THE COMPUTER UFO NEWSLETTER

Volume 2 - Number 1

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"The Computer UFO Newsletter" is an aperiodical journal published irregularly two times per volume. It is entirely devoted to the presentation of works and discussions about the use and applications of computers in ufology.

The Newsletter can be received by exchange with other UFO magazines or supplying a minimum fee of 18,000 Italian lire for a complete volume (surface mail: add 4,000 lire for air mail delivery). Please send only money by an International Postal Money Order payable to "Maurizio Verga": all checks will be refused due to the very high exchange charges.

THIS PUBLICATION HAS BEEN ENTIRELY COMPOSED BY A WORD PROCESSING SOFTWARE ON A AMSTRAD PC 1512 AND AMSTRAD DMP 3000, HONEYWELL L34 AND IBM PROPRINTER PRINTERS.

Contributions are open to all researchers with personal experience about the topics presented inside this Newsletter. Paper are invited under the form of word processor files when generated by MS-DOS software (Wordstar and Word 3.0 files are welcome).

"THE COMPUTER UFO NEWSLETTER" IS A SPECIAL PUBLICATION OF :

CENTRO ITALIANO STUDI UFOLOGICI

THE LARGEST ITALIAN UFO ORGANIZATION, WHICH FOREIGN LIASION OFFICE CAN BE CONTACTED AT THE FOLLOWING ADDRESS:

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SEE YOU AT THE NEXT ISSUE !
..... AND DON'T FORGET TO SUPPLY US YOUR OWN CONTRIBUTIONS

EDITORIAL

During its first year and a half life "The Computer UFO Newsletter" has become the official guide for all researchers wanting to use their own personal computer in ufology. Readership is increasing more and more and material about the matter is regularly produced, even though quite slowly.

The endemic anarchy of computer applications is still present and it is near impossible to eliminate it for two very simple reasons at least.

- Firstly, there are too many kinds of PC having different powers and no compatibility among them: ufologists have been led to write their own database customized for their machine, without any relation with other PC. Our enthusiasm for the new technologies can be dangerous, because it leads us to waste precious resources. Even worse, this has produced programs or applications having completely different format, so that a possible exchange of data (via modem or RS232) is impossible or nearly.

- Secondly, ufologists are hobbysts, often isolated one from the other. This lack of contact and the amateurish character of their work prevent an actual set of standards.

An improvement of the situation is possible: it is enough that as many as possible researchers used a PC-IBM or a compatible machine, which is the present de-facto market standard. In such a perspective, the use of common database and record format would be much more reliable. But there is always the problem of the cost of these computers, even though prices are sufficiently low at moment. We think it is useless to invite CUFON readers again in purchasing a MS-DOS machine when they'll change computer. To reach a good number of ufologists employing the same PC and software would be a remarkable result: unfortunately, we cannot hope in a complete integration.

In any case it isn't possible to think to carry out serious and professional processing works on eight-bits computers: there are too limits in storing and processing of data. They can be used simply to digit cases inside a database and, eventually, to carry out some very simple analyses or sorts. When the file will be ready, a transfer of data from these machines to a 16-bits PC (or even a 32-bits in the near future, when prices will drop enough) will be possible through a common RS232 interface. XT, AT or, even better, the new "386" computers are able to process large files in reduced times by sophisticated software tools.

CUFON Volume 2 issue one is coming out very late against the scheduled release (June 1987): time necessary to prepare its

final draft has been enormous and your editor has so little spare time ! This was just one of the reasons of the publication of only two issues per year: we beg our appreciated readers to excuse future delays, which, unduobtly, will take place.

All papers published on "The Computer UFO Newsletter" are now available on the new "UFO B.B.S." (see elsewhere in this same issue), the new Bulletin Board System exclusively devoted to ufology, as text files. Of course the service is free of charge.

This is the first issue of CUFON composed entirely by a PC IBM compatible machine (AMSTRAD PC1512, now owned by the Editor) and by the popular Wordstar. We think that press quality is a little bit more good than before, but we are planning to employ other more sophisticated word-processor (like "Word 3") or even a desktop publishing software to give a quite professional look to the Newsletter without wasting further time.

We still invite all readers to send comments, opinions and criticisms about the published articles, as well as to produce some original articles about what they have done in ufology by their own computer. Proposals of studies to be started could be interesting too. Moreover, if you see original articles about (even possible) uses of computers in UFO research on any kind of magazines, please inform us. We always look forward to promote such applications, inviting authors to prepare texts for CUFON. Unfortunately, we cannot know everything, so that we need readers' help.

A last word about the Italian "Rete Ufologica Computerizzata" (Computer UFO Network). Besides starting the above mentioned "UFO B.B.S.", it has completed the first step in the storing of Italian UFO sightings casuistry. More than 4,500 entries relating to 92 Italian provinces are now available in Commodore and PC IBM formats (the latter as dBase III files) and, beyond the necessary long editing work (including a continuous integration with new cases), some projects of preliminary statistical analyses have been started. We think that an unformal organization like R.U.C. should be founded in most countries where PCs are quite common among people: all what is necessary is a coordinator and a little of time and will. Publishing a small bulletin is an excellent means to keep in touch with the network members, informing them about what has already been done and what should be produced in the future. Storing of the national casuistry (using a common database sent to all participiants) and typewriting of texts (by a common word processor) for the national UFO group magazine could be the first two aims of the new organization. Results could be very interesting and many people would be able to give their small personal contribution to "ufology": moreover, you could involve in the matter people interested both in computers and ufology. All this has taken place in Italy during the last year and a half: it really seems that R.U.C. is the most valid and working project of the Centro Italiano Studi Ufoligici (C.I.S.U.), even though members of the network aren't necessarily CISU members. We don't pretend to teach anything, but if someone is interested in more information about our Italian experience, please feel free to contact us.

A SELECTION OF AVAILABLE UFO SOFTWARE

The following is an updated list of available "UFO" software through our service, with alleged prices: there is also a section for print-outs produced by most of these programs. If interested, please supply money only by an International Postal Money Order payable to the Editor: for expeditions via air mail of software please add 4,000 Italian lire. If two or more programs can be stored on a single disc, please cut 25% from the sum of their prices.

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P = Program F = File D = Disk T = Tape

SOFTWARE	P/F	D/T	PRICE
COMMODORE 64			
COMPITACAT package (three long series of special programs devoted to presentation and catalogue of Italian close encounters, trace cases and explained C.E. Good graphics. In English, with written instructions.)	P/F	D	18,000
		T	15,000
ITACAT manuscript (six disk sides of "Easy Script" files about the whole 500 pages or so opera, including introduction, abstracts and comments. In Italian.)	F	D	36,000
UFO DATABASE (special powerful database for the storage of cases - under the form of all fundamental data and sources - on the ground of province/county files. It is used by C.I.S.U. for the storage on computer of the Italian casuistry. In English. Release 3.3)	P	D	10,000
		T	8,000
UFO DATABASE ITALIAN FILES (about 90 preliminary provincial files relating to over 4,500 sightings. To be used in connection with UFO DATABASE. Two full disk sides.)	F	D	20,000
S.D.P. - Sighting Data Processing (program devoted to calculation of many different parameters - including strangeness/credibility degree - involved in a UFO sighting. Interesting for all investigators.)	P	D	10,000
		T	8,000

UFO SUPERBASE 64 (SUPERBASE version of the UFO Database Italian Files. Enlarged version as regards sources. Two full disk sides.)	F	D	20,000
ITACAT DEMO (demo version of the nice database at top of this list, with related file. Excellent for conferences and meetings.)	P/F	D	10,000
ITACAT STATISTIC GRAPHS DEMO (a really fine program showing - after a "presentation" - a series of tables and graphs about statistical analyses of temporal and geographic parameters of the ITACAT sample. Fully coloured. In English language. No operator is necessary.)	P	D/T	10,000
C.I.S.U. GRAPHIC DEMOs (two nice demo programs to be shown to public: the first explaining UFOs, Ufology, alleged questions and sightings in Italy, while the second presenting news about Centro Italiano Studi Ufologici, its research porjects and publications. Both in Italian. Useful as example for customized works able to be translated in the own language and edited for specific aims.)	P	D/T	10.000
TASCAT (TASmanian CATalogue of more than 200 UFO events stored in a special database. The program and its files are provided with written instructions and notes about the origin of the work and brief statistical analyses. Written by Paul Jackson of T.U.F.O.I.C.)	P/F	D	10,000
UFODOC (a Dutch/Belgian database of sightings of unusual aerial phenomena, including their own sources. Available a preliminary file with about 200 stored events. Written by the Dutch UFO researcher Henry Kampherbeek.)	P/F	D/T	10,000

COMMODORE 128

ITACAT 128 (complete SUPERBASE 128 file devoted to all Italian close encounters - 480 events - with all fundamental data and sources. A full floppy disc.)	F	D	15,000
TRACAT 128 & ITACAT N 128 (complete SUPERBASE files devoted to all Italian trace cases - 180 events - and explained landings - 100 cases -. A full floppy disc.)	F	D	15.000

ITACAT STATISTIC PROGRAM (a first program able to process frequency distributions for all the data stored in ITACAT databases. It is able to produce also specific files, then processed by a second statistic program.	P	D	15,ØØØ
UFO DATABASE 128 (release 5.Ø of the database used to store Italian casuistry: see above, version for C-64. 8Ø columns display, with windows and a lot of new options, including the direct creation of regional files. Actually very interesting.	P	D	1Ø,ØØØ
UFO DATABASE STATISTIC PROGRAM (it is able to process frequency distributions for all the data stored in each provincial file, producing global or specific statistics. Results are shown under the form of tables, that can be saved. By an option it is possible to see all such tables on a single 8Ø columns screen. A second program is able to process specific frequency distributions.	P	D	15,ØØØ

SPECTRUM 48 K

S.D.P. - Sightings Data Processing (version of the Commodore 64 original program; in English)	P	D T	1Ø,ØØØ 7,ØØØ

APPLE IIe

UFOBANK (special database program for the storage of a national casuistry on provincial/ county base. Powerful software able to produce statistics and graphs. Supplied with available Italian files, ie more than 13ØØ cases at moment. In English, written for Apple IIe, IIc and - in a more sophisticated version - IIGS)	P/F	D	2Ø,ØØØ
ITACAT (version of the original C-64 software, but only with database and related file, plus the same fields of ITACAT 128. For Apple IIe.)	P/F	D	1Ø,ØØØ

ITACAT N (version of the original C-64 software but only with database and related file. For Apple IIe.)	P/F	D	10,000
TRACAT (version of the original C-64 software, but only with database and related file. For Apple IIe.)	P/F	D	10,000
U.A.O. (P.F.S. file of the Portoguese catalogue of UFO sigthings, established by researcher Victor Lourenco. Each entry contains a lot of data, from 1917 to today.)	F	D	8,000
CATHUM (P.F.S. file of the whole Iberic entity cases catalogue originally written by C.J.Monteiro and translated on computer by V. Lourenco. A very interesting source of information with a lot of data.)	F	D	8,000
OVNIQUE (P.F.S. file of UFO sightings happened in the Canadian province of Quebec, established by Marc Patry. In French.)	F	D	8,000

PC IBM

SWECAT (very interesting computerized catalogue of Swedish sightings, particularly of 1946 famous "ghost rockets". Preliminary version with 1,692 records, processed by well-known Swedish researcher Anders Liljegren. Available as dB III file.)	F	D	10,000
PORTUCAT (Worstar file with description of Portoguese UFO sightings, including the famous Fatima incident taken place in 1917.	F	D	10,000
PC-UFOBANK (IBM version of the original Apple program for the storing of Italian general UFO casuistry. Related files available on request)	P/F	D	10,000
ITACAT, ITACAT N and TRACAT version for PC-IBM are being prepared under the form of dBase III applications.	P/F	D	15,000 each
ITACAT MANUSCRIPT (IBM version of the original Commodore one. Three discs with Wordstar files about Verga's 500-page opera. In Italian.			

PC-UFO DATABASE (IBM version of the original Commodore software for the storing and processing of Italian provinces casuistry. Available data about 90 or so provinces, under the form of dBase III applications.	F	D	20,000

IBM 34/36

ARGENCAT (detailed catalogue of ArgentAnian landing cases, which have been entered in coded form. The complete codebook is enclosed in the disk, as well as a statistical routine to print tables, graphs and pie-charts. Updated till the first months of 1985, in Spanish language. The same disk includes a detailed mail list of South American UFO groups and students.. Authored by Guillermo Roncoroni, of C.I.U.)	P/F	D	20,000
ARGENCAT Vers. 1981 (as above, with statistic analyses but without graphs.)	P/F	D	16,000
A.F.U. WORKS (files produced by Swedish leading group AFU and its leader A.Liljegren about: 1 # preliminary catalogue of 1946 "ghost rockets". 2 # mail list of Scandinavian/international groups/students. 3 # codebook of UFO phenomena peculiarities. Partly in Swedish language, but comprehensible to anyone.)	P/F	D	18,000

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PRINT-OUTS

O = Original Copy P = Photocopy

DESCRIPTION	O/P	PRICE
UFO DATABASE (list of Italian sightings per province. At moment, about 90 different lists can be made available. Pages differ considerably from a province to another: please ask for prices, if interested.)	P	ask

ITACAT (list of Italian 480 landings cases drawn from the Superbase 128 version, sorted in chronological order. They include also the reference number of the original manuscript. Sorted lists (for example CE 2 or CE 3 cases) are available on request, together with the complete one.)	P	2,500
ITACAT XL (as above, but enlarged version including all Italian and foreign sources for each case. A really complete reference-work.)	P	8,000
TRACAT (list of Italian 180 or so trace cases, structured as ITACAT.)	P	1,000
ITACAT N (list of Italian explained landings, about 100 cases, structured as ITACAT.)	P	1,000
UFO BANK (nice list of about 1,000 Italian cases happened in the Tuscania region. Various sorted lists as well as many graphs and pie charts are included.)	P	18,000
U.A.O. (list of Portoguese sightings with a brief summary for each case.)	P	5,000
OVNIQUE (list of Quebec UFO sigghtings. A brief abstract for each case is included.)	P	5,000
HUMCAT (list of entity cases from the Iberic peninsula, with a brief summary for each case.)	P	7,000
TASCAT (list of Tasmanian 200 or so UFO sigthings with some coded information. A simple codebook and statistics are included.)	P	2,500
ARGENCAT (list of Argentinian landings, including codebook and South American UFO mail list. 1981 version shows also some tables and statistics.)	O	16,000
ARGENCAT GRAPHS & TABLES (nice bar and pie-charts, with statistics about Argentinian landings.)	P	8,000
MATERIAL FROM A.F.U. (list of 1946 "ghost rockets", Scandinavian and international mail list, codebook for UFO phenomena peculiarities.)	O	10,000

Updated to July 1987

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THE ASTRO-METEOROLOGICAL HYPOTHESIS FOR UFO REPORTS

by Steuart Campbell

Since UFO reports are mainly reports of luminous objects in the sky Occam's Razor demands that we examine the possibility that the reports are stimulated by the luminous objects already known to be in the nigh sky: astronomical objects !

It is well known, for example, that the planet Venus is responsible for very many UFO reports and that many people don't recognize the bright planets when they see them. Many do not know the difference between a star and a planet and often do not realize the true distance of these objects. When the astronomical bodies are near the horizon they are usually perceived as being closer and perhaps objects in the landscape. When the full moon is seen at low altitude it seems larger because of the operation of a subjective phenomenon called **size constancy** (the Moon illusion) in which the size of a distant object is perceived as larger than its true angular size. The brain perform this operation because it assumes that the Moon is an object in the landscape and all such distant objects are enlarged. Conversely, the size of very close objects is reduced. Consequently astronomical objects seen near the horizon are often not recognized and seen larger than they really are.

A second subjective phenomenon affects perception of astronomical objects and this is **autokinesis** (the autokinetic illusion). A star or any bright light in complete or near darkness will appear to wander about in a curious erratic manner over a range of several degrees of arc, sometimes oscillating backwards and forwards. The cause of this illusion has been in dispute but it is now thought to be due to conflicting messages from the eye muscles to the brain. This illusion will be seen for all the stars and planets, but especially if one is seen in isolation. Low altitude stars and planets may also appear to approach or recede due to changes in brightness ("gamma" movement). They may also exhibit translational movement when seen through thin gast-moving clouds ("induced" movement).

All astronomical bodies seen from the surface of the Earth are viewed through the Earth's atmosphere which distorts the image in various ways. At low altitude this distortion is at a maximum. Normal distortion takes two forms. One is **scintillation** (twinkling), a rapid fluctuation in the level of light intensity due to turbulence in the atmosphere. This is most marked at low altitude, so much so that some stars may appear to be flashing on and off as if signalling. The other normal distortion is

refraction, the change in direction of light due to the varying density of the atmosphere. Refraction causes us to see any star below the zenith at a position which is actually higher than its true position. But the light of stars consists of many different frequencies and different frequencies are refracted to different extents (as in a prism). Red light is refracted to a lesser extent than blue light. Consequently, a low altitude star can display various colours, notably blue and red, the spectral extremes. On average the blue image should be above the red image, but scintillation can disturb the images and cause different colours to appear one after the other.

At night most of us are myopic (without optical aid) and see out-of-focus images of stars (even the Moon). In these circumstances the natural astigmatism of the eye causes stars and planets to appear to have rays, sometimes even beams.

Sometimes astronimical objects suffer abnormal refraction by the atmosphere. This usually takes the form of a **mirage** of the object. A mirage is not an illusion: it is a real image of a distant object but subject to abnormal refraction. The refraction is usually due to a strong temperature gradient (thermocline) in the atmosphere. Here we are only concerned with a superior mirage caused by temperature inversion, where warm air untypically lies over a layer of cold air. Such inversions can form in calm weather, often in valleys or over water. A mirage can be enlarged (due to a lens effect) causing a previously insignificant object to become very obvious (just as a lighthouse lens turns the light of a small lamp into a huge beam). The enlarged image can appear fragmented or stippled. In the plane of the inversion the image's brightness can increase fourfold (due to an interference effect) and the brightness can fluctuate rapidly. There is usually more than one image in a mirage, adjacent images being inverted one to the other. Inverted images can have varying separation and may even merge with a horizontal line between them (see Fig. 1). The latter arrangement form the classic appearance of a "flying saucer": two soup bowls one placed upside down on the other !

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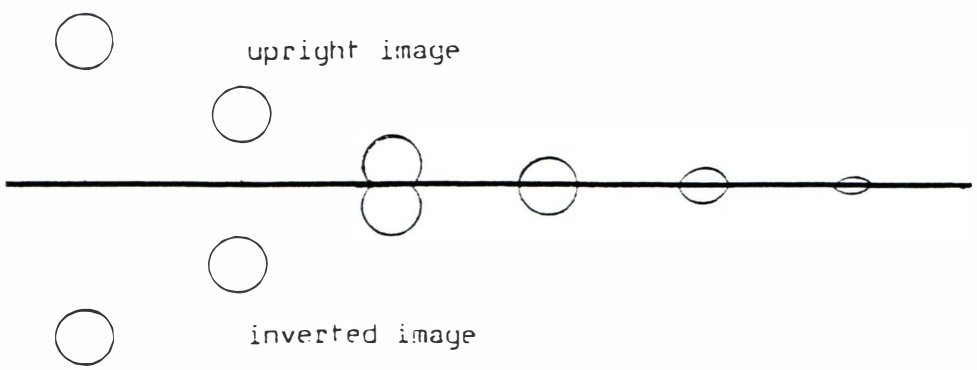

FIGURE 1

Diagrams showing how the two images of an astronomical body in a mirage can appear with different separation. The images may even merge to form a classic "flying saucer".

Scintillation and refraction effects can add to the strange appearance of such a mirage. Magnification and/or the increase in brightness of the image of a star or a planet in a mirage can make it visible even in daylight ! Stars may be distinguished by rays or colour separation, while planets will tend to show a double hemisphere. Objects below the horizon can be visible due to super-refraction of light around the surface of the Earth and a type of mirage called the Novaya Zemlya effect can duct light from hundreds of kilometres.

The stimuli for such UFO reports are the naked eye planets and the brightest stars. Mercury is rarely a stimulus but Venus, Mars, Jupiter and Saturn have all been such stimuli. How Venus was responsible for the Livingston UFO report is explained in my article "Livingston: a new hypothesis" (JOURNAL OF TRANSIENT AERIAL PHENOMENA, September 1986, pp. 80-87). The twenty brightest stars are listed in Table 1 (in order of brightness): all have been implicated in UFO reports. Occasionally, bright terrestrial objects, such as lights or snow-covered mountains can be the object of mirages and cause UFO reports. The 1947 Arnold report was caused by mirages of nine mountain peaks !

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TABLE 1

LIST OF FIRST MAGNITUDE STARS -

NAME	APPARENT MAGNITUDE	POSITION IN 2000 R.A.	DEC.
Sirius	-1.47	6h45.1	-16°42'
Canopus	-0.71	6h23.9	-52°42'
Alpha Centauri	-0.1	14h40.0	-60°51'
Arcturus	-0.06	14h15.7	19°12'
Vega	0.03	18h36.9	38°47'
Rigel	0.08	5h14.6	- 8°12'
Capella	0.09	5h16.7	46°00'
Procyon	0.34	7h39.4	5°14'
Achernar	0.49	1h37.7	-57°14'
Beta Centauri	0.61	14h03.8	-60°22'
Altair	0.75	19h50.7	8°52'
Aldebaran	0.78	4h35.9	16°31'
Alpha Crucis	0.80	12h26.6	-63°06'
Betelgeuse	0.85	5h55.2	7°24'
Antares	0.92	16h29.5	-26°26'
Spica	0.98	13h25.2	-11°10'
Pollux	1.15	7h45.4	28°02'
Fomalhaut	1.16	22h57.6	-29°37'
Deneb	1.26	20h41.4	45°17'
Beta Crucis	1.28	12h47.7	-59°41'

To determine whether or not an astronomical body is the cause of a UFO report it is necessary to know some data quite accurately. The three essential parameters are date/time, location and direction.

(1) DATE/TIME.

Because the position of an astronomical body is time-dependent one must know exactly when an unidentified object was seen. Because astronomy employs GMT (UT) it is also necessary to convert local time (if local time is not UT) in UT. Allowance must be made for different time zones and for daylight saving time shifts. Care must be taken when converting to UT that allowance is made for the possibility that the date in UT is different from the date in local time.

(2) LOCATION.

It is necessary to know the approximate location of the observer of an undidentified object. Normally it is essential to express this location in terms of longitude and latitude. If the observer is above sea level allowance must be made for the consequent depression of the horizon.

(3) DIRECTION.

Because they do not think in terms of the AMH observers often do not give the direction (azimuth) of the unidentified object. Ideally, both the altitude (angle of elevation) and azimuth (bearing) are required for identification, but the azimuth is the most essential. Observers' estimate of altitude and azimuth can be wildly inaccurate and some objective assessment is necessary. Altitude is frequently exaggerated.

With the above data a check can be made on a report of an object in the sky. For the brightest stars a simple check can be made by using a rotating star chart set for the appropriate date and (local) time. Unfortunately, these charts are manufactured for a few latitudes and they do not cover the whole Earth. There are published tables of the positions of the stars and planets but these are difficult to interpret (position being given in right ascension and declination). It is much easier and quicker today to use an astronomical program for a home computer, provided that it will give altitude and azimuth. The program should be able to accept the parameters listed above and give the altitude and azimuth of the Sun, Moon naked-eye planets and the twenty brightest stars. I use such a program (*) for a 48K Spectrum which will also give other useful astronomical data (e.g. magnitudes).

If a correspondence is found between the report data and the program data it is most likely that the unidentified object was the body in question or a mirage of it. It is surprising how many reports can be identified by this method. The AMH can explain very many UFO reports and much else besides.

(*) SKYCALC (available from Gerald Taylor, 232 Causewayside, Edinburgh, Scotland)

UFOCAT POST-MORTEM

A CRITIQUE

by Willy Smith

As stated in the first page of its CODE BOOK (Ref. 1), the name UFOCAT refers to "**computerized catalog of UFO reports and related information**". The basic unit of UFOCAT is called an "entry" and is contained in a record of 256 hexadecimal characters of which only about 200 are available for raw data.

From the user viewpoint, this means that the information for each entry can be printed on one single line of computer output, but also implies that practically each character of that line is coded, requiring the use of a rather complicated code book, from hereon referred to as CB.

The first page of the CB also contains a rather remarkable statement which set the tone for what UFOCAT was to be. It reads:

"....each entry reflects the input of **one** witness about **one** event as reported via **one** source .... a given entry should accurately reflect the data as given by its iwn source, even when those data are known to be inaccurate".

This, in a nutshell, describe the exact nature of UFOCAT and epitomizes the basic design flaw which precludes its use as a practical and sound tool for ufology: it is not a data base of UFO cases, but a mere catalog of sources of events that may or may not be reasonably genuine UFO cases !

Although the CB promises "to flag data suspected of inaccuracy", nothing much was done in practice, which is easy to understand: the coders pored over as many sources as they could find without any attempt at critical evaluation, the emphasis being placed on numbers rather than on quality or scientific value.

This potpourri of original sources and the lack of discernment in selecting the entries have already been pointed out by Hendry (Ref. 2, p. 244) and I totally subscribe to his criticisms. Among other things, Hendry indicates that telling considerations, such as terrain, weather, shapes, motions, witness data, credibility and many others are in the immense majority of the cases not coded at all, as I have been able to verify personally. Most damaging for any possible statistical use of UFOCAT is that the organizers decided to include in toto the Air Force's Project Blue Book cases, which amount to 22% of the entries in UFOCAT. But the Blue Book files are 95% IFOs. So much for the value of UFOCAT as a source of genuine UFO cases.

On the positive side, Hendry thought at the time that one redeeming feature of UFOCAT could be its use as a bibliography of raw UFO reports (Ref, 2, p. 247). This, however, has turned out to be only wishful thinking, as the references for each entry are, like most everything else in UFOCAT, coded (and poorly coded at that !) and no complete list of sources seems to exist. I have the last version of the CB and it has proven totally insufficient for locating original sources.

Spotty encoding, inappropriate sources references and multiple entries for a single case do not tell the whole story. There are built-in features of UFOCAT that make it completely impractical, as, for instance, the need to interpret the printouts character-by-character. Indeed, I am sure that the creators didn't realize that for the average researcher this effectively eliminated any possible use of the information (good or bad) but figured out that once the data was coded and entered, it would always be possible (for them) to write a suitable program to extract whatever information was desired. And those are the key words: "to write a program" which requires the availability of a mainframe computer and a programmer to produce the required software. All of these things take time, money and know-how and the reality of UFOCAT was that not even Dr. Hynek could gain access to it. Needless to say, this was one of the factors that heavily influenced our decision (Dr. Hynek's and mine) to start the UNICAT project based on a completely different philosophy. In short, UFOCAT was not state of the art and a fresh approach was mandatory.

But there is still more, much more, that become painfully evident when attempting to extract information from a UFOCAT printout.

As was already stated, UFOCAT is a listing of sources of UFO reports, not a catalog of UFO cases. Even for a single case, one is unable to get much useful information. Let's take as an example a very well-known incident: the abduction of the Brazilian Antonio Villas Boas. UFOCAT lists 22 entries around the correct date (which is 571016) and many others on dates which are either incomplete (like the year only) or erroneous. Concentrating on those 22 entries, only a few have the correct date and time and the name of witness and the place are expressed in various forms. But some basic pieces of information cannot be obtained: duration of the incident ranges from 30 minutes to 4 hours, with nothing to indicate that a little more than 4 hours is the correct value. Worse still, the UFO type, which is really a strangeness index according to the definitions discussed elsewhere, ranges from 5 to 9, but omits 8, which corresponds to abductions !

Yet, UFOCAT has been used by some, not surpringly mostly its creators, to obtain statistical conclusion (Ref. 3 and 4).

To gain some insight into how this work was done, I have reviewed some of the papers published in the literature. In Dr. Saunder's study of the distribution of UFO events among the days of the week (Ref. 3), he admits that multiple entries could cause a bias, but indicates that this is obviated "by instructing the computer to tally a maximum of one event per political unit per date". The political unit in the Villas Boas case is Brazil, which means that this particular incident was considered at least three times (the dates of October 14, 15 and 16) and perhaps many more, as the case appears under numerous other dates, probably with reference to night lights observed by the witness on previous days. Without further ado, one can safely conclude that the resulting statistics are very shakly, to say the least. This, in fact, is verified by the discrepancy between Saunder's results and the "simple-minded assumption" (sic) that all seven days of the week are alike. And why not ? It seems a reasonable assumption, either if the UFO phenomenon is a natural occurence, in which case its distribution should be uniform throughout the week or if it is a phenomenon controlled by an intelligence, which surely could not be expected to regulate its operations by our calendar.

REFERENCES

(1) D.R.Saunders (1978) "The UFOCAT Code Book", CUFOS
(2) A.Hendry (1979) "The UFO Handbook", Doubleday
(3) D.R.Saunders (1971) "UFO activity in relation to time-of-the week" FSR Vol. 17, nº1, 1Ø
(4) F.Merritt (198Ø) "UFOCAT and a friend with two new ideas", MUFON Proceedings, 31

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TO ALL SUBSCRIBERS

Due to many problems (editor's engagements, printing problems, slowness in the transmission of papers to be published and, last but not least, the great delay of this current issue) Vol. 2 nº 2 of "The Computer UFO Newsletter" will released later than the scheduled date, that is December 1987. We hope to keep the resulting delay within two or three months, so that the new issue could be posted around March 1988. We are also thinking to change the Newsletter in an aperiodical publication, from Vol. 3 ahead: subscriptions will be related to a given number of issues.

NEWS

- An experimental evaluation of an Italian electronic mail service has been started since January 1987. A CISU member has taken a subscription to a mailbox of the system (named PEIS and with local numbers in many Italian towns), in order to test the validity and usefulness of such a service for UFO purposes. If the experiment will be successful, the Centro Italiano Studi Ufologici (CISU) will rent a mailbox on a regular basis: members owning a PC and a modem will be able to send and receive messages through PEIS in real time. It also possible that PEIS itself could give the use of the mailbox free of charge as a form of "sponsorization" to CISU.

- A Apple Macintosh computer, running a fit paint program, has been used to draw some sketches from an Italian CE 3 report happened in 1963. Following the information supplied by the witness, Renzo Cabassi drew disegns both of the objects and the "entities": he corrected them many times according to what the witness remembered. It is an interesting experiment about a new use of computer during UFO investigation, worth to be developed.

- A new version of the common database employed by CISU to store Italian UFO casuistry under the form of provincial files has been released in 1987. Marked as "5.0", it runs exclusively on a Commodore 128 in 80 columns (fast mode): originally written in BASIC it has been compiled by the popular "PetSpeed 128". Besides being much more quick in many functions and storing two and a half times cases more than the C-64 version, "Catalogo 5.0" offers some new options. Entering and corrections of data, as well as report on video, take place on two windows displaying information about the case and its sources, at the same time. All stored events can be viewed on a single 80 columns line with all data except than sources: moreover, you can display only a field for each entry, together with its own reference number. When entering new cases you can see all stored cases in a fit window, in order to avoid double entries or code numbers. The database can now create and handle regional files up to 500 cases. An English version is available on request, supplying a fee of 15,000 Italian lire (including software, disc and postage) to the Editor.

- The whole Italian UFO casuistry stored on computer (at moment 4,000 cases out of an estimated base of more than 10,000 events) is now available for PC IBM and compatible machines. There are more than 84 files relating to sightings taken place in the corresponding Italian provinces. All those data are being trasnferred on dBASE III, so that they could be handled and processed by such very powerful database management software. In consequence of this, the whole project of storing the Italian UFO casuistry owned by C.I.S.U. should have many improvements and developents.

P O R T U C A T

by Victor Lourenco

PORTUCAT is a catalog of reports based on the observation of possible Unidentified Flying Objects over the Portoguese territory and it counts with more than 270 records.

Its computerized structure is supported by an IBM XT with a CPU clock speed of 6.66 Mhz and a Database type software. A Database allows the definition of 3,200 fields per record, each one with a maximun size of 61,000 bytes, supplying almost 30,000 records per data file. Its versatility is based on the possibility of customized features.

PORTUCAT stores a resumed description of each reported case along with its basic headlines such as date, type of possible object, amount of witnesses, their names, source of information and others. It does not pretend to be a catalog based on "judged" analysis of the filed cases and therefore it does not carry any evaluation or classification, just a verbal comment based on the amount of stored data relative to each case.

Thanks to the flexibility of the Database, PORTUCAT is not a static catalog, several changes in the design have been occured during the past few months and the idea is to create a basic structure identical to the standardized "MAYBECAT" created by Hynek and Smith, with additional bits of information. Cases are updated according to the information that is collected from Portugal and other countries. 500 more cases will be added in the near future.

PORTUCAT facilitates the tracking of specific cases and patterns translated into graphs wich give a better visual description of the subject, but the basic concept is to split the data in bits of information and establish patterns as auxiliar tool for further research.

It is important to remark how most cases never were submitted to a deep and serious investigation, except on those related with very well known investigators, such as J.Fernandes, F.D'Armada, C.Monteiro and J.Sottomayor, among others. Cases that were published by the media are referred as "newsclipping": the famous Fatima event has a particular position on the catalog due to the investigation done by J.Fernandes and F.D'Armada on the subject.

A previous computerized version of the catalog was implemented on Apple II and called U.A.O.: it was based on the popular PFS program series, so that data could be manipulated to

generate reports, letters, communications or graphs. Other two specific catalogs have been produced on Apple: "HUMANOID" and "OVNIQUE". The first one shows descriptions of Iberian close encounters of the third kind and it comes from a joint effort carried by Portoguese and Spanish ufologists. It has been translated from its original Portoguese edition written by Josè Monteiro, a member of C.N.I.F.O. (Comissao Nacional para Investigacao do Fenomeno OVNI). The second one was compiled by Marc Patry (a CUFORN member) and it is a reference list (with no description) of presumed UFO sightings over the Canadian province of Quebec.

The following is a sample of a PORTUCAT record: it refers to the very famous Fatima 1917 incident, giving a clear indication about the structure of such a database (- notice ! No code, but only extensive description.- Ed.).

SAMPLE OF DATABASE RECORD
FILENAME: PORTUCAT

Date: 17/10/13 Hour: 13:47

Type: C3 # Objects: Shape: Humanoid

Duration: N/A # Witnesses: Effects:

Location: Cova da Iria-Fatima

Witnesses: Lucia,Jacinta,Francisco and fifty thousand people

Source Info.: Joaquim Fernandes and Fina D'Armada ; Antonio Ribera

Amount Info.:

Comments: Possible UFO

Description: The following data reports the event that was known as "The Miracle of the Sun" which was witnessed by a great amount of people.

1-Weather conditions:
-Pressure: 749.7 mm at 13:00 hours
-Temperature: 13.2 Celsius at 13:00 hours
-Humidity: 87.04 %
-Direction of winds: W-NW (12:00/14:00)
-Falling rain: 9.5 mm (12:00/14:00)
-Speed of winds: 7 km/h at 13:00 h ; 24 km/h at 14:00 hours
-Visibility of Sun: 6 minutes from 13:00 to 14:00 hours
-Total visibility of Sun this day: 3:45 hours
-Angle of Sun: 42 degrees 44'

2-Before the "Miracle":
50 000 people wanted to witness the event,announced three months before by the entity to the three children.Journalists,teachers,workers,priests,farmers, children,sick people,etc.,etc.,all them,observed the "dark cloud" coming closer to the usual place.By this,some people started praying.

By 13:47 hours rain had gone and the sun was visible for a while.
Another small white smoke cloud appeared over the oak tree while the first one was still visible in the sky.
Meanwhile,Lucia kept talking with the entity and,as the dark cloud moved,a silver "globe" was uncovered.At the end of the dialogue the entity pointed her finger to the place where the sun was,as if she was pretending to make a sign to the silver "globe",and left.

3-Description of the phenomenon:
When the entity left,the clouds opened and a bright silver disk appeared,spinning and shining as if it was the sun.At this point the "miracle" was done.It stayed like that for 8 to 10 minutes and then became dark.
Then,for unknown reason,the disk looked as if it would crash,which caused a sentation of fear among the crowd.It took off with irregular movement.

4-Secondary effects:
Sick people recovered from illness.
Rising temperature dried clothes and environment.
Sensation of fear,commotion and anguish.
Environment colored by several colors.
Vacuum effect over the oak tree when the beam of light returned to its source.

5-Percentage of witnesses:
22% Farmers
22% Housewives
.06% Lawyers
06% Journalists
01% Engineers

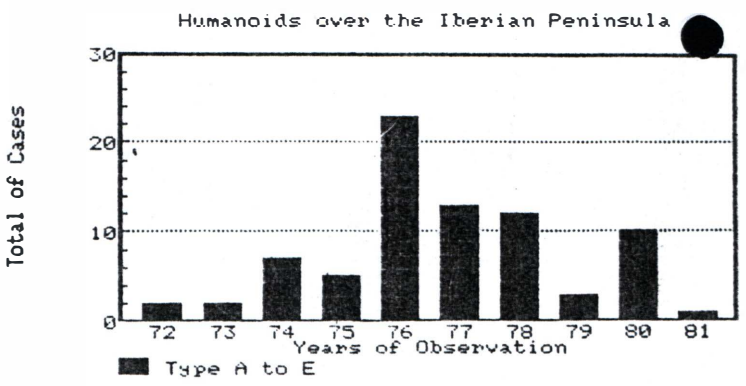
A. Ribera's investigation concluded that the crowd that stood in a field at Fatima,a small village in the district of Leiria,some 62 miles north of Lisbon,on October 13,1917,was waiting there for a miracle,because three children had been assured such an event would take place after a number of meetings with an "Entity" that came from the sky in a globe of light.

The witnesses were shepherds: Lucia,aged 10,and her cousins Francisco Marto and Jacinta Marto,aged 9 and 7.

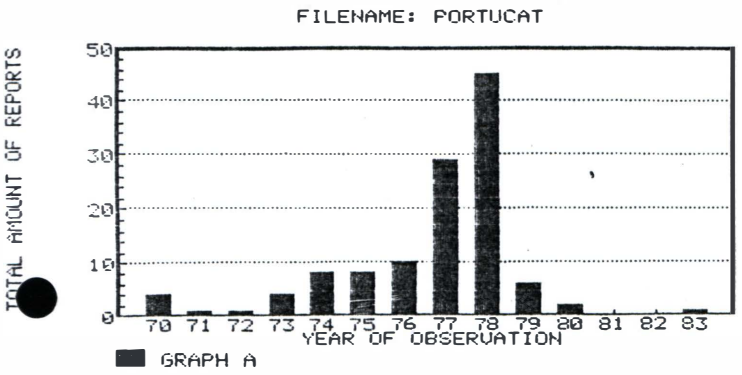
Among the crowd was Professor Almeida Garrett,of Coimbra University,a scientist,who described the phenomenon in the following terms:

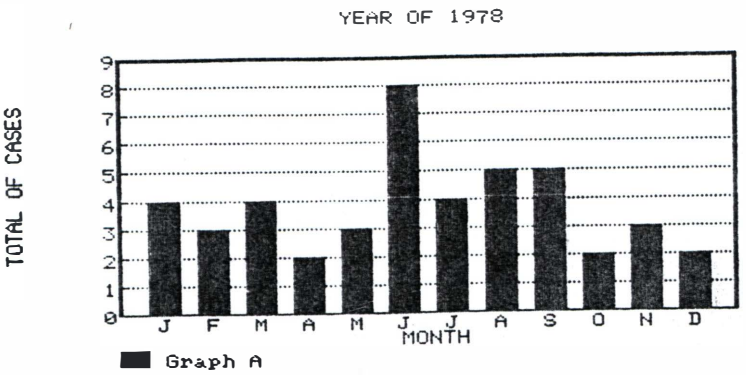
"It was raining hard,and the rain trickled down everyone's clothes.Suddenly,the sun shone through the dense cloud which covered it.

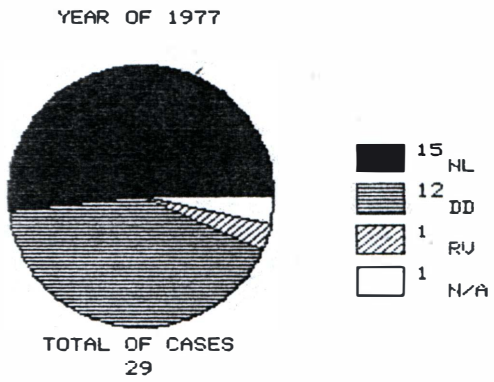
Everybody looked in its direction.It was not dazzling.I don't think that it could be compared to a dull silver disc,as someone said later in Fatima.No.It rather possessed a clear,changing brightness,which one could compare to a pearl.It looked like a polished wheel.This is not petry.My eyes have seen it.This clear shaped disc suddenly began turning.It rotated with increasing speed".

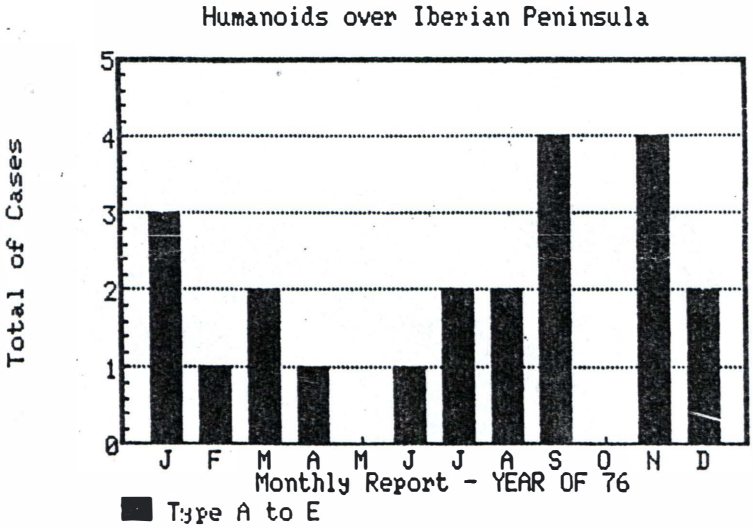


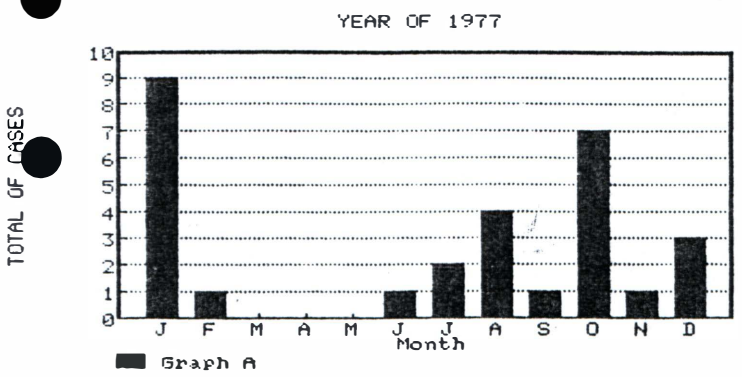
Now a selection of pie and bar graphs related both to PORTUCAT and to HUMANOID: no comment is necessary, as they are completely self-explanatory. They can supply a good idea about what a computer can do in handling data collected by UFO researchers.

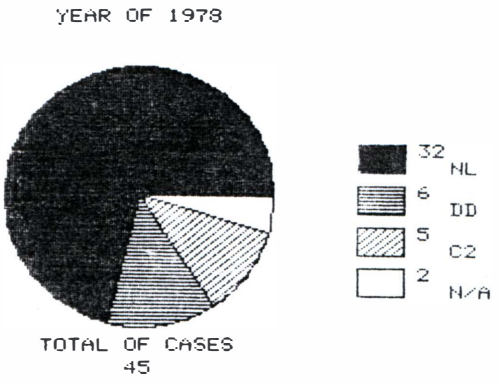












S K Y M A P

Another software to identify astronomical IFOs

by Ronny Blomme

0. PREFACE BY THE EDITOR

Belgian researcher Ronny Blomme has written a special program for checking position of chief celestial bodies in order to find eventual explanation to UFO sightings. The software has been developed for Apple IIe with Z-80 card and 64K of RAM, but it can be implemented for different hardware configurations.

Beyond the slowness of SKY MAP 1.0 in processing and printing data, its value is really remarkable, also because it is the first time that a program of such a kind has been produced by a ufologist purposely for UFO research. Ronny states that the program can be copied freely and given to other people, but always mentioning name and address of the author. For investigators without an Apple IIe system , he offers to produce a processing and alleged print-outs for them: people can ask Ronny for such a service supplying data through the following form:

Name
Address
Country

LONGITUDE __ DEG __'__"_ LATITUDE ___ DEG __'__"_ // REMARKS:
DATE ____/__/__ TIME __h__m__s UT
COM. 1:
COM. 2:

Possible options: the sky map will be calculated
- with atmospheric refraction (yes/no)
- height limit of the table: -__ degrees
- magnitude limit: ____
- reduced maps: (yes/no)

Fill of the above fields (one form for one skymap), including the comments lines, that will be printed on the resulting map (max. 50 characters). The remarks space is for your personal use only: it won't be printed. Make sure to indicate "N" or "S" (north or south) for the latitude and E or W (east or west) for

the longitude. Make also sure the time and date are converted in Universal Time (UT).

Specify always the options: it is advisable to use the default ones, which are:

* with atmospheric refraction: yes
* height limit of the table : - 10 degrees
* magnitude limit : 2.00
* reduced maps : no (this means only the original maps will be sent)

Here Blomme's text: comments, new ideas and proposals of implementation on different more powerful machines will be welcomed and published inside the Newsletter.

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1. INTRODUCTION

As one of the important tasks of the UFO investigator is to try and identify the UFOs which are reported to him, it seems appropriate to develop tools which will help him to carry out his work as best as possible. Various authors (e.g. A. Hendry, "The UFO Handbook" Sphere Books, London, 1980, p. 24) have shown that a very large part of what people report to be UFOs turn out to have an astronomical explanation, e.g. a star, planet or meteor.

The computer programme SKY MAP was developed to help identify some of the astronomical phenomena which could be misinterpreted as UFOs.

The phenomena which are included are:

- stars
- planets
- moon
- sun (to our knowledge, only one reported "UFO" has ever turned out to be the sun. Knowing its position in the sky can be very useful however, e.g. in checking shadows or reflections on photographs to see if the eyewitness account is consistent with the photograph).

Phenomena which are not in the programme are:

- comets
- meteors (not predictable)
- halos (although knowing the position of the sun or moon is a first step in analysing a report which could be due to a halo).

The programme currently runs on an Apple II computer with two disk-drive,an 80 columns card, Z80 card and parallel inter-

face to an Epson RX 80 printer. Copies of the binary code, source and/or listngs of the programme are available upon request. Researchers who have no similar computer available to run the programme can simply send us the coordinates for which they want a sky map. See the previous Editor's preface.

The following chapters will explain how one should interpret the information presented on the map. Chapter 2 consists of a detailed description of what is printed on the map, showing how to apply it to analyze a UFO report by means of a well-known example. Some technical information about the program can be found in Chapter 3, while details about how requesting copies of the programme are presented in Chapter 4.

It must be stressed that this programme is just one step in identifying astronomical IFOs. A knowledge of the possible errors witnesses make in giving heights, directions and general description is essential. Sometimes an astronomical object is reported to have mode over some distance in the sky in a short time, to have come closer or receded or to have disappeared suddenly. Even electromagnetic interference has been attributed to a "UFO" that turned out to be the moon. All this show that the investigator will have to "correct" the eyewitness account for these fictitious details, before he can apply the sky map.

2. DESCRIPTION OF THE SKYMAP OUTPUT

The programme SKY MAP generates approximately one page of output for each given place,date and time. This chapter will explain in detail how to interpret this output.

Figure 1 shows an example of the output from SKY MAP. The first line indentifies the programme which has generated this output and gives the version number. Then the place for which the map has been calculated is specified. This is done by giving its latitude (between 90 south and 90 north) and its longitude (between 180 west and 180 east).

Latitude and longitude can both be specified with an accuracy of one arcsecond.

Next the date (in the form year/month/day) and time are given. Note that the time is always in UT (Universal Time), so this means you have to convert your local time to UT. Be careful to correct:

(1) the time to the Greenwich time zone and correct for Daylight saving time, if applicaple.
(2) the date, if the conversion from local time to UT result in a time greater than 24 hours or smaller than 0 hours.

The time can be specified with an accuracy of 1 second. Next two lines of comments can be printed (between double quotes). These are given by the person requesting the sky map.

The map itself shows the visible hemisphere for the given place, date and time. The outer circle an the map represent the horizon. Two more circles are drawn, one at a height of 30 above the horizon, the other at 60 above the horizon. The straight lines, going from the zenit to the horizon, are azimuth-lines. They are drawn for an azimuth of 0, 45, 90, 135, 180, 225, 270 and 315.

Note that the azimuth is measured FROM THE SOUTH OVER WEST. On the top left side one can also see the points of the compass. Note that the east - west direction is opposite to the one found on a terrestial map. This is because a sky map has to held up above the head to compare it with the sky. To use the map, one must rotate it till the compass direction given on the map corresponds with the direction one is looking at. For instance, if one wants to look at the sky visible in the west, the map must be rotated 90. The stars close to the western horizon can then be seen near the outer circle (which represents the horizon). The azimuth for the south (0) and the west(90) are also indicated in the upper left corner. Not indicated are the azimuth for north (180) and east (270).

On the map itself, one finds the various symbols for the stars and planets. The larges circles represent the brightest stars (those with magnitude -1). The progressively smaller circles show progressively fainter stars, the smallest symbol indicating stars of magnitude 5. All magnitudes are also printed on the top right hand side of the map. As was pointed previously, all the stars are points of light. This means that the diameter of the circle representing them has nothing to do with how large they are, it only indicates how how bright they are.

Double stars (binaries) are indicated by a cross (X) drawn over their magnitude symbol. Variable stars have different symbols are shown on the bottom right hand side of the map.

The planets,moon and sun are indicated by a rectangle. Their symbols are given on the bottom left side of the map.

Most stars are connected with lines in order to recognize the constellations. Close to each constellation, its standard three letter abbreviaton is printed. There is no standard method of connecting the stars to form the constellations. The metod followed here is largely the same as the one in the monthly astronomy magazine Sky and Telescope (Sky Publishing Corporation, 49 Bay State Road, Cambridge, Massachussetts 02238-1290, USA).

When working with a sky map, take into account that the complete visible hemisphere is drawn on a relatively small scale. This means that the eye can only see a small portion of what is shown on it. To give you an idea of how small this is, Figure 3.2 shows the part of the sky that is covered by your hand when you stretch your arm and spread your fingers. The area indicated on the figure (from thumb to little finger) is about 20.

At the end, the programme prints a table containing the brightest stars which are above or slightly below the horizon. The user can specify the height-limit (under the horizon) and the magnitude-limit for the table. It contains all stars brighter than the given magnitude-limit, which are above the given height-

limit. The planets above the height-limit are also included. Finally the data for the moon and sun are always included. For the moon, the illuminated fraction is given between brackets. If the fraction is 0.00, it's Full Moon, for 1.00 it's Full Moon. First and Last Quarter are indicated by the fraction = 0.50. The difference between the First and Last Quarter can be found by looking at the position of the sun, to see what half of the moon is illuminated (see also example 2 in Chapter 4). Also indicated is whether the heightshave been corrected for atmospheric refraction or not.

In the table, stars are included which are below the horizon. Strictly speaking, it is not necessary to know their position. But it is plausible however that the time given by the witness is somewhat in error. Including the stars which are slightly below the horizon ensures that no possible astronomical identification is overlooked.

The columns of the table give:

1) The name of the star, planet, moon or sun. A stellar name consist of a Greek letter (spelled out fully as no Greek symbols are available) and the (abbreviated) constellation name.

2) The magnitude, where "v" indicates a variable star.

3) The height and azimuth, both in degrees and decimals.

An example. REFERENCES :

- "The Interrupted Journey" by John G. Fuller (The Dial Press, New York, 1966).
- Official UFO, Vol 1 n. 10 (Aug. 1976), p.14

This is the Betty and Barney Hill case which is sufficiently well known to have no need of a summary. It must be stressed however that we are concerned only with the first part of this case. This is the phase where Betty and Barney Hill notice a "strange star" next the moon. The further developments do not seem to have an astronomical explanation.

DETAILS :

- Place of initial observation: just south of Lancaster, New Hampshire, USA.
- Date: 19 september 1961

- Time: 11 h 00 p.m. local time = Eastern Daylight Saving Time.
- Direction of object: near the moon.

The date and time are converted to: 20/9/1961 at 3 h 00 UT (note the change of date!). This gives:

```
longitude:44 deg 28' 22" N   Latitude: 71 deg 33' 24" W
date:1961/9/20        time 3h 0m 0s  UT
com. 1: Betty and Barney Hill
com. 2:
```

The resulting sky map has been seen in Figure 1. One can see that Jupiter and Saturn are very near to the moon. To make the situation somewhat clearer, we have drawn the positions of these again in figure 2, using the data from the table. A comparison with the sketch given by Betty Hill shows that the "strange star" could be Jupiter. This is the conclusion drawn by R.Sheaffer in the article referred to above. Alternatively,one could reason as follows: the "star" seen by Betty and Barney Hill was Jupiter,because Saturn was hidden by far away clouds.

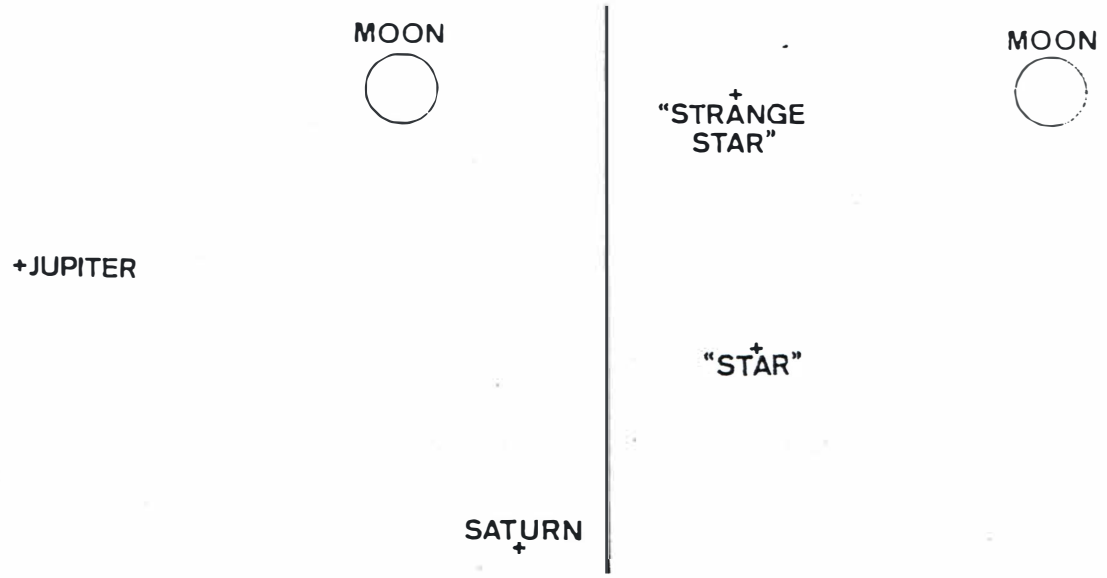

Figure 2 - Detail of the sky map of Hill incident (left) and the sketch by Betty Hill (right).

Looking at the angle the moon-"star" makes with the horizontal, one deduces that it is more plausible that the "star" is Jupiter, rather than Saturn. This would mean that the "strange star" cannot be explained as an astronomical phenomenon. The only problem with this hypothesis is to know how accurate the Betty Hill sketch is. It could easily be so inaccurate that Sheaffer's conclusion remains correct. So this is a case where it is difficult to decide,due to the lack of accuracy of the data.

Figure 1 - Sky map for the Hill incident.

SKY MAP

Version 1.0

latitude: 44 deg 29' 22" N
date: 1961/ 9/20
"Betty and Barney Hill"

longitude: 71 deg 33' 24" W
time: 3 h 0 m 0 s UT

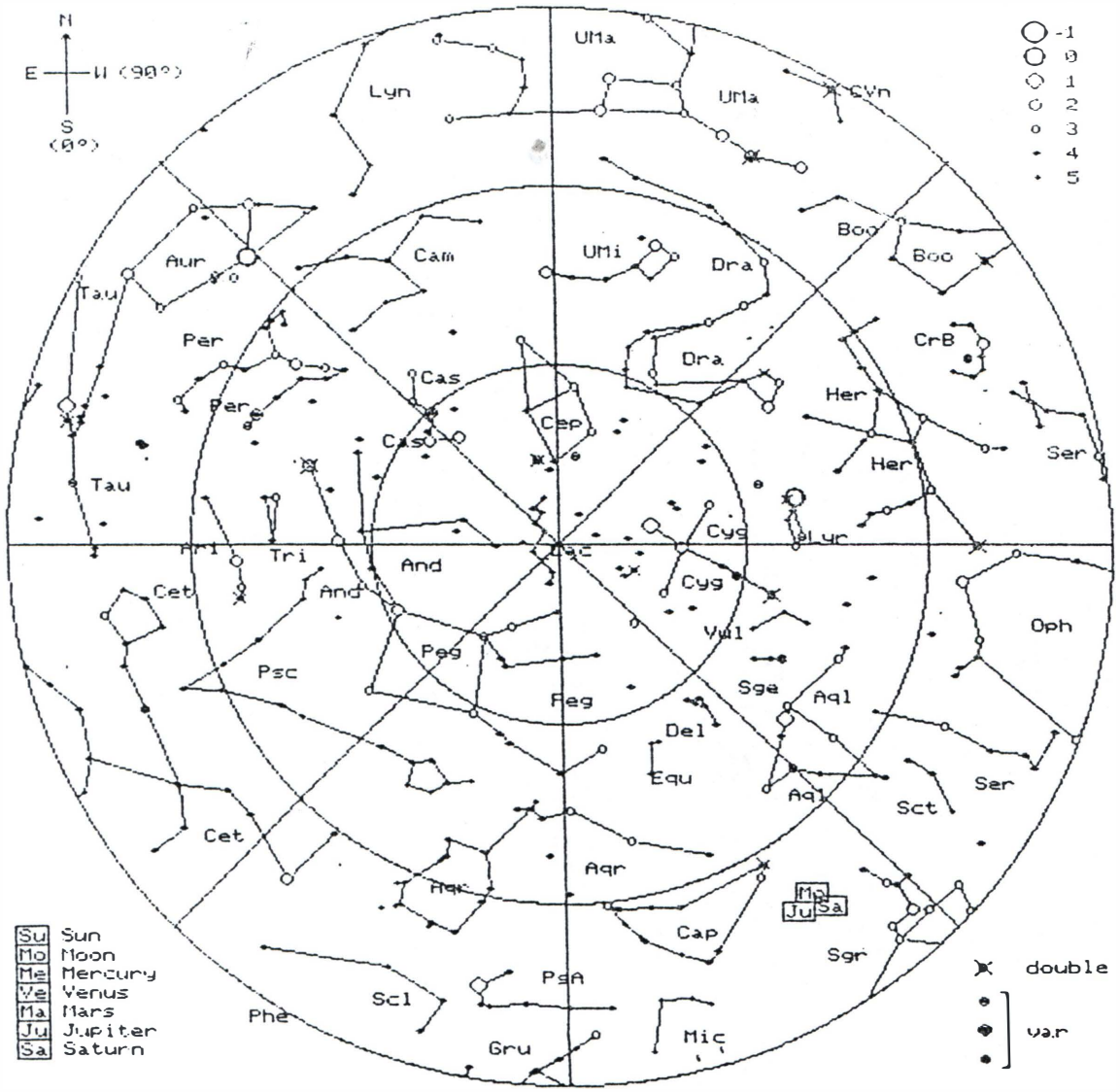

Table of stars (magnitude < 2.00) and planets with height > -10.0 deg, corrected for atmospheric refraction.

star		mag	h	A	star		mag	h	A	star		mag	h	A	star		mag	h	A
alpha	Aql	0.89	43.2	51.3	alpha	Aur	0.21	21.4	225.8	beta	Aur	1.92	15.5	220.9	alpha	Boo	0.24	-4.6	123.8
gamma	Cas	1.60v	60.9	221.9	omicron	Cet	2.00v	17.2	292.5	alpha	Cyg	1.33	74.3	100.3	alpha	Gem	1.58	-5.0	212.6
beta	Gem	1.21	-9.5	212.2	alpha	Lyr	0.14	50.5	100.9	gamma	Ori	1.70	-7.9	252.3	alpha	Per	1.90	39.0	234.5
alpha	PsA	1.29	15.0	349.5	epsilon	Sgr	1.95	-3.6	43.8	alpha	Tau	1.06	7.3	253.9	beta	Tau	1.78	7.8	237.0
alpha	UMa	1.95	17.0	173.8	epsilon	UMa	1.68	16.4	157.7	eta	UMa	1.91	15.3	146.9	Jupiter			17.3	31.9
Saturn			15.3	35.5	Moon (0.75)			19.1	34.5	Sun			-38.6	147.0					

This once again stresses the responsibility of the investigator, who must get his data as accuracely as possible.

CONCLUSIONS

The example gives some idea of how to apply the sky map to real cases. It must be stressed however that it was chosen for its relative simplicity in detecting the astronomical stimulus behind it. It could very well be that the investigator will encounter much more difficult cases. The possibility of detecting an astronomical explanation for a UFO report depends on the following factors:

1) the reliability of the "basic" parameters: place, date, time, height and azimuth. The place of the observation should preferably have been visited by the investigator together with the witness. If the observation was made sometime before the investigation,it's quite possible that the date or time may be wrong. The height is usually overestimated, so this is something the investigator should check. When measuring (or estimating) the azimuth, be sure to note the starting point and the direction in which the azimuth increases. This will be necessary to compare with the azimuth on the map which is measured from south over west.Although in most cases, it will be sufficient to accept the witness word for the value of these basic parameters,in some cases he/she could be wrong,making the correct identifications impossible.

2) the correctness of the description given by the witness. In other words, the investigator will sometimes have to explain parts of the description given by the witness, by taking into account autokinesis, atmospheric distortion which could cause the apparent size of a star or planet to increase or decrease, clouds which will make it appear or disappear. Effects like these could make the object behave in ways an astronomical object does not normally do.

3. **TECHNICAL DETAILS**

The programme SKY MAP is divided into three separate programmes. The first one asks for the input of the coordinates, date and time. One can either give the data for a single map to be calculated or the data for a series of different maps (at most 50). These are then passed on to the second programme which calculates the height and azimuth for all the astronomical object and then writes them on a file. A third programme then takes over, which prints the results on the printer. In the following discussion, we will concentrate on the second programme (where the calculations are done).

The programme has the following inputs :

- a list of data for the maps to be calculated (i.e. geographical coordinates, date, time and comments) or the data for a single map. From this list the programme selects the next one to be calculated.
- a list of stellar data (name, right ascension, declination, proper motion and magnitude). These were taken from the A. Becvar "Atlas of the Heavens - II Catalogue 1950.0" (Sky Publishing Corporation, 1964).
- a list of options, to indicate whether the calculations should take into account atmospheric refraction or not.

The programme is based mainly on the book "Astronomical Formulae for Calculators" by J. Meeus (Volksterrenwacht Urania and Vereniging voor Sterrenkunde, 1978-this first edition is no longer in print, but another edition is available from Willmann - Bell). The programme proceeds as follows :

(1) PRELIMINARIES :
- read coordinates, date and time from the list
- calculate geocentric latitude
- calculate time elapsed since 1900 (in centuries)
- calculate apparent sidereal time for given place/time.

(2) FOR EACH STAR :
- read the right ascension (X) and declination (T)
- correct for proper motion
- correct for precession, nutation and aberration
- calculate height (h) and azimuth (A) fraction (if requested)
- write the result on file

(3) FOR EACH PLANET :
- calculate the orbital elements for the given time, taking into account that these must be corrected for the time it takes the light to reach the earth. The orbital elements are:
  * L = mean longitude of the planet
  * e = eccentricity
  * i = inclination of the orbital plane to ecliptic
  * W = argument of perihelion
  * J = longitude of ascending node culate the ecliptical longitude and latitude (X,Y) as seen from the earth.
- convert (X,Y) to (X,T)
- correct (X,T) for nutation, aberration and parallax
- convert (X,T) to (h,A)
- correct h for atmospheric refraction (if requested)
- write the results on file

(4) MOON AND SUN :
- calculate geocentric (X,Y)
- convert (X,Y) to (X,T)
- correct (X,T) for parallax
- convert (X,T) to (h,A)
- correct h for atmospheric refraction (if requested)
- write results on file

All calculations are done with all the correction terms specified in "Astronomical Formulae for Calculators", with the following exceptions:

In the conversion from geographical latitude to geocentric latitude, the height above sea-level was not taken into account.

After the right ascension and dexclination of the star have been corrected for precession, the sine,cosine and tangent of these quantities should be recalculated, before proceeding with the correction for nutation and aberration. As we limit our calculations to the years 1700 - 2100 AD however, we make only a small error by not recalculating them.We do make a substantial saving in time required for the calculaions however.

The heights of all objects are corrected for atmospheric refraction (if requested by the user). For this correction we interpolated the data given by C.W. Allen in "Astrophysical Quantities"(The Athlone Press,3rd edition,1973, p. 125). These data are for an atmospheric pressure of 760 mm Hg and temperature of 10 C. As the temperature and pressure at the time of observation are usually not known, these data are not corrected for the appropriate temperature and pressure.The error made by this simplification should be neglible however.

The programme was written so that it gives an accuracy of 0.1 in height and azimuth cos (height) for the years in the range 1700-2100 AD, provided the place and time are at least as accurate as given in Table 1. This means the table given at the end of each sky map is accurate to the last digit given. It also means that the map itself is accurate to within one pixel. One can see from table 1 that an inaccuracy in the time of the observation in quite important.It must be stressed however that in a real situation, such accuracy will usually not be required,as there will be much larger errors on the height and azimuth estimated by the witness. Table 1 is only included to show you the accuracy of the programme itself, not the accuracy of a typically UFO explanation.

Accuracy in Time	Accuracy in Latitude and Longitude
5 seconds	1 Arcminute
10 seconds	1 Arcsecond

Table 1. Accuracy required in time and latitude/longitude in order to get the 0.1 accuracy in height and azimuth * cos (height).

With the current computer configuration (Apple II, 64 K memory, Z80 card, Epson RX-80 printer) the time required for calculating and printing one map is approximately 40 minutes. Once the list of data for the maps (at most 50) is entered, the programme does no longer require operator-intervention (provided the printer has sufficient supply of traction-feed paper).

4. COPIES OF THE PROGRAMME

Researchers wishing to run the programme themselves or to rewrite it for another computer, can request 5 1/2 inch diskettes with the binary code, the programme itself or a listing of the programme. Please contact us at the following address:

Ronny Blomme
Pierre Curielaan 31 box 2
B - 1050 Brussels
Belgium

To reduce our expenses, may we ask you to send us the required number of diskettes, on which we will write the requested files and send them back to you. If you do not wish to send diskettes, please send an International Postal Money Order for the amount indicated, so that we can buy them (no cheques, please).

- the binary code	2 diskettes or	BF 200,-
- the programme	4 diskettes or	BF 400,-

Please note that the current programme runs on a very specific machine (Apple II, 64k memory, 80 columns, Z80 processor, parallel interface to Epson RX 80 printer). It is most improbable that the code will run on any other configuration.

The programme is made available to researchers on the following conditions:

(1) the programme is to be used only for ufological or astronomical purposes.

(2) the author's name and address may not be removed from the header which appears at the beginning of the programme. We request this only so that if somebody should run into trouble with his copy of the programme, he'll be able to contact the author.

(3) there is no guarantee the programme will run on any other computer configuration than the one specified above.

(4) the programme may be distributed freely to others, provided they also abide by these conditions.

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Ronny Blomme

(The above text has been edited from the original Sky Map Manual, available directly from the author.)

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NEWS

- The whole ITACAT manuscript (about 500 pages) has been transferred in MS-DOS format too. It is composed by a long series of files relating to abstracts and comments of cases, as well as the long introduction to the opera. They are all WORDSTAR files. We remember that ITACAT is the Italian catalogue of close encounters, including more than 480 cases of such a kind at moment.

- Some free ads and a couple of articles about the use of PC in ufology have been published on popular Italian computer magazines. The readership' answer has been quite good, as about thirty people asked for more information about UFOs and the work done by the Rete Ufologica Computerizzata.

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TO UFO MAGAZINES EXCHANGING WITH US !

Don't think we are defuncted if you don't receive "The Computer UFO Newsletter" for a long ! We'll be still alive, but our times of publication are becoming really unforseeable. Please keep us in your exchanging mail list, as we greatly appreciate your nice magazine. Thank you from an Editor who is going crazy ! Obviously our companion publications can reprint Newsletter's articles simply quoting the original version and the complete CUFON address, together with subscription rates (18,000 Italian lire surface mail) for each volume.

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CHEKPOINT FOUR ON BECASSINE

by Denys Breysse

The development of Becassine project proceed along many directions at moment. Here is an updated report.

- CODING OF CASES

Over 250 CE 3 & 4 French cases have been coded: only events owning enough data to be processed have been taken into consideration A complete list of these French events is available to any researcher.

At moment, US events have been coding due to the fact that they are the largest national sample inside the Becassine file (400/500 cards). These numbers have to be considered with a lot of caution: often quantity of information related to most cases (including many famous "classics") is scarce. There are two clear examples of such a situation:

* Willy Smith is managing the UNICAT project for the sake of establishing a UFO data-bank including sufficiently "solid" cases. His world-wide file of CE 3 & 4 includes 92 entries and MAYBECAT (storing cases lacking of some data) have 210. Knowing it is possible there were other doubtful cases within such a group and that Becassine stores about 1,500 events presently, one hasn't to mix quantity with quality.

* One of the three indexes associated with each case refers to the quantity of known information. It has been given provisionally, according to an arbitrary procedure, with a range from one to ten. It is significant that in most cases the value of such an index is equal or less than four and very rarely there are ratings of seven or more.

As regards all statistical studies of Becassine project (that is its medium-term aim), I think it is particularly important to establish an index about the quantity of information for each single case. Such an index must give an indication about the gross quantity of them, but also about their quality (in the sense of "discriminating power". All those who could devote their "UFO thoughts" to this subject are invited to contact me for an useful exchange of opinions.

- PROCESSING SOFTWARE

I have written a routine allowing the factorial analysis of data tables (analyses about relations, extraction of proper values, graphic outputs). These analyses should be carried out when a sufficient number of cases will be coded, but then there

will be a great difficulty in the interpretation of the "rough" results. It will be necessary to deal with many probelms and questions, for example: how do you interpret the presence of two significantly near points in a factorial diagram ? A long meditation about this and other aspects of the matter is forecasted in the next months (- just when you'll be reading this article! Ed. -). Researchers interested in the subject can read the following bibliographical references:

- as regards technical problems: "L'analyse factorielle" by Philippe Cibois, printed by PUF in the "Que-sais-je" collection.
- as regards the problems about the use: "Bulletin de methodologie sociologique" (free subscription on request to LISH).

All Becassine software has been just modified in order to increase its speed: for example, time of access to disk files is now considerably shorter and working on 400/500 cases will be much more simple. In fact, a 256 Kbytes memory expansion has been added to the original 64 Kbytes RAM memory of my Amstrad microcomputer. The work file to be processed is loaded into the expansion from the floppy disk. It is just as using a sequential files, so that cases can be handled quickly and then saved on the disk again. It is clear that this operation allows to avoid a continuous (and slow) use of the disk drive.

This choice has been made in consideration of the work planned for Becassine in the near future, when statistical analyses and selection of samples will involve very frequent processing operations.

- PRELIMINARY STATISTICAL RESULTS

As an experiment, some results have already been achieved. A preliminary report about the analysis of French cases stored in Becassine is now available on request. I am planning to produce a study about a comparison between this results and those obtained by other ufologists.

- NEW CONTACTS

After having given priority to the collection of information about French cases, important contacts have been developed with many researchers (Willy Smith and his UNICAT in USA, M.Verga and P.Fiorino in Italy, Bruno Mancusi in Switzerland, etc ....). As one of Becassine aims is the establishment of a database as complete as possible (from which each ufologist will be able to draw all information he will need), such contacts are to be developed quickly.

Obviously, any contribution is welcome, especially if related to the latest CE III cases you know.

Denys Breysse

(translation by Giuseppe Verdi and Maurizio Verga).

From Denys Breysse, Becassine author

TO ALL RESEARCHERS

Becassine is a project under development (began in 1985). Its objectives are summarized in my paper published on "The Computer UFO Newsletter" Vol. 1 n. 3, 19 - 21 and I can give you some more information, if you wish.

The database (explained and unexplained CE III) is constantly increasing and the coding process is presently going on.

One of the aims of the project is to allow a better circulation of information by exchanging data between BECASSINE and the interested researchers.

BECASSINE is presently growing with contributors in some countries (France, Belgium, Italy, USA) and we want to develop such a collaboration more and more.

If you are interested in participating to the project, I'd like to ask you to read the next two paragraphs.

Of course, any advice or remark will be welcome. I hope you will be interested and I am sure a collaboration will be possible. In advance, I thank you.

** HOW CAN YOU HELP BECASSINE ?

Sending any information about explained or unexplained CE III: copies of articles, cuttings, investigation reports, specific remarks about given experiences, listings of experiences or catalogues, etc.....

** HOW BECASSINE CAN HELP YOU ?

A - Listings of CE III experiences (specify your needs)
B - Listing of coding booklet used in Becassine
C - Copy of disk for Amstrad CPC 464 (send a new disk for copy)
D - Information about any specific experience stored in the database
E - Results of statistical analyses carried out on BECASSINE (software has been written but we are waiting for an enough size of data before carrying out real analyses)
F - Selection of samples of cases verifying given characteristics (as you ask for .... if it is consistent with the coded data !)
G - ..... and if you have other ideas, wishes or needs ... say it !

F A L S E C A T

Final Report

by Willy Smith, UNICAT director

(A) ANALYSIS

As indicated by its name, the main purpose in developing FALSECAT was to establish a catalog of cases known to be 100% IFOs to be used for statistical comparisons with UNICAT, a data base of high-quality UFO incidents.

All UNICAT collaborators and associates were asked to partecipate, but unfortunately not all our friends found the time to meet the deadline. At any rate, we received answers from 34 persons and collected imaginary cases from 27 countries, distributed as follows:

North America (US + CN)	23.6 %
South America	40.0 %
Europe (F + P + E + GB)	26.0 %
Other	10.4 %

The high percentage for South America is due to the fact that also many USA correspondents submitted imaginary cases from that part of the world.

Other distributions of the collected cases are:

(1) types

Type	FALSECAT	UNICAT
CE 1	31.7 %	24.2 %
CE 2	18.7 %	22.5 %
CE 3	14.6 %	13.0 %
CE 4	6.5 %	2.3 %
DD	8.5 %	15.5 %
NL	18.3 %	17.0 %
RV	1.6 %	5.3 %

(2) Number of witnesses

	FALSECAT	UNICAT
single	31.0 %	26.0 %
multiple	69.0 %	74.0 %

(3) Time of day

When we first ran a time-of-day distribution for UNICAT (at a time when the number of cases was only 400) we were surprised to find the classical peaks at 11 p.m. and 3 a.m.

The addition of 200 more cases did not change the distribution, except by filling the valleys and rounding the maxima. Worse, when running a time-of-day distribution for MAYBECAT, which contains both UFOs and IFOs, the same type of curve was obtained. We then reasoned that if a catalog of purely imaginary cases could be developed, the distribution of cases around the clock would be uniform.

This didn't turn out to be the case and ALL time distribution curves (including FALSECAT) have the same general behaviour, with maxima at about 10-11 p.m. and a well-defined peak at 3 a.m.

(4) Day of the week

Most of the published day-of-the wek studies have been based on very por catalogs and the results varied, indicating maxima at different days. There is no reason for this, because if UFOs are manifestations of an unknown natural phenomenon they will occur with the same probability on any day of the week; or if, on the contrary, UFOs are the product of an intelligence, we wouldn't expect their activities to conform to our calendar.

This expected uniform distribution has been found for UNICAT, but not for other catalogs of supposedly good cases. The same uniform distribution has been determined for FALSECAT with a chi-square of 5.199 .

(5) Duration

Following the same procedure as with UNICAT, we calculated the number of cases with duration "less" than given values and plotted the corresponding frequencies (notice: cumulative frequencies) vs. durations. When compared with the similar UNICAT curve, both graphically and statistically, the distributions are the same with a chi-square of 7.1 (15 degrees of freedom).

(B) CONCLUSION

The catalog of imaginary cases does not differ statistically from UNICAT, even if its content is slightly different and the three classical variables (time of day, day of the week and duration) yield similar, if not the same, distribution curves.

This was an unexpected result and makes the whole FALSECAT effort a waste of time. The question is now: why is this so ? I think the key is in the fact that the majority of the participiants were well-seasoned ufologists or people well informed on the UFO phenomenon and thus were guided by their detailed knowledge of the subject when preparing the imaginary cases. There are many more materials, graphs, etc ...: if anyone wants further information all he has to do is ask. Also, comments and suggestions are most welcome.

A NEW DATABASE FOR MS-DOS MACHINES

by Xavier Burot

In France there is a new group named C.I.R.U. (Club Informatique de Recherche Ufologique) devoted to the application of personal computers in ufology.

Its main objective is the establishment of a network linking all French investigators each other, as well as the creation of a database filing all known sightings. Such a database should be the central unit of the network, where people will be able to connect simply using a PC and a modem (just near the same of UFO B.B.S. in Italy ! - Ed.): they will be able to receive any data about the stored sightings, sending new case reports to the central database as well. Anyway, the first real product of C.I.R.U. was a special software to help investigators.

The program "UFO 1" has been written to supply a tool in the production of UFO reports, giving to the investigator a questionnairie and a catalogue where there are all previous reports.

Its main feature is the full software compatibility on different kinds of microcomputers, so that an exchange of information will be very easy by using a common RS 232 port. More, the final aim of this program is the establishment of a UFO data bank on a network such as Minitel or others: it will be always possible to access the system, but there will be some "protections" against the intrusions of unauthorized people.

To run the program the following hardware is necessary:

- PC IBM XT, AT or compatible
- 128 Kbytes RAM
- 1 floppy drive
- CGA graphic card
- Microsoft BASIC 2.x

It is made by seven different subprograms, to be selected by a main menu offering the following options:

* Creation of a new file card
* View and correction of a file card
* List of the whole file
* Print of a file card
* Print of the whole file
* Deletion of a file card
* End of program

(1) Creation of a new file card -

Every card has a special code number where one can read the reference number, the investigator code and the year when it was inserted. Such a code is important to find quickly the case

report inside own file. There are four characters (0000-9999) for the reference number, while the investigator code is made by a letter and three numerical digits (for example: A000). The letter has been used to identify the geographical area where the investigator lives and carry out his enquiries.

Afterwards, the programs prompts for information about the witnesses (these data can be bypassed) and many others, such as date, hour, location, weather conditions, descriptions about the phenomenon and eventual entities. After the last field, the record is stored inside the whole catalogue and written on the floppy disk: automatically, the program goes back to the main menu.

(2) View and correction of a file card -

You can see a given record entering its code number or listing the whole file by pressing the "?" key. At this point, you can choice the case you are interested in simply by moving the up and down arrows and pressing "Return" to select. During the view, you can change screen page by the "Pg Up" and "Pg Dn" keys, while pressing "F3" you can modify the data inside the current screen. Note that the first page, displaying the case report code number, doesn't allow any change. If something has been modified, a prompt will invite you in saving the record.

(3) List of the whole catalogue -
You have to press the usual "Pg up" and "Pg Dn" keys to go from a page to another.

(4) Print of the file card -
The print takes place on two sheets, where you can find all information entered in the record.

(5) Print of the whole catalogue -
The catalogue can be printed on several sheets with 45 lines each. At the bottom, there is the date and the page number.

(6) Deletion of a file card -
Deleting a record is an irreversible operation made directly on the floppy disk, so that data of that file card are completely lost.

(7) End of program -
A prompt appears on the screen to ask for a confirmation of your choice.

The program is being translated to be run on Apple IIe computers, while a third version for Amstrad 664 and 6128 should be developed in the near future.

(translated and adapted by M.Verga)

BECASSINE : CHECKPOINT 7

CONSTRUCTION OF THE INFORMATION INDEX

by Denys Breysse

(-1-) INDEXES.

Our aim is to explain the meaning and usefulness of such an index, developing the following method to evaluate its own value.

Examining the literature, one can see how all coding systems have one or, generally, many indexes able to give a value to the coded cases. We mention only a few of them:

- index of information by C.Poher (every coded information has the same "weight" in the index calculation).
- index of reliability for the S.O.B.E.P.S. OVNILOG system, established on the ground of four parameters: number, age and job of witnesses, as well as the conditions when and where the sighting took place.
- index of reliability by T.M. Olsen ("The reference for outstanding UFO sighting reports", 1966) where there are three different possibilities:
  - I probability percentage that the witness reports corretly his own experience
  - II probability percentage that the investigation refers to an experience without any explanation as well-known phenomena
  - III probability percentage that third-party sources report correctly the case
- index of strangeness by W.Smyth (UNICAT) established on the ground of the presence or absence of some previously fixed motifs inside the case.

There are other kinds of indexes: most have been developed arbitrarily, some others have been kept "secret" (UFO mysteries !-Ed).

(-2-) AIMS

What do we want in looking for a given index for each case and what does such a value have to mean ?

Let's suppose there is a real UFO/IFO discernability. If, for example, we cut out our 2000 cases file in ten boxes of 200 entries each according to their "probability of solidity", we can carry out some precise statistical studies about the average variations of all parameters in relation to those "boxes". By this way, we could verify the starting hypothesis. If no discernability would be found, we should refuse that hypothesis.

We are looking for a means able to test the raw material (all the cases) in function of their intrinsic value. Many different terms have been employed: "probability of solidity", information

index, intrinsic value, ... All of them work in the same direction (just like reliability or strangeness): if we had a small sample of cases with a very high index ("very reliable and strange cases" for using the words of the late Hynek or "hard" cases, following the criteria of the French researcher Michel Figuet), the reality of a truly unexplained UFO phenomenon would be more accepted by more people.

By this brief paper we don't want to propose a selection tool for all the cases: we want to give to each of them a value indicating its solidity.

(-3-) ABOUT THE QUANTITY OF USEFUL INFORMATION

According to us, the more proper definition is "index of useful information". For "useful information" we mean data able to lead us to the identification or to the refusal of some explanatory hypotheses. Here is a fictional example:
a witness reports a cigar-shaped UFO, with bright portholes, that seems to go towards the horizon quickly, 500 meters far and practically at ground level. Thanks to the investigation, we know about the presence of a little used railway and of a train with an exceptional load passing just during the sighting. Identification is practically sure. Multiple parameters allows to explain the case: knowledge of the witness and his place of observation, hour, object's shape, direction, appearance and "flying" path. All of these elements are elements of <u>useful information</u>.

One has to consider also the possibility that the identification was achieved thanks to the reporting of wrong parameters (distance, speed, apparent size, colours, etc.....) or, even better, that the explanation was impossible just due to those wrong data.

In a first stage it is important to give to each coding parameter an alleged value about the useful information it supplies for the confirmation or refusal of the various explanatory hypotheses.

(-4-) INDEX CONSTRUCTION

There are three possible methods:

- in-depth study of UFO & IFO investigation reports in order to find the frequency by which a parameter allows us to deduce a sensible identification or to give the "unexplained" label to a case. It seems a really good solution, but there is a double difficulty: first of all it needs an enormous investement of time and means (it is a real research project by itself !), then one has to consider that our evaluation is developed on the ground of a group of parameters and they make difficult the calculation of the "weight" of a single parameter.
- comparison between UFO and IFO characteristics (GEPAN, Delaval and others, for example) in order to fix the important parameters. Anyway, the available studies are generally very incomplete and the statistical information aren't enough.

- a mixture of the previous two methods, that is knowledge of UFO literature and some statistical results, together with a bit of personal intuition to achieve interesting results without a huge investment in time.

- SCALE OF VALUES

There are some fundamental criteria to follow:

* if basic parameters (see "Becassine Checkpoint 1") such as the date or the witness' name are unknown the resulting index will have a minimum value (zero, for example)
* the calculation of the scale have to be simple
* values aren't much important, but the scale must have an inside coherence as regards the relative "weights" of the parameters
* the scale have to be changed automatically (in the future) on the ground of possible improvements, such as the developments of special research works about the previously mentioned topics

For each parameter we'll do the following steps:

- giving from 0 to 8 points on the ground of its own capacity in helping or refusing the explanation of the related case (supposing that the parameter is known exactly). One will give from 0 to 4 points for attempts of explanation in physical terms [HΦ] (meteorological phenomenon, weather balloons, metallic flying disc from outer space, etc..) and from 0 to 4 points for attempts of explanation in psycho-sociological terms [HPS] (hallucination, rumour, misperception, etc.....).
- adding from 0 to 4 points on the ground of the frequence [Fre] by which a parameter is present in the casuistry. A rare effect (supposing it has been correctly reported) is more useful than a well-known parameter, present in all or near the cases (such as the place where the sighting took place). So we will give the following points:

0 to parameters known in 80 ÷ 100% of Becassine cases
1 to parameters known in 60 ÷ 80% of Becassine cases
2 to parameters known in 40 ÷ 60% of Becassine cases
3 to parameters known in 20 ÷ 40% of Becassine cases
4 to parameters known in 0 ÷ 20% of Becassine cases

- subtracting from 0 to 3 points on the ground of probability of error about the value given to the parameter (you can find again an Olsen criterion). The place where the sighting takes place is the most correctly reported information [Rap] by the witness, the investigator and the mass media, but the evaluation of quantitative parameters (duration, distance, etc....) is always subjected to some distortion. At the same time, it is very difficult being able to put in sure correlation some effects (animal disturbance, redness on witness' skin, etc....) to the reported phenomenon.
- subtracting from 0 to 3 points on the ground of the bias on the coding. This is the defect of all coding systems: they degrade the information more or less heavily, for example due to the imprecision or

the short size of some fields. Such a correction [Cod] takes our long experience in coding Becassine cases into consideration (field with a 3-points value would be just those untouched by a reform of the coding process).

(-5-) CONCLUDING

Shortly the "weight" is much more important than knowing the given parameter is considered correct, rare and not much subjected to errors.

We know that our task is really very difficult: the resulting index (able to be enough representative and objective) must be subjected to a concrete experience. The values given to the cases will be the result of tens of pages of correspondence and many hours of debate. Even though it is near impossible to justify a 3 value rather than a 2 one, what is important is to know that the inside coherence has been obtained notwithstanding some imprecisions in details and that the overall results aren't affected significantly by them.

Just to end this brief paper, here is a list of the parameters groups involved in the calculation of our index, according to the following percentages:

- Temporal parameters	19 %
- Spatial parameters	14 %
- Witness	17 %
- UFO	22 %
- Entities	16 %
- Interference witness/entities	3 %
- Effects	9 %

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Denys Breysse, September 1987

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Becassine's "Checkpoint number 6" (August 1987) won't have published on the pages of THE COMPUTER UFO NEWSLETTER, as it is essentially a collection of statistical tables. The complete paper could be requested directly to the author (Denys Breysse, 9 av. St.Exupery, 92160 Antony, France), enclosing two international reply coupons at least. In 22 pages of tables, there are the preliminary results of some statistical analyses carried out on a sample of 978 close encounters of the third kind cases. Such reports come from France, U.S.A., Italy and Argentine, but other 800 entries have to be inserted in the database to make the work complete. On the next issue of this Newsletter there will be a long Breysse's article about a complete review of his own work and related aims.

HAPPY CHRISTMAS AND HAPPY NEW YEAR TO ALL OUR READERS !