

CROP CIRCLES: THE FINAL SOLUTION?

By Omar Fowler

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INTRODUCTION

Omar Fowler has been involved in the investigation of the Crop Circle phenomenon since July 1985. His early research included crop & soil analysis and aerial photography in both colour and infra-red. Details of two reports, instigated by Omar Fowler were published in the book "Circular Evidence" (page 35).

In September 1991 Omar Fowler published a short illustrated paper on his research into the Crop Circle phenomenon entitled "The Significance of Bent Stems in Crop Circles". This paper drew comments from a number of prominent researches:-

Professor Y.H. Ohtsuki of the Waseda University, Tokyo, Japan:

"The creases and burn marks are very important to our work." "Electro-magnetic waves (or microwaves) are produced in nature by changing electro-magnetic fields."

Michael Chorost of Duke University, North Carolina, USA:

"Our work supports your idea that the plants are exposed to some electro-magnetic force". "Your work's one of the best things to come out of England this summer" (1991).

Montague Keen (Centre for Crop Circle Studies)

"Your observations and photographs are clearly an important and valuable contribution to the task of solving the mystery".

Dr. Terence Meaden (TORRO)

"Thank you for sending me a copy of your well-illustrated short paper on the significance of bent stems in crop circles". "You appear to be undertaking a careful study of this problem and this is very commendable".

In Part 1 of this document is an edited version of the original paper and has been reprinted for your information.

In Part 2 the reader is brought up to date with current theories which explain single Crop Circles as a natural phenomenon.*

Contributions to this paper have been made by the following:-

Paul Foster (PRA) Jeff Whitear (PRA) Earth,Mind Assoc.

* "Pictograms" are not commented on in this paper other than to express the opinion that they have been produced by an "intelligence".

This paper was first introduced at "The Second International CCCS Conference " , held at the Guildhall, Bath, U.K. August 1993.

ETC ETD



CARLTON-ON-TRENT, NOTTS. JULY 91 : Main Circle & Three Satellites.

Photo 1

Copyright: Omas

Part 1

THE SIGNIFICANCE OF BENT STEMS IN CROP CIRCLES & THE EVIDENCE OF MICROWAVE ACTIVITY

The disclosure that "bent stems" in Crop Circles may hold valuable clues to the source of the energy involved, has been publicised for the benefit of all researchers.

After studying "Crop Circles" since 1985 and collecting and analysing plant stems from incidents up to 150 miles apart, one common denominator emerged. This was the discovery of single standing stems, with top sections bent over at a height of 55cm (22") in an otherwise flattened circle of Wheat or Barley (*photo 2*).

It was also discovered that a number of the single stems, apart from being bent at 55cm, showed a number of other common features. These were small "crease" and "burn" marks at similar points on the crop stems (*diagram 1, photo's 3 & 4*).

It is believed that the 55cm stem measurement is indicative of H/F wavelength (Microwave) activity. The "crease" marks and small burnt areas which appear at regular intervals on the stems, could be consistent with Microwave action during the formation of a Crop Circle (*photo 1*).

The "crease" and "burn" marks were noted in September 1991, when "bent stem" crop samples were being studied. The "burn" marks at the node points of the stem showed up in a distinctive dark brown colour. It was then, that a closer inspection of the sample stems revealed the "crease" marks.

It is likely that the "burn" marks at the node points on the stem are due to the action of High Frequency Radiation heating the water concentrated at the node points. The result is a brown scorch mark at each node point, while the stem itself retains its normal colour, although some warping or splitting of the stem may also result.

In some instances, there may even be twisting of the plant stem. An example of a similar reaction is when an inert vessel containing water is placed inside a microwave oven. The water will absorb the microwave energy and heat up, while the vessel itself will remain stable.

EXAMPLES OF 55cm STEMS FOUND IN CROP CIRCLES

Copyright: Omar Fowler

Photo 2



Carlton-on-Trent 9th July 1991

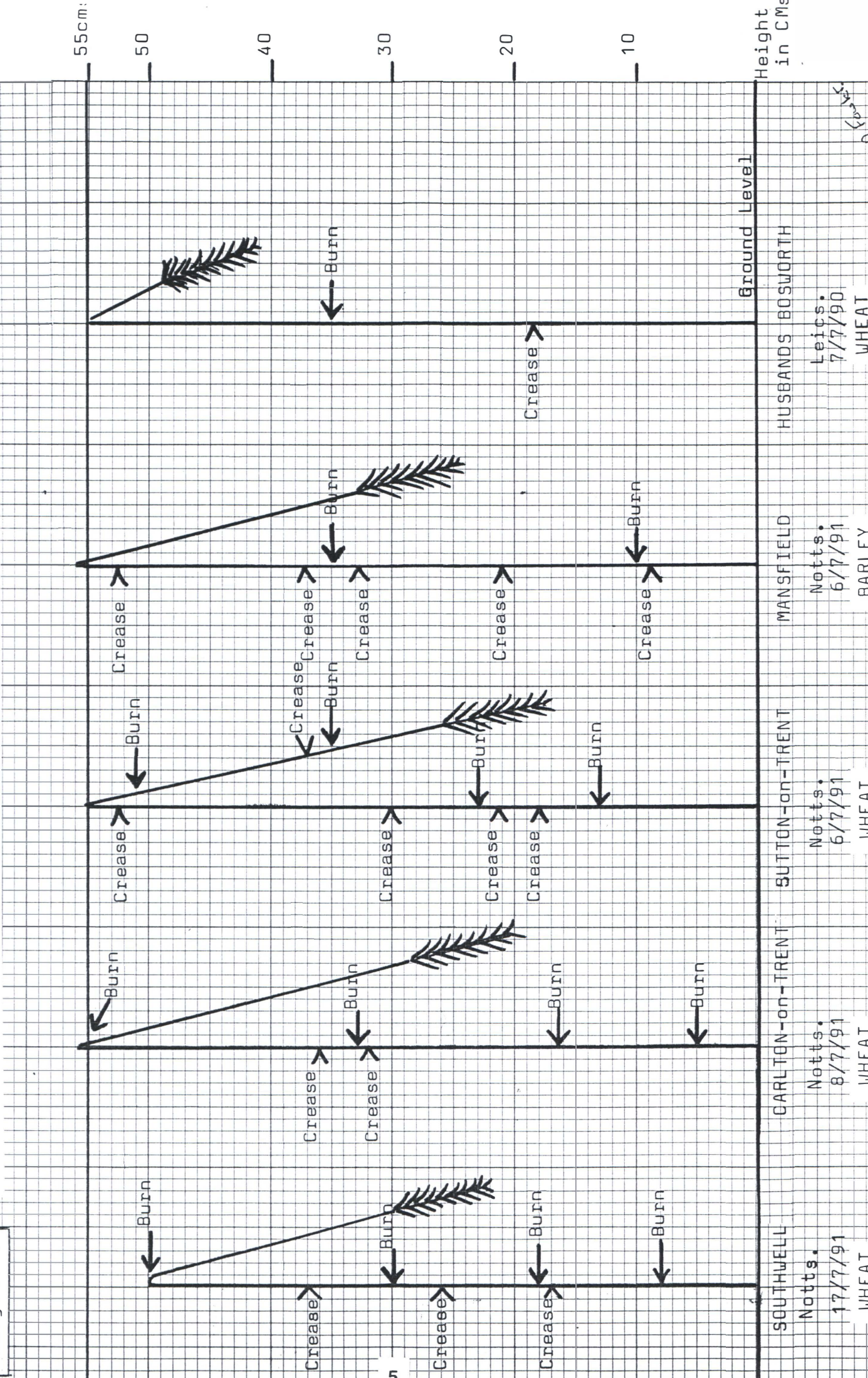


Mansfield, Notts. 10th July 1991

Husbands Bosworth, Leics. 12th July 1991

EXAMPLES OF SINGLE STANDING STEMS FOUND IN CROP CIRCLES 1990/91

Diagram 1



6/7/91

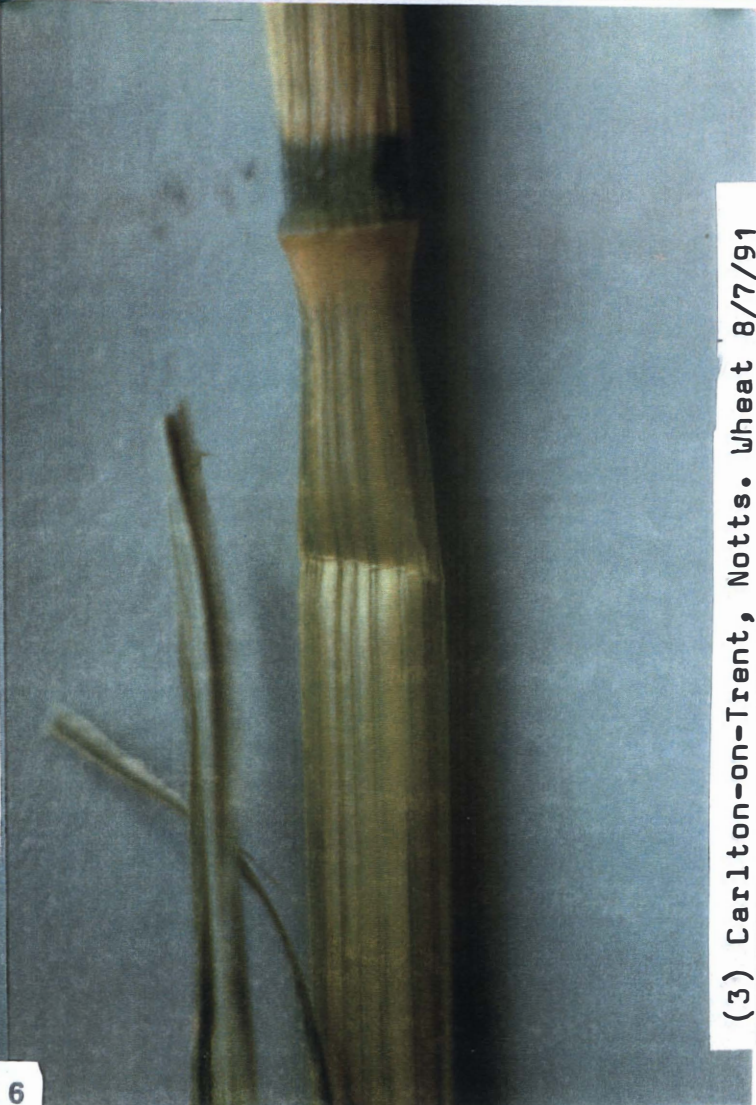
Photo 3



(1) Mansfield, Notts. Barley 6/7/91.



(2) Southwell, Notts. Wheat 17/7/91



(3) Carlton-on-Trent, Notts. Wheat 8/7/91



(4) Mansfield, Notts. Barley 6/7/91



(5) Mansfield, Notts. Barley. 6-7-91



(6) Sutton-on-Trent, Notts. Wheat. 6-7-91



(7) Southwell, Notts. Wheat. 17-7-91



Hushands Rosworth, Lincs. Wheat. 7-7-90

The possibility that Crop Circles are being formed by a High Frequency beam could answer a number of questions that have been puzzling researchers for some time: -

- (1) What force, normally invisible, is capable of such action within such a short duration of time (possibly 20 seconds).
- (2) What can account for the 'Plasma Balls' photographed by Japanese and British scientists over the wheatfields in England, where Crop Circles have later been discovered.
- (3) How can Crop Circles occur either during the day or night and without detection by local radar or night vision cameras. With or without any wind, for instance in a mist at night e.g. Wiltshire 27th June 1991.
- (4) What could account for a 'mist' often seen shortly after the formation of a Crop Circle.
- (5) What could be responsible for the 'chirping' and 'tweeting' sounds recorded in Crop Circles and thought to be caused by H/F radiation.

The fact that there exists a means of identifying an authentic Crop Circle event (i.e. 'bent stems') is a step forward in discovering the nature of the force that is responsible.

There is some evidence to suggest that there is a gradual build up of energy over several days, until the actual forming of the Crop Circle. However a great deal of work remains to be done in respect of this theory. With improved instrumentation it is hoped that further evidence will be gained during the year 1992.

If a microwave beam is responsible for the formation of Crop Circles, the outstanding question must be, is it a natural phenomenon? If it is not, then who or what is transmitting the beam and for what purpose?

Omar Fowler

11th September 1991

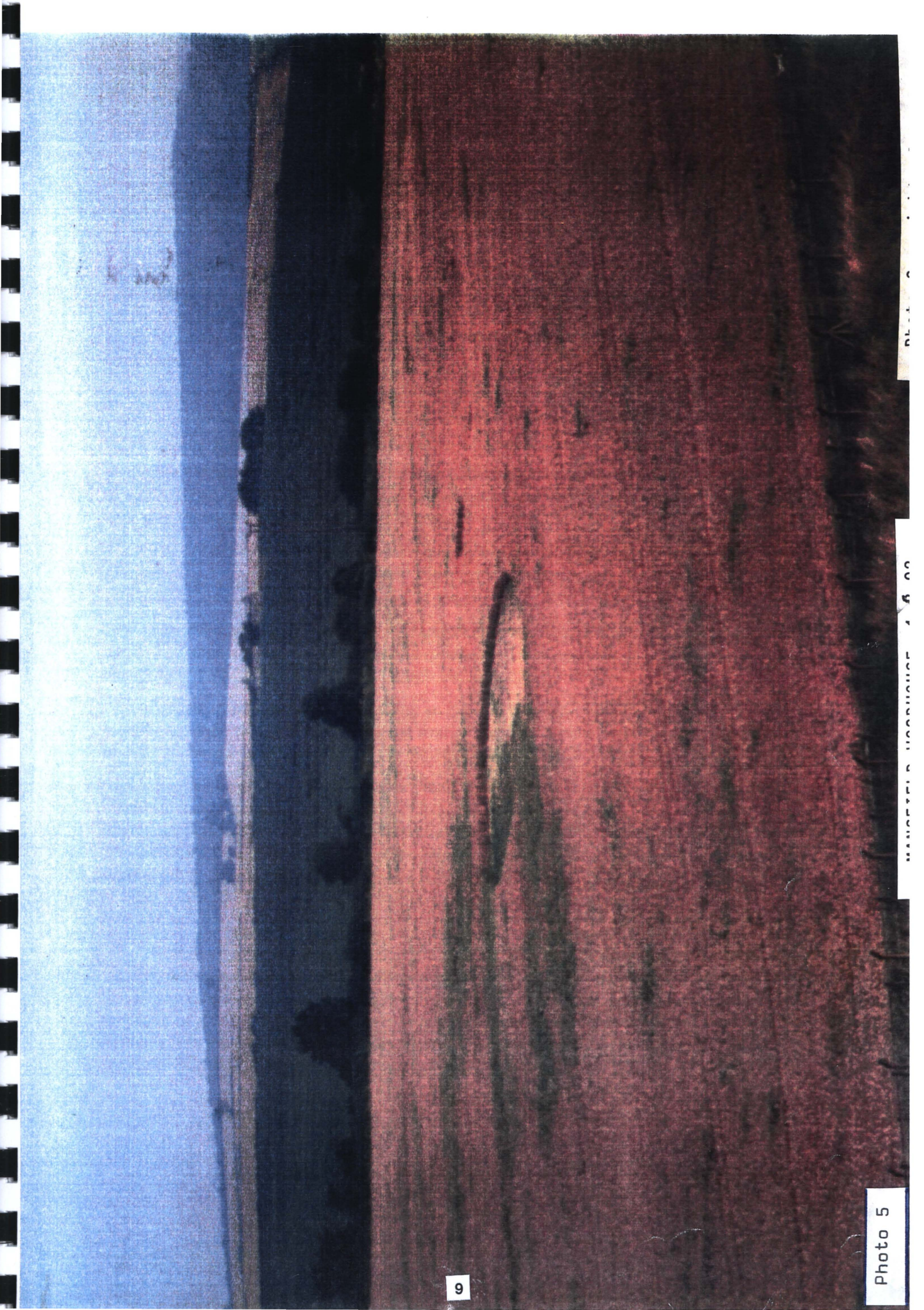


Photo 5

Part 2

CROP CIRCLES: THE FINAL SOLUTION ?

The investigation study carried out in 1991 suggested that a high energy source, possibly microwave, could be involved in the formation of Crop Circles. It was thought at the time that an energy stream emanating from the sky could be responsible, even a possible satellite source was considered.

During 1992 further investigation of the energy source was undertaken. Instruments capable of detecting H/F radiation and local changes in ionisation had been developed by Mr Paul Foster (PRA) and were made available for field trials.

The "Microdet", an instrument capable of detecting a wide band of radiation between 20HZ to 12 GHZ, was used for the first time at "Husbands Bosworth" Leics. where a Crop Circle appeared on a local hilltop for the fourth consecutive year (3/7/92).

The "Microdet" detected a High Frequency blanket of radiation covering the hilltop (*diagram 2*). However the source could not be identified at the time. Later when a wave analyser was used in the area, it was discovered that the H/F wave had disappeared.

The "Microdet" was also used at Mansfield Woodhouse (Notts.), where a group of three circles had appeared on the 1st August 92 (*photo 5*). Once again the instrument detected a H/F energy field in the immediate area, although the source of the emission could not be located.

Further study was undertaken using an ionisation meter, with the intention of trying to identify and locate the mysterious energy source. It soon became apparent that the existing ionisation charge played a major part in the energy concentration formed in the Crop Circle area.

It appears that early dawn (approx. 4am) is likely to be the time that the phenomenon will manifest itself. Sampling instruments showed that under optimum conditions, a strong negative ion charge was likely to form over a wheatfield in the early hours of the morning (*Diagram 3**). This was particularly noticed in damp conditions, when the negative ion charge increased at ground level. This is probably due to the fact that each droplet of moisture carries a negative charge. **Reddish points of light have been reported dancing over wheat crops in the early hours (Husbands Bosworth Leics. 1992).*

A study of existing weather conditions showed that on a still night, negative ion readings were higher than on a windy day (crop movement produces positive ions) and one could postulate that a crop circle would not form under these conditions. It seems likely that Crop Circles are the result of a charged particle reaction in the Earth's upper atmosphere, where low mass charged particles streaming from the sun are being trapped in the Earth's magnetic field (*Diagram 4*). This stream of particles charge up the upper ionosphere (a positive charged zone).

This "solar wind" is captured in the Earth's ionosphere and through the action of the Earth's magnetic field, the stream of charged particles are moved to the poles. It is at the poles, that the particles emit photons through chemical interaction in the atmosphere and electro discharges, this interaction becomes visible in the form of "Auroras".

Although the Earth's magnetic lines of force are concentrated at the poles, there are other "windows" in many parts of the world. The Earth's magnetosphere is not linear, but is buckled and bent all around the planet, it is not actually a linear ball around the Earth, but is compressed by the solar wind and by the effect of the moon (magnetic compression).

The Earth's magnetic field acts in a similar way to a bar magnet. The magnetic fields are like large loops going North to South or South to North and never cross. On the surface of the planet the lines would appear almost vertical to us, the major magnetic lines of force would appear to be coming straight out of the ground and going straight up. This means that any power following the magnetic field would appear to be coming straight down (this is due to the spherical shape of the Earth's core).

There are various energy particle streams in these magnetic fields, one of which (cosmic rays?) lends itself to causing the Crop Circle phenomenon.

If you can picture the scene in the early hours just before dawn, when Earth's terminator line between night and day is approaching. Long before sunrise, before any light is seen at ground level, the rays of the sun are already striking and positively charging the upper ionosphere.

At this point, just before dawn, the Earth's energies are at their maximum level. The highest charges are being formed along the Earth's terminator point where particle interaction, magnetic interaction, chemical effects and electrostatic effects are all taking place. All these forces combining to give a massive "kick" of high energy through the atmosphere.

Meanwhile at ground level, the negative ionisation charges are increasing, especially where there is a damp pre-dawn atmosphere. All this energy is circulating around in magnetic fields and it will jump and congregate over a particular area. If conditions are right, it is then that an interaction is likely to take place and a Crop Circle will form.

The action of electromagnetic lines of force progressing down towards the Earth results in particle interaction, causing ionisation in the upper atmosphere. The particles break down water into Hydrogen and Oxygen, this action generates an electrostatic charge. The water vapour absorbs the charge and this in turn helps to create/attract the phenomenon.

The electrostatic/electromagnetic effect of the phenomenon can result in photons being given off, this may appear in the form of glowing balls of light or even a column of light. The energy within the phenomenon also has the ability to distort the magnetic field it is following.

When reaching the earth, the energy field is likely to produce ground currents in the Crop Circle area and one would expect to find anomalies in any soil samples taken from the site. The effect of (DC) ground currents would be likely to induce magnetic and chemical changes, although there may be some variation, depending upon the type of soil in the area.

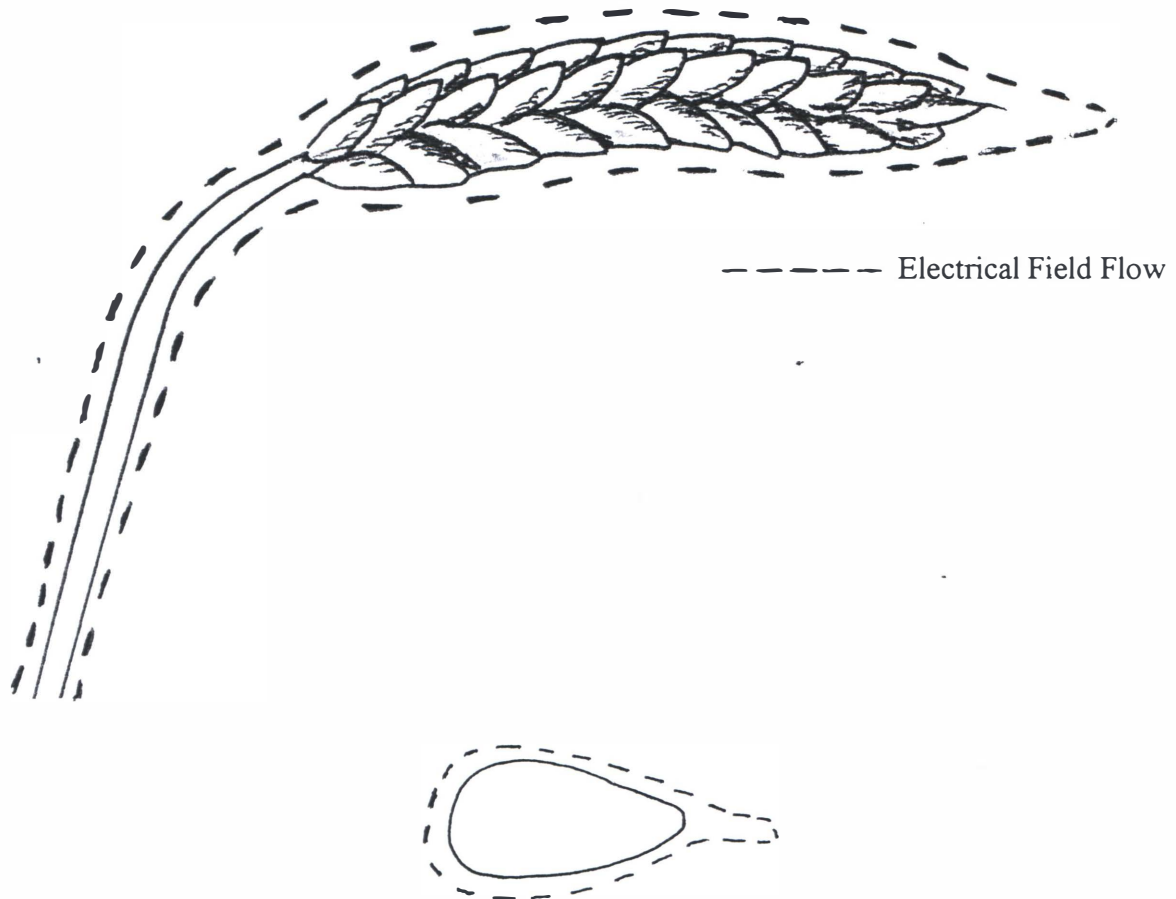
Another effect is the production of ultra-sound waves in the vicinity of a Crop Circle (probably caused by the High Frequency flow of discharging electrons). This would account for the animal disturbance found in the area (i.e. riders had difficulty in controlling their horses in the vicinity of a Crop Circle at Carlton-on-Trent 1991).

The phenomenon appears to be dependent on a temperature and chemical reaction optimum. It has a resonance which causes molecules to vibrate and to generate heat. A temperature rise of only one or two degrees would be sufficient to produce a localised fog or mist in the area under the right conditions.

Taking into account the position of the sun, moon and other factors, it appears to be purely accidental that the British Isles happen to be in the right position at the right time for the Crop Circle phenomenon to occur. Although the phenomenon itself is capable of appearing in many parts of the planet (and not only during the summer period), the underlying conditions in Wiltshire seem to make this county particularly suitable.

Although the Crop Circle phenomenon does occur in other areas throughout England, there is every sign that there is a great deal of energy focussed over Wiltshire. It is possible that the sky over Wiltshire has an area of high "magnetic compression", however the geographical location of Wiltshire and the underlying rock strata may also play an important part in the forming of the phenomenon.

Remember that this phenomenon is not new, it has been going on for a very long time, for as long as the sun has been burning and the planet has been here.



Known effect of a given charged body (High charge point)

The shape of a Wheat/Barley seed head indicates that it could hold a static charge.

The pointed seeds situated in long rows, add to the perfect shape to create a dense electrical field at the pointed end of the seed head.

As a consequence of this feature, one charged body placed close to another body of the same charge (as in a field of wheat) would cause the charge to repel from each other.

This would carry the charge away from the wheat head into the surrounding air; This action is called "Point discharge" or "Corona discharge".

HUSBANDS BOSWORTH

Diagram 2

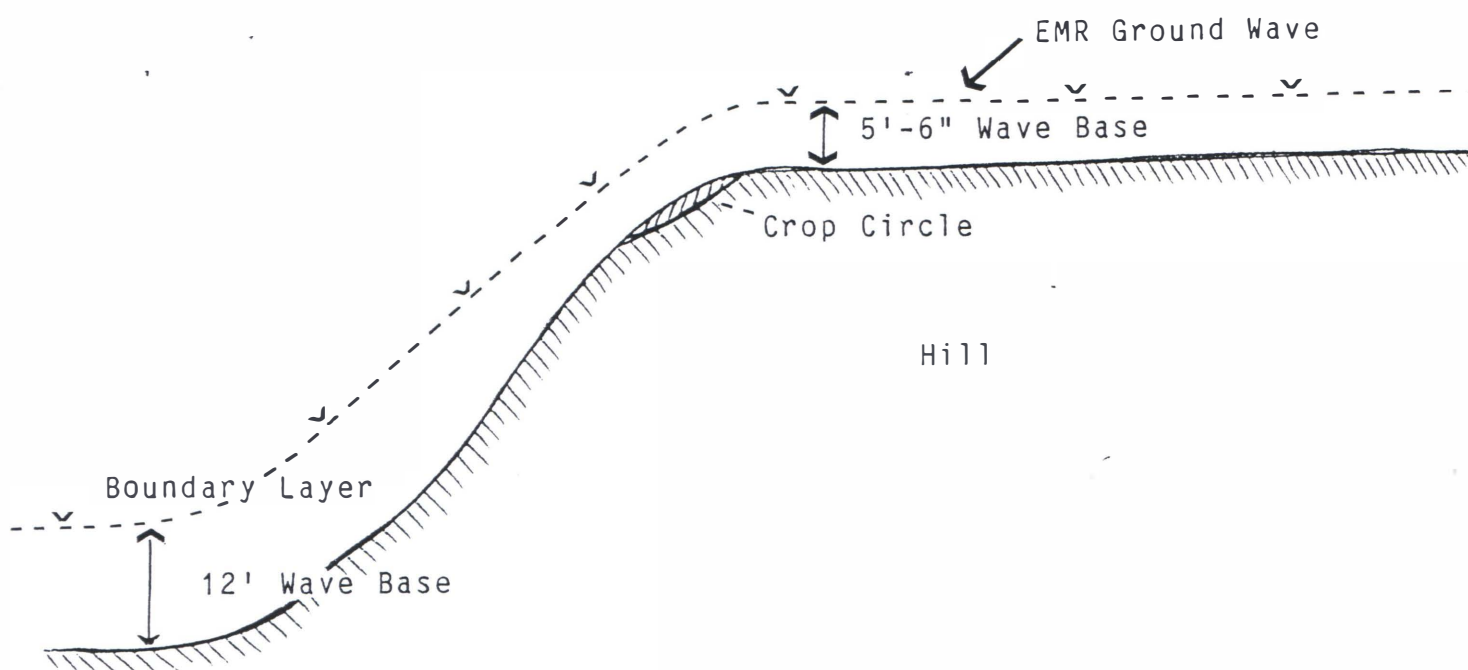
Circle Formation Formed a.m. 3/7/92

Visited 5/7/92

Details: Circle Diameter 67ft. Swirl Pattern: Anti-Clockwise Crop: Wheat.

Several standing stems in circle. One 55cm. Standing bent stem found

(No burn or crease marks)



The 'Microdet' H/F meter did not respond in the circle site, until raised to 5ft-6ins, when it gave off a strong signal. The wave 'blanket' extended upwards to at least 12ft. and probably higher. The energy wave was traced down to the base of the hill where it had extended to 12ft. from the ground level at that point.

An electrostatic meter used in the circle area indicated a + ionisation reading "off the scale" and did not zero during the site visit of four hours.

The weather conditions were, light wind, with misty/showery conditions.

Crop Circle watchers had reported seeing a "mist" of small red lights "popping" on the wheat heads a few nights prior to the formation of the Crop Circle. The forming of the circle had not been witnessed and may have formed during a period of heavy rain.

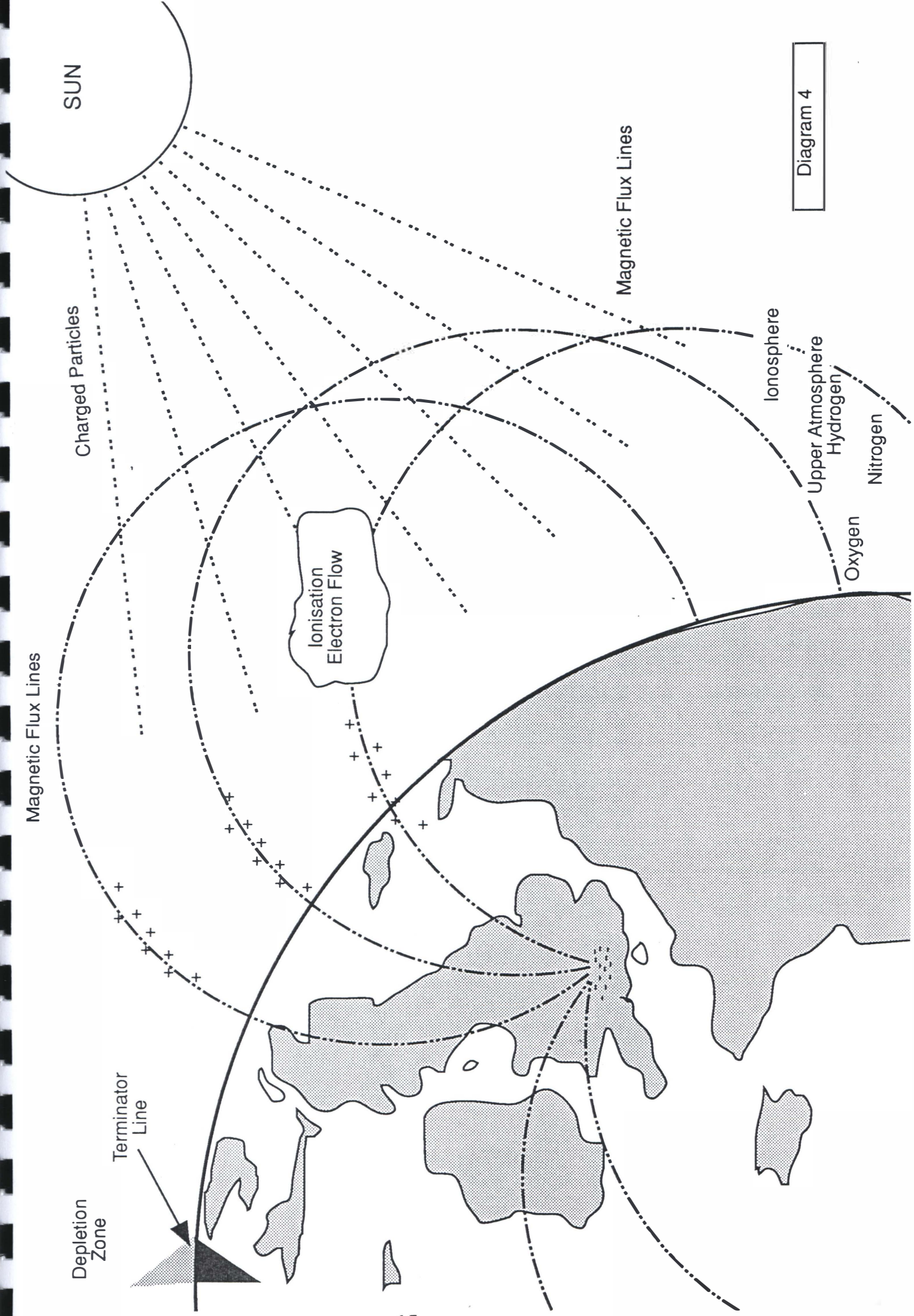


Diagram 4

IONOSPHERE

IONOSPHERE

Ionisation

Electron Flux

Magnetic Flux Line

Rotation Polarity

Generation of Plasma Balls/Light

Negative Ion Concentration

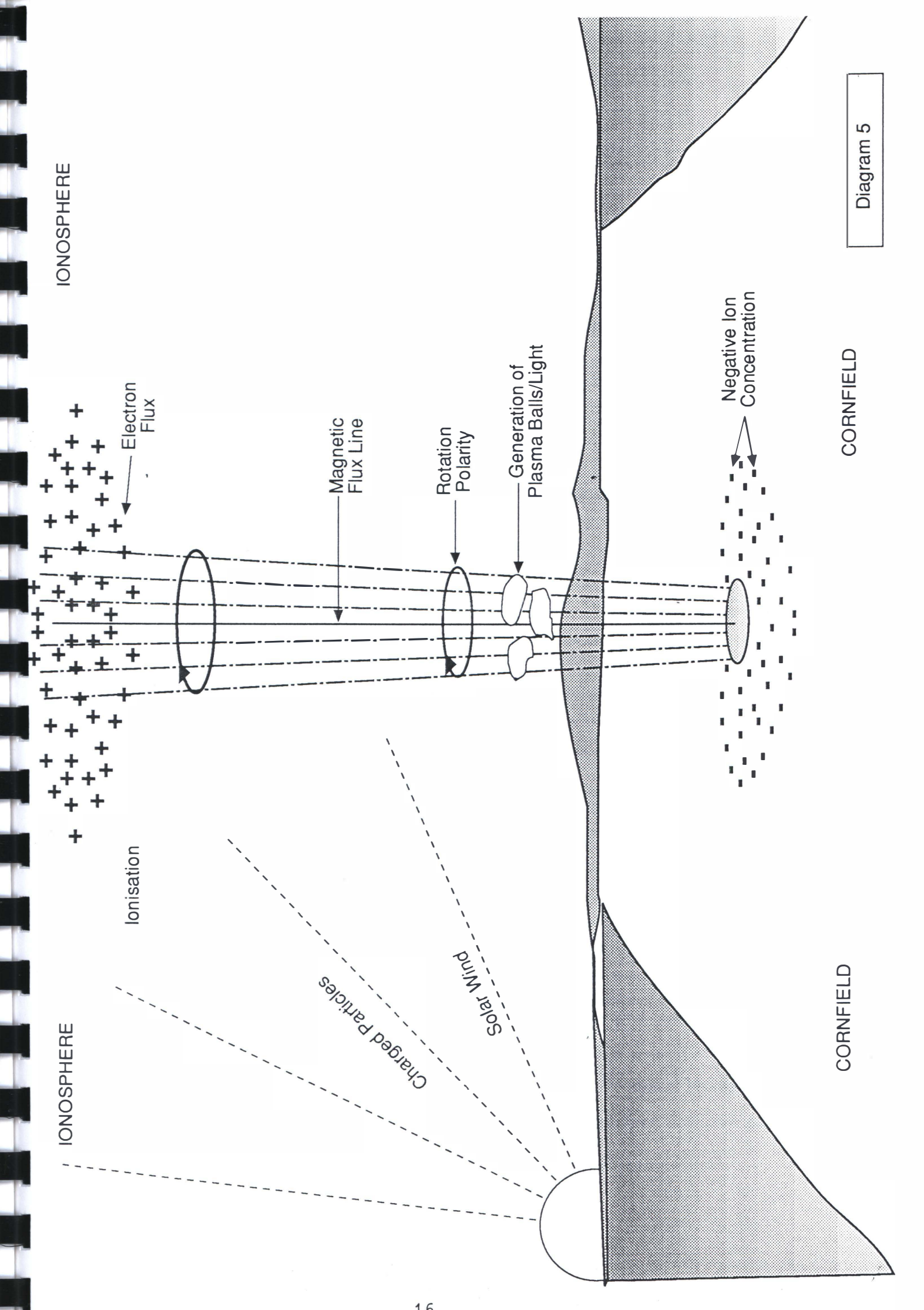
Charged Particles

Solar Wind

CORNFIELD

CORNFIELD

Diagram 5



IN CONCLUSION

A REVIEW OF THE QUESTIONS RAISED IN 1991

(1) What force, normally invisible, is capable of such action within such a short duration of time (possibly 20 seconds).

Answer: Charged particles from the ionosphere, which are attracted by magnetic flux lines emanating from the Earth.

(2) What can account for the "Plasma Balls" observed over wheatfields, where Crop Circles were later discovered.

Answer: The "Plasma Balls" are an intense area of focused energy giving off photons, illuminating the energy field.

(3) How can Crop Circles occur either during the day or night and without detection by local radar or night vision cameras.

Answer: Radar cannot detect radio waves, signals or energies and this phenomenon is similar.

(4) What could account for a "mist" often seen shortly after the formation of a Crop Circle.

Answer: The water molecules are being oscillated by the energy, which is causing them to vaporise and form a mist.

(5) What could be responsible for the "chirping" and "tweeting" sounds recorded in Crop Circles, thought to be H/F radiation.

Answer: The charged particles are causing resonance effects within the magnetic field in the atmosphere, in effect acting like microwave energy.

We can add one further question and possible answer to this list:

(6) What is causing the disappearance of large volumes of water from Crop Circle areas (Empty water troughs & paddy fields etc.).

Answer: The intense energy beam causes a resonance effect on the water molecules, which is part of the total "cascade" effect of the phenomenon. This includes particle action, molecular vibration, ultrasound and chemical action.

"The purpose of this paper has not been to produce all of the answers to the many questions concerning the Crop Circle Phenomenon, but to put forward what we consider to be viable theories to encourage further investigation into this area of research".

Omar Fowler

7 August 1993

Phenomenon Research Association

**Additional information
obtained since 7th August 1993
supporting the
High Frequency Ionisation Theory**

CORN CIRCLE WITNESSES

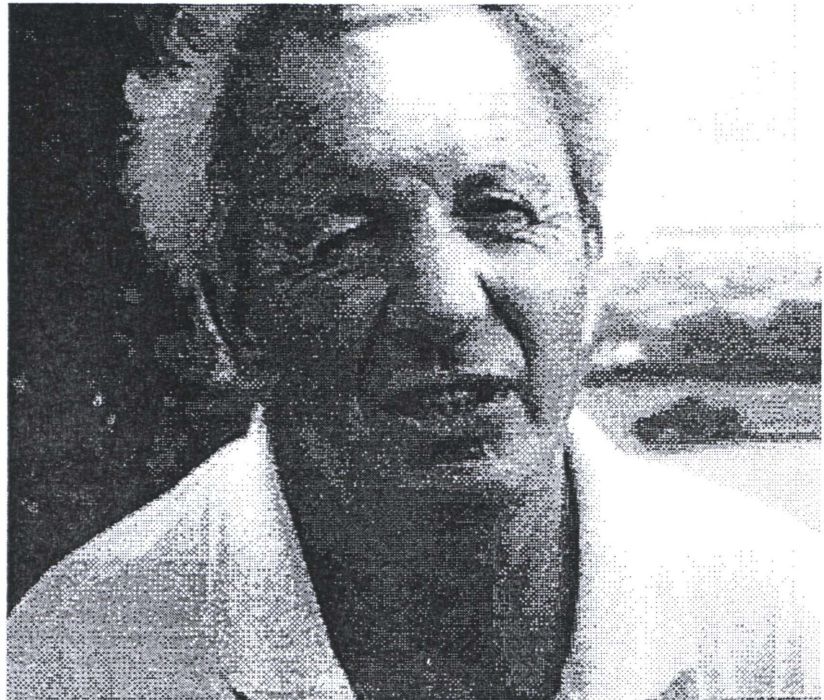


Kathy Skin a schoolgirl in the 1930's remembers seeing a Crop Circle form in a field of corn in 1936 at Little Eversdew.

"It was a thundery day and I was standing at the edge of a cornfield when I saw the stalks whirling around in the air. I ran over to where I had seen them flying about and there was a corn-circle. I walked into it and as I did so I could feel the heat coming up through my sandals!"

Mr Tom Gwinnett of Lydney, explained how he saw a Crop Circle form at dusk. He was driving along a country road, when his ignition cut off and his headlights went out.

He stepped out of his car and noticed small red sparks popping over the wheat in the adjoining field. Then he heard a humming sound and he saw the wheat whirling around as a Crop Circle formed.



Dr Meaden said that this validated his theory, but he conveniently omitted to explain how an ordinary whirlwind could affect a cars ignition and headlights (and heat up the soil!).

Farmers Remarks Back Up PRA Crop Circle Theory

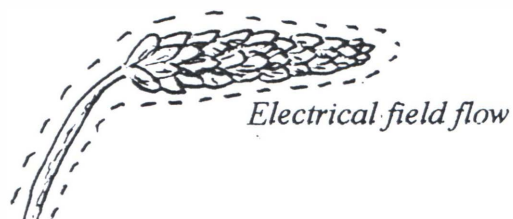
By Omar Fowler

On the 5th of October, I gave a talk to the Derbyshire 'Ecclesbourne Farmers Discussion Society'. The meeting took place in the pleasant surroundings of the 'Cross Keys' public house at Turnditch. A talk had been requested on the subject of 'UFO's, but I thought it an ideal opportunity to include a few photographic slides of 'Corn Circles', a subject more likely to create an interest with the audience.

I first began my investigation into 'natural' Corn Circles in 1985, in company with Busty Taylor, Pat Delgado and Colin Andrews. I became fascinated with the fact that there were isolated standing stems of wheat (or barley) in an otherwise flattened Crop Circle. This was years before the advent of the complicated 'Pictograms' (see pages 12 & 13). It had been established that the single Crop Circles had been appearing in farmers fields for well over a hundred years. I moved abroad in 1986 and it was not until 1990, when I returned the U.K. to a home in Derbyshire, that I was able to continue with my study of the Crop Circle mystery. The forming of the PRA proved to be a watershed in the advancement of the theory that the 'natural' circles were being formed by a form of High Frequency (microwave) vortex spiralling down from the Ionosphere when the conditions were right. Members of the PRA contributed to this theory and a result of this, I published a short illustrated paper in September 1991, on the probability of H/F microwave activity being influential in the formation of Crop Circles. I was pleased to receive approving responses from a number of eminent researchers, including Prof. Y.H. Ohtsuki of Waseda University, Tokyo (Japan), Michael Chorost of Duke University, North Carolina (U.S.A.) and Terence Meaden (TORRO) U.K. I was subsequently invited to address 'The Second International CCCS Conference' held at Bath in August 1993, where I introduced my modified paper "Crop Circles: The Final Solution?"

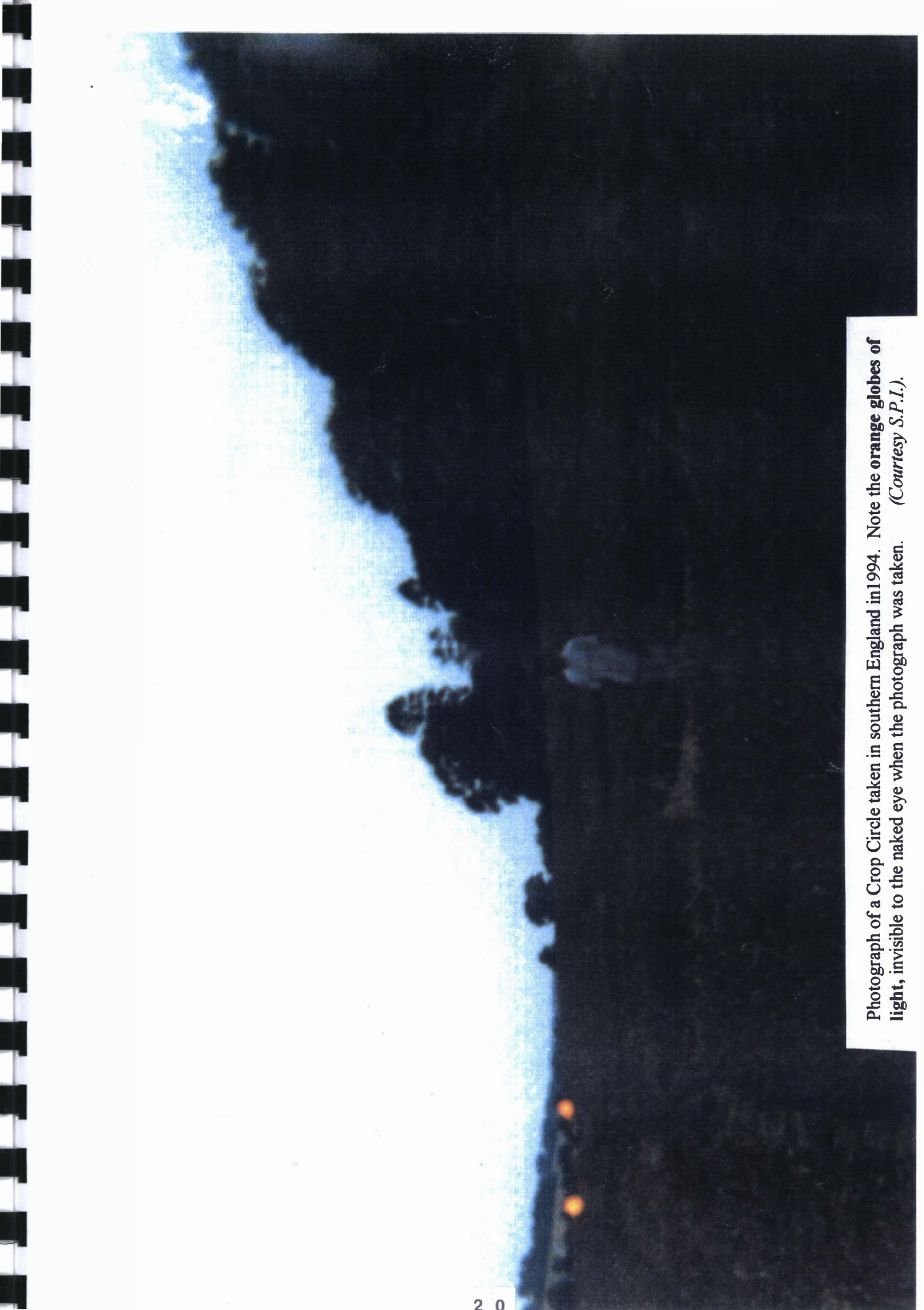
You may be wondering what all this has to do with the meeting of the 'Ecclesbourne Farmers Discussion Group'? Well, briefly the H/F theory depended on the reaction between the 'Positive' flux in the Ionosphere and a concentration of 'Negative' ions over the wheatfields (see page 11). There had been reports of red sparks being seen over the wheatfields at night, indicating a build up of an electrical charge, but I was not prepared for what happened next! One of the farmers remarked "Oh' you would be interested in the 'Corn Ripening Lightning' then." I questioned the farmer who had made the remark and then a few others joined in. **Yes, this was a known phenomenon! When the corn is about to ripen, a static charge builds up over the wheatfield, resulting in a white flash of light over the cornfield ("Corn Ripening Lightning").**

Needless to say, I was suitable amazed at this fact, it was something that I had never heard of before. I know that PRA members, Paul Foster and Jeff Whitear will be interested in the farmer's comments. For the readers information, two extracts from the PRA paper are shown below and on page 11.



Known effect of a given charged body
(High charge point)

The shape of a wheat/barley seed head indicates that it could hold a static charge. The pointed seeds, situated in long rows, add to the perfect shape to create a dense electrical field at the pointed end of the seed head. As a consequence of this feature, one charged body placed close to another body of the same charge (as in a field of wheat) would cause the charge to repel from each other. This would carry the charge away from the wheat and into the surrounding air: This is called 'point discharge or Corona discharge.'



Photograph of a Crop Circle taken in southern England in 1994. Note the **orange globes of light**, invisible to the naked eye when the photograph was taken. (*Courtesy S.P.I.*)

Listeners Comments

Glowing lights have often been observed over wheatfields during the summer season. During all night surveillance, undercover military personnel and Japanese scientists have photographed them.

They bear no resemblance to 'Flying Saucers' but appear more as slowly moving pulsating balls of light.

On one occasion a Nottingham farmer and his wife were woken up in the early hours of the morning by a deep roaring sound as a red glow spread over their farmhouse, from an overhead light source. Cattle in the nearby cattleshed panicked and kicked in their stall. The following day one heifer was found three fields away, having jumped over two hedges and one barbed wire fence.

The farmhouse was situated within a mile of a nearby group of 'natural' circles.

During a BBC Radio Derby broadcast on the 26th July 2000, Omar Fowler (who features in a regular monthly phone-in programme) was questioned about the mystery of the Crop Circles. The theory of natural crop circles being caused by High Frequency energy was discussed and as a result, two listeners telephoned in with their comments.

A Mrs Harvey of Tutbury said that on the previous day, she had been walking her dog alongside a large wheatfield. She paused on her walk when she heard a distinct 'crackling' sound "Like the crackling from power lines", she commented. She stopped three or four times and heard a continual clicking sound. This gave her the distinct impression of strong electrical field in the area.

The next caller, "Lorna" told how as a child, she would often visit her old "Grandma", who lived out in a country area. During a summer evening she remembered seeing flashes of coloured "sheet lightning" low in the sky. There was no sound of thunder and no rain. When she enquired what it was, her old grandmother told her, "That lightning helps the corn to ripen".

A similar observation to that made by the farmers (*see page 19*).

This indicates that during the time that the wheat is ripening, a strong static charge builds up on the wheat heads, forming tiny red sparks and at times, creating a static discharge in the form of "Corn ripening lightning".

It appears that there is a basis of fact to many country folklore stories.

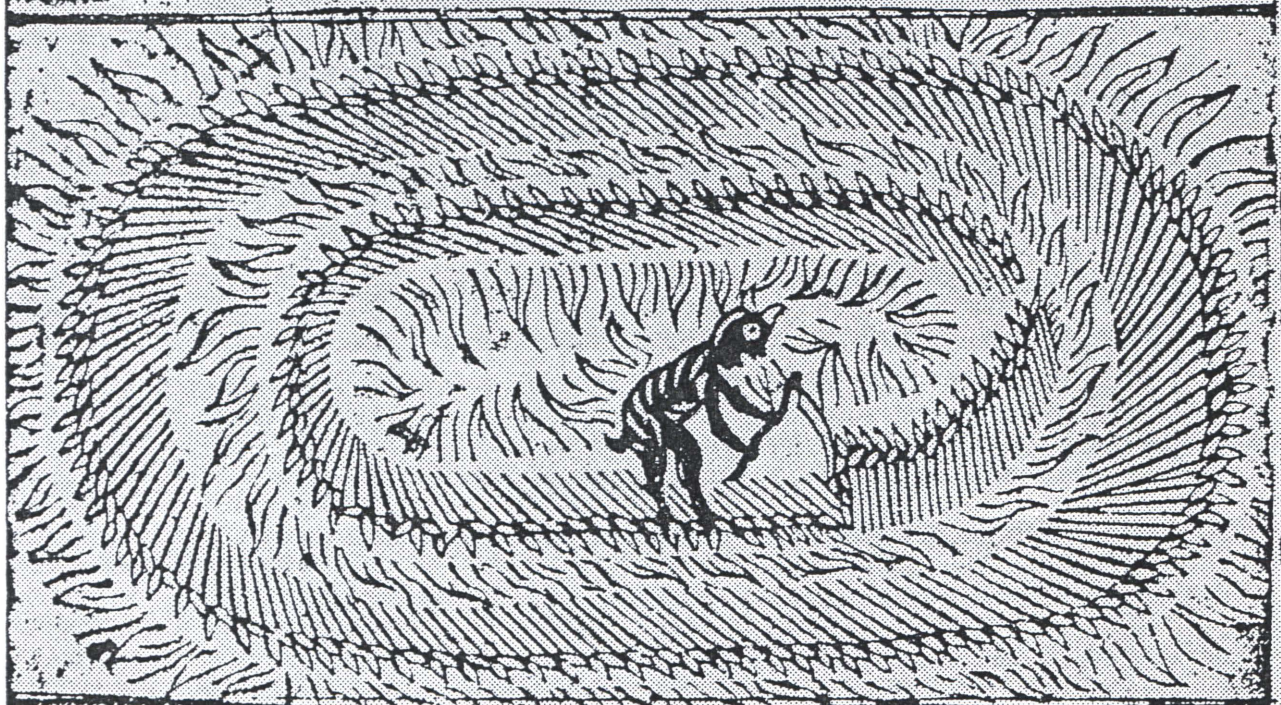
The Mowing - Devil :

Or, Strange *NEWS* out of

Hartford - shire.

Being a True Relation of a Farmer, who Bargaining with a Poor Mower, about the Cutting down Three Half Acres of *Oats*; upon the Mower's asking too much, the Farmer swore, That the Devil should Mow it, rather than He. And so it fell out, that that very Night, the Crop of *Oats* shew'd as if it had been all of a Flame; but next Morning appear'd so neatly Mow'd by the Devil, or some Infernal Spirit, that no Mortal Man was able to do the like.

Also, How the said *Oats* ly now in the Field, and the Owne has not Power to fetch them away.



Licensed, August 22th, 1678.

PHENOMENON RESEARCH ASSOCIATION

12 Tilton Grove, Kirk Hallam
Ilkeston, Derbys. DE7 4GR

(Tel: 0602-302773)

3rd June 1992

Dr W. C. Levensgood
Pinelandia Biophysical Laboratory

Dear Dr Levensgood

I have been studying English "Crop Circles" since 1985 and during the last year I collected samples of particular interest.

I have long been curious about single standing stems, often bent over at the top, which remained standing in an otherwise flattened circle of wheat/barley.

Late last year I produced a short illustrated paper on my findings and I have taken the liberty of enclosing a copy for your perusal. It is speculative, but I believe that the "crease" and "burn" markings will be of particular interest to you.

With the assistance of our "Microdet" microwave detector, we may well be in a position to find more conclusive evidence this year.

Yours sincerely

Omar Fowler

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