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FIGURE 28: ROCHDALE LANCS., 1975

11-25

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'CIGAR' TYPES

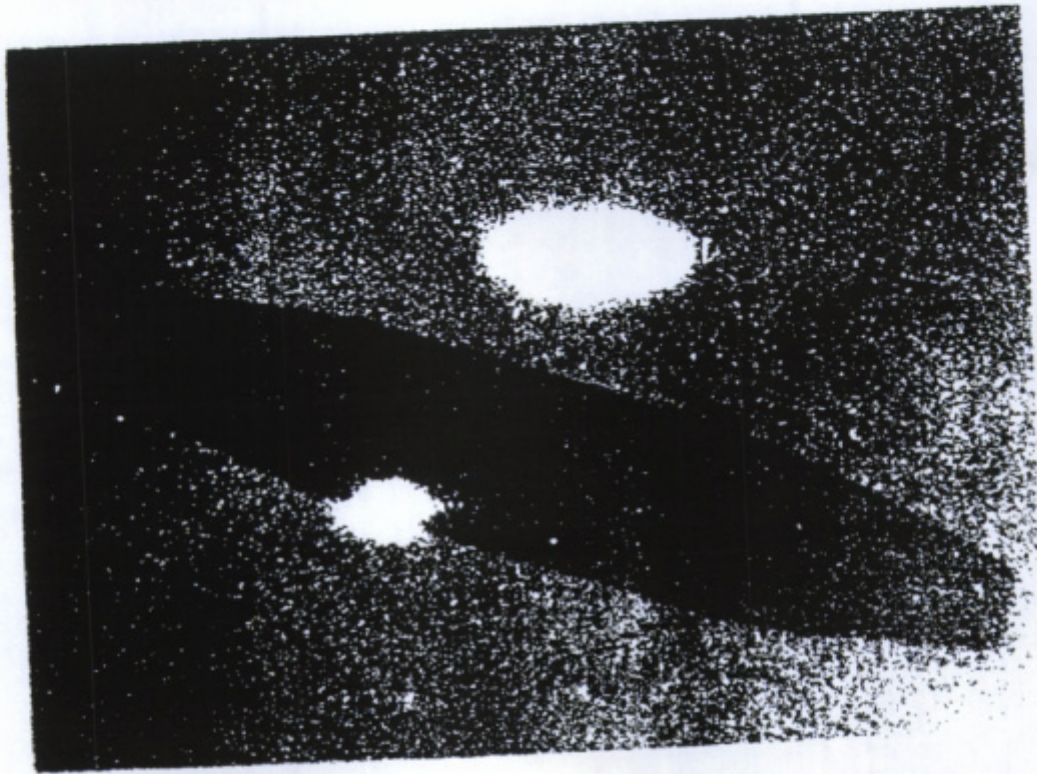


FIGURE 29: 'CIGAR' TYPE

TRIANGLES

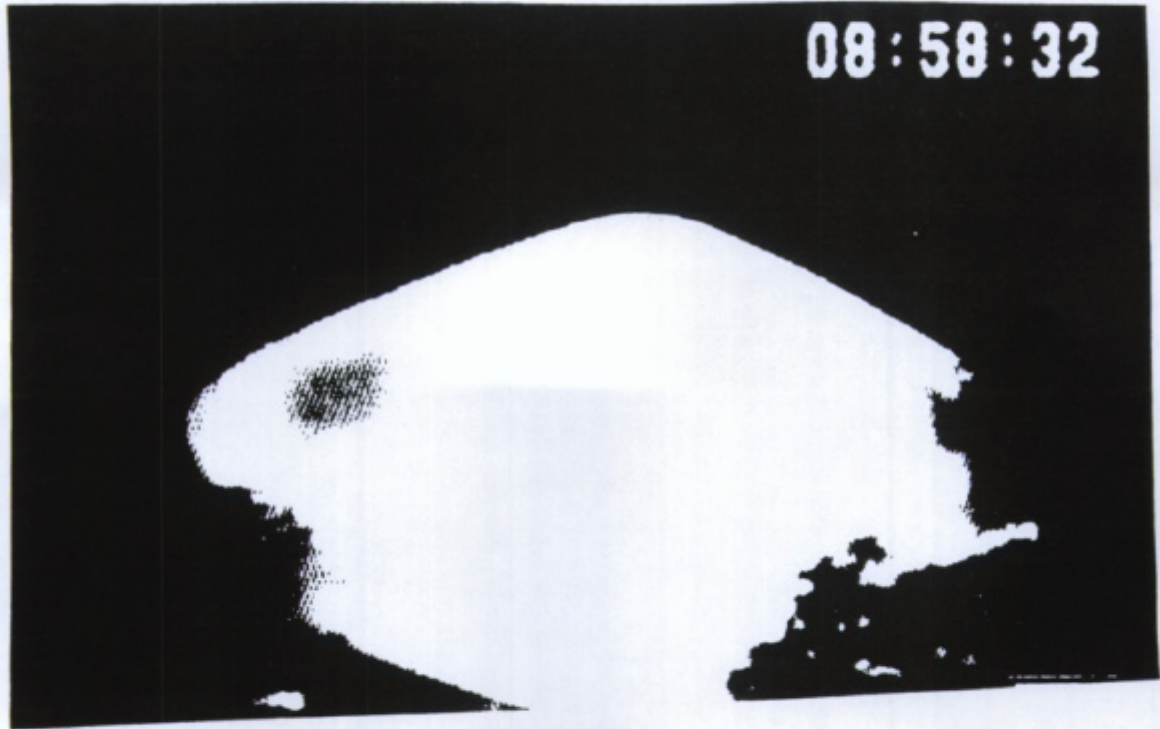


FIGURE 30: TRIANGLES/PYRAMID/CONES

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FIGURE 31: BELGIUM LOCATION EUPEN (2 SECOND AT ZOOM SETTING 100-150MM AT F4) 30-31 MARCH 1970

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FIGURE 32: BELGIUM (AS FIGURE.. ABOVE. BLUE FILTER ENHANCEMENT REVEALED UNDERLYING TRIANGULAR SHAPE (ALL OF WHICH IS VISIBLE ON ORIGINAL))

11-29

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FIGURE 33: SOVIET UNION - LOCATION ZAGRESK MARCH 1990 (NOTE UNDERLYING EQUILATERAL TRIANGLE)

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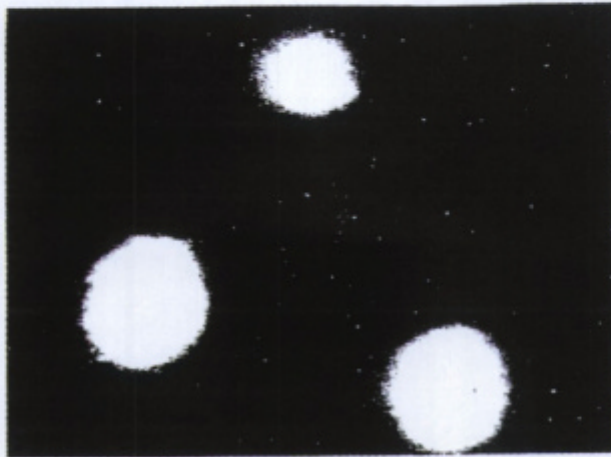


FIGURE 34: VIDEO FRAME - BELGIUM 31 MARCH 1990

11-31

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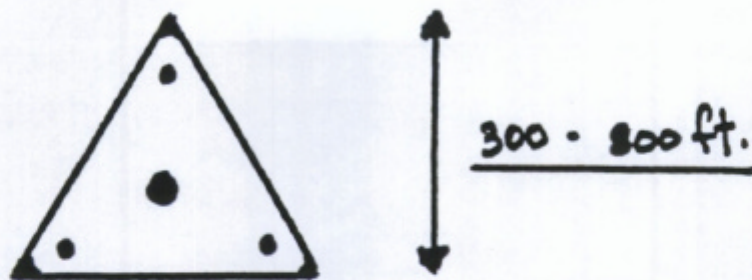


FIGURE 35: SHAPE UK, RUSSIA, BELGIUM

BOOMERANG/ARC

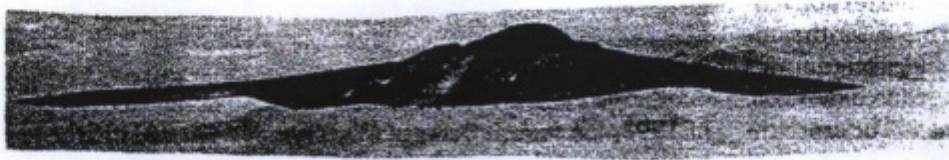


FIGURE 36:

WORKING PAPER NO. 12

EARTH'S MAGNETIC FIELD IN THE UKADR

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FIELD MEASUREMENTS	2	12-1
Field Intensity	3	12-1
Field Angles	4	12-1
Local Variations	6	12-1
UNITED KINGDOM MAGNETIC SURVEY	7	12-1
COMPARISON WITH MEDICAL EXPERIMENTS	8	12-2

EARTH'S MAGNETIC FIELD IN THE UKADR

INTRODUCTION

1. Earth's magnetic field has been briefly researched because of:

- The possible connection of field strength with UAP events.
- As a comparison with the magnetic field strengths used during the magnetic field experiments reported at Working Paper No 25.

FIELD MEASUREMENTS

2. Over the period 1987-95 eight international stations, comprising a Sub-Auroral Magnetometer Network (SAMNET) monitored the changes every five seconds. Earth's internal magnetic field changes only slowly in direction and magnitude, but there are also magnetic effects due to the flow of charged particles in the upper reaches of the atmosphere (the ionosphere) and in space. Day plots have been taken every 1 second, since 1995. Each station records the magnetic field in three orthogonal directions. The stations cover the UK, Sweden, Norway, Finland and the Faroe Islands.

3. **Field Intensity** The magnetic field is calculated (in Nano Teslas) from the International Geomagnetic Reference Field (IGRF). The total intensity in the UK is 49,000 to 50,000 nT (1nT = 1δ). Changes in intensity are ~30nT per year. The horizontal component of the field is about 20,000 nT in Southern UK and 15,000 nT in Northern UK.

4. **Field Angles** The field inclination angle is ~70° with typical changes of one to two minutes (of angle) per year. For epoch 1970 the declination angle is between -6 and -12 degrees, with changes of ~6 minutes of angle per year.

5. The North magnetic pole is migrating NW by 9km per year (79.1°N 28.9°E). For the chart shown at Figure 1, $1\delta = 10^{-5}$ Gauss. = 10^{-9} T = 1nT. The plotted readings show no sudden or unexplained variations but rather a steady decline in magnetic intensity level over the 50 to 60°N lines of latitude straddling most of the UKADR.

6. **Local Variations** No information is available on small variations which may occur in specific locations. Particularly, no field peculiarities are present in the main plots to indicate the possibility of influencing geographical clustering of UAP reports.

UNITED KINGDOM MAGNETIC SURVEY

7. Data gathered nationally by a network of 51 stations (survey points), established between 1985 and 1988, allow local (crustal) magnetic variations to be monitored^[1]. Global models accurately represent the main part of the geomagnetic field, originating in the earth's core. At the surface there are perturbations caused by magnetised rocks and electric currents in the ionosphere and

atmosphere. While there are errors which are superimposed on the global model, in the UAP context it is just possible that the high density measurements of field strengths in certain areas may contribute either singly or in combination with other factors to produce UAP. The associated solar phenomena (solar flux and sun-spots) are considered at Working Paper No 16.

[1] British Geological Survey, Edinburgh

[2] Persinger is Referenced at Working Paper No 25, together with the results of his experiments on the human response to modulated magnetic fields, which are of prime importance to the overall findings of this study.

COMPARISON WITH MEDICAL EXPERIMENTS

8. A comparison of the national UK earth magnetic values at Working Paper No. 25 with those used by Persinger and others, in their medical experiments, has shown that the key difference between the experimental field which produces human responses and descriptions of experiences surprisingly like those of close encounter UFO/UAP reports; are those of modulation. It is noted that the modulated experimental amplitude values used by Persinger, and which cause the surprising effects on humans, are only approx. 1/500 of the steady field level experienced daily in the UK.

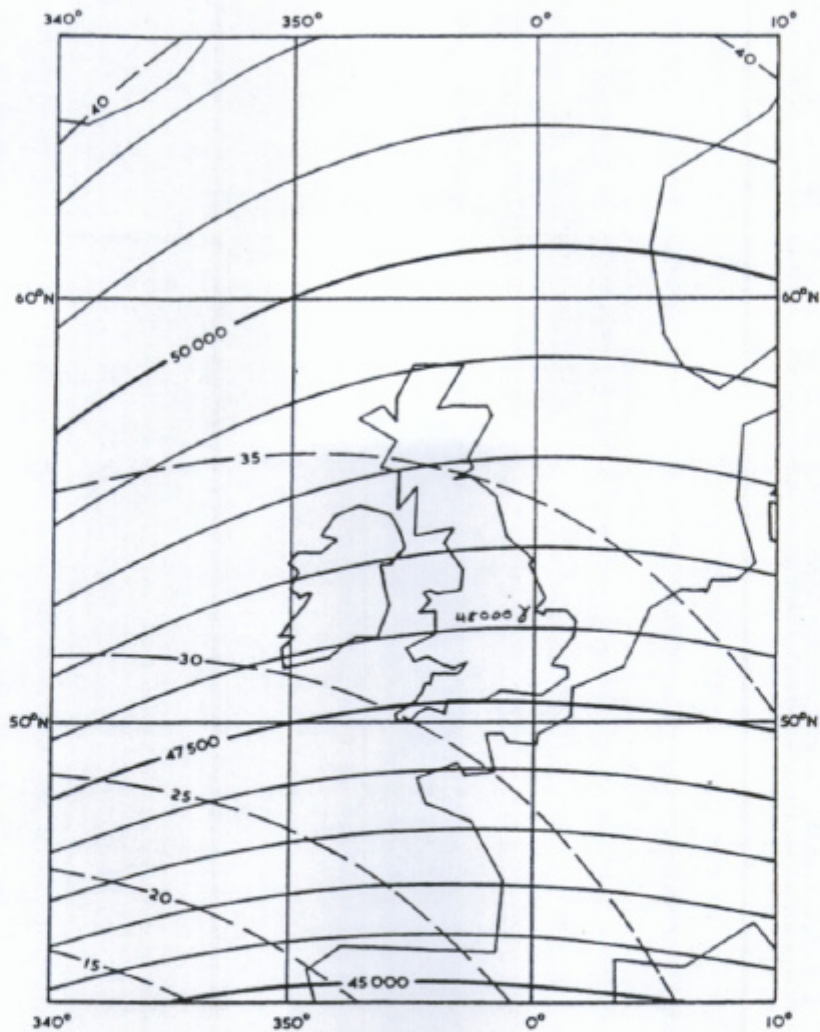


FIGURE 1: INTERNATIONAL GEOMAGNETIC REFERENCE FIELD FOR UKADR

- Notes:
- Solid lines are total intensity (in Gammas, where $1\delta = 1\text{nT}$)
 - Dashed lines are secular changes (gammas per year).

WORKING PAPER NO. 13

VISUAL METEOROLOGICAL AND OTHER NATURAL ATMOSPHERIC
PHENOMENA

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VISUAL METEOROLOGICAL AND OTHER NATURAL ATMOSPHERIC PHENOMENA

1. This paper briefly investigates a number of additional atmospheric visual phenomena, mainly meteorological, which can give rise to UAP reports because they are unfamiliar to most witnesses:

- Lenticular clouds
- Dust Devils
- Moon and Sun 'Dogs'
- Aurora
- Twisters
- Ice Clouds
- Glory/Corona
- Condensation Trails and Distrails
- Halos
- Mother of Pearl Clouds
- Mamma
- Noctilucent clouds

LENTICULAR CLOUDS

2. Examples of laminated, disc-like (Lenticularis) clouds are shown at Figures 1 to 9. These are clouds which are oval or lens-shaped. No further explanation is required to see that these can easily be visually mistaken - and, with a little embellishment - be turned into convincing 'UFOs'. Key factors in the filtering process must be:

- They are usually visible using reflected light (e.g. ambient daylight/sunlight or moonlight), but on some occasions they may be seen in silhouette as disc shapes.
- Lenticular clouds have no inherent glow (other than natural external illumination).
- They will either appear to be stationary (dependent on geometry) or move slowly (at wind rate).
- They will not manoeuvre.
- Conditions to climb are rare unless 'forced ascent' (i.e. external agency) conditions are present.

4. Lenticular clouds often form:

- Over hills.