
The Case of the Felpham TETRA mast

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During the roll-out of Airwave TETRA in Sussex, there was a great deal of publicity, public anxiety and widespread reports of people being physically affected by the new base stations, and even the radios. There was much representation to Councils, to regional health bodies, MPs, national health bodies, government departments and ministers. Sussex and TETRA are recorded on grounds of perceived health effects in Hansard on a number of occasions.

The official stance emanating from the Health Protection Agency, threaded through the Department of Health, and Health and Safety Executive, to regional directors of public health and to doctors was, and still is that *the only effects people were experiencing were hysterical (in the formal sense) or, more kindly put: 'originating in the psyche'*.

While the infrastructure build took place, the case was put forward that if indeed people were being affected by novel TETRA radiation characteristics, the best and prompt action should be to undertake a comparison experiment, whereby new TETRA builds should be covertly switched on or off, while surveys of people's opinions of their health and well-being were undertaken. The idea was that two masts in comparable socio-economic areas should display equal engineering activity, but that by rotation, one would unknowingly be off while the other was on. In this way, those expressing symptoms described largely in the range of ES / EHS should, objectively, find they were alleviated after a mast was switched off, or exacerbated when it was switched on.

A number of objections meant that this never happened:

- people would know when their mast was on or off, because TV reception on at least one channel was likely to experience severe 'interference' from TETRA (an academic point derived to a degree from the use of mast head amplifiers that captured a wider than necessary band, including adjacent TETRA frequencies)
- as this would constitute an experiment on humans; the ethical permission for such would never be achievable, since every man woman and child would have to give express permission for the experiment to proceed and continue to completion (a bitter irony for all those who were describing sometimes severe symptoms attributed to TETRA)
- O2 Airwave was under contract to complete installation, and this was a spurious and unnecessary suggestion hindering their progress, unsupported by any authority for health or environment.

One area where there was a great deal of public outcry was in Bognor Regis, where O2 Airwave had added TETRA to an existing frame atop the Reynolds Depository

without permission to do so. A great many people were unwell with the activation of this mast, and several public meetings had taken place, with widespread coverage in local media. The landlord as well as the local population was determined the mast should be removed. Eventually O2 Airwave gave agreement and on three occasions told representatives of the Council, the landlord, and the local campaign that the antennae had been turned off. On each occasion sufferers insisted they knew that it was not off, and on each occasion local engineers with metering equipment confirmed it was still on. On the final promise, representatives were allowed into the switchgear room to witness the turning off, and those who had always said they could physically feel the radiation, reported a great physical 'lifting' as it occurred. Local symptoms receded.

The subsequent local story was one of victory and relief, reported widely in the media.

It was therefore with great surprise and disbelief when a nearby group of residents to the north-east of Bognor Regis reported the onset of similar health problems to those reported and surveyed previously in Bognor Regis, Littlehampton and Worthing. Felpham is a small community, bordering a golf course, and had not been involved in the Bognor campaign, and yet here were people telling us they were having 'TETRA problems', as soon as the local TETRA had been turned off.

While the Bognor dispute continued, campaigners had seen O2 Airwave engineers with mobile antenna testing equipment, in the area presumably to locate an alternative venue for a Bognor replacement. Felpham had not been such a place. However, following up the reports, campaigners (including myself) who could feel TETRA had been to Felpham and insisted that TETRA was indeed there. Following up with metering equipment confirmed this, and the time coincided with the June 2004 update of the Sitefinder website, which further confirmed that TETRA was located in Felpham.

History

In October 2001, BT Cellnet had erected a substantial dark green monopole with tri-sector panel antennae on the golf course, very close to a cul de sac of bungalows. This was done with three weeks notice by way of the usual A4 notice on a telegraph pole which went largely unnoticed at the time. Despite objections, the local Council were satisfied that sufficient notification had taken place, but residents were unhappy with this outcome. It seems that some urgency was applied by BT Cellnet in order to beat new planning regulations that came in just after. At a meeting with a BT PR representative, the expressed commercial need for this mast was to provide coverage for a proposed relief road.

From this time on the residents of Golf Links Road had a phone mast literally looming over their houses and gardens, the closest just 25 m away. Does it look good? No; it is a visual intrusion in this leafy area. Is it potentially an alarming presence? Possibly it is. Did anyone complain of any adverse reactions, stress, anxiety symptoms? No. In all

the time the mast stood there, from 2001 to 2004, no adverse health or well-being reports or reactions were expressed at all.

June 2004

O2 inherited the BT Cellnet site, and in 2004 converted it to TETRA, presumably as contingency should the Bognor site be rescinded. There are a number of reasons why this went undetected:

- The Felpham mast was the first TETRA in Sussex to employ tri-sector antennae, in place of the usual four-stack folded dipoles or collinear antennae: to look at, it was just not TETRA.
- The compound remained signed as BT Cellnet, including the original notice of completion. There was no indication at all that Airwave had an interest.
- There was no planning application for change of use or specification.
- There as no media interest.
- There was no campaigner awareness, and in fact when it was suggested that TETRA might be here, the idea was rejected, for the above reasons.

What had been noticed was the addition of a small square patch antenna, presumably to facilitate temporary communication with the Bognor site (this has since been removed). The original antenna enclosures looked almost identical to the new ones, only their angle was slightly different, and residents were able subsequently to produce before and after pictures for comparison; the differences are not obvious.

So the circumstances, when fully realised, were that:

- the original BT Cellnet mast had produced no adverse reactions, only displeasure
- the TETRA was visually very little different
- the Cellnet was announced, objected to and openly erected
- the TETRA was a complete unknown
- the Cellnet, it transpired in 2004, had never actually been operated
- with onset of TETRA, many people in the locality immediately began experiencing EHS symptoms with the same profile as found in TETRA locations
- residents were not believed in this connection at first, even by campaigners.

September 2004

Local campaigning had begun, once it was confirmed that TETRA was present and operational, not least because local schools were within 250m proximity. Little could

be done, because a contract had been signed between Cellnet and the golf club, and the later were minded to take advantage of the rental rather than listen to residents.

In August, local campaigners undertook their own survey in the cul de sac. The main figure in this is a local professional man, with a scientific career behind him and not given to recklessness or wild assertions. Fifty forms were sent out and 28 returned (51%). Of the 28 returns the following as a percent of returns, was reported:

Symptom	per cent of returns
Headaches	41
Dizziness	16
Disturbed sleep patterns	52
Tiredness	59
Nose bleeding	21
Other related symptoms	16
TV interference	91

Any argument to close down this TETRA installation would have to be premised on 'proof' of TETRA causing these effects. Of course this is no proof, but it is indicative, given the circumstances and the prevailing argument that all adverse health reactions to masts are certainly of mental origin. How this has greater proof is unclear.

The symptoms have persisted, even with the demise of campaigning in the light of there being no further direction to turn. The battle with the golf club appears to be lost, and a certain fatalism set in. However, a second follow-up survey was undertaken in January 2006. One might expect in the intervening time that people with such psychosomatic anxieties might settle down with duly allayed fears, according to the official dictum. This second survey again involved the distribution of 50 forms, and this time there was a 74% response rate within four days.

Symptom	per cent of returns
Headaches (persistent/recurring)	20
Dizziness	15
Nausea	7
Disturbed sleep patterns	28
Tiredness/los of energy	22
Nose bleeding	6
Skin complaints	5
Other related symptoms (eg buzzing in the ears*)	8
TV interference**	11

* there is no audible sound from the cabinets

** TV filters had been purchased by a number of people

Comments submitted with forms included observations that symptoms were alleviated when living away. Whistling or buzzing in the ears is almost certainly not a direct auditory response to equipment on the site. Other problems reported included

memory, breathlessness, Menière's disease, sore eyes and irritability. There have been 4 recent cancer cases in the past 2 years, and cases of low white blood cell counts. Many comments about the environmental consideration and visual amenity reveal that for the entire duration of the mast's existence there has been extreme displeasure, and yet this was not attended by adverse health reactions prior to conversion to TETRA, or indeed actually transmitting anything.

Interpretation

There is no claim that the surveys undertaken here are 'scientific'. They are an observational record, not an epidemiological study. Nevertheless, they stand in context with other local surveys, in Littlehampton, Bognor Regis and Worthing, and the profile is the same. Two surveys have been undertaken for the Worthing site (again two years apart), and are published (as 'a town in Sussex') on the TETRAWatch website, and they also maintain the same profile over the two years.

It might reasonably be assumed that there is some connection between the results of each survey, and with the onset of TETRA. In the case of Felpham the similarity to a single-blind study cannot escape attention. Something has to be explained here, and some responsibility taken for responding to these outcomes.

The Felpham case especially leaves an important question open: given these circumstances, how can the assertion that 'mast sickness' is anxiety-driven be maintained?