared to have several ridges around the body. (Fig. 6)
- 11.3.77 At about one o'clock in the morning a man at Llansteffan saw a luminous pale gold coloured object motionless in the dark sky. The object was described as the shape of a weaver's shuttle. It suddenly switched off like a light. (Fig. 7)
- 13.3.77 Stephen Taylor was walking home to Pen-y-Cwm from his friends house and was approaching the Base at RAF Brawdy. It was about 9.30 p.m. He saw a dark hemispherical object in a field on his right and went up to the gate to have a better look. He lit a cigarette and had not been there for many minutes when a strange figure stepped out in front of him, from behind the hedge. The figure was about 6 feet tall, had no hair, but very high cheek bones and unnaturally large eyes. Where the mouth should have been, was a small rectangular 'box' with a pipe extending from this and over the left shoulder. Stephen struck out at the figure in fright and ran for his life. When he arrived home, he noticed how strangely his pet dog behaved towards him. Usually quite friendly, the dog refused to let him go near it, constantly growling and showing its teeth. Finally Stephen's mother was forced to put the dog outside for the night. In the morning the dog behaved normally. (Fig. 8)
- 17.3.77 Mrs. Pauline Coombs was returning home with her children to Ripperston Farm, near Littlehaven, when her eldest son remarked on a bright light which was falling out of the sky. She accelerated to avoid any collision, but soon discovered that the oval yellow light, about the size of a rugby ball, was following the car in a parallel course just above the hedge tops. A hazy beam of light seemed to be shining down from the object. As she approached the farm, the lights of her car began to fade and the engine lost power. The car eventually rolled to a halt and Mrs. Coombs got out, clutching her frightened, crying children and raced into the farmhouse to her husband. The strange light flew off into the sky and disappeared. (Fig. 9)
- 26.3.77 At about 7.50 a.m. on a Saturday morning another farmer's wife Mrs. Hewinson looked out of her bedroom window and realised she could not see the greenhouse which was situated about 90 yards down the garden. Blocking the view was a large silvered coloured object with three distinct layers or ridges around it. It appeared smooth and looked as though it was made of some kind of metal. She went to fetch her husband, but the object had gone when they returned to the window. (Fig. 10)

UFO EVENTS IN PEMBROKESHIRE/continued

Early April

Mrs. L. Bassett was returning home in her car to Ferryside when she observed a bright blue flashing light near the village of Idole. Immediately the music she had been listening to on the car radio was replaced by static interference. When the light disappeared the radio returned to normal. When she arrived home her dog behaved very strangely.

7.4.77

At about 4.45 a.m. on a Thursday morning Mr. Cyril John was woken up by a bright flashing orange light which illuminated the bedroom where he was staying with his daughter in Milford Haven. He got out of bed to try to discover the source of the constantly flashing light and took several steps over to the window. Looking out above the roof tops of the terraced houses opposite he observed an oval silvery object moving back and forth in a regular manner. In front of this object, but much closer to the window was a humanoid figure literally suspended in the air! The figure was stationary, had on a silvery one-piece suit and appeared to be wearing a 'hood' which completely obscured the face. Mr. John watched this bizarre spectacle for at least half-an-hour, after which the figure and object gradually receded into the distance. (Fig. 11)

7.4.77

A young girl of 17 was awakened early on Thursday morning feeling sick and went to the bathroom. When she returned to her bedroom she noticed a bright light shining through the closed curtains. Opening them she was surprised to see what she described as a 'spaceship' hovering above the street outside the window.

In front of the object and moving back and forth towards the window was a small human-like figure with longish hair and a large curved nose. The figure was dressed in a one-piece silver suit and eventually alighted on the window sill. Measurements of the window showed that the figure was no more than 3 feet tall!

In the 'spaceship' was a window and through this appeared two strange faces identical to that of the figure on the window sill. Eventually the figure returned to the object, entered beneath it, and the UFO departed over the roof tops. The girl, in fact, lived in the same street in Milford Haven where the witness in the previous case, Mr. John, had been staying! (Fig. 12)

12.4.77

Young Mark Marston was birdsnesting near his home in Herbranston, near Milford Haven. He heard the sound of someone moving behind him and turned to see a silvery-suited figure, estimated between 6 and 7 feet tall, leap over the wire mesh gate of a small sewage farm and begin to walk towards him. He ran up the lane with the figure in pursuit but stopped when the figure halted under a lamp at the side of the lane. The figure wore black boots and instead of a face, had a square black 'visor' which covered almost all the front of the headgear.

The figure turned and headed off down the lane out of sight. On the hill above the sewage farm where Mark had first seen the figure, was an orange-red glowing inverted saucer-shaped object. The boy ran home to his parents frightened and crying. (Fig. 13)

19.4.77

Mrs. Rose Grenville, proprietress of the Haven Fort Hotel, Little Haven had gone to bed at about 2.00 a.m. when she realised she could hear a humming sound like the central heating system, but this was not normally on at that time of the morning. She got out of bed and checked the boiler. She quickly came to the conclusion that the sound was unlike the boiler and indeed found that this was switched off.

She went back to her bedroom, looked out of the window and was surprised to find the area of the rear of the hotel lit up! In the corner of the field at the back was a pulsating bluish flame. She found her binoculars and observed an oval object with two human-like figures moving nearby. They were tall with long arms and legs and were garbed in what appeared to be white boiler suits.

There were no features discernable on the pointed heads. She called her husband but eventually had to go and fetch him from his bed. The object and accompanying figures had gone when she and her husband returned to the window. (Fig. 14)

22.4.77 The same Mrs. Coombs who had the experience with the light that followed her car, reported another even stranger event that occurred to herself and her husband on Friday, 22 April.

While watching a cowboy film on the television she noticed a silvery suited figure standing outside facing in at the window. The figure had a black square 'visor' where the face should have been. It was alleged that the figure stood at the window for more than an hour. When her husband saw it, he immediately phoned the police but the figure disappeared just before they arrived. Measurements of the height of the window glass showed that the strange figure was at least 7 feet tall! In addition the farm dog behaved in an odd manner that same evening. (Fig. 15)

1.5.77 A man at Haverfordwest, in broad daylight saw an object in the sky shaped like a weaver's shuttle. It suddenly disappeared from sight. (Fig. 16)

15.5.77 Mrs. Coomb's twin daughters were playing in the fields north of Ripperston Farm, near the sea, when they saw a 'funny man' in a silver suit with a square black face! The figure walked off and eventually disappeared into another field. They then observed what they both described as a 'plate' which came out of the sky and hovered just above the ground in front of them. Doors apparently opened in the object and some 'stairs' came out. A 'dark red box' was ejected from the object which then flew off near the cliffs and entered the sea between the shore and a rocky outcrop called Stack Rocks. The 'box' according to the girls, just disappeared in front of their eyes. They later complained of rashes on the arm and leg. (Fig. 17)

27.8.77 A lorry driver and his mate driving near Carmarthen saw two figures in the road. The driver described them as 7 feet tall, quite broad and dressed in bright red translucent material, They had large featureless heads and human-like arms. Both men felt 'cold' as they sped past the strange figures!

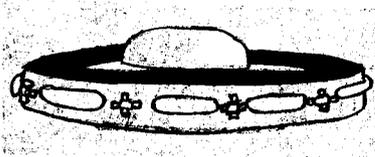


Fig. 4



Fig. 5

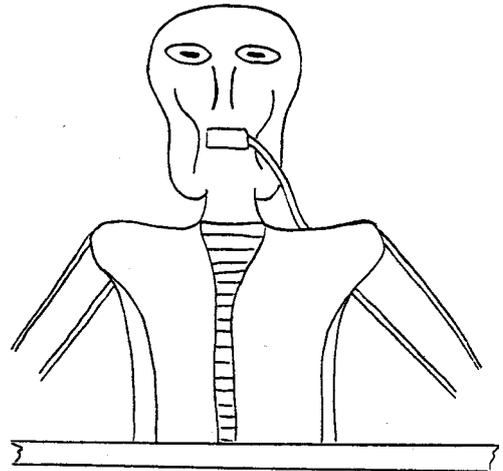


Fig. 8

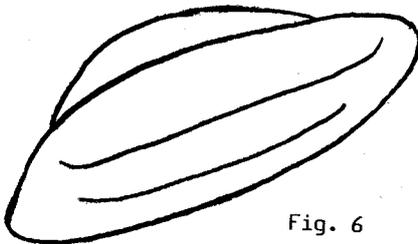


Fig. 6

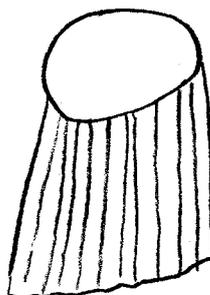


Fig. 9

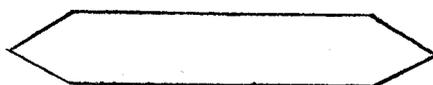


Fig. 7

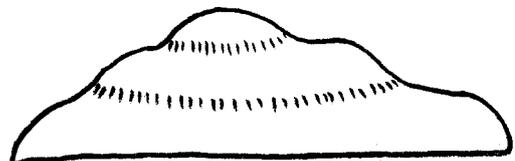


Fig. 10

Fig. 11

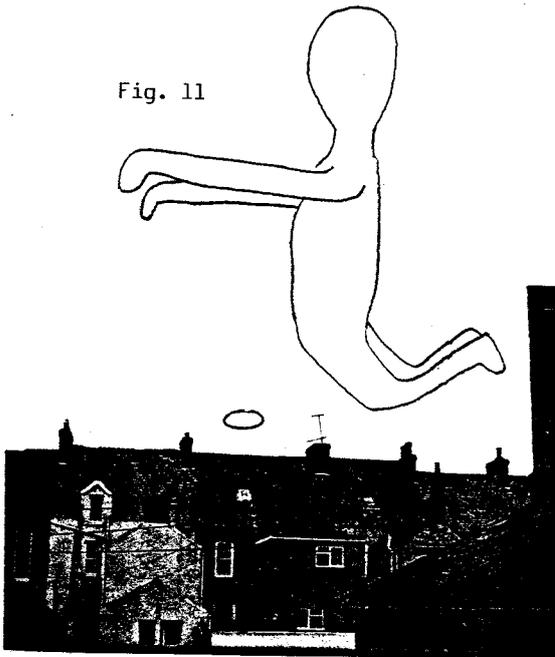


Fig. 12

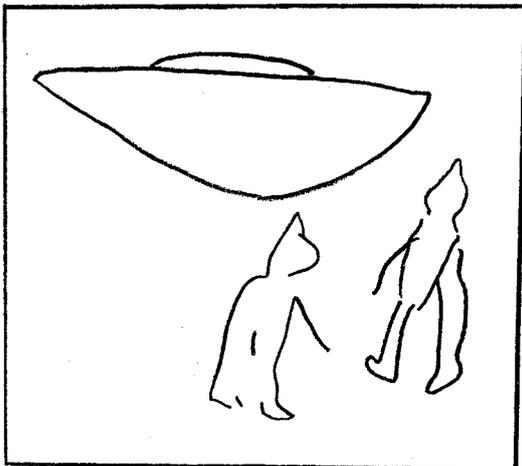
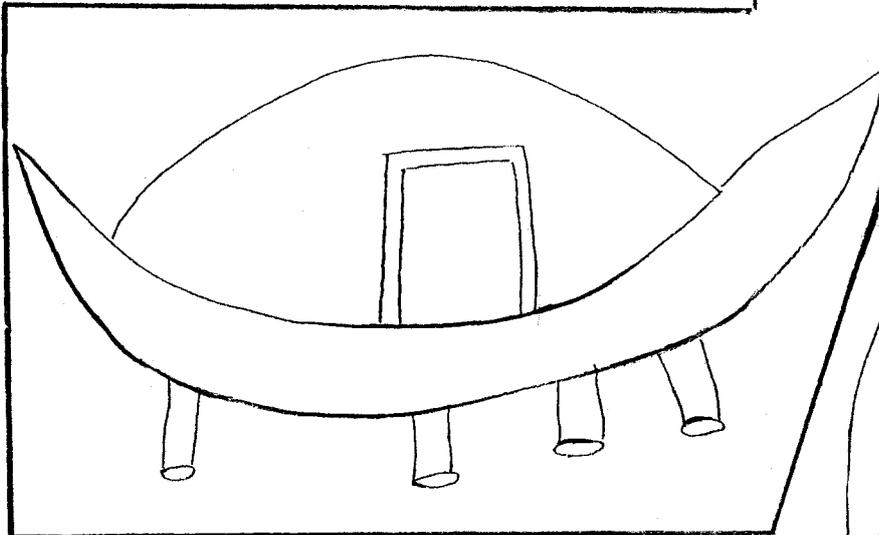
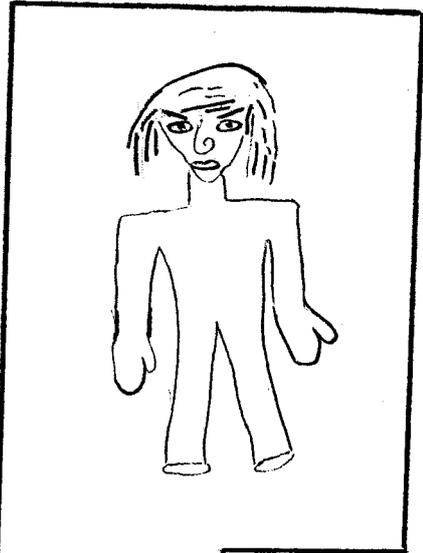


Fig. 14

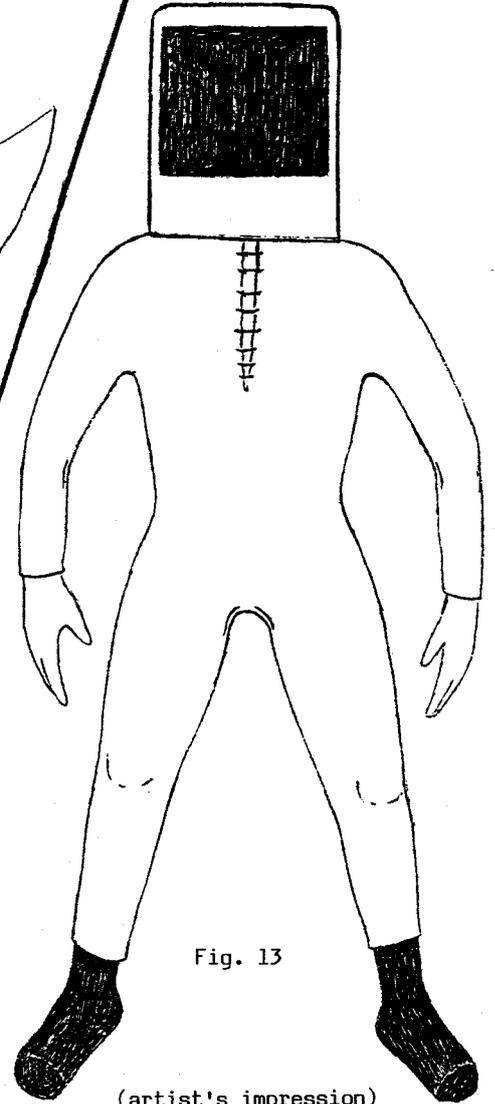


Fig. 13

(artist's impression)

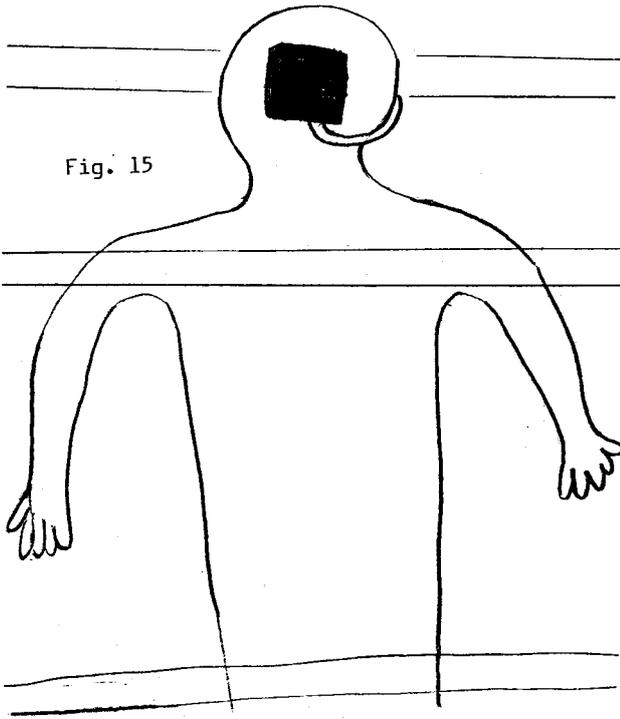


Fig. 15

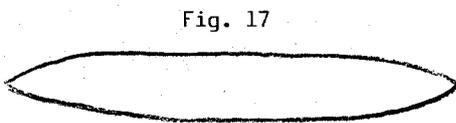


Fig. 17

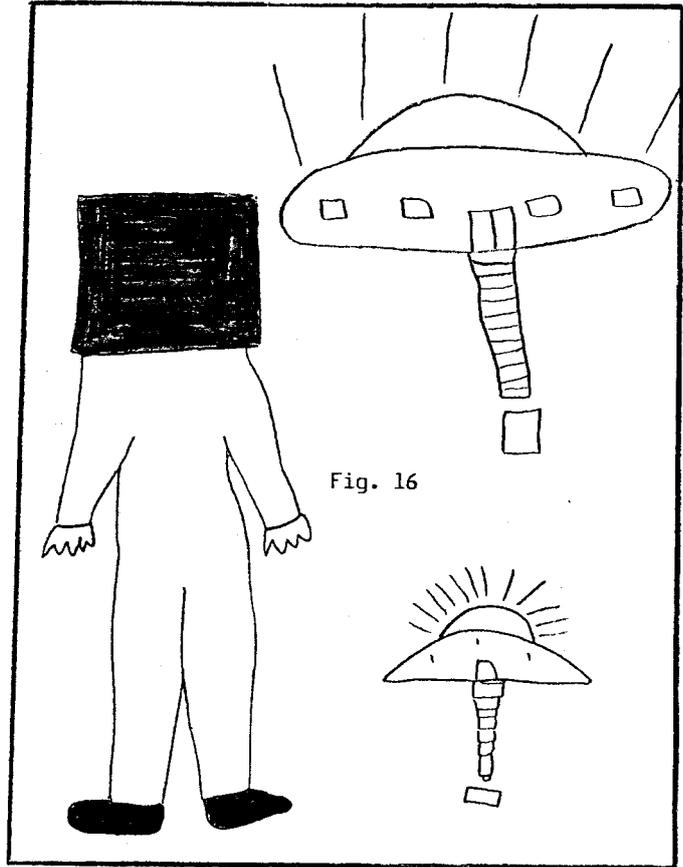


Fig. 16

Conclusions

These then are brief summaries of the most interesting cases I was able to investigate. If one looks closer at this varied and perplexing assembly of reports, one can immediately see certain patterns, similarities and characteristics emerging from the descriptions given by the witnesses.

- (a) It is quite clear that the peak of sightings came in the month of April and of the 9 humanoid reports referred to, 5 of these occurred within the period from 7th to 22nd April 1977.
- (b) There were a number of reported effects on dogs.
- (c) The UFO's had certain characteristic features in common, i.e. compare the case of Mrs. Morgan - 17.2.77 and Mrs. Hewinson - 26.3.77. In addition, the Herbanston School Llansteffan and Haverfordwest UFO's have very similar outlines. The Broadhaven school children depicted a domed-disc with doors - so did the Coombs children! The figures reports at Herbanston on 12th April at Ripperston Farm on 22nd April and again at Ripperston Farm on 15th May probably provide the most distinctive correlations - particularly with reference to the 'headgear' of the humanoids.

If you recall the great variety of drawings of the same object made by the Broadhaven school children - then the three humanoid sketches can be reconciled with some degree

of certainty and appear to show the same or a very similar entity. This leads to an interesting speculation which might be considered contrary to the usual transient characteristic of UFO events. It appears that the same or similar figures were observed 'operating' in the locality over a period which extended from at least 12th April to 15th May 1977.

In conclusion, I would suggest that if the 'UFO Appearance Recognition & Identification Test Procedure' techniques, devised by Dr. Richard Haines,⁴ had been applied in the cases - then the seemingly divergent reports from Pembrokeshire would have shown even greater similarities. I maintain therefore, that the 'picture' was not, in reality, as confusing as the drawings and descriptions appear to suggest and that the same or similar agencies were present in the area over an extended period of time! These conclusions also apply to the UFO report as a whole.

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UFO RESEARCH, THE NEXT STEPS, AND LINES OF ATTACK IN OTHER COUNTRIES

By Dr. J. P. Kuettner

THIS PREVIOUSLY UNPUBLISHED PAPER WAS GIVEN AT THE FIRST BUFORA NATIONAL RESEARCH AND INVESTIGATIONS CONFERENCE HELD AT THE GRAND HOTEL IN HANLEY, STOKE-ON-TRENT ON 10/11 MAY 1975. DR. KUETTNER DISCUSSED HIS EXPERIENCES AS CHAIRMAN OF THE UFO SUB-COMMITTEE OF THE AMERICAN INSTITUTE OF AERONAUTICS AND ASTRO-NAUTICS.

C. A. E. O'Brien - Chairman

"It is my great privilege this evening to introduce to you Dr. Kuettner who is going to give us his experiences with UFO's. Dr. Kuettner worked with the ESSA Laboratories in the USA for many years and is now one of the world's leading meteorologists at the World Meteorological Organisation in Geneva. But I think the activity of Dr. Kuettner's which interests us mainly, is that he was Chairman of the UFO Sub-Committee of the American Aeronautics and Astronautics Institute.

It was that particular Sub-Committee who brought out the very courageous resolution that it was now time for the engineering and scientific fraternities to start taking the UFO issue fairly seriously - at least the Sub-Committee recommended they should begin to look at it because it was scientifically viable to do so. Unfortunately a month later the Condon Report came out and the resolution rather got submerged beneath the publicity this was given. I will take up no more of your time ladies and gentlemen, but call upon Dr. Kuettner to give you his lecture."

Dr. J. P. Kuettner

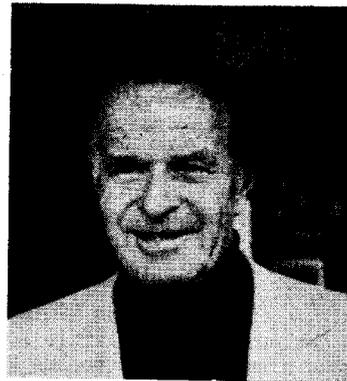
"Thank you Mister Chairman, ladies and gentlemen. First of all this is not going to be a lecture. It will be a very informal discussion and if the chairman agrees, I would not mind being interrupted by questions, but if you prefer to have that afterwards, of course, I am in your hands.

You look all very optimistic here and what I am going to say is rather pessimistic. Pessimistic only in one sense, that the present situation on the UFO problem is so critical and difficult that unless you recognise it, you will not move ahead. You see, it is one thing to be among the UFO interested people and it is an entirely different thing to be, as many of us are - continuously among the normal scientific community. And this is why I think we must be very sober and perhaps a little pessimistic.

A.I.A.A. UFO Sub-Committee

Now regarding the American Institute of Aeronautics and Astronautics - only a short comment. This is a professional society for

the aerospace scientists - in other words, aviation and space science in America. The history of this Committee (the UFO Sub-Committee) was that, like any other scientific societies, the A.I.A.A. has certain technical committees. Among them is a technical committee for atmospheric environment, of which I happened to be chairman at the time when this Sub-Committee came up. And then there is another technical committee on space physics, and there are many more, propulsion, and so on. But the two on space physics and on atmospheric environment were at that time asked by the Board of Directors to form a sub-committee in order to get an assessment of the situation. An assessment is not a scientific investigation it is a best judgement affair and that is a big difference!



Dr. Joachim Kuettner

Our full assessment report came out after the Condon Report, I think, about two years later, and was followed up by carefully selected examples of very strange UFO encounters of high credibility, which were published in the Journal of Aeronautics and Astronautics. But we probably made one mistake that has often been made if you have a controversial subject. You like to stay away from those people who are already committed one way or another, and you know how many people are committed in the UFO issue. They are personally convinced of this and that. They are pro and con and if you asked for volunteers, you usually got those people who were intensely interested and had already made up their mind. So anybody who volunteered we rejected in this sub-committee and we picked out as members, people who knew nothing about it - scientists, engineers from the universities and from the aerospace industries - out of the technical committees. I ended up as chairman and I did not know what I had got into at this time. Because if you do it this way you have on the one side an unbiased attitude and perhaps a lack of interest, but also you are going to make the same mistakes that experienced people have already made - people who have already had their 'fingers wet' from the UFO issue.

Now, of course, the same mistake was made by the Condon group, and since at the time I was

involved at Colorado and he was involved at Colorado, Dr. Condon and I had frequent lunch meetings and kept track of each others' studies. But he of course had a fully Government supported study and we did this work in our spare time, and we were not that ambitious. But the Condon Committee made the same mistake - they also used people who had no experience. I must say we learned a little from their mistakes - because they were a little ahead of us. But the mistake is this, the cases that you must take seriously in the UFO observations are very few percentage-wise. Not very few number-wise, but percentage-wise they were very few, and if you do not eliminate, very early in an investigation, those which can be explained, you are going to waste 95% of your time on uninteresting cases and this is what happened here! This is perhaps why the Colorado University Group at this time did not come out with very many cases. For us the problem was to get a best judgement - that was all.

I must say that in our Committee we never had any difficulties in coming to the same conclusions. We were sceptics in the beginning, we found it very interesting, and we had joint sessions with the experts, with McDonald, with Hynek, with Condon and so on. We dug through the literature, if you can call it that - there is really no literature on UFO's that you can take seriously - very little scientific literature, and slowly we come to the key question. The key question was for us - if 95% of our cases can be explained, are the rest also explainable? In other words if you had more information maybe you could explain the remaining 5% too! This is, by the way, what the scientific community, in general, believes. We found that this is not the case, that it is the opposite and that there is a 'signal' buried in a very large 'noise'. And the reason we came to this conclusion was that statistically you would assume that the simplest and obvious cases are the most credible ones and the strangest cases have the lowest credibility. Somebody tells you that an occupant of a landed vehicle has moved through this hotel. I think you would give this very little credibility without having a lot of evidence. But if somebody tells you that he saw a vehicle that moved very slowly over an hour and had a shape like that, (like a balloon) then it is probably a balloon and you would say this is credible. The opposite is the case as I will show you in a moment! Statistically the strangeness does not fall off with the credibility as you would expect.

Now it was a matter of putting your finger on the 'signal' in the 'noise'. With some co-operation we got the cases that we thought were the most astonishing and well observed by multiple observance systems and published them in the Journal of the A.I.A.A., and to our surprise no-one in the scientific and engineering community objected to that. They were all very interested.

That brings me to the point where we must think a little about who works in this field and how we are qualified. I think there are a number of groups of people involved in this problem and unless you clearly understand what they are trying to do, I think you will not come to a solution.

There is the large scientific and engineering community which I think, at least in America, is completely open-minded. They have heard about it, they are interested and they would like to know what the answer is and they have no specific opinion about it. However this very large group is really ignorant about the UFO issue. I am coming now to this vicious circle which is the pessimistic aspect of that I wanted to mention. The reason is that a scientist normally goes into a library, he looks at the abstracts, he picks out the literature from the different scientific journals and he goes from one paper to another and finds out more about the subject. That is the way the normal scientist works. You try that with the UFO issue and you do not get anywhere! You will find that some articles are published in "Playboy" and they are published there because the scientific journals do not accept them. So the scientist has really no opportunity to obtain the information.

Now if he wanted to get his hands on the data themselves, he will be even more frustrated. We in our Committee have been terribly frustrated by the fact that we could not get our hands on anything because it is hidden - or you get it third hand. You get it fourth hand, and you find that Mister So and So, in his book quotes Mister So and So in another book, who quotes another one and so on and finally when you come to the end, there is no written report. The Air Force files in the United States are a very good source of information even though the interpretation is very superficial. What I am driving at is that the scientific community as such has no possibility of even getting a picture of the situation. That is one group.

Now there is another group - and I am still talking about scientists. This is a very small group - a very knowledgeable group of people who are working hard and are very ingenious. This is the group that tries to solve the problem. You see, the scientific community, largely the first group ask the primary question - is there a scientific problem? They do not want to know what the interpretation is, they want to know whether there is a problem at all. Is there a legitimate question or is it fantasy? The other group contains people like Vallee, Hynek, Saunders and Poher. These are the people who work intensely on the question of the interpretation because they have convinced themselves a long time ago that this is a valid problem. What they forget is that nowhere in science can one work that way. The normal scientist has

an idea. He is a talented man and he knows usually ahead of time approximately in which direction to go. But then comes the big labour of proving it solidly to his peers, to the other scientists. It is nowhere accepted in science that somebody says, I have convinced myself, and as a consequence I think this has to be interpreted in this and that way. I am convinced that this is a valid problem and that the solution is such and such. This is not accepted in science and should not be accepted in science.

So what is the situation then? One has to put things in order. One has first to ask the question - do we have a problem at all? You are of course all convinced that UFO's are a valid problem. Now just go outside this hall and go into a scientific meeting and you will find, as I said, open-minded people. But they would say they would first like to know whether there is a problem. Perhaps these (UFO's) are atmospheric phenomena and perhaps there are ignorant people who interpret things wrongly.

Those who have looked at UFO's know that this is not so, but the scientific community does not! What I am driving at is that the engineering and scientific community in the world, that is well educated in the technical and scientific fields, stands still and the other small group that I mentioned before, moves ahead, and the gap gets bigger and bigger.

Now there is a third group and I think that our Committee and perhaps you are in this group. These are people who are really not working actively on the problem.

These are the people who are trying to bridge this gap. They are trying to make a little more effort to find out what the situation is and then, with good judgement interpret this situation and perhaps make the UFO issue an accepted problem. In other words, introduce it into the scientific literature. So this group is in the middle, and they are not the most active one. These are people who do the work occasionally, they are very sceptical still and very, very careful. This is an important group.

I am ignoring the fourth group which you might call "the lunatic fringe" that have absolutely fantastic ideas and do not know anything about the scientific method. You are just lost discussing problems with them. I ignore them. There is a very large group which is represented by you here and similar organisations. These are the people who are collecting the data. In spite of all the difficulties they keep doing it. Nothing is more important, in my opinion, than to continue doing this, perhaps by putting emphasis on certain things, rather than trying to follow up everything. By this spare time voluntary effort about 50,000 cases have been already stored in a computer bank - regardless of their quality, but that is the amount of data. You can see now that if only

5% of these cases are interesting, this is still a very large number. It means that this is a statistically valid sample. This is why it is important to continue collecting the observations as well as it can be done.

Most people who are involved like you in this activity would like to follow up a hypothesis and would like to help interpret this. I am most sceptical about this for the following reason. I am convinced that the interpretation of the UFO phenomenon is of a complexity that it is impossible to interpret it, (the residue of cases) without a very large multi-disciplinary effort of the best brains. I do not think this can be done in the spare time by an individual. Now I might be proven wrong because you never know whether the one case happens that clears everything up! Otherwise I am of the opinion that it takes institutional support, financial support, a lot of time and a lot of people to solve this problem.

How do we tackle the problem?

Let us see how this could be done, and here I come to my vicious circle. If you want to get this report from public funds then recognised reviewers from the scientific community will look at this proposal and they will first ask the question - is this a valid scientific problem? Can you imagine that somebody in an agency, a public servant, will "stick his neck out" and say I am smarter than the National Academy of science. It will not happen. What might happen is that a private foundation or a tycoon makes the decision and says I want to have this question cleared up. But I do not think that in the United States this is going to happen - unless first the question has been answered whether this is a valid scientific problem. Is it a real problem? It would take such an effort, as I have described, and public funds to prove that - so you see you cannot get out of this vicious circle.

Actually the situation at the moment is like that. You have to ask yourself, are you going to go on collecting the same kind of reports as you have done for the next twenty-five years? So that in twenty-five years, instead of fifty thousand reports you will have one hundred thousand - a factor of two, which statistically is not very important. Are we going to do this? I am of the opinion that this is the wrong way.

Statistical Studies

How can this difficult situation be solved, if at all. I believe since most of these reports are stored in the computer memory - at least in three places, that the statistical assessment of these data is the way to go first. It is the way to solve question number one - whether we have a problem or not. There are certain significant tests you can make. What you would have to do is to compare this residue of interesting cases with the rest of the explained cases, and see whether statistically significant differences exist. I will show you some material

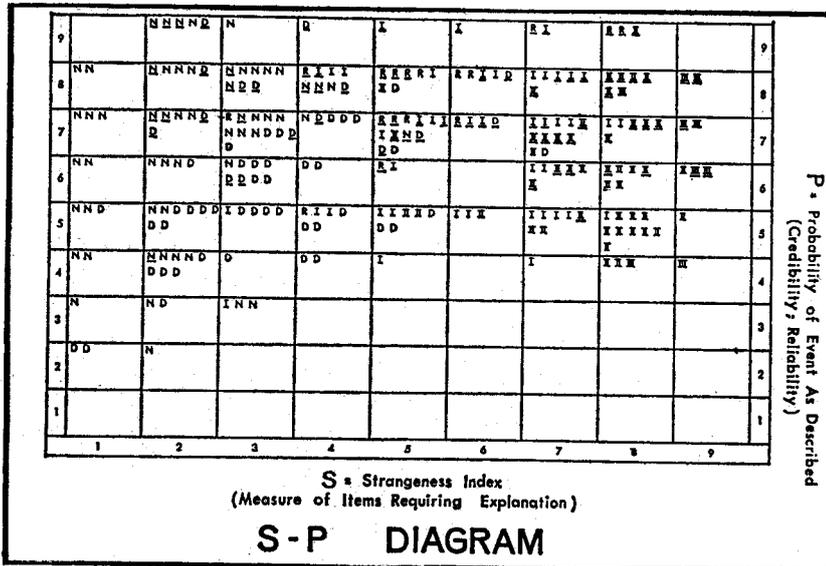
that has already been done in other countries in this direction. We are actually in the process of trying to revise the material that is available so that it becomes what you could call 'scientifically watertight' - and then publish it. I think that is the way to open the door.

There is a similar problem in the atmospheric sciences. Weather modification was also discredited. Can you modify the weather? Some people say yes - we can make rain and the others say no. The problem is now legitimate because some courageous scientists have gone into this field and have, by statistical methods, shown that it can be done. The reason that I think the scientific community should accept this as a problem (UFO's), is that I do not think you will get the answer without them. And I do not think you can get the scientists to work seriously on this, unless they can work full time. Otherwise it will remain the strenuous effort of a single scientist like my friend Jim McDonald, who finally despaired that he was wrong and could not solve the problem. After having explained this I advocate a statistical solution of the existing material. If the observations are bad, they will come out of the statistics.

Case Studies

There is a second way and this is the one that you are probably more interested in - that is case studies. I am a little wary of case studies for the reasons I explained. You can spend a lot of time on a case that really is not worth investigating and one also finds that if a case has been well investigated that when it comes to the scientific analysis, this is not being done. No-one (the scientist) does anything in his spare time without being paid for it. I do not know why, but this is the situation - because your profession always has priority. On the case studies, I think that the strangest cases are the ones we should look at. In fact if you had two priorities I would put them as the statistical analysis and the 'landing' cases. Because it turns out that the landing cases and those with occupants have a surprisingly high credibility. They have multiple witnesses, they have traces and so on. To my knowledge there are about nine hundred cases of this type throughout the world, and about four hundred of them claim occupants. Many of these have little credibility but there is a residue that has. About 20% of the cases you would take seriously are landing cases.

Fig.1



Reliability Factor Used for Hynek Diagram

$$P_R = [1 - (\bar{p})^M] \cdot P_I \cdot 2^{1-N}$$

where the various reliability parameters are defined:

- \bar{p} average witness reliability factor
- M number of witnesses
- P_I investigation reliability factor
- N "n-th handedness" of the report

STRANGENESS

Strangeness can be taken as a measure of the number of information bits the report contains, each of which is difficult to explain in common sense terms.

- CLASSIFICATION SYSTEM (HYNEK)**
- N = Nocturnal Light
 - D = Daylight Disc
 - R = Radar Visual
 - I = Close Encounter of the First Kind
 - II = Close Encounter of the Second Kind
 - III = Close Encounter of the Third Kind

UFO RESEARCH, THE NEXT STEPS, AND LINES OF ATTACK IN OTHER COUNTRIES/continued

I am not aware how often this type of case has happened in this country - because the country is geographically small compared to the area of the United States, where these so-called Close Encounters seem to happen more often. If you ever get cases like this, I would put all your effort into exploring them to see whether you can obtain independent evidence from completely independent witnesses, and whether you can get the traces, and can take samples and get them analysed. I think this is going to be more convincing. Hynek agrees with this and many of us are beginning to accept that we must concentrate on this approach.

Hypotheses

Someone asked me whether you should go after a certain hypothesis. I would be very sceptical about this. It is already difficult for an experienced scientist to keep his objectivity if he has a hypothesis in mind. I would rather collect all information completely objectively and not try to interpret it.

UFO Studies in other countries

You might ask - what is being done in other countries? You are aware of the Centre for UFO Studies that Hynek has established. This is a going concern and is well designed with confidential telephone lines to the police and other organisations. And still he gets reports practically every day. He is completely overwhelmed by the effort it would take to analyse such a mass of data. He also has to be very selective. This effort is completely unsupported at this time apart from small donations. It is an effort by him, his wife and a few co-workers.

In France there is Dr. Poher with whom I have worked a little. He has taken the statistical route. He had stored data which he had access to, on a computer. He is an ingenious man and has come up with very spectacular results. I will show you a few of these. Then there is Saunders in the United States who has the largest computer data base of all. He has all of 50,000 cases and has attacked the problem from the population side to see what kind of people are reporting UFO's and what kind of geographical conditions seem to be favourable, and so on. But he has not really gone into any technical aspect. I think that this is still strictly a private effort everywhere and if you believe that more is done in other countries, this is not so. It is still the individuals with boundless energy who do not give up. Perhaps this is now a good point to show you some of the material I mentioned previously."

Illustrations

Several slides were shown by Dr. Kuettner to illustrate the research done in the U.S.A. and the statistical studies of Dr. Poher in France. The first slide showed the percentages of explained cases in different categories compared

to the inexplicable reports.

Dr. Kuettner

"Let me first illustrate the situation as we found it in our Sub-Committee. By the way this Committee still exists, but in a different form. It is part of the Space Physics Committee and one of the reasons this was changed was that it became practically impossible for the members to travel to a meeting. Because when they go to their government agency and say I want to go to the UFO Committee meeting, the government says no, - no funds for that! But if it becomes part of the Space Physics Committee then that is OK.

You see that about 75% of the observations you find in the literature are identifiable and explainable. Actually you could say 80% because some 5% are hoaxes. Then there are about 15% for which you have insufficient data for you to say anything positively or negatively.

And then you have 5% which are unidentified. Among these 5% there are about 2% - the residue which have a high strangeness and probability or credibility rating. And it is this small sector that we are talking about. Somebody who is not experienced would spend all his time on the rest of the cases. Of course I do not think this would happen to you because you are experienced here, but if someone comes new into this field he would look into every case and be very frustrated when he spends 98% of his time on uninteresting cases. The experienced people can usually eliminate these immediately."

In his next illustration Dr. Kuettner showed a version of Hynek's Strangeness - Probability diagram similar to Figure 1.

Dr. Kuettner

"You have here the credibility or probability increasing upwards and the strangeness increasing to the right. Now if the strangeness is small you should expect high probability and if the strangeness is very large as in completely bizarre cases (an occupant looking through your window) then you should expect a low credibility. Perhaps there was only one witness or it was a hoax.

Take the whole area of the diagram and look at the density of cases in each square. The squares towards the top right-hand side you would expect to have the lowest density. Let us look how it really is. These are cases from Dr. Hynek. In reality the density does not fall off as you move to the top right-hand corner. What this means is that as the strangeness rises the credibility also rises and only when you come to the very strangest cases does it begin to fall off. This is the kind of thing that is significant."

The following slide showed a map of the USA and located on it, the radar network of the National Weather Service.

UFO RESEARCH, THE NEXT STEPS, AND LINES OF ATTACK IN OTHER COUNTRIES/continued

Dr. Kuettner

"Is there a way without public funds to obtain additional information. We think there is and have proposed this in our Committee. If you have landing cases or close encounters like the case of Captain Coyne, involving a helicopter, you have only the words of the crew!

But we have here in the USA an observing network of weather radars of the National Weather Service which can work on either a 250 mile or 125 mile range. These are designed to monitor severe weather such as tornadoes or hurricanes. They are recording pictures every fifteen minutes if the weather is not completely clear. If the weather is very bad pictures are taken more often. These pictures are stored in the data service and you could see on these pictures that abnormal trajectories were visible. It turns out that 65% of the USA from near the surface to 40,000 feet is surveyed in this way. We found that if you want to go through all of these pictures (photographs) it would cost you one million dollars a year!

This is not the way to do the research. What you should do is to take the interesting observations and then check back that the weather photographs bear out an independent confirmation. We tried this only once with the Captain Coyne case. It did not work out in this case. First of all, the location of the UFO sighting was between three radars which overlapped but not at that low level (because of the curvature of the Earth). And second was that the one radar which was most promising stopped working one hour before the case and started again two hours afterwards. But in principle this method is possible."

The front cover of Journal TAP shows a radar screen of the Wichita, Kansas Weather Bureau. On 2 August 1965 UFOs were 'plotted' and photographed. The other smaller dots in the picture show locations of earlier UFO sightings as the UFOs moved across the screen.

Dr. Kuettner then went through several slides illustrating the statistical work of Dr. Poher in France.

The first of these slides showed an analysis of 560 cases and indicated that the distribution of the French cases and foreign cases was very similar. The slide referred to the speed of the observed UFOs. Dr. Kuettner pointed out the significance of the result. If you separate a sample into two parts - the French cases and the foreign ones - they both show the same distribution, this is not accidental! The most frequent occurrences were those reports which described successively stationary and rapid movements.

The second slide showed a close comparison of French and foreign witnesses and indicated a high proportion of trained observers i.e. Pilots.

The next slide showed an analysis of the time of day when UFOs were observed in France and in the foreign countries. Dr. Kuettner said that the very complicated curve could be corrected for

frequency with which you observe things - for example when people go to work or when they sleep.

In an independent study published by Vallee, he had corrected this curve and it came out that most UFO observations occurred at three o'clock in the morning! The UFOs appear therefore when there are the least number of people about. They are often observed by police and in isolated places.

The following slide illustrated an analysis of the noise emitted by UFOs. This showed that beyond one kilometer UFOs were completely silent and even as near as 150 meters the majority of cases reported silence. As you get closer to the UFO sounds are recorded i.e. Whistling.

The next slide showed the luminosity of UFOs and illustrated the same distribution between French and foreign cases. Even in daylight a considerable number of the cases described luminous UFOs.

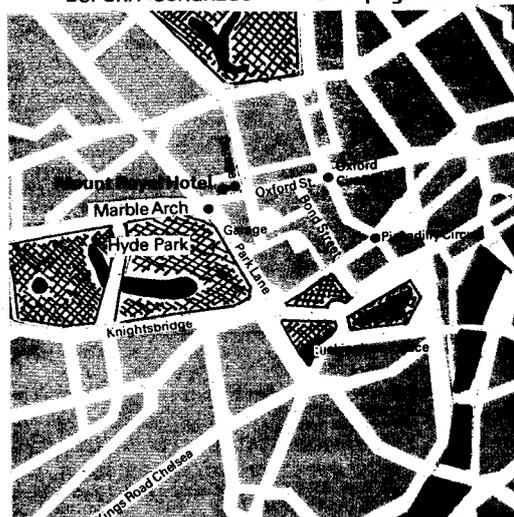
The last slide compared the duration of UFO events for explained and unexplained cases.

Dr. Kuettner

"The similarity between the French and foreign cases is striking. This is the type of analysis which might give us what I call the 'water-tight' case. These short events are meteors. Then you have, at the other end of the scale, stars. In between you have satellites and balloons and aircraft. But you have a minimum number of cases in the order of five to ten minutes duration. Aircraft do not stay that long overhead! Other phenomena have either longer or shorter durations. The UFO cases have durations of between five and ten minutes.

These are examples of what you can do with statistics. I feel the next approach should be on the statistical basis and on case studies of landing cases as well as the use of such systems as radar."

BUFORA CONGRESS - see page 23



ATMOSPHERIC PHENOMENA LOG

By John Armitage

THIS COLUMN WHICH IS INTENDED TO BE A REGULAR FEATURE OF TAP JOURNALS WILL ATTEMPT TO EXAMINE SOME OF THE RARER ATMOSPHERIC PHENOMENA WITH REGARD TO THEIR RELEVANCE TO UFO INVESTIGATIONS, AND WHEREVER POSSIBLE, WILL MAKE REFERENCE TO RECENT EXAMPLES.

INTRODUCTION

There would seem to be a general acceptance that a large percentage of UFO reports can be fairly readily explained, and that various atmospheric phenomena account for at least some of these reports. It would also seem reasonable to assume that many of the apparently "inexplicable sightings" could probably also be explained if sufficient data was available, and in some cases, if our knowledge of the physical processes involved was better. The reader should bear in mind not only the likelihood that the vast majority of anomalous objects reported in the sky can potentially be explained scientifically, but also should recognise that it will probably never be possible to tie down UFO's to a single root-cause, as they are undoubtedly a multi-cause phenomenon.

It is not the intention of this column to assume any "working hypothesis" as a provisional explanation of UFO's, but rather it will attempt to examine a range of atmospheric phenomena as a possible explanation of at least some reports. With regard to his own personal opinions on the nature of the UFO phenomenon, the columnist declares that he has no pre-determined opinions or prejudices and maintains a genuinely and completely open mind on the nature of some of the more puzzling reports, whilst at the same time stating that "the proof of the pudding is in the eating", and that any hypothesis which is intended to be taken seriously must be accompanied by scientifically demonstrable supporting evidence.

In this issue the principal topic under consideration will be mirages and associated phenomena.

MIRAGES AND ASSOCIATED PHENOMENA

A mirage is an optical phenomenon in the atmosphere, caused by the refraction of light as it passes through large temperature gradients in the lower part of the atmosphere. The air at different temperatures will be of different densities, and have different refractive indices, this being the basis of the mirage phenomenon.

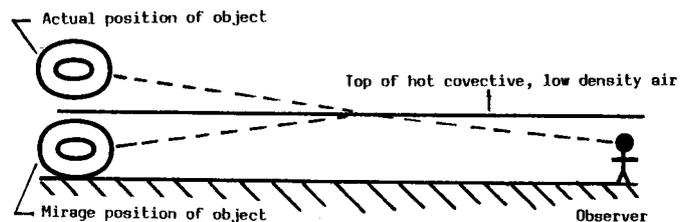
Two principal types of mirages may be identified, these being INFERIOR MIRAGES and SUPERIOR MIRAGES, the respective characteristics of which are as follows.

1 AN INFERIOR MIRAGE

In the case of an inferior mirage, the mirage image is seen below the level of the object which it represents, this effect being caused

by the refraction and internal reflection of light at an abrupt temperature boundary. Such a situation would occur where very hot, low density air was to be found over desert terrain (or a tarmac road surface) on a hot summer day. Shimmering in the hot air would be seen, this being due to convection and instability in the near surface air, the reflection of the sky for example, in such a layer, would give the impression of water and create the classic "desert oasis" mirage. Because of the angle of incidence of light in such a mirage, the mirage image is likely to appear to be in the distance.

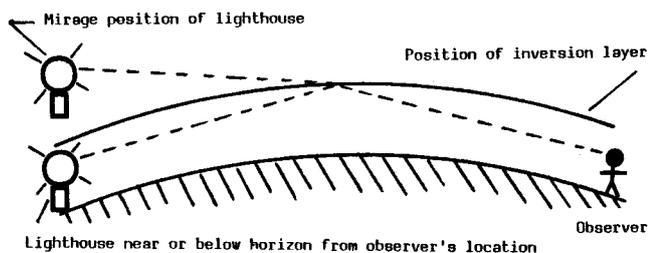
AN INFERIOR MIRAGE



2 A SUPERIOR MIRAGE

In the case of a superior mirage, the mirage is seen above the level of the object which it actually represents, the phenomenon being due to light from the mirage object passing through a layer of cold, dense air (overlain by warmer air) before reaching the observer. A superior mirage can make objects which are on the ground some distance away appear to be in the sky, it can also cause objects which should be below the horizon at the observer's location to be seen above the horizon, or even high in the sky!

A SUPERIOR MIRAGE



"LOOMING"

A further effect of interest sometimes to be found associated with superior mirages is a phenomenon called "looming". Looming gives the impression that objects represented as

superior mirages are either very large or very close, in other words an apparently magnified image. In the past some authorities have considered it to be a largely psychological effect caused by the lack of suitable reference points for size comparison. The effect of looming is probably caused by the refraction of light through air of different densities in such a manner that the atmosphere acts as a magnifying lens.

A RECENT EXAMPLE

An interesting recent example of a superior mirage with associated "looming" was noted last year in East Yorkshire (on 26 May 1978)^{1,2,3} when people in Bridlington were able to observe Hull Docks (25 miles distant) as a superior mirage in the sky. Later on the same day Grimsby Docks (38 miles distant) were also visible from Bridlington as a superior mirage. Some of the reports of this occurrence note minute detail in the mirages (e.g. that cranes could be seen working in the mirages of the various docks, and that notable landmarks were visible in both mirages making the locations

clearly identifiable). This instance clearly involved the "looming" phenomenon, and furthermore it would seem that the magnification effect was a real rather than an apparent effect.

The relevance of mirages (particularly superior mirages perhaps, with or without "looming") to UFO investigations is obvious, and it would be reasonable to claim that such phenomena obviously explain some UFO reports.

It is intended to continue a similar line of approach in the next issue, when further aspects of temperature inversions in the atmosphere are likely to be discussed.

REFERENCES

- 1) J. Meteorology Vol.4, No.35, p.17 January 1979
- 2) The Hull Daily Mail - Friday 26 May 1978
- 3) The Daily Telegraph - Monday 29 May 1978

First London International UFO Congress

This outstanding Bank Holiday Event will open at the **Mount Royal Hotel** in London's West End, on Sunday 26 August at 9.30 am, and continue through to 6.30 pm on the Bank Holiday Monday. **Have you booked yet?**

The Hotel's *Hyde Park Conference Suite* and *Edinburgh Banqueting Suite* are the venues for this milestone in the history of British Ufology, the Congress theme being "International co-ordination and co-operation with a view to developing common standards." Lectures will be wide ranging, and in addition the occasion will afford leading researchers the opportunity of forming working parties to discuss terminology, classification, data processing, etc, and to make recommendations to Congress for endorsement—recommendations capable of attracting international recognition and support.

Our leading guest speaker from the USA—Dr J Allen Hynek, Director of the *Center for UFO Studies* and the world's most respected authority on UFOs, is flying over especially for

For full Congress package details write to the special Congress Secretariat which has been set up—address:— Congress Secretariat, UFO Congress, 7 Stratford Place, London, W1. Phone enquiries:— 01-629-4618, Ext 259. Send NOW and avoid disappointment later— interest is high and the event is also being advertised in various European countries.

the Congress. We are delighted to welcome him and extend an equally warm welcome to Dr R Leo Sprinkle of Wyoming University, an active and noted researcher for many years, whose authoritative papers include *Patterns of UFO reports* and *Personal and Scientific Attitudes: a survey of persons interested in UFO reports*, presented by him in 1967 and 1968.

CE11 and CE111 cases will be well to the fore amongst lecture topics, ranging from UFO data processing and classification, to the Spanish and Italian 'flaps,' and here we are particularly pleased to greet colleagues and noted ufologists Vicente Juan Ballester-Olmos, speaking about Spanish landing cases, and Eduardo Russo, Editor-in-Chief of the highly-respected Italian journal *Clypeus*, whose subject will be the 1978 UFO Wave in Italy.

The full line-up of speakers over the two days is at present as follows:

- | | |
|------------------------------|--------------------|
| Dr J Allen Hynek | (USA) |
| Dr R Leo Sprinkle | (USA) |
| Vicente Juan Ballester-Olmos | (Spain) |
| Eduardo Russo | (Italy) |
| Per Andersen | (Denmark) |
| J Bernard Delair, BSc | (Contact UK) |
| Robert Digby | (Bufora) |
| Lawrence Dale, FRAS | (Bufora) |
| Peter Hill, FRSS | (Bufora-Edinburgh) |
| Norman Oliver, FRAS | (Bufora) |
| Dr Erol Faruk | (Bufora) |

Well-known European ufologists Rudy de Groote and Roberto Pinotti will also be attending the Congress.

Reception will open at 9 am on the Sunday morning, but in order that delegates travelling long distances will not miss any part of the main proceedings, early items will include the opening of the Foyer Exhibition and an illustrated introductory talk on the nature and extent of the UFO phenomenon, the Congress formally being opened at 11.25 am. A special Congress dinner (optional) has been arranged for 7 pm and this will be followed by a documentary film. On the Bank Holiday Monday, delegates will have an opportunity, if they so desire, of visiting the London Planetarium and attending a special presentation.

The special Congress 'package' negotiated with *Grand Metropolitan Hotels* and *British Rail* will enable most delegates to attend at a very considerable saving. This 'package' includes:—

Return rail travel to London from your local station.

Two nights accommodation in a centrally located hotel in a twin-bedded room with private bathroom (Sunday & Monday).

Full English breakfast each morning.

Congress admission charge.

Service and VAT.

As an example, the package price for the two days from North Yorkshire would be £43.50—a price comparable with the normal hotel rate for a two-night stay alone. Special rates to meet individual requirements are available and a one-night stay is also catered for.