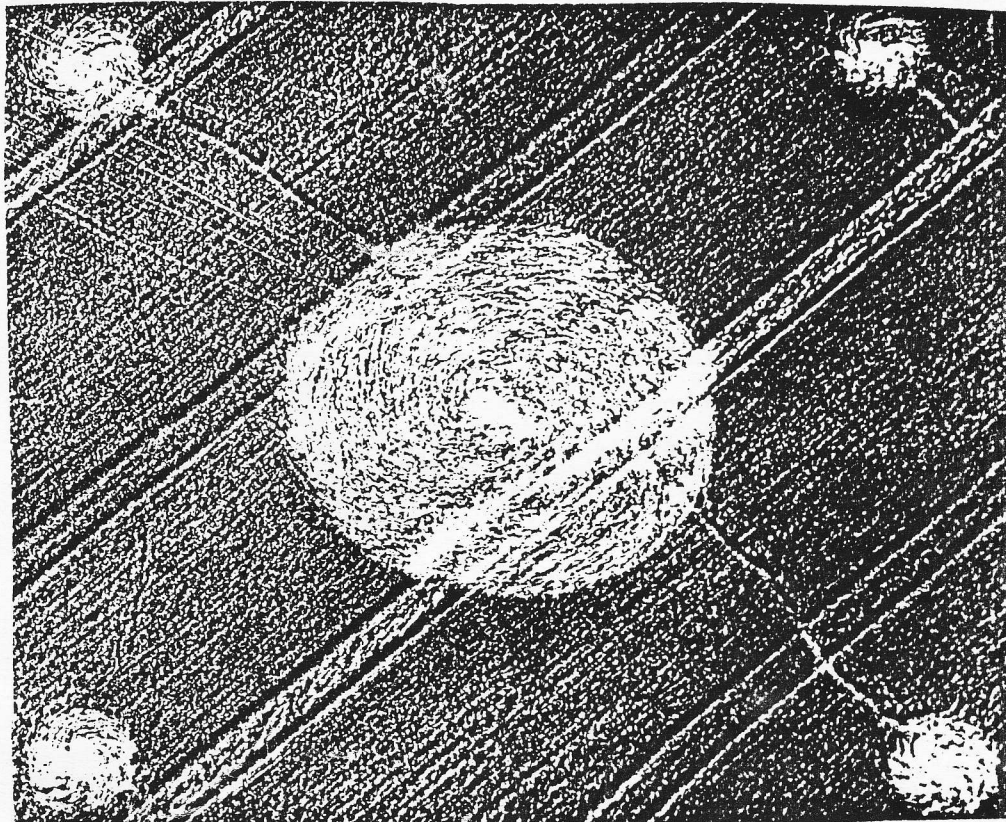


MYSTERY OF THE CIRCLES



Cover original photograph of Five-Ring Set, Westbury, July 1983 ©Chris Wood

REPORT COMPILED BY: PAUL FULLER & JENNY RANGLES

ON BEHALF OF

bufo



1. A Historical Review of the Mystery Circles

The West Country mystery circles can trace their origin back at least as far as August 1980. There are some persistent local rumours that rings or circles of flattened crop appeared suddenly and inexplicably in oat, wheat and barley fields throughout Hampshire and Wiltshire up to forty years before that. However, 1980 marks the start of media attention, which has continued unabated ever since and, indeed, seems to have grown in intensity. When new circles are found between May and August every summer (as they have been for six successive years) the news often reaches national and international sources.

There is a simple reason why we, as representatives of the British UFO Research Association, are involved in the production of this report. The circles have turned up in fields close to or in the general vicinity of Warminster - a hive of UFO folklore in the mid sixties. This fact, beyond all others, has created a definite hype which sees these marks regarded as ground traces left by a landing, or hovering, spacecraft.

Naturally, this is an extreme suggestion. The main question we must ask immediately is whether it has any validity whatsoever. If not, then attendant questions will concern other possible solutions for this modern day enigma.

Sections 2 and 3 of this publication will deal with the surprising variety of explanations that have been proposed. Paul Fuller, as the regional investigations co-ordinator for BUFORA based in the centre of the zone of activity, will review these options and offer guidelines. But he will not endeavour to persuade you that any one idea is more valid than any other. The choice must be yours.

In conclusion, I will summarise the only truly scientific investigation of this phenomenon, the research of meteorologist - Dr Terence Meaden. He first became involved within days of the first 'sightings' in 1980. His careful, methodical work has been the subject of numerous pages in the scientific literature; although it has been widely ignored by the general public. With Dr Meaden's kind support and co-operation, I will attempt to explain in layman's terms precisely what he believes to be the resolution to this question.

However, it is impossible to discuss these circles without seeing them in historical context. The manner in which the first reports spawned others and the mystery then grew into a major source of intrigue and fascination has to be set out. Only then will you be equipped to judge the theories on their merits and make up your own mind about who (or what) is responsible.

The Wiltshire Times, 15 August 1980, seems to have been the first location to mention the affair. It reported how a farmer named John Scull had discovered two circles in his oat field beneath the famous Westbury White Horse hill - a very popular Wiltshire tourist attraction. Next day, a new Bristol UFO group NUFORA (shortly to be renamed PROBE) went to investigate. Ian Mrzyglod and Mike Seager interviewed the farmer, took measurements, and obtained samples of the affected crop.

It transpired that there had originally been three circles. The first had been discovered as early as the third week in May and had been obliterated when the field which contained it was harvested. Mr Scull had thought little of this until the next two materialised, both in an adjacent field but approximately 400 feet apart from one another. They did not appear at the same time. The first was found on the morning of 21st July 1980 and the second ten days later. They were only roughly similar in size (64.5 and 58.5 feet in diameter). Neither were perfect circles (Dr Meaden measured their eccentricities as 80 % and 93 % respectively). Samples of soil and flattened cereal were taken with the farmer's permission for analysis at Bristol University. No radiation was present, and no definable unusual chemical effects were detected.

In his initial account (published by PROBE Report Vol 1 No 2 Sept 1980) Ian Mrzyglod noted that "UFOs are not ruled out, (but) neither (are they) readily accepted as an easy answer." They were sufficiently interested to proceed with their investigation but recognised "further enquiries may establish their cause ... they may be explained away naturally."

There was some local media interest and the close geographical proximity between Westbury and Warminster was soon spotted. Sightings of "The Thing", as it had become called, were rife from 1964 onwards - and assorted lights turned the area (which also boasts the Stonehenge monument and massive army training grounds on Salisbury Plain) into a hippy tourist attraction during the 'flower power era'. UFOs were one of the 'in' subjects of the occult revival and Warminster regularly hosted skywatches on local hills (especially 'Cradle Hill' - which is a sort of UFOlogical time capsule with graffiti and historical mementos). It is no exaggeration to say that people came from all over the world just to see the place where UFOs appeared.

Local journalist Arthur Shuttlewood earned himself a small degree of fame and fortune by writing books about the latest sightings (with evocative titles such as "The Flying Saucerers"). UFO groups came and went, and a few local experts (such as Ken Rogers of the British UFO Society) tried hard to preserve the mystique when the bubble burst and the sightings faded.

And so - the media asked - was "The Thing" from Warminster about to make its proud return? Doubtless there were many local UFO spotters (not to mention tourist offices) who keenly hoped so.

Like all nine day wonders the 1980 story died. There were no UFO sightings. No more rings turned up. Ian Mrzyglod (having worked with Dr Meaden) ventured a natural explanation (which only the Wiltshire Times bothered to mention). That, it seemed likely, was that.

But then exactly one year later the saga blossomed again. Three more circles were discovered at Cheesefoot Head, near Winchester in Hampshire. They looked very similar to those at Westbury - with the exception that these three were all together in one straight line across a single field.

Ken Rogers of BUFOS was fast to the scene. He had promoted the 1980 circles in the short lived national news magazine "Now", claiming them to be created by a UFO. In the Southern Evening Echo, 26th August 1981, he insisted that the three-ring formation was further evidence. However, none of the 1980 or 1981 media attention induced anybody to report that they had actually seen any UFO that might personally have been responsible. A fact that doubtless saddened the ranks of both the press and UFO fanatics.

Meanwhile local farmers were more concerned about vandalism, which they believed to be the cause. One land owner Giles Rousell (Southern Evening Echo 28th August 1981) identified the circles as the downwash of a twin-rotor helicopter! An MoD spokesman (true to form) would neither confirm nor deny this, but hedged his bets by saying that an American Chinook (a huge transport craft) could have been involved.

At the same time Dr Meaden advised PROBE that the similarities between the 1981 rings and the ones a year before were very marked. Again they were not perfect circles. Again they spiralled clockwise from a point not quite at the centre. He was sure that his weather-based theory still held good. PROBE Report Vol 2 No 3 (December 1981) briefly discussed this and suggested that a watch be kept in July and August 1982, because if Meaden was right then more circles would probably turn up.

PROBE's stance on this was admirable, particularly in view of the apparent desire of the local media to foster the UFO theory. As a relatively young group they had an unprecedented opportunity to gain free publicity. But they shunned it. Indeed, they had to justify this to less cautious UFOlogists. In PROBE Report Vol 2 No 4 (March 1982) Ian Mrzyglod said "...even to suggest that the flattened circles were UFO

landing nests is wildly speculative wishful thinking, without any foundation." No matter how many people would like to think that UFOs were responsible ... any beliefs are unsupported and cannot be considered of value at present." They continued to champion the meteorological solution and publish comments and evidential material (including photographs) supplied by Dr Meaden. It must be emphasised that he was not a member of PROBE, nor in any sense a UFO investigator.

Ian Mrzyglod had bravely predicted that 1982 would bring more summer circles. However, this time the press did not report any. Does this mean that they had failed to appear? It would seem not. A reader of the Orbis 'part-work' "The Unexplained" (being sold weekly in stages and building up into a sort of encyclopedia of the paranormal) found a circle by chance on 10th August 1982. Not knowing about the media attention in the West Country they thought it might be significant. Indeed it was, but for a very interesting reason.

When Ian Mrzyglod went to visit it he found a second one in an adjacent field. This was even larger than the one reported to the magazine's editor - being typical in size (about 60 feet diameter). Both these single circles were again eccentric, again spiralled clockwise and again in the lee of a hill jutting up from the generally flat terrain. However, this particular spot was Cley Hill - one of the most famous UFO skywatching points in Warminster itself! That the local media had missed this golden opportunity to push the UFO hype must have been very frustrating.

Following consultation with Dr Meaden, PROBE Report concluded (Vol 3 No 2 October 1982) "It is now time that the 'mystery' be dropped from (the circles) definition, as they are seasonal as Christmas and regular as clockwork." In an attempt to make sure that no UFO investigators would again regard the circles as UFO created, Ian Mrzyglod wrote a detailed article, with colour photos, which he published at the start of 1983 in "The Unexplained" (Issue No 121 - "As Round As Saucers"). Unfortunately, his efforts seem to have been largely wasted, as the summer of 1983 was to change the face of the entire affair.

No less than eight sets of circles turned up between May and August 1983. Some (eg at Cley Hill Warminster where they appeared in May) were not made public. Farmer Brian Hocken said that the 1982 circles had attracted so many sight seers that much of his crop had been damaged. He had no desire of a repetition, and fortunately (due to the lie of the land) the Cley Hill circles were almost invisible from the adjacent road and needed an expert eye from well up the hill slope to pick them out.

A set also appeared at Cheesefoot Head, scene of the three ring pattern in 1981. Indeed the location was almost exactly the same as two years earlier. According to Maurice Botting (manager of a nearby farm) the circles materialised overnight on Sunday 19th June 1983. A new location (Wantage in Oxfordshire) also sprouted rings (apparently on either the 15th or 16th July 1983).

However, most of the circles again focussed on the Westbury White Horse area. There were some flattened swathes of crop damage, a single circle and a major set all in one small area beneath the same hill - where of course the rings first came to attention in 1980.

However, the most dramatic thing about most of the 1983 circles (the main set at Westbury, plus those at Cley Hill, Cheesefoot Head and Wantage) is that they were all five ring formations! Previously the most spectacular had been the triple alignment at Cheesefoot Head in 1981, others had all been single rings. This new pattern was arranged with one large central circle (of the standard size - about 50-60 feet) and four 'satellites' on a compass point grouping around this. The satellites were roughly of the same size (about 15-20 feet), but not identical size even within the same set. The tradition of appearance and clockwise spiralling were maintained despite these radically enhanced features.

Naturally this wave of circles and their novel appearance woke up the local media. The Wiltshire Times (8th July 1983) announced that "Theories buzz over corn circles" and that "UFO believers" were advising

how they resembled "the landing pads of a giant flying saucer". A lot of quite daft theories were trotted out elsewhere in the press, including the mating habits of deers and hedgehogs (doing what was never clear!). But it was the UFO angle that was what the media believed the public wished to hear. So the Western Daily Press, 9th July 1983, told them to "Watch out! Martians are back!"

Somewhere along the line the national press decided that this was now a story or two. So the Daily Express informed the whole of Britain all about the Westbury circles on 11th July 1983. That morning was one of the busiest of my life. The phone never stopped ringing as every newspaper in Fleet Street called me (in my capacity as BUFORA's 'Director of Investigations') wanting to know had I heard about the "UFO landing". Patiently I explained the truth and that this was by no means a new phenomenon. My obvious lack of interest in speculating about giant spacecraft was met with varying degrees of incredulity from the reporters who talked to me.

Fortunately, Ian Mrzyglod had already told me about the new circles and that he and Dr Meaden had visited them two days before. Whilst they posed some interesting questions the meteorologist was still happy with his basic theory and that he noted how the summer was turning into one of the hottest and finest on record. This, he believed, may have helped explain the number of circles that were turning up everywhere. However, we all realised national media attention was bound to do two things.

Firstly, it would send people out looking for circles, and some would be found that otherwise would have been missed, or simply never been reported. Secondly, if there was anyone with the intention to hoax they would now have the best opportunity to get on with it. These things seemed bound to increase the number of circles over previous years.

In their original story the Daily Express had spoken of "the famous Warminster Triangle" - showing the desire to manufacture a mystery out of fragments, in truth there is no such thing. However, on 12th July 1983 the Express excelled themselves with two articles. A general review of the circles found (in 1983, of course, as this was still a 'hot' item, all previous years circles might as well have never been found). This told how the nation was holding its breath waiting for the aliens to land and show themselves. This quite silly remark was added to by Lord Clancarty (an outspoken supporter of spaceships) who made some comments about Ley Lines and told of 430 unexplained sightings he claimed to know in the area! BUFORA certainly has no such records, although there are a few good cases in the area (as at many other locations).

Fortunately, tucked away inside, the Daily Express did quote from their extensive interview with me. They allowed me to demystify the situation, explain why Warminster held its reputation and generally play down the whole thing. But most other sources (even the Express themselves elsewhere!) were doing their best to fan the flames of the story.

The Daily Star, 12th July 1983, were not so gracious. I told their reporter, Charles Langley, exactly what I had told Jeremy Gates of the Express. Langley virtually laughed at my ideas. So I sent him to Ian Mrzyglod and Terence Meaden for photographs to prove what I was saying and suggested he speak to the Met Office at Bracknell. He did. And with typical media arrogance the paper then announced "Star solves UFO riddle" - their solution being the same one that they had laughed at when I gave it to them the day earlier, and what PROBE and Dr Meaden had been promoting for three years!

Ken Rogers, not slow to realise the advantage for promoting his annual Warminster UFO Festival, advised the Western Daily Press 13th July 1983 "I am sure these circles mean something spectacular will happen this year" and later (Bristol Evening Post, 18th August 1983) warned that it meant there could be a rise in UFO sightings around Warminster during the August Bank Holiday weekend. The fact that his "skywatch festival" would be on at the same time was, of course, purely

coincidental. And there was no such spate of sightings.

Meanwhile, the Daily Express had sent their famous columnist Jean Rook to the site to come up with a lovely, poetic ode to "E.T." (the cuddly alien whose film was all the rage at the time). She found physical evidence of his presence in the midst of one of the rings - a poppy.

As with most of these summer fiascos the media attention quickly died down. Serious UFO Investigators refused to get involved. Both ITV and BBC television attempted to get me to appear on air - and I had every reason to say yes as my paperback book "The Pennine UFO Mystery" was published that week on 13th July 1983. However, I flatly refused to be associated with the ridiculous slant that was being placed upon these circles and preferred to go elsewhere to promote my book.

This helped defuse the issue a little. But on August 6th 1983 members of PROBE took some visitors to Westbury to show them the five ring set and, to their astonishment, a mirror set of five more rings had now appeared right by the side of the first lot! Ten rings in one field was totally unprecedented. Yet no media source seemed to have picked up on this.

PROBE were now on the alert for the possibility of hoaxers. All the press attention must have been attractive and all these five ring patterns did look remarkably symmetrical and artificial. But one amazing discovery had just been made. When the national magazine "NOW" had reported the original Westbury ring in 1980 they had taken aerial photos of it. Careful inspection of these in 1983 showed PROBE and Dr Meaden that there are three small satellite rings at compass points around the big one. The fourth compass point ring is missing, but would lie precisely where a hedge runs between the two fields. So, if the five rings is a natural phenomenon this new evidence from the 1980 circles was directly in support of it. Clearly it cast a whole new light on the 'sudden' arrival of five ring patterns in 1983. They need not be artificial after all.

But what of the two sets of five rings at Westbury? By talking to people who had been at the site (including Dr Meaden) it was possible to show that the second set must have appeared on either Sunday or Monday the 17th or 18th July 1983. Another apparently significant clue was that the spiral of the second set was anti-clockwise - the only time this had occurred. The clockwise rotation was consistent with the meteorological theory. This contrary motion seemed very odd. Did it suggest a hoax?

On 26th August 1983 The Wiltshire Times carried a picture of Francis Sheppard, son of Alan Sheppard, who owned the farm at Westbury where the original rings had appeared, and now this twin set of five was sited. Francis Sheppard was claiming that the circles could be hoaxes because he and his family had been able to duplicate one ring using a rope and chain. Only when PROBE followed this up did the incredible tale emerge. The Sheppards had not simply duplicated one circle. They had created the entire second set of five at Westbury!

In fact what had occurred was this. The Daily Mirror, upset by being outdone by The Express, had paid the Sheppard family to let Alan and Francis (and some reporters from their paper) create the apparently mirrored set at Westbury. This was filmed using a stop motion camera. The entire process took under an hour from arrival to departure and only 24 minutes was spent creating the rings. So successfully did they replicate the ones which appeared 'naturally' they anticipated Fleet Street (most specifically The Express) to find them, report their arrival and continue the hype. Then, in could step The Daily Mirror and expose them.

Unfortunately, the subject had lost its appeal (for 1983 at least) and the media hoax was only ever reported by PROBE in their last issue before folding (PROBE Report Vol 4 No 2 October 1983). The episode certainly does show that hoaxing is a feasible solution to even the most complex circle pattern. But the Sheppards insist they were not responsible for any older circles (even the older ones on their land).

The extent of British attention in 1983 spread the news around the world. Two sensationalist American comic-style newspapers invented imaginary farmers and their alleged sightings of giant UFOs (eg Weekly World News 16th August 1983). When I lectured at a conference in Nevada in November that year I found that many UFO experts in the USA suspected all along that there was some substance to these wild claims about the circles. In fact, despite the 1983 fiasco (labelled by the Swindon Advertiser, rather aptly, as "Fraud of the Rings") not one single genuine UFO sighting came to light in or around any of the locations where the circles were found. Those who support the UFO solution should ponder that very carefully.

After such excesses what could 1984 provide? Ian Mrzyglod, partly due to the way he seemed to be banging his head against a brick wall of people who did not want to know the facts, had quit UFOlogy. So his temperate influence was lost. I was in hospital during July and August and missed the anticipated media furor. But Ken Phillips, who took over control of BUFORA investigations, was well briefed on what to expect.

Indeed, there was the usual furor. But it centred on Sussex. Most of the locations in Hampshire and Wiltshire produced circles and Dr Meaden (with some co-operating ex-PROBE members including Terry Chivers) visited all the sites several times a week between May and August. Sadly, they never saw a circle being formed. However, they were often able to pinpoint almost exactly when the patterns appeared.

A circle set of five again turned up at Cley Hill near Warminster between 15.00 and 22.00 GMT on the warm sunny day of 21st June 1984. A five pattern set also appeared at Cheesefoot Head (but about 3/4 mile from the site of previous years). This was dated to approximately 24th June 1984. And there was also one single circle at the original Westbury site. Dr Meaden interviewed local people and hang-glider pilots and showed that this was formed on the evening of 9th August 1984.

However, these old stalwarts received little press attention, whereas the newcomer - a five ring pattern near Alfriston in Sussex - did. It is believed that this appeared on the evening of 26th July 1984. West Country media had been very dismissive this year. On 16th July 1984 the Southern Evening Echo quoted one farmer denouncing the UFO theory as "a load of tripe". However, the Brighton Argus, 30th July 1984, were not used to the stew of explanations and proudly announced the arrival of the Alfriston rings. Quickly, BUFORA investigations co-ordinator in Sussex, scientist Philip Taylor from the Royal Greenwich Observatory, determined that this out of place set was probably a hoax. He pointed out that this circle set appeared at somewhere called "Cradle Hill" - and this was just too much of a coincidence in view of the importance of the identically named spot in Warminster UFO legends. "Expert solves the riddle of the rings" the Argus headlined.

Would this stop the rot? Of course not. Two days later, 4th August 1984, the Fleet Street paper The Daily Mail (replacing an oddly subdued Daily Express) carried photos of the rings taken by Shadow Foreign Secretary Dennis Healey - who lived in the area and is a well known amateur cameraman. "Healey's Comet" was their headline, and all the old nonsense about a "giant spaceship" and people being "totally baffled" was trotted out. The fact that Philip Taylor had already exposed a hoax, or that Ken Phillips for BUFORA had told them it was not of UFO interest, rated barely a mention.

Consider the lengths to which BUFORA had gone since 1980 to demystify the circles. Ian Mrzyglod, the chief debunker, was for most of this period a Council member of BUFORA. Philip Taylor, Ken Phillips and myself have all spoken repeatedly and openly to the press and never once done anything but dismissed the UFO relevance of the whole affair. Indeed we received considerable flak from other investigators for doing so. One man travelled 200 miles from Yorkshire to see the rings and wrote angrily to me following my July 1983 interview in the Daily Express. He demanded to know why I was speaking such nonsense and writing off the UFO potential of the subject.

So, you can possibly imagine our concern when the Ariadne Column in the prestigious New Scientist, on 16th August 1984, openly accused BUFORA of fanning the flames of a silly season nonsense story by "reporting darkly" that there was no explanation. Nothing could be further from the truth. It is possible that the New Scientist were mixing up BUFORA with the still vociferous Ken Rogers and his Warminster UFO Society. But this New Scientist piece is a key reason why we have decided to publish this detailed account of the facts behind the fairy tale.

1984 was also significant for the discovery of rings outside Britain. Dr Meaden reported on a circle seen on 5th June by a woman at Vienne, France. It was closely similar to its British counterparts. This is a major clue as it illustrates the probable broad scale of this phenomenon. It simply receives more notice in the English West Country. Almost certainly it does not only appear there.

And so to 1985. In the Jan/Feb issue of Northern UFO News, where I was continuing Ian Mrzyglod's fight and reporting on the saga, I predicted that "it is fair to say that July 1985 will generate more circles, yet more hoaxes and yet more "it was a giant UFO" twaddle from the media". A few weeks later, during March 1985, ITV screened a networked 30 minute programme on UFOs in its "Daytime" series. I was supposed to debate the evidence with astronomer Dr John Mason. Unhappily, in the midst of the show (and without prior warning) a picture of one of the circles was flashed on the screen and the matter introduced. Dr Mason was clearly quite unfamiliar with the affair. I simply tried to show that there was no reason to suppose a UFO connection in view of there being not a single shred of evidence to support the premise. Daily Express photographer Chris Wood was present along with one of the families plagued by the rings. They still believed there was a mystery to be resolved, and after the show was over we had a frank debate in the Thames TV hospitality room. However, this national TV exposure again produced not a single claim of a UFO seen in connection with the rings. Yet again a sobering point.

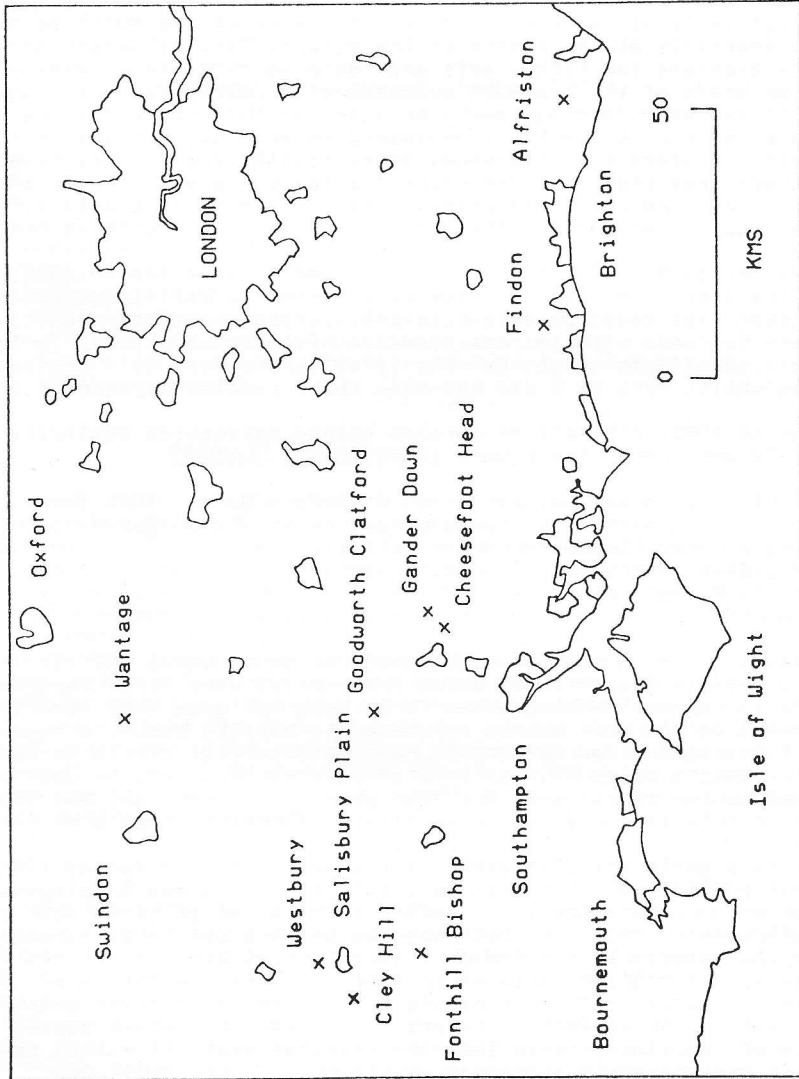
Full details of the six sets of circles which appeared in 1985 are included later in this publication. But it remains remarkable how all the lessons of the past seem to get forgotten every June with the whole process of mystery and speculation beginning over again. The West Sussex Gazette, 4th July 1985, previewed the first 1985 set at a new location - near Patching, Sussex. The angry farm manager was convinced they were a hoax and claimed he could see the feet marks of the tricksters where they had tried (but failed) to keep to the tramlines that dissected the wheat. He estimated that over £100 worth of damage had been done and the local police were said to be investigating. "UFO Hoax in Patching wheat field" was the quite explicit headline. However, next day the West Sussex Times was talking of the results obtained by a "psychic" at the site and a local "UFO watcher" reported how there had been some sightings in the area 20 years ago! As if this meant something.

On 17th July 1985 I was in London for a live radio debate on UFOs. After the programme I was summoned from the LBC studios to Fleet Street, where a Daily Express journalist asked me for my views on the circles. He had a massive file on the subject, but seemed quite unaware that his paper had published an interview with me just two years earlier! The Express were certainly of the belief that this was a story that was far from dead. I pointed out that none of the rings were perfect circles and the sizes varied, so how did the paper justify their opinion that a landed spaceship might be responsible? I was seriously advised that the UFO could have retractable legs which skidded on impact! Furthermore, some mist (which may well have been exactly that, as it was seen at dawn) had been reported at a set of rings on June 29th 1985. This, according to The Express, was possibly residual exhaust fumes from the just departed spaceship. A spaceship that had again avoided observation by the entire population of Southern England!

Meanwhile, the local ITV news programme "Coast to Coast" had featured an item on the 1985 circles. This plus the Daily Express return to the fray prompted the ITN network news to carry a story on the rings in their bulletin. It now rated as a subject worth discussing alongside wars, race riots and natural disasters. Which seems to be just where we came in as far back as August 1980, leaving us to wonder if this 'mystery' will ever go away.

As long as people desire mysteries and the media needs stories it seems highly unlikely.

Recent Circle Sites in Southern England



2. FACTS ABOUT THE MYSTERY CIRCLES

2.1 What are the Circles?

The mystery circle sets are flattened areas of cereal crops, usually consisting of a large central circle and either 2 or 4 smaller circles arranged geometrically around the central circle as on a dice. The outer circles are placed equidistant from each other and are between 12 and 15 feet across; the central circle is much larger, between 45 and 60 feet in diameter, and the whole formation can be as large as 120 feet from corner to corner.

The crop itself is undamaged in any way, but laid flat in a swirled pattern about 1-1.5 inches above the ground surface. All recently reported circle formations in Britain consisted of clockwise swirls, the only known photographic example of an anti-clockwise swirl was due to the negative being reversed. The central point of the swirl is not always precisely at the centre of the circle. Many witnesses have closely examined the circle sets and found no evidence of damage to the stems or heads of the crop, no evidence of deposits such as chemicals on the crop and no suspicious marks or holes on the ground surface. Surrounding crop is similarly undamaged in any way, although there may be subsequent damage by the wind. Significantly the circles themselves are always accurately delineated, there is no gradation between the circle itself and the surrounding, untouched crop. In addition, no crop has ever been removed from the formations, nor any displaced crop found nearby.

The circle sets first attracted nationwide interest in 1980 when sets were discovered at the Westbury White Horse Hill in Wiltshire. Since then sets have appeared regularly during the summer months across Southern England, with increasing media hysteria about their origin. It may be a significant fact that the first circle sets only consisted of 3 circles whilst sets of 5 did not make their regular appearance until 1983.

During 1985, six sets of circles gained nationwide publicity in the press, TV and radio, these were at

Cley Hill, Longleat, Wiltshire on or before Sunday 16th June
 White Horse, Bratton, Westbury almost certainly on Sunday 16th June
 Tolymare Farm, Findon, Brighton definitely on Saturday 29th June
 Gander Down, Alresford, Winchester definitely on Saturday 6th July
 Fonthill Bishop, near the A303 probably on Saturday 20th July
 Goodworth Clatford, Andover before Wednesday 31st July

The dates shown are not necessarily those on which the circles were formed, but are the dates on which the circles were first reported.

'Daily Express' photographer Chris Wood has made measurements of most known circle sets but is reluctant to publish accurate measurements since this might allow hoaxers to replicate current circle formations (if they aren't doing this already of course). However, he does point out that no two circle sets are ever precisely identical, and that the central circle is always slightly elliptical rather than a perfect circle.

It is a certainty that other circle sets appeared during 1985 but were not publicised, in particular, a former Paths and Bridleways Officer at Hampshire County Council knew of a set of rings near Cheriton Wood, Alresford which were not reported because the local landowners feared an invasion by the media. This is a real problem for the farmers as they lose over £200 worth of crop for each circle set in addition to the damage caused by interested sight seers invading their property. Consequently, whilst 1985 is generally believed to have produced more reports of the circles sets than any previous year, it cannot be assumed that the phenomenon is a growing problem.

It is believed by several researchers that similar circle sets have been appearing throughout the world for many years, perhaps as long ago as the 1940s. They are well known amongst the older residents of Alresford, Hampshire as the 'Cheriton Rings'.

Mystery circle sets have been reported throughout the world. Hugh Cochrane, writing in 'Gateway to Oblivion', describes similar circle sets in Australia and Canada. 'The Unexplained' published a photograph of a circle set found in Switzerland. At one Queensland site, 200 tiny circles were allegedly found, each was about 18 inches across, but these circles were usually burnt and had been gouged into the earth. Following the Tully, Queensland report of an unidentified flying object rising out of a swamp and leaving behind a swirled area, the Australian press had dubbed their circles as 'Flying Saucer Nests'.

The 1985 circles have all been visited, photographed and measured by either Chris Wood, Pat Delgado or SIGAP. The circles often laid across tramlines left by the tractor at sowing, but some circles lay in isolated parts of the fields, making their nocturnal construction by any hoaxer that much more difficult.

Because of the inevitable media attention, it was difficult to obtain photographs of the sets before pressmen, land owners and interested local residents had walked across them. However, photographs have been taken very soon after the discovery of the sets and these photos show very inconclusive evidence of tampering. Eye witnesses report that they see no evidence of tracks that might be left by hoaxers, but aerial photographs do reveal vague traces of damage through surrounding crop. These may be caused by animals or by people measuring or inspecting the sets. Photographs taken above the Gander Down formation reveal a small track running through the south east to north east outer circles, possibly making use of the tram lines, but these tracks could not be seen from the ground. Not all circle sets displayed any conclusive tracks at all, certainly none exhibited tracks that were obvious to the first witnesses at the scene. This is particularly puzzling as it is quite impossible to walk through a field of near ripe wheat or barley without leaving large swathes of damage such as that left by sight seers at the 1983 Westbury site (see front cover).

All the well-publicised 1985 circle sets were discovered early in the morning, usually by local landowners, and most had not been present the previous day. The Tolymare Farm circle set was first discovered by local landowner Ken Johnson and his gamekeeper at about 5.50 am. Both men reported that they saw a 'hazy mist' rising up from the central circle in 'a series of fountains'. They made a search of the surrounding crop but could not find any suspicious markings, despite their familiarity with animal tracks. In this particular case nearby woodland was found to be damaged at the top of the canopy, but again this was hardly a conclusive discovery. Significantly, nothing had been seen or heard overnight by local residents even though they lived as near as 250 yards to the circle set.

2.2 The Circles' Characteristics

In general there are 13 characteristics of the circle sets that need to be explained, namely:

1. All appeared in mature cereal crops, oats, wheat or barley.
2. All appeared overnight during summer months.
3. There is a relatively high chance that all five of the six 1985 circle sets appeared over weekends, sets appearing in 1984 all appeared over Thursday/Friday nights.
4. All the well publicised circle sets since 1980 consisted of either 3 or 5 sharply defined circles geometrically laid out with a larger circle in the centre of the formation.

5. All were of similar but not identical dimensions, ie very large.
6. In each case the crop was not damaged or displaced.
7. In each case the crop was laid gently flat in a clockwise swirled pattern about 1-1.5 inches above the surface.
8. No deposits were found on the crop or the ground.
9. 5 of the 6 circle sets found in 1985 were clearly visible from natural vantage points as if they were meant to be seen, only the Goodworth Clatford circles were in a remote point (they were only discovered from an aeroplane by Busty Taylor of the Surrey Investigation Group on Aerial Phenomena).
10. No local residents reported any unusual activity on the night the circles were formed.
11. No conclusive tracks were found in adjacent undamaged crop, although some tracks that may have been caused by animals or interested sight seers were later identified from aerial photos.
12. All 6 circles received unprecedented media coverage.
13. No reasonable explanation for the circles has been found.

2.3 Other Notes

It has been suggested that the reason why circle sets have only been found in cereal crops is because of the pliable structure of the stems. Circles formed in strong grass would disappear almost as soon as they were formed. This of course begs the question as to why circle sets have only appeared in cereal crops found in the south of England or in remote parts of Australia. Why is there such an uneven geographical distribution of circle sets?

It is interesting to note that most circles contained isolated stems that had sprung back up in the days following the circles' discovery. This indicates that the process by which the circles were formed cannot last very long.

The fact that most circle sets reported during 1985 were first reported over weekends suggests that the circles are formed by humans rather than by natural forces, however this may be because some circles appeared in isolated locations during the week but were not discovered until the following weekend. Landowners would be expected to notice any damage to their fields almost immediately, rather than the following Saturday or Sunday. Unfortunately, no one has been caught causing damage to fields in the same areas as the circle sets, even though landowners such as Commander Bruce (Gander Down set) are convinced the circles are caused by hoaxers.

During 1983 the 'Daily Mirror' is known to have manufactured a hoax circle at Westbury in an attempt to fool the 'Daily Express', whilst Philip Taylor's observation that the circle set found near Dennis Healey's house was suspiciously located at Cley Hill tends to support the view that all the circle sets may be hoaxes. The fact that some multiple circle sets have certainly been caused by hoaxers potentially casts considerable doubt about the authenticity of some of the smaller circle sets that have appeared over the past few years. However, the sheer size and precision of last year's circles begs a difficult question - If the Circles are Hoaxes, How are they Made?

The Army Air Corps Station at Middle Wallop was drawn into the Circle Mystery last summer by light hearted allegations by a Mr Liddell of Westover Farm that they had caused the circles by flying helicopters over the Goodworth Clatford site. Lt Col Edgecombe of the Aviation Standards Branch investigated the Goodworth Clatford circle set with Major Garrow of the REME, they found a typical circle set with a central circle measuring 40 feet across and the four outer circles measuring 12 feet across. Several circles lay across the tram lines but one circle was completely isolated on its own, with no tell-tale tracks leading out from the tram lines.

Because Middle Wallop had been implemented, Lt Col Edgecombe decided to submit a report about the Goodworth Clatford circle set to the Ministry of Defence. He was subsequently asked to submit photographs and negatives of the site. Pat Delgado later rang the Ministry of Defence to discover if they knew the cause of the circles, but he was told, rather unsatisfactorily, that they had not received reports of any other circle sets (perhaps they don't read the newspapers) and that in any case they would only be interested in the circles if (sic)

'...there was a belief that UK airspace had been breached...'

This ambiguous statement could be interpreted as meaning that the MoD knows who or what is causing the circles but that they will not share this information with the public. Alternatively, it might also indicate that they simply don't know or care, despite widespread interest in the subject. Significantly this statement does not clarify whose belief is important in deciding whether 'UK airspace had been breached', in other words, it appears that the MoD is simply avoiding the question altogether.

If this lack of official concern wasn't enough, there was a further development in the Goodworth Clatford circles. Busty Taylor of SIGAP reported that he had discovered an unusual greenish/white jelly-like substance in the central ring on August 11th (at least 11 days after the circles appearance). He had lived on farms for many years but did not recognise the substance as animal excreta.

SIGAP sent this substance to the University of Surrey and to the National Testing Laboratory, but these tests were inconclusive. The University of Surrey identified starch grains, calcium carbonate and a large number of bacteria in the sample, indicating to them that the sample was 'some kind of confectionary that had gone off'. They also noted a slight smell of honey.

NTL examined the jelly under infrared and ultraviolet light for bacteria and concluded that the sample contained

'normal soil flora eg. Bacillus SP & coliform organisms. No distinctive or unusual features were observed.'

More significantly, SIGAP also took a sample from within the circle sets and a control sample 100 yards from the circles. NTL found that neither sample emitted X Rays or Gamma Rays, both had similar pH values and both had similar nitrogen concentrations.

Regretfully, no one has apparently taken samples of the crop itself to discover whether it was contaminated or not. However, in view of the long delay between the circles' discovery and the subsequent appearance of the unusual sample, it must be said that any connection with the circle sets would be at best purely speculative.

3. THEORIES

The most popular theory - UFOs apart - is that all the circle sets are hoaxes. This seems obvious when we know that some sets have been proved to be hoaxes (see for example pages 6 and 7). Several different hoax theories have been proposed to explain the circle sets' precise geometry, lack of suspicious tracks and the reason for their appearance. Some interesting explanations have themselves been criticised because they fail to explain why anybody should go to the trouble of producing such unusual features when they never appear to gain in any way from their handiwork, and that their game has been going on now for several years, if not a good deal longer.

The following theories are just a selection of those discussed at an open meeting held in Alresford, Hampshire on 13th October 1985, which was attended on behalf of BUFORA by Paul Fuller. Among those present were members of the Surrey Investigation Group on Aerial Phenomena (SIGAP), Lt Col Edgecombe (from the Army Air Corps, Middle Wallop) and Mr Pat Delgado, a retired design engineer who first reported the 1985 Gander Down formation to the Daily Express and local TV. Mr Delgado has been interested in the circles phenomenon for several years and has written several articles for 'Flying Saucer Review' (Vol 27 No 5, Vol 29 No 1 for example).

THE POLE AND CHAIN METHOD

It has been suggested by correspondents in the 'Salisbury Journal' that the circles were made in the following manner:-

The hoax is carried out by a team of 5 people under cover of darkness. The ringleader (sorry!) chooses the location for the central circle and using a stick or pole pushed into the ground, he attaches a chain or rod to this pivot, walks to the other end and proceeds to push or pull the chain or rod around the central pole, pushing down the wheat or barley as he goes. In addition to this task, he also has to stand at the centre of his circle and mark off his 4 co-conspirators (by using string perhaps) to ensure that the outer circles are both equidistant from his circle and equally spaced out around its rim. The 4 other conspirators form the outer circles in the same laborious way, with a pole and chain. No reasonable explanation has been proposed to explain how a single hoaxer could accurately position the outer circles at night without leaving evidence of his methodology.

It is believed that the 1983 Westbury hoax was created in this fashion, but this was carried out during broad daylight and left suspicious tracks and marks across the entire site. It is difficult to understand how a team of hoaxers could perpetuate a hoax in this way at night without leaving similar tracks.

Problems

1. None of the circles displayed the slightest sign of such an operation, in particular, as the hoaxer pulled the chain around his central circle he would inevitably leave scuff marks, broken stems and damaged heads throughout the outer portion of the circle. No hole was found in any circle set that suggested a pole and chain had been used.

2. It would be extremely difficult to throw lengths of string or rope to 4 other people 60 feet or more away in the dark without damaging the intervening crop. Again, no evidence of this was found at any of the circle sites.
3. The chain would not lay the crop gently flat. Pat Delgado has attempted to replicate the circles by trying to pull a 3 foot cane attached to a 20 lb spring balance through mature wheat. He subjected the cane to a linear (not sudden) pull an inch above the ground surface but discovered that the stems laid against their neighbours, building up resistance. By the time he had pulled the cane just one foot, the balance registered 20 lbs. For a 23 foot radius circle, this means that a hoaxer would require a horizontal force of 90 lbs to pull the cane through the crop.
4. An additional problem was caused by the stems leaning against each other. Pat Delgado discovered that it was nearly impossible to pull the cane through the crop as the increasing strength of the crop forces the cane upwards. Consequently, any hoaxer would need to apply a vertical component of force to keep the cane horizontal and ensure that the crop was laid uniformly flat across the whole of the circle.
5. All the equipment required for this hoax would have to be carried into the field at night without leaving any evidence. How can a hoaxer carry a 23 foot chain through a crop at night without touching the crop?

HELICOPTER DAMAGE

In this theory, first proposed to explain the 1981 Cheesefoot Head circle set, helicopter pilots fly to the location at night without attracting attention to themselves. They manoeuvre the helicopter above the field and cause the circles individually by the downwash of their helicopter's rotors, the swirled effect is caused by the spiral motion of the downwash. It has been rumoured that somebody had seen and heard a helicopter approaching the Gander Down site on the night they were formed, and it is known that several military and commercial bodies exist in the Wessex Area that own helicopters that could be used in this way (RAF Odiham, the Army Air Station at Middle Wallop, 'Agricopters' at Chilbolton - only a couple of miles from the Gander Down and Cheesefoot Head formations).

Problems

Lt Col Edgecombe of the Army Air Station at Middle Wallop is professionally familiar with helicopter principles of flight and helicopter caused damage. He is certain that this theory is impossible because:-

1. Helicopters downwash is NOT spiral, spreads outwards on reaching the ground and fades progressively outwards. It cannot end abruptly and so produces a dish-like depression in the crop, obviously wind generated and totally different to the circle sets.
2. It is extremely difficult as well as dangerous to hover a helicopter without lights low over a precise spot in an open field at night. It would be impossible to do so, even with lights, over five symmetrically positioned spots without causing damage to the crop in the intervening space.

3. Helicopters are very noisy and expensive machines, hardly the sort of vehicle to be used in such a hoax, and always likely to attract attention to themselves.
4. Finally, it was thought to be quite unrealistic to expect the helicopter pilot to suspend a device above the field to create the circles as the line would swing in the downwash and could not be made to rotate, causing the swirled pattern characteristic of all known circle sets.

OTHER MILITARY DEVICES

A more speculative theory suggests that the circles are caused by remotely piloted vehicles (RPVs) known as 'drones'. Some of these military devices are known to be odd shaped, very quiet and reputedly nearly invisible to radar detection. Their purpose is to undertake electronic and photographic surveillance of enemy bases and consequently they would be ideally suited to flying to a circle site on a pre-programmed flight plan, lower some device onto the crop, and then fly away without attracting attention to themselves.

Obviously technical information about such devices is not generally available, but it has been suggested that RPVs would be propelled by rotors and consequently their effects on the wheat would be identical to that of a helicopter. However, assuming that an RPV could be made to carry out the hoax, two firms exist in the South of England that manufacture them. Is it possible that either of these firms are merely testing their devices, demonstrating their technical superiority to possible buyers?

Alternatively, a large number of military establishments exist in the South of England, especially on Salisbury Plain, which may have such devices. Could the circles represent the annual culmination of a training programme by the military? It should be pointed out that several reports of unidentified flying objects in the South of England have been suspected RPVs (eg Sopley 1967, Lowtherville 1985).

Problems

1. Not enough is known about RPVs to determine their capabilities. Even if it could be shown that RPVs can be controlled with such accuracy, such a hoax would still run the risk of damage to an expensive and secret device. What gain would there be?
2. No one is likely to admit that they own an RPV, especially the Ministry of Defence, as they must be of great interest to other nations.
3. Carrying out tests under cover of darkness (with unlighted RPVs?) must present a clear risk to other air traffic as well as local residents.
4. This theory still doesn't account for how the circles are made, it simply presents a novel method for transporting the agent of the hoax to the location without being discovered and without leaving tell-tale marks in surrounding crop.

THE 'HIPPIY' THEORY

'Daily Express' photographer Chris Wood has made an extensive study of the circles phenomenon, and as a result, he has tentatively suggested that the circles were a dropping zone for drugs. He points out that the Bratton circles appeared only 3 days before the notorious hippy convoy arrived on its way to the outlawed free pop festival at Stonehenge. Presumably the hippies would have sent out scouts to search for a camp, thus avoiding the considerable police presence in the area.

Problems

1. The circles were hardly inconspicuous, any aircraft dropping drugs into such an unusual feature would be bound to alert the police, who would have kept a constant watch on the Bratton hippy camp.
2. Even if drugs had been dropped into the fields at night, no damage was ever found to indicate such an operation, and no rumour ever surfaced to such a plan.
3. The theory fails to account for the other five circles sets reported in 1985 (and for nearly all the previous years circles) as hippy camps had not been found nearby.
4. The circles appeared just as the hippies were nearing the free pop festival, hardly the time to start trafficking drugs by air!

UNIDENTIFIED FLYING OBJECTS

Many media sources have continued to blame UFOs for the circles' appearance despite statements to the contrary by members of the British UFO Research Association. There is no theoretical justification for this belief since it is wrong to try and explain one inexplicable phenomena (the circles) with another (UFOs). Unfortunately, the media still believes that if UFOs are anything at all, they must be spacecraft from another world, visiting us as if we were some sort of intergalactic zoo! Consequently, as soon as the circles appear, the cry goes up 'It must be those UFOs again...'

To be fair, at least two circle sets in 1985 were accompanied by reports of UFOs. SIGAP received an interesting UFO report from a Mrs Joan Simms of Over Wallop, who claimed that she had observed a brilliantly lit UFO for 20 minutes early on the morning of August 7th (at least 7 days after the appearance of the Goodworth Clatford circle set). The UFO consisted of 5 lights in a dice-like formation, the outer lights repeatedly entered and left the central light. The witness claimed that

'the light was so bright that it burnt my eyes to watch it for too long.'

'The Unknown' (February 1986) describes a second report in the Stockbridge area from a Mr and Mrs Pat Collins. They described the UFO as 'a big funfair wheel hovering in the sky'. The outer rim of the object appeared to be a continuous ring of light whilst the brighter lights of the spokes were made up of many separate lights.

Three days before the Tolymare Farm circle set appeared, five witnesses claimed to have seen a pulsating yellow light in the same general area to where the circles later appeared. The UFO hovered for several minutes before shooting off at high speed.

Problems

1. About 90 % of UFO reports have very ordinary explanations, ranging from stars and aeroplanes, to weather balloons and satellites. All three of these reports are almost certainly explicable and may represent brightly lit aircraft or helicopters, the Simms report in particular may represent a misidentification of the planet Venus, which was particularly brilliant at the time.
2. The relatively few UFO reports for which no explanation can be found do not appear to be alien spacecraft and may well have natural identifications following further evaluation.
3. It may be that somebody on the fringe of the UFO movement is using the UFO/Circle myth to increase interest in their particular activities (skywatching, social club etc) or to sell their (wildly speculative) books.

LEY LINES

It was claimed that some of the circle sets lay on what was termed a 'Ley Line'. In 'Flying Saucer Review' (Vol 27 No 5 p14) three formations of 3 circles have been plotted on a sketch map and shown to lie approximately on a straight line (but NOT a 'Ley Line'). The Cley Hill and the Goodworth Clatford circle sets of 1985 lie on a line that misses Stonehenge by about 0.3 km. Could some ill-defined 'natural' force flow along these apparent lines and somehow cause the circle sets to appear?

Problems

1. Ley Line enthusiasts have not explained exactly forces are flowing along 'Ley Lines'. Even if they had, they have not shown that such forces exist or are connected with circle sites.
2. No device exists which can measure Ley Lines, they only exist as lines on a map.
3. It has been shown that some sites on so-called Ley Lines were first constructed at wildly different dates, making a causal link highly improbable.
4. The occurrence of Ley Lines and Ley Points has been shown to occur with a relatively high frequency by generating a random series of grid references and then trying to connect them. The frequency of such Leys is increased by the inaccuracy of scale on the map.

OTHER FORCE FIELD THEORIES

It has been suggested that the circle sets are formed by some poorly understood 'natural' phenomena such as 'earthlights'. In "Piece for a Jigsaw", L.G.Cramp describes an experiment in which blades of grass responded to a strong electro-magnetic field. It has been suggested that this might account for the swirled pattern in the wheat.

Similarly, the existence of large amounts of stress in geologically active areas (such as in adjacent fault lines) is believed to cause piezo-electrical effects (See 'Earthlights' by Paul Devereux). Perhaps a

statistical analysis of the circles might reveal a common locational factor such as the geology of the sites. Unfortunately, the circle sites were mainly on chalk or alluvial deposits, so any stress would not be very great.

The 'Daily Express' (2.12.84) has reported a case in which a large block of earth measuring yards across had allegedly been removed en masse and displaced several yards away, presumably by earth forces. Is it possible that similar forces caused circle sets to appear under certain conditions?

Because these theories are very speculative, and because it is not clear what forces are involved, it seems very unlikely that circle sets can be explained in such terms. In addition, if natural forces can cause circle sets, why have they just started doing so, and why always on Friday or Saturday nights?

CHEMICAL WARFARE THEORY

It has been suggested that it might be necessary for the military to periodically test chemical warfare on ordinary crops, and that the circles were caused by a small amount of such a substance being dropped from above and spreading out. The substance would cause the stems to weaken, thereby falling over under their own weight. It is known that over-fertilisation of cereal crops can cause this effect, although this never occurs in such a regular pattern.

Apart from the clear dangers involved to the civilian population it seems clear that in the event of war there must be many more destructive weapons available for use than something which caused wheat crops to wilt under their own weight.

PARALLEL UNIVERSES THEORY

It has been suggested that the circle sets were the result of parallel universes interacting with each other in the same way that 2 adjacent radio stations 'drift' in and out of frequency, such interaction may be observable by gravitational effects. This seems to be an incredible theory until we appreciate that many different energies and frequencies exist in our environment that we cannot directly sense (eg electromagnetic waves, ultrasonic sounds). Some hypothetical research by Dr Paul Davies does indicate the possibility that parallel universes may exist all around us, and only rarely come into direct contact with our reality. However, this doesn't explain why such interacting should take the form of such an unusual feature as a set of 5 circles of flattened wheat, usually at weekends, and always overnight across a specific part of England. Why has this effect only just started? And why are no other gravitational effects occurring in, for example, the centres of cities?

The 9 theories described are all defective in some way, few of them satisfactorily explain how the circles can be formed and few of them explain a reason for their appearance. It is important to realise that circle sets appear to be a long established phenomenon that is not solely confined to Britain. Would any hoax theory explain these characteristics? It may well be that some combination of theories can successfully deal with the circles phenomenon rather than relying on a single cause for their regular and provocative appearance.

4. The Weather Theory

Dr Meaden is editor of the prestigious Journal of Meteorology (henceforth J.MET.) and in charge of the Tornado section of TORRO - a group of scientists collecting data on Tornado and Storm Research.

At first sight the possibility of tornado activity in Britain seems ridiculous. These ferocious funnels of wind which rotate at hundreds of miles an hour, can drive drinking straws straight through blocks of wood, kill people and wreck homes every year, are associated with anywhere but the weather systems of these mild and temperate lands. However, just because we do not get storms of the intensity found in places such as the American mid-west does not mean that they are unknown in this country.

In fact we tend to call these things 'whirlwinds', rather than tornados, to give them a more descriptive gentile feel. They certainly have damaged property as they twist across the countryside, and every summer (especially between May and August) a surprising number of them form. They are typically short lived and cover a small geographical area. But they do occur and there are some excellent photographs of them.

Dr Meaden immediately suspected all the cornfield circles might have been generated by whirlwinds, hence his visit to the first discovered site within hours of its report. His continued interest after six years demonstrates two things. He still believes that whirlwinds are at work. And he also regards the circles as of some scientific value.

His initial paper ("Mystery spirals in a Wiltshire cereal-field" J.MET. March 1981 pp 76-80) includes a full account of the 1980 Westbury rings (including Ian Mrzyglod's photographs). He writes "The stalks, although bent, appeared otherwise undamaged, as if the flattening had been caused by air pressure." He rightly concludes "As we know of no eye-witnesses who were present at the time that the phenomenon was occurring, it is necessary to interpret foregoing evidence as best we can." He does, and by fitting weather data to the scale drawings and measurements of rings suggests... "The most natural explanation which comes to mind is that the near-circular flattening of the oats was caused by whirlwinds."

But hold on, the reader might ask. A whirlwind would tear through a field and devastate the crop, not produce a single ring in this neat and symmetrical manner. However, Dr Meaden was proposing a special kind of vortex - the "fair-weather stationary whirlwind". Not an invention of his, but an already known meteorological phenomenon. It is not common, but is believed to occur several times a year, especially in Southern England. He included a photograph of a fair-weather whirlwind in action, creating a spiral funnel of dust. This was not in a cereal field but was in full view of many witnesses (who are observing it in the shot). It occurred on 10th July 1976, a hot day, at Woodside, Hertfordshire.

The way this kind of whirlwind forms is fairly simple. Warm air rises, cool air falls. This is the basis of all storm systems - including a tornado. Thermals (columns of warm air trapped in a location) are used by glider pilots and hovering birds (you can often see birds rising in the warm air currents above a motorway for instance). Now if a colder mass of air moves in and displaces this thermal it can set it in motion, giving it a spin if you like. The column then revolves in the typical whirlwind fashion. Normally this would then move off (like a spinning top) in a line. However, under some circumstances, it can stand still - especially if its passage forward is blocked (eg by a sudden rise of ground or hill).

Dr Meaden was especially interested in this last point. For it provides a theoretically novel meteorological phenomenon. What factors can prevent a whirlwind from moving and make it remain stationary?

One thing to make immediately clear is that British whirlwinds are generally very short-lived, a few minutes at the maximum. Most do not even survive for one minute. A stationary whirlwind caused in the way proposed would almost certainly have a lifetime of a few seconds only. Naturally, this much increases the likelihood that it would leave a clear cut circle beneath it and also that nobody would chance to see it happening.

You may already notice how several points in the circles story do seem to support this theory. The circles appear in the period of whirlwind activity (May to August). There were most in the very hot summer of 1983, when thermals were far more common. And the Westbury, Cley Hill and Cheesefoot Head circles (those which were first noticed and which return regularly) all occur at the base of a hill, suggesting that (for some reason) the conditions here might be excellent for the creation of a fair-weather stationary whirlwind.

Now regardless of whether this theory is correct or not it is indisputedly true that Dr Meaden made an excellent case for the solution to the original 1980 rings - and it would have been derelict in the responsibility of any serious UFO organisation (which both PROBE and BUFORA consider themselves to be) had we not listened and worked closely with the meteorologist. After all this was his professional field - and (with all due respect to UFO investigators and local journalists) it was not theirs.

Dr Meaden again reported on the 1981 rings ("Mystery spirals in a Hampshire corn-field" J.MET. Feb 1982 pp 45-49) and was quite happy that the three ring set was explicable. Whilst thought unusual it was not unheard of for stationary whirlwinds to form in triplets (with a central funnel and two mirrored smaller companions). And in 1981 this single three-ring set appeared to be a one-off (perhaps atypical) example.

Meanwhile, the scientist had naturally wondered (if his theory was correct) why the circles seemed to be such new events. Of course, the local rumours about earlier rings suggested that they might not be. Perhaps they had only just started to be noticed. Correspondence following his papers casts further light on the problem.

John Heighes wrote to discuss the events in August 1963 at a field in Charlton, Wiltshire. Here circles and swathe paths had appeared in cereal crop and been given a UFO interpretation. Several UFO magazines at the time carried the story and there was some media interest. But it never really took off in the way the latest hype has done. Theories at the time included the ones associated with the current mystery (eg hoaxes and helicopters) - and Heighes pointed out that he had personally witnessed a circle similar to those in the Hampshire hills created by the brief low down hover of a helicopter.

Stewart Campbell, a BUFORA investigator from Scotland, also wrote to Dr Meaden and advised caution since nobody had actually seen a whirlwind create a circle. He did believe in a natural explanation and pointed out the correspondence with some "saucer nests" (as they were termed) found in January 1966 at Tully, Australia. Witness, George Pedley, actually heard a sound ("like air escaping from a tyre") and observed a "spaceship" (a blue/grey disc that rose vertically out of the field). At the spot where it had departed a circle, thirty feet in diameter, was formed out of flattened reeds. Later other circles were discovered in the area. These rotated both clockwise and anticlockwise. (Note that January is the equivalent of July in the meteorology of the southern hemisphere).

These letters feature in Meaden's next paper ("Mystery spirals in cornfields" J.MET. Jan 1983 pp 11-19). He also reports on the relatively poor 1982 circles harvest. He exudes confidence that the circles are whirlwind induced and show up more in July/August when the crop is brittle and will show permanent damage at the time. All that is required is the right combination of weather, geology and crop to mark out the spiral effects. Even the Tully "spaceship" could well have been a whirlwind vortex (you may have seen tornados funnels and they do look

dark and structured). Perhaps it was quite a common phenomenon after all.

Then came the summer of 1983, with its many circles and (seemingly) unprecedented quintuplet sets. Could the whirlwind theory stand up to this dramatic development?

Meaden tackled the question (J.MET. "Whirlwind spirals in cereal-fields: The quintuplet formations of 1983" May/June 1984 pages 137-146). He noted how in 1983 the summer was unusually good with "July proving to be the hottest in the 300 year record" and in conjunction it was a "bumper time for heat whirlwinds". Could these things be merely coincidental with the unusually high number of circle sets? At least five (probably six) of the eight known sets formed in the heat prone whirlwind month of July. Was this also a coincidence?

An important development was that Westbury (where most circles kept appearing) also showed indisputable evidence of cornfield damage by short-lived travelling whirlwinds that summer. So the fact that whirlwinds were forming in the areas where the circles appeared was now confirmed. He even quoted UFO fanatic Arthur Shuttlewood, describing his own beautiful observation of a whirlwind flattening a grass field at Warminster. Although he did not realise this was what he was observing of course!

Meaden was very excited by the 1983 patterns. He noted how they had utterly puzzled "even academics and scientists, unacquainted with the effects that natural vortexes can produce". Yet they did conform with the theoretical results of multi-funnelled whirlwinds which thus seemed "capable of performing unusual feats which have yet to be seen in action (at least by scientific witnesses)".

There had been reliable observations abroad of "whirlwinds with multiple vortices...some of the circles I have found (involve) several small vortices circulating around a main vortex." He refers readers to a report by J.Hullet and T.Hoffer ("Weather", Vol 26, 1971, pp 247-250) who saw and filmed a multi-vortex whirlwind in the lee of a hill at Reno, Nevada during September 1970.

So all that was required was for a fluid dynamics expert to calculate the patterns. The previously undiscovered multiple nature of the original 1980 Westbury rings further suggested that multiple sets might be the rule rather than the exception, and their absence in 1981 and 1982 was partly due to the smaller number of circles that were discovered.

By 1984 Meaden was sure enough of his theory to predict that even five ring sets might not be the optimum. Eight rings were quite feasible, but the last three might be less easy to detect. Locations of potential high activity were known, likely weather conditions could be spotted in advance during the key months and (it seemed) that evening was the most probable time of formation. The ground (having been heated during the day) would still be creating rising thermals, but colder air would be moving in as the sun went down. With this in mind a "saucer nest" watch at the main sites allowed them to pinpoint dates and approximate times of some circle formations. Although they failed in their (much harder) objective to observe a circle being produced.

Meaden described his work ("Advances in the understanding of whirlwind spiral patterns in cereal fields" J.MET. March 1985 pp 73-80). The weather conditions on the known dates of the circle sets they could pinpoint all confirmed the theory. Thermals were abundant in every case.

In addition several isolated single rings were discovered in places out of the zone of activity. And, most importantly, Melvyn Bell, from Wiltshire, described his first-hand observation of a whirlwind flattening a single circle in a wheatfield on Littleton Down during the previous summer. The whirlwind lasted seconds only, produced a spiral of debris and left a circle about 40 feet in diameter. Whilst this pattern was not one of those reported publically in 1983 all the features match the developing theory of Dr Meaden. It formed in late July, at dusk, "as the wind was changing" and in the lee of Great Cheverill Hill.

Meaden did note that one 1984 set appeared in flat terrain, so (presumably) hills were not essential to their formation, simply a catalyst. Perhaps, he speculated, we would have more reports from flat ground. But it is difficult to view them (except from the air) because the lack of elevation prevents a suitable vantage point.

Once we take the Meaden theory as a basis it becomes possible to search the records of UFO societies to see if we have any accounts that could be whirlwinds prior to 1980 or in places other than the south-east of England.

We do. A good first hand account from witness Alan Foster is recorded in Northern UFO News (March/April 1985, No 112 pp 8-9). He was at Rhyl railway station, North Wales, in late June (possibly early July) 1983. This was the time when many circles were forming in Hampshire. It was 5.30 pm, and he saw a "twisting funnel of rising debris, dust and litter". It remained absolutely stationary for about 10 seconds and then just vanished. Sadly the bottom of the whirlwind was masked by houses and he could not go to inspect it as his train was due. Probably a circle was not created in this terrain but it is easy to imagine the result had this been above a cornfield in Westbury or Warminster.

Another classic case happened at Apperley Dene in Northumbria at on 3rd July 1977. This was reported by me in my book "UFOs: A British Viewpoint" (R.Hale 1979) in more detail.

Here a family observed a funnel-like cloud, 'topped by a dark oval', rise from behind the rear of their garden. It then began to move horizontally with a sudden blast of wind and left debris behind it. Whilst the family assumed an oval UFO had taken off, leaving a spiral trail behind it, we have always worked in the belief that it had a meteorological solution, even if we did not know precisely what it was. Less cautious UFO researchers seemed more willing to be speculative (See for instance Alan West and David Jefferis in "Close Encounters: The Strange Truth About UFOs" Arrow Books (p52) (1979).

With the Meaden theory of whirlwind creation this case makes total sense. I discussed this with the meteorologist and he said (letter dated 17th August 1985) "This was a midge or black-fly swarm. They occur on certain summer days even in the absence of whirlwinds ... this case appears to have been coupled with a small whirlwind and makes a good story".

To cap it all, my mother observed a single circle in a cornfield near Scarborough, North Yorkshire on 18th July 1985, when she passed by on a coach. From her account it seems to have been identical to those which were appearing in Southern England with such regularity, although smaller.

Dr Meaden continues to watch the situation and hopes that somebody will eventually see a whirlwind in action. However, he is absolutely convinced that the circles affair is a mystery no longer. It is a meteorological phenomenon of scientific interest.

Whether he is right in his interpretation only time will tell. But one thing I am concerned about. This co-operation between UFO researchers and a previously quite disinterested meteorologist has been to the benefit of scientific advancement whereas the general attitude of the media and the extreme elements of the UFO fraternity has, if anything, had the opposite effect.

There must be a lesson in here somewhere, for scientists, the media and UFO investigators alike.

5. CONCLUSIONS

Readers of this report may be surprised that we do not intend to offer a solution. As representatives of the British UFO Research Association (BUFORA) it might reasonably be expected that we would champion the popular interpretation - that the circles are caused by alien intervention, care of some form of UFO (most probably a spaceship). In truth, the evidence supporting such a contention is exceedingly weak and largely speculative. In our opinion it rates very low on the list of possible alternatives.

The purpose of this account has been quite simple. Appreciable media attention has been focused on these rings. The UFO myth has been persistent. Serious members of the UFO community, including the authors, have attempted to play down the importance of this phenomenon and offer rational explanations. However, these views do not always get across. To be blunt - mystery circles are news, explained ones are not.

Therefore, we have decided that it is our responsibility to set out the facts and summarise the many theories that have been proposed. We do not pretend that we have all the answers to the sometimes rather interesting questions that remain. Nor do we believe that the publication of this report will have much material effect on the promotion of this saga. If the solution is a natural one, as it may well be, then it is likely to continue unabated. If instead it is engineered at the hands of some human agency (as a prank or for somewhat deeper motives) then doubtless these efforts will eventually expend themselves.

Here we have given you all the principle evidence, such as it is. It ought to be sufficient for you to make up your own mind about what is (or is not) happening. As an organisation BUFORA will continue to monitor the situation, as this seems to be expected of us. However, we feel duty bound to point out that we do not rate these circles as a major priority, because their relevance to our work would appear to be minimal.

The British UFO Research Association is concerned with investigating bona-fide reports of unidentified phenomena within the atmosphere which are offered to us in a serious manner. Our primary role is to identify their cause, or, if this is not immediately possible, to document the facts so that others may attempt to do this in the future. If a phenomenon offers no real evidence that it falls within our sphere of interest, then we feel little reluctance to admit this publically.

On the basis of present evidence that forms an adequate expression of our judgement about these 'mystery circles'

ACKNOWLEDGEMENTS

The authors would like to thank the following people for their help and support in the compilation of this report:-

Terry Chivers, Patrick Delgado, Lt Col Edgecombe, Omar Fowler, Dr Terence Meaden, Ian Mrzyglod, Chris Wood, and all at PROBE and SIGAP.

ADDRESSES

The British UFO Research Association: 30, Vermont Road, London, SE19 3SR

Flying Saucer Review: FSR Publications Ltd, Snodland, Kent, ME6 5HJ

The Journal of Meteorology: 54 Frome Road, Bradford-on-Avon, Wiltshire, BA15 1LD

Northern UFO News: 8 Whitethroat Walk, Birchwood, Warrington, Cheshire, WA3 6PQ

Pegasus/SIGAP: 45 Burden Way, Guildford, Surrey, GU2 6RB

PROBE Via BUFORA Address above

Readers wishing to discuss the contents of this report with the authors should write to the address for 'Northern UFO News'.

APPENDICES

- Page 26: This is the written report submitted by Lt Col Edgecombe to the Ministry of Defence during August 1985 regarding the Goodworth Clatford set. Reproduced with his kind permission.
- Page 27: This is the 1985 Goodworth Clatford circle set, photographed by 'Daily Express' photographer Chris Wood.

UNUSUAL OCCURRENCE (UFO?)

1. On Monday 5 Aug 1985 Mr Adrian Liddell of WESTOVER FARM, GOODWORTH, CLATFORD who farms near the AAC Centre, Middle Wallop telephoned to report some extraordinary depressions in a field of near ripe wheat, and asked, "What on earth we (THE AAC) were up to now?" I took the Aircraft Accident Investigation Officer (AIFSO) Maj Garrow REME with me and went to inspect the scene.

2. The site, Grid Reference 346392 was a vergin, un-weather damaged, near ripe field of wheat. We found the following:

a. An exactly circular hole in the wheat in which the wheat had been laid flat in a clockwise twist 40 ft in diameter. (As if a plank had been put with one end at the centre and then swept round in a complete circle). There were one or two stalks of wheat standing which had sprung upright again. The wheat on the edge of the circle was completely upright and undamaged.

b. Four separate, smaller circles approx twelve feet in diameter, exactly similar to the larger one. These were set in a precise square, NORTH/SOUTH and EAST/WEST, with their centres 43 paces from the centre of the large circle.

c. There were absolutely no tracks in the wheat. To have set the holes in such a precise pattern manually would have required a tape measure or string, and the users would have been bound to leave tracks in the wheat.

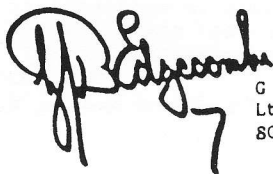
d. All but one of the holes touched onto the main furrows in the wheat, and could therefore be approached from the edge of the field without leaving tracks. However there was no way of moving from one to the other without leaving tracks in the wheat, except by going some 200 yards to the edge of the field, and then back down another main furrow. One of the smaller holes was completely isolated.

3. Maj Garrow took some polaroid photographs which are included with this report. Mr SCOTT, a semi professional photographer, took some 120mm colour photographs. I subsequently took Mr SCOTT and we photographed the scene from the air. By that time some half a dozen sight-seers were on the scene and a track, which had not been there when we were on the ground, had been made out to the isolated hole.

4. Present at the initial viewing were:

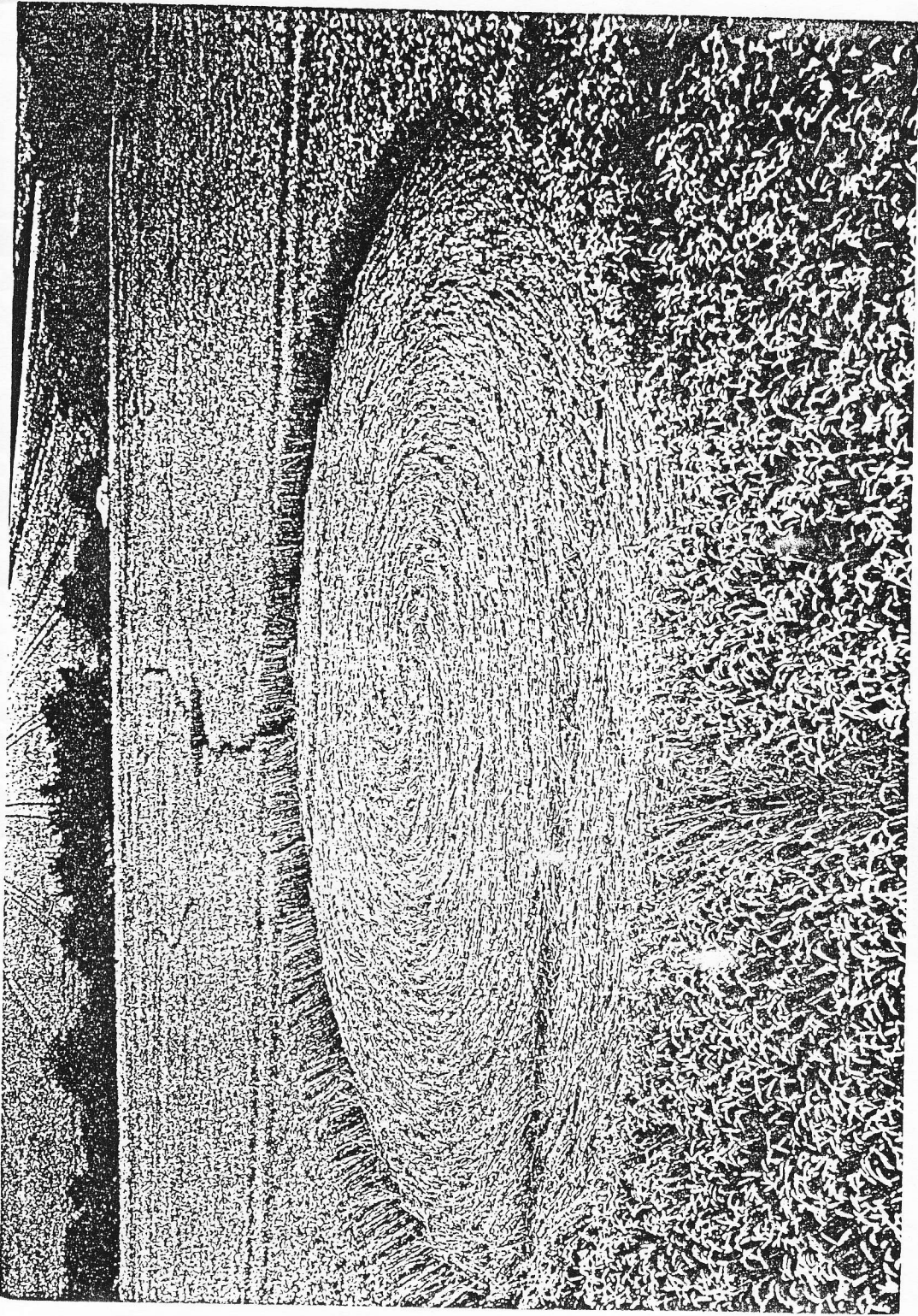
Lt Col G J B EDGECOMBE AFC AAC
Maj I Garrow REME
Mr & Mrs A Liddell (Farmer Westover Farm)
Mr E B Scott (Farmer Redrice Farm)
And two others

None of us could offer any reasonable explanation.



G J B EDGECOMBE
Lt Col
802 Avn Stds HQ DAAC

5 Aug 85



OTHER NOTES

£2.00