

TETRA: A Critical Overview into the Death of Officer Neil Dring

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9th August 2004

My History

In the 1960s I trained at the government Microwave Warfare Establishment. I worked with the Underwater Bomb disposal unit which used microwaves within its unit. In the 1970s one of my tasks over an eleven year period was to de-brief spies involved in microwave warfare. The location and process that I used I cannot go into as it is still considered secret. I have two Degrees, and a Diploma and in my retirement I now teach Advanced Level Physics, some Mathematics and some Human Physiology at South Dartmoor College.

In September 2001 I was commissioned by senior members of the Police Federation to write *The Tetra Report*.¹ The Tetra Report was written using Police equipment, Police Secretarial staff in a secure location over a week.

On Saturday 14th August, an article appeared in *The Telegraph* where a Chief Inspector, Officers, Civilian Workers and 25 Residents complained of ill health from a Tetra Transmitter. Chris Warren of the Norfolk Police Federation is quoted as saying:

‘There is no scientific evidence that Tetra is injurious to Officer’s health.’

O2 Airwave said: ‘All the medical evidence would suggest the symptoms reported are not connected with the use of radio technology.’

The symptoms reported were: Dizziness, headaches, nosebleeds, disturbed sleep and skin problems.

In this report I wish to show that these comments are both incorrect and ignorant of peer reviewed published research.

Firstly, let us look at what is sometimes called ‘anecdotal evidence’, ie sensible rational people complaining of ill health from the Tetra System but where the evidence not subject to scientific scrutiny.

More than 80 residents in Dursley with all of the symptoms listed above.

¹ Available at www.tetrawatch.net/papers/trower_report.pdf

Approximately 11 cases of leukaemia, 3 of motor neurone disease, and other illnesses in Fife.

Importantly, in the above locations the residents had no knowledge of the Tetra masts. Hence, illnesses could not be psychosomatic. An accusation often used by the government for its scientists.

Further cases of Tetra illnesses:

Bognor: headaches, nosebleeds, nausea, disorientation, confusion, dizziness, skin problems.

Littlehampton, Worthing and so on: with all of the above.

Crime Scene Investigators claimed headaches, toothache, neuralgia, high blood pressure and a cancerous tumour in the throat.

There is a dispute here with their senior authorities who say: 'their problems are not on health grounds' ... the metallic powders they use 'are a hazard'.

Not in dispute is Professor Szmigielski's study where he spent many years researching Military Personnel using pulse modulated microwave radiation up to and beyond the Tetra range. He compared these results with personnel who were not exposed. His conclusion (in part) was:

'a double incidence of all neoplasms (tumours) with a threefold increase of cancers of the alimentary tract (inc. oesophagus and stomach) and a six fold increase of malignancies of the haemopoietic (blood/cells/circulation).'

I would like the reader to keep in mind the 'threefold increase of cancers'.

Also, the death of Officer Dring was cancer of the oesophagus, as mentioned above.

In *The Telegraph* the Airwave person refers to Tetra as a radio system, this is incorrect. In 1998 the International Commission designated all systems above 300 MHz as microwaves. Tetra, without argument is a microwave communication system, not a radio wave system. Microwaves behave very differently in our water-based bodies than radio waves, this is why the International Commission made this distinction.

Microwave transmitters, similar to the one being complained of in Norfolk, by the Chief Inspector have been the subject of controversy for a long time. In one unscientific study around just 19 transmitters, there were 92 cancers reported which included breast, thyroid, bowel and leukaemias, as well as all of the illnesses listed by the Chief Inspector for Norfolk.

A similar study of 138 schools found miscarriages, brain cancers, breast cancers and teachers reporting ill. As many as 8 cancers were confirmed in one small community. Again, these claims are dismissed as anecdotal by the communications

industry, the government and its scientists. However, scientific studies have been completed. One such study, peer reviewed and published in the *Australasian Journal of Environmental Medicine*, Volume 21, April 2002, concludes, when referring to modern western microwave transmitters: '... breast, bladder, prostate, lung, colon and cutaneous melanoma cancers are all associated with each other relate to radio frequency, electro-magnetic fields.'

What they are suggesting here is that one cancer may lead to all of the other cancers once it is established. The same research also studied two countries, Sweden and Estonia before and after microwave transmitters were installed. Their conclusion was that there was an increase in the cancer mortality rate once the Western transmitters were allowed and introduced all over the country.

Further scientific research by Dr John Walker has found that where the main part of the beam falls on residential areas, this is the area of highest incidence of cancer. From Dr Walker's research, it is even possible to predict the most likely houses to develop cancers once the beam of the mast is established.

In his study on the health of people living in the vicinity of microwave transmitters, Professor Santini of the National Institute of Sciences concludes that these transmitters must not be sited closer than 300 metres to populations. I mention this because the Police Tetra system is usually placed on top of police stations where officers are exposed continuously, as are the surrounding police houses where officers may live with their families and local residents.

Professor Santini found from a survey of 270 men and 260 women that up to 300 metres from the transmitter there were complaints of nausea, loss of appetite, visual and motor problems. Up to 100 metres he received complaints of irritability, depression, concentration, memory, dizziness and libido problems. As well as these, headaches, sleep problems and skin problems were complained of. I refer the reader back to the complaints reported by the Chief Inspector in Norfolk.

Safety Levels

Conscious of the reported illnesses, 19 of the world's top scientists met at Salzburg in the year 2000 and set a maximum level of microwaves entering the body at 0.1 units. Some other countries allow slightly more in the way of units, such as the Toronto Health Board, which allows 6 units, Russia, Italy and China 10 units. The International Commission for Tetra allow 208 units and our own NRPB until spring 2004 allowed 2,640 units. [They adopted the ICNIRP standard at this time in response to power line concerns, not microwave levels.] To put this into perspective, if you were to go to a chemist and the chemist said to you, you may take 1/10th of one pill, or 208 pills or 2,640 pills, clearly somebody has to be wrong.

Our government scientists always quote the International Commission's level when challenged on doses of radiation. However, a High Court ruling (Yasmin Skelt -v-

the Secretary of State) stated: 'Reliance on the International Commission Certification is not enough'.

The reason for the Salzburg decision described by them was, for 'Preventive Public Health Protection'.

I will argue that our safety levels are far too high, and this is one of the contributing factors to the many illnesses reported by Officers carrying Tetra Sets and the populations living near Tetra transmitters.

Heat

Why are our safety levels so high?

The answer is simple:

Our government and its scientists only measure thermal effects, in other words how warm you feel. The rest of the world measure how the electric and magnetic parts of the wave interacts with the physiology of the body. Our government and its scientists refuse to acknowledge below-thermal effects. Yet, published and peer reviewed research by the world's leading professors and universities have reported many illnesses due to long-term low level microwaves below thermal effects.

As an example, changes in the blood brain barrier, which is a very important barrier that protects the brain. Changes in night-time melatonin, which is attributed to the breast cancers in women, among other things. Heat shock proteins, which can protect cancer cells from destruction and changes in the physiology of the cells within the body.

Following the long term low level microwaving of the American Embassy by the Soviet Union, during the Cold War, which lead to many leukaemias and cancers, miscarriages and illnesses of the embassy staff, Professor John Goldsmith was called in to diagnose the problem and write a report on such. Professor Goldsmith is possibly the world's leading professor in microwave radiation. He holds 11 professorships, represented Europe for the World Health Organisation and is an International Consultant for Microwave Communication Systems.

Regarding heat, he says:

'To use the lack of significant heating effect as evidence of lack of risk is a Red Herring'.

In other words, he disagrees totally with our government scientists using heat as its benchmark.

Professor Goldsmith reported that embassy staff subjected to long-term, low-level microwave radiation of just 10 of our units experienced headaches, fatigue,

irritability, dizziness, loss of appetite, sleeplessness, difficulty in concentration, memory loss, depression and emotional instability.

He also reported a threefold increase in cancers. I refer the reader back to the illnesses reported by the Chief Inspector of Norfolk and the populations around Tetra masts and the threefold increase in cancers as reported in the *Journal of Environmental Medicine*.

In September 2002, the Catania Resolution from the University of Vienna, where again leading scientists of the world met, stated: 'we take exception to arguments suggesting that weak, low intensity electromagnetic fields cannot interact with tissue'. They continue: 'there are plausible explanations for electromagnetic induced effects which occur below present International Guidelines'.

Released under the Freedom of Information Act, a document published by the American government, Number 1810S March 1976, addressed to all government personnel exposed to microwave communication systems below thermal effect levels, warns that they may experience more neurological cardiovascular and haemodynamic disturbances than personnel unexposed. They go on to say that other symptoms to be expected and/or were being complained of, by the personnel, were: headaches, fatigues, dizziness, menstrual disorders, irritability, agitation, tension, drowsiness, sleeplessness, depression, anxiety, forgetfulness and lack of concentration.

This list may now start to sound familiar to the reader.

In another section of the same document the US government also states:

'if the more advanced nations of the West are strict in the enforcement of stringent exposure standards, there could be unfavourable effect on industrial output and military functions.'

I will argue this is why our levels of microwave radiation are so high and why we are getting the reported illnesses we are receiving.

Professor Ross Adey, a Fellow of the American Academy of Arts and Sciences and a distinguished visiting Professor of the Royal Society of Medicine, said quoting his own research:

'Similar studies in Russia in the early 1980s showed that radio frequency and the lower microwave range effected enzyme systems that regulate growth and division of white blood cells.'

White blood cells are of course and essential part of our immune system.

Pulsing

In 1997 the Health Council of the Netherlands Radio Frequency Radiation Committee said concerning the Tetra range:

'The following illnesses could be expected – hot spots inside the body; visual problems; neurotransmitter problems; reduced foetal mass and special problems with infants, the elderly, the sick, people with metallic implants and pacemakers.'

They stated that if the microwaves are pulsed, as is Tetra, these effects will be found sooner.

In October 2002, 2,500 doctors and consultants published the Freiburger Appeal. They reported illnesses from microwave communication systems as problems with: concentration, behaviour, blood pressure, heart rhythm, epilepsy, brain disorders, cancerous afflictions, leukaemia, brain tumours, headaches, migraines, exhaustion, agitation, sleeplessness, tinnitus, susceptibility to infection, and nervous tissue pains.

Again, they stress the problem with pulsed microwaves and they state:

'One can no longer evade these pulsed microwaves. They heighten the risk of already present chemical and physical influences and stress the body's immune system.'

I have many other studies from Research Institutes around the world telling exactly the same story, but I feel it is unnecessary to repeat myself over and over again in this report.

The Cumulative Effect

Professors Sosskind, Provsnitz, Lai, Cherry and the Russian International Medical Commission have all reported from their research that doses of microwave radiation are cumulative.

In January 2001 the French Health General Directorate warns the population of the cumulative exposure from low-level microwave radiation.

I will argue that in the case of police officers, once they finish duty there is not enough time for the body to re-establish itself before going back on duty. Therefore a build up of the effects from microwave radiation will occur over many shifts.

This effect in the brain is called entrainment and the after effect is called long term potentiation.

Long term potentiation has been recorded in some cases to last up to 6 weeks.

Legal

I would like to inform the reader that I am not qualified or trained in law and any legal queries should be referred to a top legal expert for clarification.

I will add that I do not receive payment for recommending this consultant; in fact I have never taken payment from anybody for the number of years I have been doing this research. I work entirely for free.

In May 2000, Sir William Stewart reported in his *Stewart Report* (IEGMP): 'To avoid frequencies around 16 waves a second (para. 5.59) Airwave operates at 17.6 waves a second. Accordingly, adopting the EU/Stewart precautionary approach, Tetra masts should be located as far away as possible from permanently occupied property such as hospitals, homes and schools.

In the *Bottomley -v- the Secretary and members of Todmorden Cricket Club*, the Court of Appeal on 13th November 2003, the Court spelled out the duty of care resting on the landowner/occupier of land in respect of activities which he permitted or encouraged on his land.

This may be of interest to Chief Constables who allow transmitters on their police stations.

Mr Wulf Dietrich Rose, expert in mobile communications of Kitzbuehl, Austria, internationally known for his research works in this field, won his High Court case for the third time. He proved, through his studies and researches that mobile radiation represents serious health risks to the nearby living population, like cancer, brain tumours, genetic problems and deformity of newly-borns. (High Austrian Court of Justice [Federal Court] Az 6 Ob 69/01t; verdict of 26 April 2001)

On 5th January 2004 Mr Emrys Jones, Chief Planning Officer for Birmingham City Council, wrote:

'I believe there is a pressing need for urgent further research into the health aspects of telecommunication development, together with a review of the existing Guidance and Regulations on how such proposals should be considered.'

In his report Sir William Stewart stated: 'there is now biological evidence however, which suggests that there may be biological effects occurring at exposures well below these guidelines.'

He continues:

'We conclude therefore that it is not possible at present to say that exposure to RF Radiation, even at levels below national guidelines is totally without potentially adverse health effects, and that gaps in knowledge are sufficient to justify a precautionary approach.'

The Attitude of the Government

In May this year an article appeared in *The Times*, by Michael Meacher, Minister for the Environment 1997-2003. He was very critical of the government and how the government obtains its scientific results. He wrote:

‘Universities eye the donor as a potential of source of funds and try to ensure nothing is said which might jeopardise big new cash possibilities.

Academics who raise embarrassing questions such as:

- Who is paying for the Lab?
- How independent is the peer review?
- Who profits from the research?
- Is the University’s integrity compromised?

Soon learn that keeping their heads down is the best way not to risk their careers.’

He continues: ‘making money is good and dissent is stifled.’

A similar article appeared in *Scientific American*, that same month by Congressman Henry A Waxman.

MPs have four times tried to raise these issues in Parliament, without success.

On 21st May 2004 reported in *Hansard*, Section 1245 an MP reported ill health around microwave transmitters and requested that sensible people should not be ignored in their observations. He also reported much illness from school children.

Section 1247 reports illnesses from Tetra Transmitters. What is unclear in this section is that the same MP reports 11 children under 11 years of age with leukaemia, it is not clear from the wording whether these are Tetra Transmitters or other microwave transmitters.

Section 1258 reports that transmitters should not be placed near schools.

Published in the *Ecologist* Science and Technology chapter, June 2004:

‘You will hear statements by supposed experts, always the same few in the pay of the telecommunications industry, to the effect that cell-phones/cell towers/microwave radiation have been proven safe in countless studies. It is an easy lie, one that the news media have been eager to propagate.’

Such studies don’t exist.

Quite the contrary, it has been shown that just as for X-Rays there is no safe level for exposure to microwave radiation.

On 28th January 2004 many MPs again tried to bring this problem to the House of Commons and covered 20 pages of Hansard. The reply from the Minister was:

‘UK and International Guidelines are based on a comprehensive assessment of current scientific knowledge.’

I will argue that, that scientific knowledge is purely based on an opinion of our government scientists and not worldwide research.

For example:

I have 17 peer reviewed and published research papers going back from the 1970s up to present day, showing that low-level microwaves cause excess calcium flow in the body. Calcium flow around cells and nerve endings is essential for brain cell and physiological functions.

At all of the talks I have given, when a government spokesman has been asked about calcium flow, they always repeat that they have been unable to replicate these experiments and therefore do not recognise them.

Some scientists may say that this is a level of arrogance unparalleled on this planet, that the rest of the world is wrong and our government scientists are correct.

Similarly, Loescher found from his research that there was a two-fold increase in breast cancer from these microwaves. To date our government has failed to reproduce his experiments, which he himself has repeated.

On 4th July 2004 Dr Keith Baverstock who was the World Health Organisation’s Senior Radiation Advisor in Europe, says that science has been perverted for political ends by government agencies, which should be protecting Public Health.

He also accuses the NRPB of misusing science.

The British Wireless Consultancy Service, a leading telecommunications consultancy based in the UK and operating worldwide, recommended for the Tetra System:

‘The UK’s Fire and/or Ambulance Service should investigate the cost implications of using an alternative digital network to airwave.’

On September 9th 1999 the European Commission was critical of the Home Office’s Tendering procedure for Tetra. The EC ruled that the Home Office had unlawfully limited the Contract to Tenders that could supply the Tetra Standard.

With regard to Officer’s Health & Safety, the NRPB document, Volume 12, Number 2, 2001, states in Section 135:

'Human volunteer studies should be carried out to measure changes in cognitive performance arising from exposure to Tetra handsets.'

They continue:

'The Tetra system is expected to be deployed widely for use by staff in emergency services.'

This is a relatively stable workforce with defined patterns of work, it would be worth carrying out studies to examine working practices and conditions of exposure and radiation from Tetra.

Section 128 of the same report, they do not exclude the possibility that RF Radiation from cellular phones might carry a risk of cancer that becomes manifest many years after first exposure, or that relates to intense exposure over many years. Nor do they rule out a hazard from RF radiation, modulated specifically around 16 pulses a second.

In their 64th report, the Committee of Public Accounts on Airwave said:

'It was by no means clear to us who will bear the risk if concerns about the effect on health of using the airwave system proved to be real.'

At the Police Federation Tetra Conference 23rd October 2002, I asked Dr Levy of the Home Office questions relating to the then 212 officers who had complained of ill-health from using the Tetra System, via their Union Representatives.

In front of witnesses, she said to me:

'I don't believe they are sick, they are not sick enough to stop this trial.'

She continued:

'They can always leave the Police Force.'

Referring back to the House of Commons Public Accounts Committee's 64th Report, Mr Richard Bacon MP is asking questions from Mr Asque of the Home Office Science and Technology Unit (I am referring to Sections 240 of this report to 244):

'How many Policemen have complained that their radios are making them ill?'

'A number of people have expressed concerns on the health issues.'

'How many?'

'The numbers are not fed directly to us. We get representations from the Police Federation, which we have been in contact with, answering the concerns on behalf of their members. We have not dealt directly with Policemen.'

'I am looking at a letter in the *Police Magazine* from March 2002 from a Mr Nigel Wood from Lancashire who writes that he knows personally of new cases of skin problems, sleeplessness, migraines, depression, difficulty in concentrating and headaches.

'In the December 2001 issue there is reference to Tetra causing a variety of things including potentially heart and blood disorders, affecting the brain electro-chemistry, increasing the risk of leukaemia and so on.

What is the current state of play on Health Research?'

'The current state is that we are addressing all of the recommendations, which were made in the report you referred to.

'A list of recommendations was drawn up and we have research projects going on all of those recommendations, addressing them in great detail.'

'Do the Research Projects have people wearing these things and making them operate and then checking out whether they get migraine or depression or whether they lose concentration?'

'Projects are being developed which will have that sort of aspect. At the moment we do not have a user base.

We are in negotiation with one of the Police forces, which has offered to participate in a trial of that order, but it has not started yet.'

'That was July 2001, it is now April 2002 and you have just said that at the moment you do not have a user base. Do you not have people you can test this on?'

'The issue is that there is no proof that there are any of these effects.'

I would like to state here that unlike a drugs trial, where the industry has to prove a drug is safe before it is released, with Tetra the onus is on the police officer to prove that Tetra is causing the illness.

This is an almost impossible task for the officer and a very simple task for the industry, the government and its Scientists to blame other things.

General Research

Lots of international research has been carried out into long-term low-level microwaves which has been both peer reviewed and published in reputable scientific journals.

One such report presented in May 2000 for the Parliament's of New Zealand, Italy, Austria, Ireland and the European Parliament in Brussels, contained 122 references. Each of these references is a peer-reviewed study in its own merit and probably

represents up to 10 years of work. This particular document probably represents collectively over 1,000 years of top scientific research. The illnesses listed as being caused by long-term low-level microwave radiation are:

Heart problems, blood diseases, problems with bone marrow, tumours, DNA problems, altered calcium ions in cells, impairments to the immune system. 46% reduction in night-time melatonin (causing suppression of the immune system), enhanced arthritis or rheumatic diseases, skin problems, lymphatic diseases, vaginal discharge, ear problems, leukaemia, childhood cancer, sleep problems, suicidal tendencies, depression, irritability, memory loss, mental conditions, neurological illness, miscarriage, and infertility.

They recommend a maximum dose for long-term use of 0.01 of our units; this is 20,800 times less than the original safety limit recommended for Tetra.

In 1979 the National Institute for Occupational Safety and Health and the Occupational Safety and Health Administration warns staff exposed to microwaves, including the Tetra range of hazards such as problems with menstrual cycle, miscarriage, eyes, heart, central nervous system, reproduction and cell tissue.

They stress that a false sense of safety may exist because the effects occur inside the body and cannot be felt on the skin. They also say that non-thermal effects are much lower than normally recognised. Again I have several documents, which I will not refer to here from international committees or scientists saying exactly the same.

Interestingly, in February 2003, Professor V H Binhi held a conference in Russia, which was attended, by 120 of the world's leading scientists from 40 countries, concerning microwave transmitters, used on or near the body. Some of its general recommendations were:

'These should not be used by children under the age of 16, or pregnant women or persons suffering from neurological conditions including mental disorders, neurosis, sleep disorders or epilepsy.'

They recommend a limit of duration of call to a maximum of three minutes, allowing a period of 15 minutes between calls.

I am concerned of the use of handsets by officers on a 10-hour shift, especially in emergency conditions, where the set may be on full power.

Personal Opinion

I think it is highly probable from all of the information I have provided that the unfortunate death of Officer Dring was caused by over-exposure to microwave radiation.

One question may be:

Why does the government appear to be deaf to the requests of communities all over the country, their MPs and scientists?

One explanation, which was published in the *Europe Daily Bulletin* No. 8445 17th April 2003, states that the American National Security Agency is putting pressure on our government not to stop the Tetra roll-out.

Once Tetra has been fully adopted by our emergency services, it has potential sales to over 30 countries around the world. This article states that the American government have access to the chips from the Tetra system and can therefore 'eavesdrop' on all of our police networks and any other user of Tetra, such as MI5/MI6. If Tetra is adopted worldwide, the National Security Agency will also be able to 'eavesdrop' on any country that this system is sold to. Whilst I cannot verify the sourcing of this article, I can verify that I have been interdentally told the same story whilst at a meeting overseas.

When looking at the plethora of international information on low level pulsed microwave radiation, and the safety levels imposed around the world, except for this country, I can only describe the actions of our government, the NRPB and this industry as Intentional Ignorance.

What I find disturbing is that no single named person seems to be taking responsibility for this system. For example:

The government charge the NRPB [now the Radiation Protection Division of the Health Protection Agency] to look at effects only from the thermal point of view to which the NRPB report back to the government that the system is safe enough to go out.

Thence, each gives permission for the industry to supply the police force.

With this set-up, it is impossible to find a named person responsible without getting caught into a governmental loop.

I believe at this stage that named persons should declare responsibility for the Tetra system, pending any future legal cases. Whilst untrained in law, I am thinking of charges similar to Corporate Manslaughter.

I was told at a meeting by a senior person connected with Tetra: 'Deny everything and prepare for Court'.