APPENDICES

Siting of Telecommunications Equipment on Council Owned Land and Premises

Siting of Telecommunications Equipment on Council Owned Land and Premises

Appendix 1 GLOSSARY OF TERMS

2G
2G, the second generation or GSM, is the technology currently used in the operation of mobile phones.

3G
3G, or third generation, is the generic term used for the next generation of mobile communications systems. The new systems will enhance the services available today and offer multimedia and internet access and the ability to view video footage. The third generation technology used in the UK is called UMTS. These services operate at 2200 MHz. (2.2GHz).

AGNIR
Advisory Group on Non-Ionising Radiation

Antennae
A device which transmits and receives radio waves. There are different designs in operation

Base Station
A base station is a macrocell, microcell or picocell site and consists of transmitters and receivers in a cabin or cabinet connected to antennas by feeders.

Bluetooth
Short range connectivity can be achieved using Bluetooth wireless technology. Devices incorporating Bluetooth include mobile phone headsets and computer accessories such as printers, keyboards, mice, mobile phones and personal digital assistants. The technology is increasingly being used in business and in the home. It operates at a frequency of 2.45 GHz.

Cabin / Cabinet
A structure which protects transmitters and receivers from damage. They can be in the form of large cabins or smaller cabinets.

Calcium Efflux
A flowing outward of calcium from a cell

Cell
A geographic area of coverage that a radio base stations covers.

Dish Antenna
Dish antenna transmits and receives highly focused radio waves in one direction.

Electromagnetic Waves / Field
Electromagnetic waves are emitted by many natural and man-made sources and play a very important part in our lives. Electromagnetic waves (**EMF)** are used

to transmit and receive signals from mobiles phones and their base stations. The type of electromagnetic waves mobile phones use is called radio frequency (RF) waves/fields.

Epidemiology
The branch of medicine that deals with the study of the causes, distribution, and control of disease in populations.

Frequency
Frequency is the number of times per second at which an electromagnetic wave oscillates. It determines the wave's properties and usage. Frequencies are measured in hertz (Hz). 1 Hz is one oscillation per second, 1 kHz a thousand, 1 MHz is a million and 1GHz is a thousand million. Frequencies between 30 kHz and 300 GHz are widely used for telecommunication, including broadcast radio and television, and comprise the radio frequency band. Mobile telephone systems currently operate at 900MHz and 1800MHz.

GSM
GSM - Global System for Mobile Communications or Groupe Speciale Mobile is the international, pan-European operating standard for the current generation of digital cellular mobile communications. It enables mobile phones to be used across national boundaries. GSM systems are operated by O2 and Vodafone at 900 and 1800 MHz, and by T-Mobile and Orange at 1800MHz.

ICNIRP
The International Commission on Non-Ionizing Radiation Protection (ICNIRP) is an independent scientific body which has produced an international set of guidelines for public exposure to radio frequency waves. These guidelines were recommended in the Stewart Report and adopted by the Government, replacing the National Radiological Protection Board (NRPB) guidelines. The mobile network operators have accepted these guidelines and work within them.

IEGMP
The Independent Expert Group on Mobile Phones. The IEGMP, chaired by William Stewart and also known as the Stewart Group, was established in April 1999. The remit of the group was to consider current concerns about the possible health effects from the use of mobile phones, base stations and transmitters, to conduct a rigorous assessment of existing research and to give advice based on the present state of knowledge as well as to make recommendations on further work that should be carried out to improve the basis for sound advice. The IEGMP has completed its work and its report, The Stewart Report was published in May 2000.

Mast
A ground-based structure that supports antennas at a height where they can satisfactorily send and receive radio waves. A typical mast is 15m high, and of steel lattice or tubular steel construction. New slimmer versions of masts are now available which can be painted to blend in with their surroundings, disguised as trees or used in conjunction with street lighting and CCTV cameras. Masts themselves play no part in the transmission of the radio waves.

Mobile Operators Association
The Mobile Operators Association (MOA) was established in January 2003 to represent the five UK mobile phone network operators on radio frequency health and planning issues.

Non-ionising Radiation
Radiation which does not produce ionisation in substances through which it passes. It is a form of energy produced by many forms of mobile communication transmitters, including mobile phones and TETRA.

NRPB
The National Radiological Protection Board (NRPB) has two main functions: to advance knowledge about the protection of mankind from radiation hazards and to provide information and advice to persons in the UK with responsibilities relating to protection from radiation hazards. The NRPB has produced a set of national guidelines for public exposure to Radio Frequency waves. These have the same scientific foundation as the ICNIRP guidelines. The NRPB is now part of the Health Protection Agency.

Ofcom
Ofcom is the regulator for the UK communications industries, with responsibilities across television, radio, telecommunications and wireless communications services.

PITO
PITO, the Police Information Technology Organisation, works closely with partners to provide information technology and communication systems to the police service and criminal justice organisations in the UK. PITO is a government agency, or Non-Departmental Public Body (NDPB), funded by the grant-in-aid and by charges for the services they provide.

Power density
The power crossing unit area normal to the direction of wave propagation. Measured in units of watts per square metre.

PPG8
Planning policy Guidance notes set out the Governments policies on different aspects of planning.PPG8 became effective from 22 August 2001. It gives guidance on planning for telecommunications development – including radio masts and towers, antennas of all kinds, radio equipment etc
The main changes to PPG8 are:

- To update guidance to take account of developments in telecommunications technology and the growth of the telecommunications industry.
- To update guidance to take account of changes to the permitted development rights that apply to telecommunications code system operators
- To provide advice about taking account of health considerations in making planning decisions about telecommunications developments.

Pulsing
A characteristic of Airwave that enables users to share the system's communication capacity. Users are allocated a timeslot and their speech is

compressed and transmitted within these timeslots producing bursts or 'pulses'.

Radiofrequency identification devices (RFID)
Devices utilising the benefits of modern digital signal processing for transmitting data from transponders or tags places on a variety of goods for purposes of asset tracking and security. The radio communications system enables the tag devices to be interrogated and read remotely for purposes of identifying goods, vehicles or animals. The readers and tags both have radio antennas as required for wireless communication using propagating electromagnetic waves.

SAR
Specific Energy Absorption Rate. Rate at which energy is absorbed by unit mass of tissue in an electromagnetic field (unit watts per kilogram, W kg^{-1})

Shadowing
The physical shadowing of an area by natural or man-made obstructions such as trees, hills or buildings resulting in low or no radio signal.

Stub Mast
A roof-mounted mast structure which supports multiple antennas at a height where it can satisfactorily send and receive radio waves. A stub mast is typically 4m - 6m high and of steel lattice construction. Stub masts themselves play no part in the transmission of radio waves.

Tetra
TErrestrial **T**runked **RA**dio, typically used by utilities and emergency services. It uses a network of base stations to serve terminals that are either vehicle mounted or in the form of a separate handset. Its operation results in power modulation of the RF signal at a pulse frequency of 17.6HZ

Transmitter
Electronic equipment that generates radio frequency electromagnetic energy and is connected to an antenna via a feeder cable.

Ultra-wideband (UWB)

UWB has applications in radar, imaging and wireless communications, particularly short-range, high speed data transmissions suitable for broadband access to the internet.

Wavelength
Wavelength is the distance in metres between any two 'similar' points on a radio wave. This portion of the wave is referred to as one complete cycle. The lower the frequency of a wave the longer the wavelength.

Wireless local area networks (WLANs)
Wireless computer networking is becoming increasingly widespread in offices, schools and homes. It is also possible to access internet services via radio from a personal computer at locations remote from the home or workplace, known as wireless hotspots. Wireless connectivity is provided by wireless local area networks (WLANs). WLANs operate in various frequency bands between 2.4 and 5.85GHz.

* The definitions have been taken from a number of sources include the Mobile

Operators Association, Stewart Report, OFCOM and the NRPB.

Appendix 2 REVIEW PROFORMA

Policy on the siting of telecommunication masts on Council land and premises

Review Outline

Subject of review	Policy on the siting of telecommunications equipment on Council land and premises.
Overview and Scrutiny Committee	Task and Finish

Reasons for Conducting the Review

Reasons for conducting this review	Birmingham City Council does not have an explicit policy governing the siting of telecommunication equipment on its land or premises. The Council needs to agree a policy on this issue.
Objectives of review / Areas for investigation	• To investigate current practice on siting of telecommunication equipment on Council owned land/premises in Birmingham • To evaluate public concern about the issue and considerations for health and environment • To seek the views of elected members, public and specialist interest groups on the current practice of sitting of telecommunication equipment in Birmingham • To compare how practice differs across the UK, including case studies of local authorities and the different levels of precaution exercised.
Outcomes expected from conducting this work	• To suggest a policy position, for endorsement by the City Council, to govern the siting of telecommunication equipment on Council owned land/premises in Birmingham.

Project Plan and Resourcing

Member Involvement

Lead Member	Cllr Wilkes
Other Members involved	Cllrs Jan Drinkwater, Zoe Hopkins, Sarah-Jayne Plant, Barbara Jackson, Susan Axford, Neville Summerfield, Timothy Huxtable
Are all parties on the Overview and Scrutiny Committee involved?	Yes
Key Cabinet Member/Decision Maker	Deputy Leader
Other Cabinet portfolios covered	

Siting of Telecommunications Equipment on Council Owned Land and Premises

Officer and External Involvement

Link Officer	John Cade
Lead Review Officer	Natalie Borman

Council Departments Expected to Contribute

Contact / Department	Contribution Expected
Strategic Director of Resources	Existing practice, its implications and policy options
Chief Planning Officer	Handling of planning applications relating to telecommunication equipment
	A sketch of national and local planning guidelines
Chief Legal Services Officer	Considerations when negotiating leases for telecommunication equipment on council land/premises
Property Services	Current sitings of telecommunication equipment on Council Property

External Organisations Expected to Contribute

Contact / Organisation	Contribution Expected
Telecommunication Operators and Mobile Operators Association	Written and verbal presentation of their cases for the siting of telecommunication equipment on council land/property
Interest Groups – Mast Action UK, Birmingham Friends of the Earth, Mast Sanity, SCRAM, BRAM	Public perception/concern on siting of telecommunication equipment
Health/Science experts – Birmingham University? Consultant?	Current medical and/or scientific standpoint on effects to health of telecommunication equipment
Other Local Authorities	Comparative data on policies of siting of telecommunication equipment

Publicity and Awareness of the Review

Publicity activities to be undertaken	• Review details to be included on the Council's website • Consultation exercise to include elected Members' views and experience • Press releases to be issued

Time Frame for Core Phases of Review

Phase	Time Required	Completion Date
Meetings and evidence gathering sessions	Evaluation of Current situation	22 November 2004
	A briefing paper containing background information including the position of other local authorities will be circulated prior to the first meeting.	
	Contributions from Strategic	17 December 2004

Siting of Telecommunications Equipment on Council Owned Land and Premises

	Director of Resources, Chief Planning Officer, Property Services Site visits Public Meeting (North of the City) Public Meeting (South of the City) Views of telecommunication operators and Mobile Operators Association Views of Elected Members, the Public and interest groups Conclusions	7 January 2005 17 January 2005 21 January 2005 18 February 2005 During the review March 2005
Drafting the report		April 2005
Consideration of draft report by Committee		May 2005
8-Day Rule: Executive Comment		May 2005
Reporting to Committee		May 2005
Reporting to Council Business Management Committee		May 2005
Reporting to the City Council		July 2005

Specific Costs Identified

Anticipated call on Scrutiny Budget	Costs associated with site visits, public meetings and possibly consultancy fees.

Signed Approval

Signed:

(By Chair on behalf of Overview and Scrutiny Committee)

Date Agreed: 08 October 2004

(By Overview and Scrutiny Committee)

Approved:

(Chairman, Co-ordinating Overview and Scrutiny Committee)

Date Approved: 08 October 2004

(By Co-ordinating Overview and Scrutiny Committee)

Siting of Telecommunications Equipment on Council Owned Land and Premises

Appendix 3 PEOPLE'S PANEL REPORT

Birmingham People's Panel - Mobile Phone Masts Consultation
Final Report

Prepared by MVA for
Birmingham City Council

May 2005

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Siting of Telecommunications Equipment on Council Owned Land and Premises

Summary

Background

The Birmingham People's Panel has been set up to be broadly representative of the profile of the population of the City, for example, by ward, gender, age, ethnicity, disability and where possible working status and housing tenure. It is used as a means of obtaining residents' views on a variety of subjects and as a means of responding to residents' concerns.

In January 2005, MVA conducted research with the Panel regarding public views on mobile phone masts. This report details the findings from this research.

A Task and Finish Overview and Scrutiny Committee have been set up to investigate the current policy on the location of telecommunications equipment on council land and premises. The committee is charged with identifying a policy position to govern the future location of telecoms equipment on council owned land and premises.

As part of this review, the committee will be seeking the views of various stakeholders including elected members, mobile phone operators, health experts and public interest groups, as well as comparing practice among local authorities across the UK.

Research Objectives

The main objective for engaging the People's Panel was to test public knowledge of the issue, gain information about public concerns and use this to inform Birmingham's policy position.

Methodology

Two different methods were undertaken to obtain the required information.

Telephone Survey

A telephone questionnaire was developed in close consultation with Birmingham City Council, with due consideration for the aims of the consultation. The questionnaire was divided into sections to cover the key areas of interest. It was two pages long and was designed using a mixture of closed and open-ended questions. The questionnaire sought to gain insight regarding Panel members' opinions of mobile phone masts.

Telephone interviews were approximately 10 minutes in length and covered the following topics:

- Mobile phone masts in the local neighbourhood;
- Mobile phone masts and schools;
- Mobile phone masts and radiation levels;
- Health concerns regarding mobile phone masts; and
- Birmingham City Council and mobile phone masts.

All interviews were carried out by members of MVA's telephone interview team who are trained and experienced in these types of surveys. Interviewers were fully briefed and closely supervised by a Fieldwork Manager to ensure high quality work at all stages.

A total of 109 telephone interviews were completed.

Focus Groups

The second phase in the consultation was to carry out focus groups with Panel members. The purpose of the focus groups was to provide a detailed understanding of public opinions regarding mobile phone masts. The focus groups were also conducted in order to explore in depth the relevant issues raised in the telephone survey.

Two focus groups were conducted with a representative sample of respondents reflecting the Panel as a whole.

Key Findings - Telephone Survey and Focus Group Results

Mobile Phone Masts and the Local Neighbourhood

The majority of respondents are unaware if there are any mobile phone masts in their neighbourhood. Most of those who did believe that there were mobile masts, believed that there was just one.

The focus groups highlighted that a large proportion of respondents were not aware of what a mobile phone masts actually looks like.

Just over half of the respondents in the telephone survey indicated that they would not be happy to have a mobile phone mast in their neighbourhood, with

the main reason being that they are concerned that they are dangerous to people's health. They also felt that more research and information was needed regarding the safety of masts, and stated that they had seen adverse publicity/media coverage about the health risks.

Levels of concern regarding mobile masts was particularly high in the survey, with more than eight in ten respondents in the telephone survey highlighting that they are 'a little bit', 'fairly' or 'very concerned' about having mobile masts in their neighbourhood. Almost half of respondents would only be happy to have a mast situated one or more miles away.

Levels of concern were somewhat less in the focus groups. Around half of the respondents highlighted that they would generally not be concerned to have a mobile mast in their neighbourhood, unless there was evidence that they were harmful.

Mobile Phone Masts and Schools

The majority of respondents, both in the focus groups and telephone survey, would be very concerned if a mobile mast was located on a school in their area. More than two thirds of respondents would not want to see a mobile mast located within one mile of school premises.

Respondents in the focus groups felt that until there was clear evidence that mobile phone masts did not cause any harm then it would be better to avoid having masts near to or on school premises, to avoid putting children at risk.
Although respondents did not feel that locating masts on or near schools was appropriate, they were not able to think of suitable alternative locations.
Concerns

The main concern in relation to mobile phone masts was health. Lack of information and negative media stories were frequently given as reasons behind respondent's negativity towards mobile phone masts.

A small proportion of the survey, and focus group members, also highlighted

that they were concerned about the appearance of mobile phone masts. It was suggested that if mobile phone masts were to be installed then care should be taken to ensure that they are suitable for the surroundings.

Several respondents in the focus groups felt that currently there was a lot of ignorance amongst the public surrounding mobile phone masts. They were aware that the amount of radiation emitted from masts was not as great as many people are led to believe from the media, and hence there was a lot of unnecessary concern and objections.

Mobile Phone Masts and Radiation

When asked to compare the amount of radiation emitted from mobile phone masts to a number of household items, mobile phone masts were ranked first in the survey, as the item that emits the most radiation, despite the fact that it actually emits the least. Similarly, respondents in the focus groups were unsure as to the level of radiation emitted from masts, ranking masts as the second and third item in terms of radiation emitted.

Respondents in the focus groups were very surprised to learn that mobile phone masts actually emit less radiation than all of the other household appliances. The views and opinions of the majority of respondents changed after learning this. Everyone felt that people would be far less concerned if they were made aware of information such as this, as most people use the other household items on a daily basis without any concern.

This again highlighted how a lack of information supplied to the public was responsible for the general attitude that mobile phone masts are responsible for emitting high levels of radiation and thus being a danger to people's health.

No one in the focus groups was aware of evidence that indicates where the main beam from an antenna has maximum power. Despite being made aware of this, most still maintained the view that they felt masts should be kept away from school premises, until there was independent scientific evidence proving that the masts were not a danger to people's health.

Birmingham City Council and Mobile Phone Masts

Just over half of the respondents in the survey believe that Birmingham City Council should prohibit mobile phone operators from installing masts on Council owned land and properties. The focus group members however were less concerned about this, as they would prefer to see the Council regulating the location of mobile phone masts, as they should be more concerned about the safety of the public than making profits.

The majority of respondents in the focus groups felt that, providing the money was put to good use, and safety implications considered, then they would not object to the Council charging mobile phone companies should they wish to install masts on Council owned land and properties. It was however highlighted that whoever was responsible for this job within the Council should be qualified to do so and fully aware of the potential risks.

Despite the concern raised in the survey and focus groups, almost all respondents agreed that mobile phone masts are an acceptable development. Respondents agreed that it was unlikely that people, including themselves, would be prepared to give up their mobile phones.

All respondents agreed that further independent research was needed into the effects of mobile phone masts. They felt that information should also be made widely available to the public to allow them to make informed opinions on mobile phone masts. It was felt that widespread publicity would be needed for people to take note of what was being said, although the negative media stories of the past may mean it took time for people to become completely satisfied with the idea of masts.

Introduction

Background

The Birmingham People's Panel has been set up to be broadly representative of the profile of the population of the City, for example, by ward, gender, age, ethnicity, disability and where possible working status and housing tenure. It is used as a means of obtaining residents' views on a variety of subjects and as a means of responding to residents' concerns.

In January 2005, MVA conducted research with the Panel regarding public views on mobile phone masts. This report details the findings from this research.

A Task and Finish Overview and Scrutiny Committee have been set up to investigate the current policy on the location of telecommunications equipment on council land and premises. The committee is charged with identifying a policy position to govern the future location of telecoms equipment on council owned land and premises.

As part of this review, the committee will be seeking the views of various stakeholders including elected members, mobile phone operators, health experts and public interest groups, as well as comparing practice among local authorities across the UK.

Research Objectives

The main objective for engaging the People's Panel was to test public knowledge of the issue, gain information about public concerns and use this to inform Birmingham's policy position.

The People's Panel members were consulted in two ways, initially via a short telephone survey, in order to provide a quantitative measure of opinions from a representative sample of residents. Secondly, via focus groups, in order to consider the issues in depth and provide more qualitative insights.

Structure of Report

The remainder of the report is organised as follows:

- Chapter Two outlines the research methodology;
- Chapter Two outlines the findings from the telephone survey;
- Chapter Three outlines the focus group findings; and
- Chapter Five draws conclusions on all the research carried out.

Methodology

Introduction

The methodology for the consultation comprised the following elements:

- Telephone survey; and
- Focus groups.

Telephone Survey

This section sets out the methodology used for the telephone survey.

Questionnaire

A telephone questionnaire was developed in close consultation with Birmingham City Council, with due consideration for the aims of the consultation. The questionnaire was divided into sections to cover the key areas of interest. It was two pages long and was designed using a mixture of closed and open-ended questions. The questionnaire sought to gain insight regarding Panel members' opinions of mobile phone masts.

Telephone interviews were approximately 10 minutes in length and covered the following topics:

- Mobile phone masts in the local neighbourhood;
- Mobile phone masts and schools;
- Mobile phone masts and radiation levels;
- Health concerns regarding mobile phone masts; and

Birmingham City Council and mobile phone masts.

A copy of the telephone questionnaire can be found in Appendix A.

Telephone Interviews

All interviews were carried out by members of MVA's telephone interview team who are trained and experienced in these types of surveys. Interviewers were fully briefed and closely supervised by a Fieldwork Manager to ensure high quality work at all stages.

All interviews were carried out between Saturday 29th January and Saturday 5th February 2005.

Table 2.1 shows the response of Panel members by ward.

Table 9.1 Telephone Survey Response by Ward

	Respondents to Survey No.	Respondents to Survey %
Acocks Green	5	4.6
Aston	4	3.7
Bartley Green	2	1.8
Billesley	2	1.8
Bordesley Green	1	0.9
Bournville	1	0.9
Brandwood	2	1.8
Edgbaston	2	1.8
Erdington	4	3.7
Hall Green	0	0.0
Handsworth Wood	6	3.5
Harborne	2	1.8
Hodge Hill	1	0.9
Kings Norton	1	0.9
Kingstanding	4	3.7
Ladywood	1	0.9
Longbridge	3	2.8
Lozells and East Handsworth	1	0.9
Moseley and Kings Heath	0	0.0
Nechells	1	0.9
Northfield	3	2.8
Oscott	6	5.5
Perry Barr	3	2.8
Quinton	2	1.8
Selly Oak	4	3.7
Shard End	2	1.8
Sheldon	4	3.7
Soho	0	0.0
South Yardley	4	3.7
Sparkbrook	1	0.9
Springfield	1	0.9
Stechford and Yardley North	1	0.9

	Respondents to Survey No.	Respondents to Survey %
Stockland Green	3	2.8
Sutton Four Oaks	7	6.4
Sutton New Hall	3	2.8
Sutton Trinity	2	1.8
Sutton Vesey	6	5.5
Tyburn	1	0.9
Washwood Heath	3	2.8
Weoley	10	9.2
Total	**109**	**100.0**

*Results do not always add up to 100.00% due to rounding of figures.

Table 2.1 shows that the responses included a wide representation of the wards in Birmingham.

Table 2.1 shows the profile of respondents.

Table 9.2 Telephone Survey Profile of Respondents

Respondent Characteristic	No. of Respondents	% of Respondents
Gender		
Male	61	56.0
Female	48	44.0
Total	**109**	**100.0**
Age Group		
17 to 24 years	5	4.6
25 to 34 years	4	3.7
35 to 44 years	15	13.8
45 to 54 years	18	16.5
55 to 59 years	22	20.2
60 to 64 years	15	13.8
65 to 74 years	23	21.1
75 years and over	7	6.4
Total	**109**	**100.0**
Disability		
Yes	23	21.3
No	85	78.7
Total	**108**	**100.0**
Employment Status		
Employed	52	47.7
Unemployed	5	4.6
Wholly retired from work	32	29.4
Full-time education	1	0.9
Permanently sick or disabled	8	7.3
Looking after the home/family	8	7.3
Other	3	2.7
Total	**109**	**100.0**
Ethnicity		
White (British or Asian)	100	91.8

Respondent Characteristic	No. of Respondents	% of Respondents
Other	9	8.3
Total	**109**	**100.0**

***Results do not always add up to 100.00% due to rounding of figures.

Table 2.2 shows that the sample interviewed provided a good representation of the population of Birmingham.

Focus Groups

The second phase in the consultation was to carry out focus groups with Panel members. The purpose of the focus groups was to provide a detailed understanding of public opinions regarding mobile phone masts. The focus groups were also conducted in order to explore in depth the relevant issues raised in the telephone survey.

Two focus groups were conducted with a representative sample of respondents reflecting the Panel as a whole.

Ten respondents were recruited to attend each of the focus groups, which lasted approximately one and a half hours, and participants were offered an incentive of £20 for attending. All groups were moderated by a member of MVA's professional staff, who is experienced in group moderation.

The key characteristics of the focus group members are shown in Table 2.3, and the geographical location of respondents in Table 2.4.

Table 9.3 Focus Group Respondent Characteristics

Respondent Characteristic	Group 1	Group 2
Gender		
Male	2	5
Female	5	4
Total	**7**	**9**
Age Group		
16 to 24 years	2	1
25 to 34 years	1	1
35 to 44 years	1	2
45 to 54 years	2	2
55 to 59 years		
60 to 64 years		1
65 to 74 years	1	2
75 years and over		
Total	**7**	**9**
Disability		
Yes	1	
No	6	9
Total	**7**	**9**
Employment Status		
Employed	4	5
Wholly retired from work	1	1
Full-time education	1	1
Carer		2
Permanently sick/disabled	1	
Total	**7**	**9**
Ethnicity		
White (British or Irish)	4	8
Other	3	1
Total	**7**	**9**

Table 9.4 Focus Group Respondents by Ward

Ward	Group 1	Group 2
Acocks Green	1	
Aston	1	2
Brandwood		1
Erdington	1	1
Kings Norton		1
Perry Barr	1	
Shard End	1	1
Springfield		1
Stechford and Yardley North	1	
Sutton Four Oaks		1
Washwood Heath	1	
Weoley		1
Total	**7**	**9**

Discussion Guide

The discussion guide for the focus groups was designed to provide an appreciation of public views on mobile phone masts. The groups focused on discussing key areas, these were:

- Use of mobile phones;
- Introduction to mobile masts;
- Mobile masts in your neighbourhood;
- Mobile masts and schools;
- Effects of mobile masts;
- Birmingham City Council and mobile masts;
- Antenna and beam information;
- Mobile masts and public safety; and
- Birmingham City Council future plans.

A copy of the discussion guide used for the focus groups can be found in Appendix B.

Telephone Survey

Introduction

This chapter details the key findings from the telephone survey.

Mobile Phone Masts and the Local Neighbourhood

To begin with, respondents were asked if they were aware of any mobile phone masts in their neighbourhood. Table 3.1 shows that almost three quarters (74.3%) of respondents did not think that there were any mobile masts in their neighbourhood, 17.4% believed that there were, and 8.3% did not know.

Table 9.5 Awareness of Mobile Phone Masts in Local Neighbourhood

Awareness	Frequency	% of Respondents
Yes	19	17.4
No	81	74.3
Don't know	9	8.3
Total:	**109**	**100.0**

Respondents who had stated that there were mobile phone masts in their neighbourhood were asked to indicate how many they thought there were. Table 3.2 shows that just under half (47.4%) felt that there was just one mast in their neighbourhood, whilst one in ten believed there to be either two, three or five.

Table 9.6 Number of Mobile Phone Masts in Local Neighbourhood

Number of Masts	Frequency	% of Respondents
One	9	47.4
Two	2	10.5
Three	2	10.5
Four	1	5.3
Five	2	10.5
Nine	1	5.3
Ten	1	5.3
Twelve	1	5.3
Total:	**19**	**100.0**

Respondents were asked whether or not they were happy/would be happy to have a mobile mast in their neighbourhood. Just over half (53.2%) indicated that they would not be happy, but one third (33%) said that they would. Just over one in ten (13.8%) highlighted that they did not know. This information is shown in Table 3.3.

Table 9.7 Would you be Happy to have a Mobile Phone Mast in Your Neighbourhood

	Frequency	% of Respondents
Yes	36	33.0
No	58	53.2
Don't know	15	13.8
Total:	**19**	**100.0**

Those respondents who would not be happy to have a mobile mast in their neighbourhood were asked to give the reasons why. The reasons given were (number of respondents in brackets):

- Concerned they are dangerous to health/concerned they cause cancer/dangerous radiation (32);
- Not sure they are safe, more research/information needed (12);
- Adverse publicity/media coverage about health risks (10);
- Worried about them being near children/schools nearby (4);
- Appearance/they are an awful sight (2)
- I have technical knowledge and know they are dangerous (1);
- The electronic problems (1);
- Lack of consultation about putting up masts (1);
- Saturation point – masts dotted about all over the place (1); and
- Not if it's too close to my house (1).

Respondents were asked how concerned they are/or would be about mobile masts in their neighbourhood. Figure 3.1 shows the results.

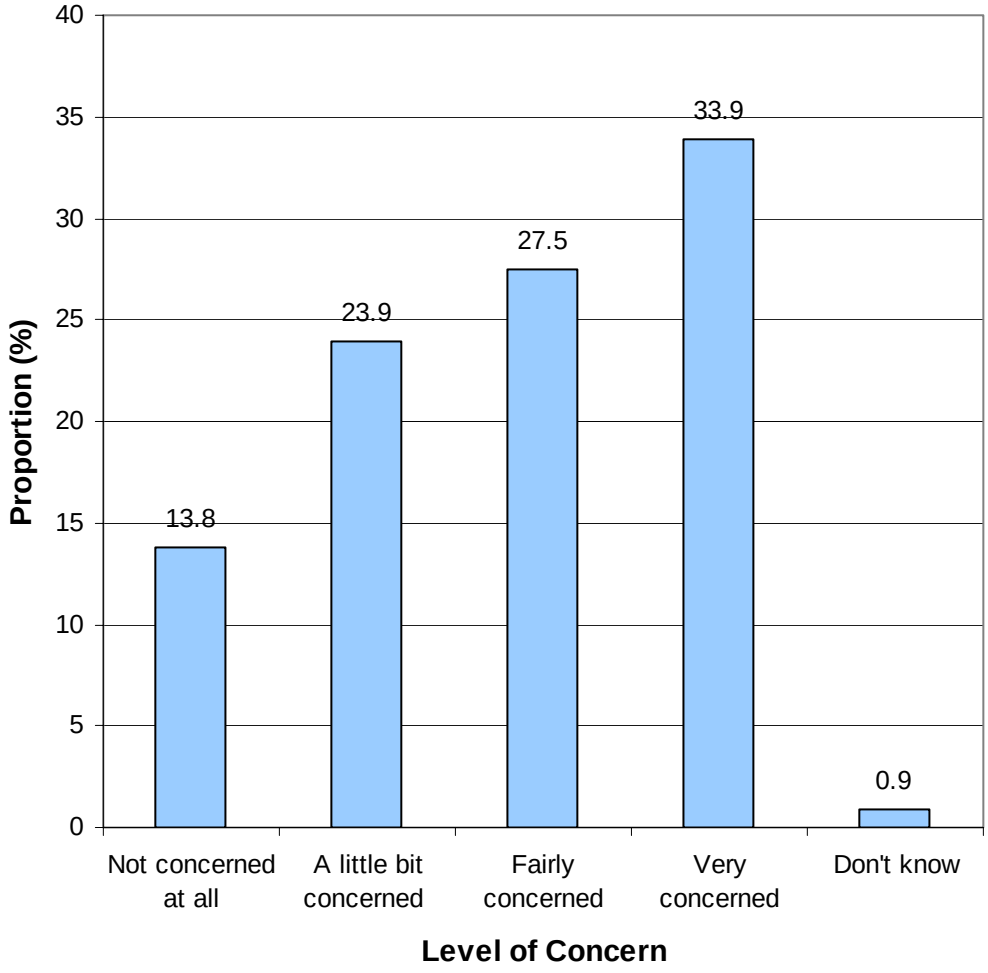

Figure 3.1 Level of Concern about Mobile Phone Masts in Local Neighbourhood

(Base: 109 Respondents)

Figure 3.1 shows that more than six in ten respondents (61.4%) are concerned about mobile phone masts in their neighbourhood, of which one third (33.9%) are very concerned. Almost one quarter (23.9%) are a little bit concerned about mobile phone masts in their neighbourhood, whist over one in ten (13.8%) are not concerned at all.

Respondents were asked how close to their house they would be happy to have a mobile mast sited. Figure 3.2 shows the results.

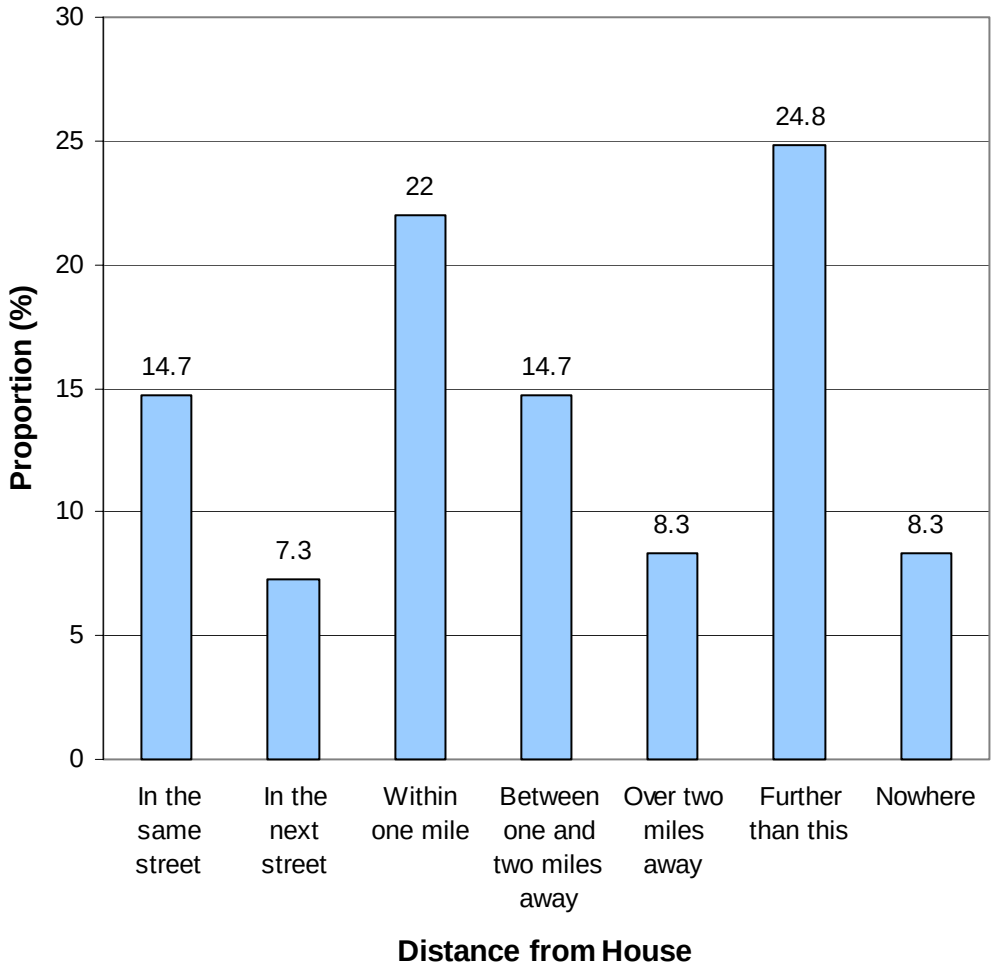

Figure 3.2 Distance from House that Respondents would be Happy to have Mobile Phone Masts

(Base: 109 Respondents)

Figure 3.2 shows that more than one fifth (22%) of respondents would be happy to have a mobile mast in the same or next street, or within one mile (22%). Almost one quarter (24.8%) would be happy to have a mobile mast further than two miles away whilst 8.3% would not want to see masts anywhere in their neighbourhood.

Mobile Masts and Schools

Respondents were asked how concerned they would be if a mobile mast was put next to a school in their area. Figure 3.3 shows the results.

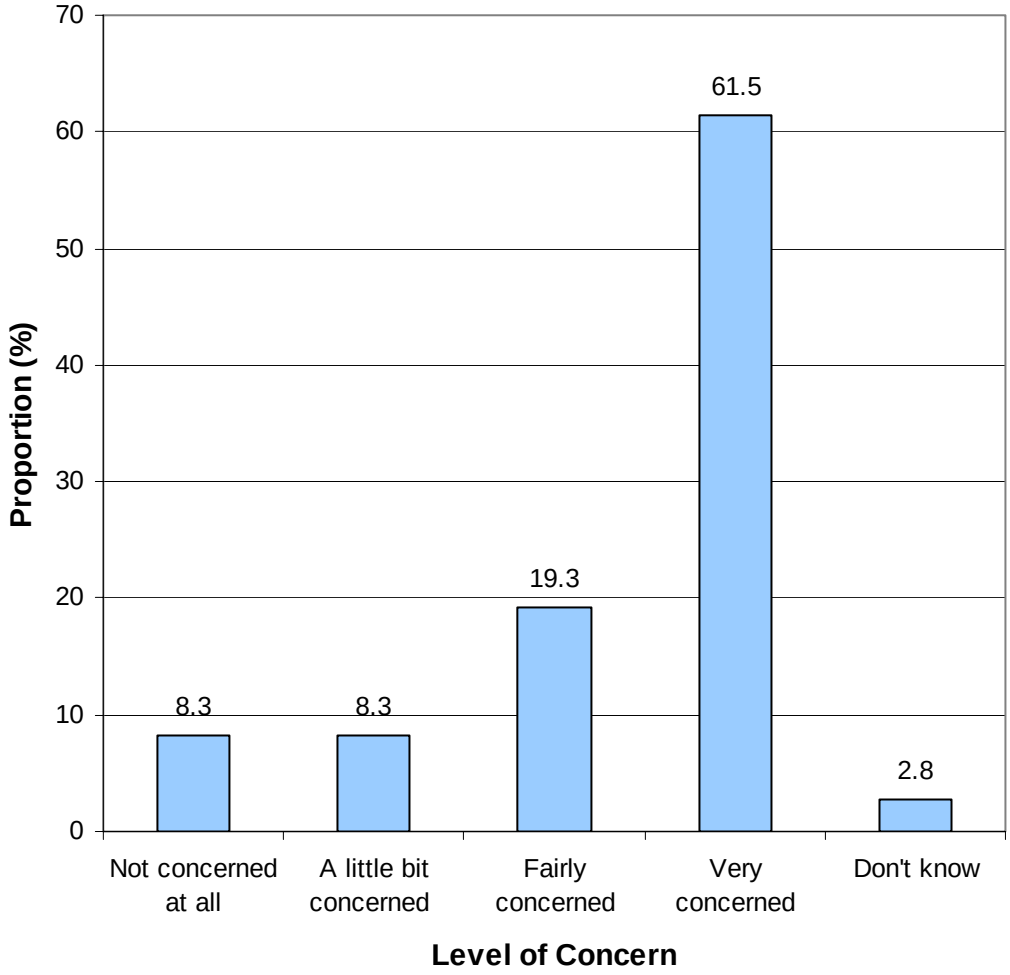

Figure 3.3 Level of Concern about Mobile Phone Masts in Local Neighbourhood

(Base: 109 Respondents)

Figure 3.3 shows that over six in ten (61.5%) respondents indicated that they would be very concerned if a mobile phone mast was put next to a school in their area, and a further 19.3% would be fairly concerned. Only 8.3% of respondents highlighted that they would not be concerned at all if a mobile phone mast was put next to a school in their area.

Respondents were asked to indicate how close to a school they would be happy to have a mobile mast located. Figure 3.4 shows the results.

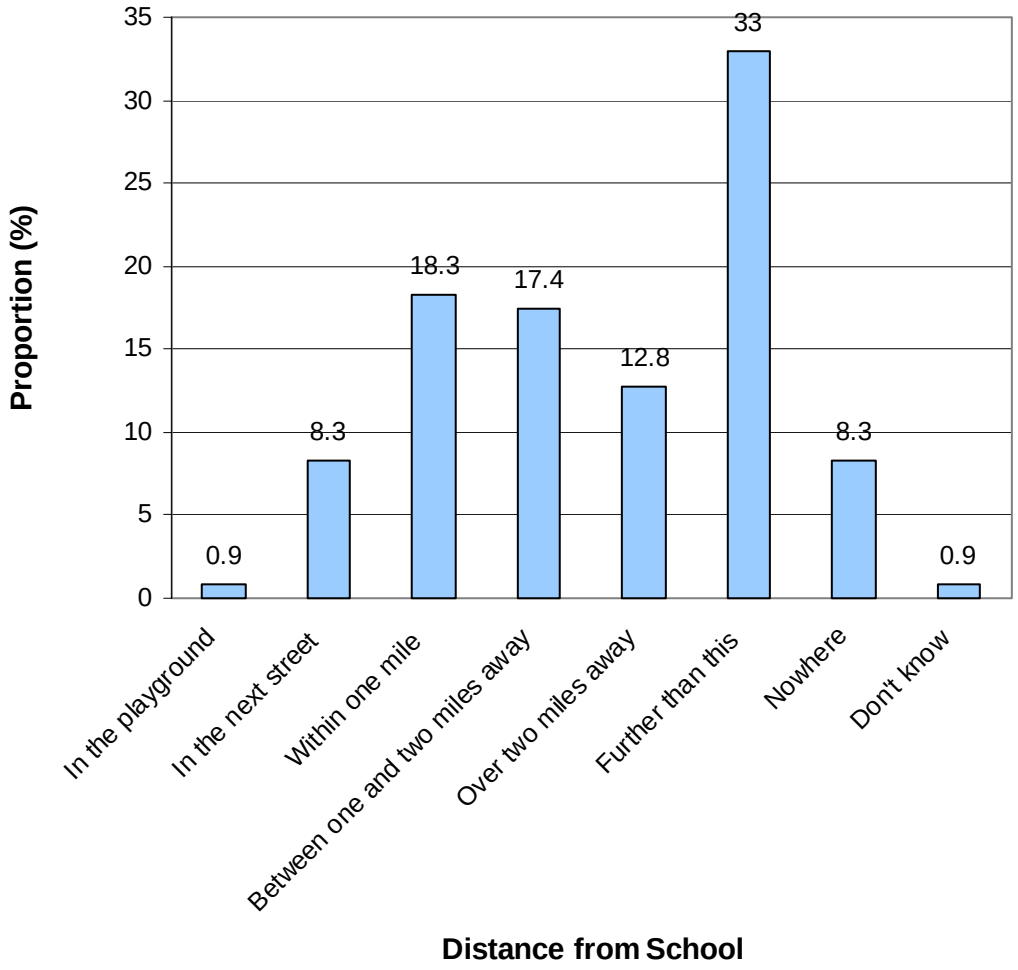

Figure 3.4 Distance from School that Respondents would be Happy to have Mobile Phone Masts

(Base: 109 Respondents)

Figure 3.4 shows that one third (33%) of respondents would not be happy unless a mobile mast was further than two miles away. Less than one in ten (8.3%) would be happy to have a mobile mast in the next street.

Mobile Phone Masts and Radiation

Respondents were presented with a list of items and asked which they felt emits the greatest level of radiation. They were asked to number the items from 1 to 5, with 1 being the item that emits the greatest level of radiation and 5 the least. Table 3.4 shows the results.

Siting of Telecommunications Equipment on Council Owned Land and Premises

Table 9.8 Level of Radiation Emitted

	Mean Rank
Mobile Phone Masts	2.44
Microwave	2.58
Colour Television	3.33
Telephone Handset	3.51
Vacuum Cleaner	4.49

1 = most radiation, 5 = least radiation

Table 3.4 shows that respondents believe that mobile phone masts emit the most radiation, followed by microwaves, and that a vacuum cleaner emits the least.

Almost six in ten respondents believe that electric power lines emit more radiation than mobile phone masts, as shown in Table 3.5.

Table 9.9 Which emits the Greatest Level of Radiation?

	Frequency	% of Respondents
Mobile Phone Masts	46	42.2
Electric Power Lines	63	57.8
Total:	**109**	**100.0**

Respondents were asked what there main concerns were in relation to mobile phone masts. Table 3.6 shows that their main concerns were related to health issues.

Table 9.10 Main Concern in Relation to Mobile Phone Masts

	Frequency	% of Respondents
Health issues	85	78.0
Their appearance / unsightly etc.	15	13.8
Don't know	9	8.3

	Frequency	% of Respondents
Total:	**109**	**100.0**

Respondents were asked what their main concerns regarding mobile phone masts were based on. Figure 3.5 shows the results.

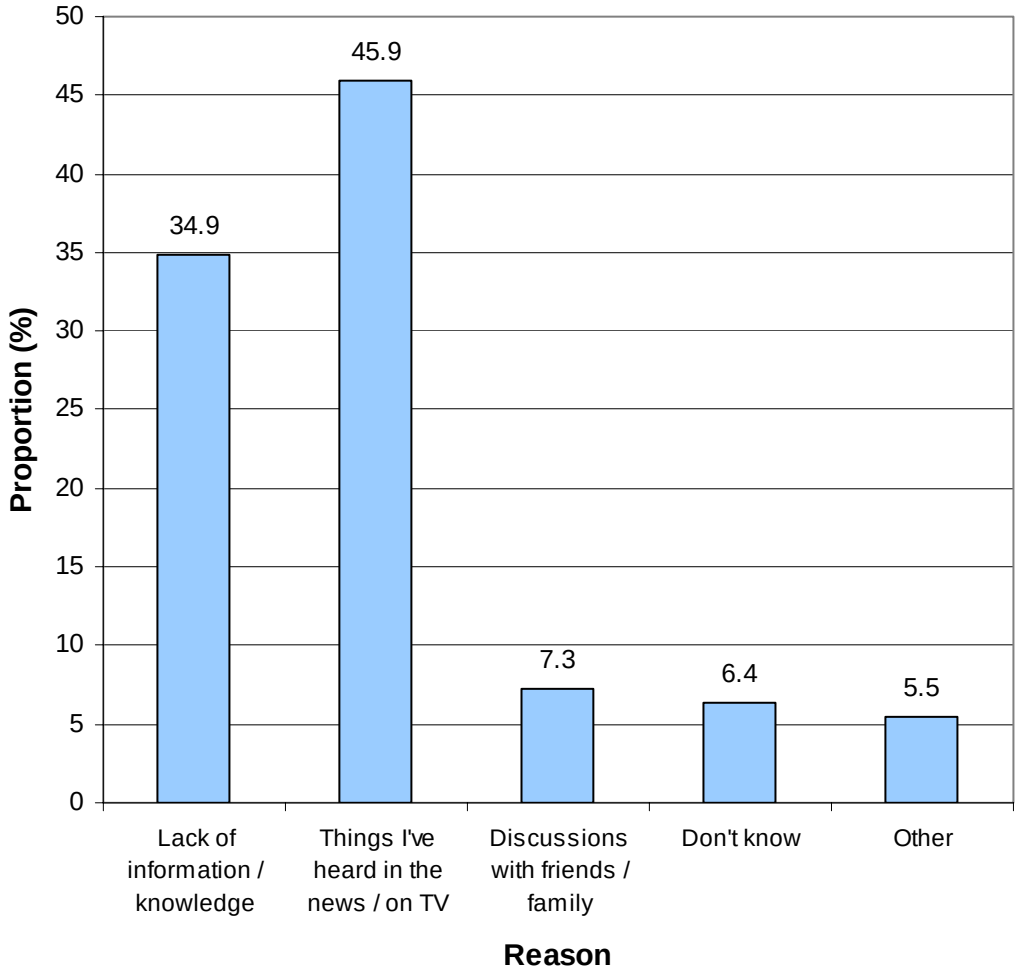

Figure 3.5 Main Reason behind Concern in Relation to Mobile Phone Masts

(Base: 109 Respondents)

Figure 3.5 shows that more than four in ten (45.9%) respondents indicated that their concern was due to things they had heard in the news and on TV, whilst just over one third (34.9%) stated that it was due to a lack of information/knowledge.

Other reasons behind their concerns that respondents gave were (number of respondents in brackets):

- They don't look very nice/they are unsightly (4);
- Haven't given much thought to any of it (1); and
- Personal knowledge through my job (1).
- Birmingham City Council Future Plans
- More than half (56%) of respondents believe that Birmingham City Council should prohibit mobile phone operators installing masts on Council owned land and properties. This is shown in Table 3.7.

Table 9.11 Installing Masts on Council owned Land and Properties

Should Birmingham City Council Prohibit installation?	Frequency	% of Respondents
Yes	61	56.0
No	40	36.7
Don't know	8	7.3
Total:	**109**	**100.0**

Despite this, 75.2% of respondents believe that masts are an acceptable development so that people can use their mobile phones, as shown in Table 3.8.

Table 9.12 Are Masts an Acceptable Development?

	Frequency	% of Respondents
Yes	82	75.2
No	19	17.4
Don't know	8	7.3
Total:	**109**	**100.0**

Finally, respondents were asked if they had any further comments regarding mobile phone masts. Comments made were (number of respondents in brackets):

- Don't know enough/more information/research is needed about health risks and radiation (11);
- Masts should be erected away from urban/residential areas/or in brown field sites/by motorways (7);
- Masts should be kept away from areas where there are young children/schools/should be fenced off to keep children safe (6);

- There should be more accurate information made available to the general public/Council should provide leaflets/info pack about safety of masts (6);
- Companies should look at alternative ways of sending mobile phone signals e.g. satellites/more low-power transmitters and receivers/weaker signal strengths (5);
- Information received is often conflicting (3);
- They should be disguised (e.g. as trees or streetlamps) to fit into landscape (2);
- It should be mandatory that all masts go through the 'planning permission' process/applications should be vetted more thoroughly (2);
- If people want mobile phones then the masts have to be erected somewhere (2);
- New masts should be kept to a minimum (1);
- I used to work on power lines so I know a bit about connections. I've got personal knowledge and am worried (1);
- It is too late now. Things have gone too far to stop progress (1);
- The location of masts is very important to the public (1);
- We elect the local council officials and I would trust them to make the right decisions in relation to the location of phone masts (1);
- I don't think any more masts should be erected (1);
- We should be cautious about these masts (1);
- The telephone companies just do what they want, all in the name of profit (1); and
- The health issue is more 'hyped up' than it should be (1).

Focus Group Findings

Introduction

This chapter details the key findings from the focus groups.

Group One

Use of Mobile Phones

To begin with, in order to establish levels of mobile phone use within the group, respondents were asked whether or not they own a mobile phone, and if so, how frequently they use it.

With one exception, all members of the group were mobile phone owners. All members with mobile phones have had them for between four and ten years, and most use them fairly frequently.

"I've had mine for six years, for personal use, and I use it far too much."
"I use mine for business and pleasure."
"I've had mine for ten years, but it's mostly for emergency calls."

Only one respondent did not own a mobile phone and had no intention of getting one in the future.

"I'm quite sure that 95% of them are not necessary. I can understand that people who put themselves in awkward positions need them, for business use yes. But the number of people I see having inane conversations in the street, that's what puts my back up. It's just unnecessary."

Mobile Phone Masts in your Neighbourhood

Only a few members of the group were aware that there may be mobile phone masts in their neighbourhood, but most were not sure.

"There isn't any, not that I know of."
"I'm not sure, I don't really take any notice."

Others were aware that there were mobile masts in their neighbourhood, but were not sure of the exact locations as it was not something they were particularly concerned about.

"There are some but I couldn't tell you where they are."
"I've spotted a few but I just forget, they are not important to me."
"I know there is a controversial one in Wishaw, but that's miles from where I live. That's it really, I don't know of any others."

Most members of the group were not entirely sure what mobile phone masts actually looked like. Some were aware of antennas they had seen in their areas, but did not know if these were mobile phone masts.

"I'm sure there must be but I couldn't tell you what they look like."
"I've seen antennas of the flats but I don't know what there are, I'm not sure what mobile masts look like."
"I've seen antennas on the flats by me, but I don't know if they are mobile masts."

The majority of respondents highlighted that they would generally not be concerned to have a mobile mast in their neighbourhood, unless there was evidence that they were harmful.

"From my experience, it doesn't bother me at all."
"I suppose that if there was enough evidence that it was harmful, that would concern me."
"If there was a link that they are harmful, then it would concern me, but then again if you use one, you can't really disagree can you? I don't really know that much about them, so therefore it doesn't bother me."

Only a couple of respondents highlight any real concern regarding masts in their neighbourhood.

"I'm concerned. I've got young children so I'm concerned. I've read stories in the past about people who live in areas where they are worried about the effects and so I'm concerned. But what can you do? There must be some reason why people are making a fuss. As soon as one thing is proved, something else comes along and disproves it, so you don't really know. But then I use a mobile phone, so what can I say?"
"They are now saying that it's not safe for young children to use mobile phones, so I am concerned in that way. But as has been said, no one can prove it one way or the other, at the moment. But that's not to say in five years they won't be able to."

Respondents were asked how happy they would be to have a mobile phone mast near to their house, and at what distance. One respondent was fairly concerned and therefore would not want one anywhere near, whereas others felt that it would be acceptable if the masts were situated on tall buildings.

"I wouldn't want one at all."
"I think that they should be, as some of them are now, on very high buildings, or in rural areas, the countryside."
"If I had a high enough building to live in, then putting it on top of that wouldn't bother me in the slightest."
"I guess if it was a wacking great free standing mast, and I owned the house, and I was planning to live their and have children, then maybe I'd have some objections. But if it was on top of some high rise buildings I wouldn't mind."

Mobile Phone Masts and Schools

The group were asked to give their thoughts on mobile phone masts being situated on or near to schools. Everyone in the group highlighted real concern regarding this and felt that it was unnecessary. The group suggested that until there was clear evidence that mobile phone masts did not cause any harm then

it was probably better to avoid having masts near to or on school premises to prevent putting children at risk.

"I disagree with it."

"I don't think I agree with that. Even for the sake of safety. Children are still in their formative stages and shouldn't be put at risk at any time. So they should be kept away from schools at the maximum effective distance, but other than that I don't think it's really important."

"Obviously we don't actually know if they are a health risk, but because we don't know one way or the other, then I don't think that we should take the risk of putting it on or close to a school. If we say that they don't harm you and then we are wrong, then we are putting children at risk, and as you say, children are growing and we don't want to put them at risk."
"I think that if there is any thought that there could be a risk then it should not be put near to schools, or anywhere where children are developing. But I don't know the real answer to it. I think that environmentalists need to do more research into it, and then only time will tell, but will it be too late?"

One respondent highlighted how she would be very concerned if she discovered that there were plans to put a mobile mast on her children's school, but she did not think that all parents would share her concern as getting a good phone signal may be important to them.

"I wouldn't be happy, but I'm not sure if other parents would be backing me. I'm not sure if people are thinking, 'oh good I've got a better reception on my phone', rather than thinking about further down the line. I wouldn't be happy."

No one in the group was aware if there are mobile phone masts near to or on school premises in their area.

The group were asked how close to a school they would be happy to have a mobile phone mast. Again, due to uncertainty regarding the harm they cause, the group felt that maximum safety measures should be taken to protect

children.

"I think that where children are concerned, maximum safety should be given towards minimum risk. It doesn't matter if it's only the slightest risk, maximum safety measures should be taken."

The group were asked where they do think would be acceptable to situate masts, given that they felt schools were not suitable. Some felt that high rise buildings were more suitable, particularly commercial premises, but the majority of the group failed to suggest any alternative locations.

"High rise buildings mostly. It cuts down vandalism, and it's less unsightly."

"Maybe not residential high rise buildings, you know blocks of flats where people are going to be living. More commercial premises."

"I was going to say recreational places like parks and open spaces, but then I guess people would complain about them there too."

Effects of Mobile Phone Masts

It was clear that for the majority of the group, the only real concerns regarding mobile masts in their neighbourhood were due to appearance.

"It's just appearance."

"……I live in a two floor block of flats, it would be unsightly. And that's the only objection I would have."

"If they tried to put one in our neighbourhood people would complain because there area lot of children. They would be concerned about the children trying to get onto them to climb them, because they are inquisitive."

"The higher they are, they are out of mischief and less seen."
"Appearances, that's the only objection that I have."

A couple of members of the group felt that currently there was a lot of ignorance amongst people surrounding mobile phone masts, and a lot of unnecessary concern and objections.

"The unit itself is only about four feet high, it's the unit below it which causes most people problems I think. The emissions from it are just radio waves, which have been around for years. There is a lot of scare mongering about it."

"I think that's the problem isn't it, people panic, it's ignorance, people just start protesting because they don't know what they are talking about."

One respondent felt that some of the problems surrounding the location of mobile masts came from the mobile phone companies themselves, as he felt that they had made people become suspicious by 'hiding' the masts in signs, which he felt made people presume they were something to be concerned about.

"I think that what has made this thing worse is that people have tried to hide these things inside petrol station signs, and so they've made people think there is something to hide. If they'd been totally honest about it and told people that they are just radio waves, there wouldn't be a problem."

Respondents felt that most of the concern regarding mobile phones had come from people believing things they have seen or read in the media.

"I wouldn't say that personally I've got concerned, but you do hear anecdotal pieces in the media, which you can choose to be influenced by or not, but I've not really got that many concerns. But the fact that nothing has been proven does make you a little bit wary."

"I think that I've read about an area in Sutton Coldfield where they've had increased incidences of child cancers, and there was concern that was this linked to the masts. I read it quite a while ago so I don't remember all the details, but I remember it sticking in my head that there was a link."

"I think that's where people get their ideas from, its things like that. Once something gets put in the newspapers people read it and get worried about it and it escalates then doesn't it?"

Birmingham City Council and Mobile Phone Masts

Respondents were asked what their feelings were about businesses being offered money to allow mobile masts to be situated on their sites. There were mixed feelings amongst respondents as they felt that on one hand phone companies should pay rent for the land they use, but they were also aware that this may incur further costs to themselves as the end customer.

"I think that if the company owns the land and phone companies want to use it then they should pay rent. But then on the other hand if these big companies are earning millions in profits then why do they need to charge, as it just raises the price for the end user, which is us."

"I agree with that totally."

Respondents did not strongly object to the suggestion that the Council could charge mobile phone companies should they wish to situate masts on their sites, although they felt that it was important that the Council considered all public safety aspects first, and then that the money was put to good use.

"From my point of view the Council are working for the people, and to do that they need money to survive. They are helping to provide a service, whilst trying to keep people safe at the same time, and earn money to keep the Council going, so its catch 22 really."

"If the money was put into good use, like research into if there are health problems, then I wouldn't mind."

"It's a very difficult balancing act in that case. It does seem that a lot of large sums of money are being put about."

"It depends on what they did with the money."

"And where they put them as well."

Everyone agreed that they would prefer to see the Council regulate the building and location of mobile masts in Birmingham, as they felt that they would be working to ensure the best interests of the public are considered.

The group felt strongly that mobile phone companies should not be responsible for making these decisions themselves.

"If the Council are getting the money then they should dictate where they go because they are caring for the people."

"Definitely the Council."

"The Council, cause they are who we look to, to protect us."
"Mobile phone companies can't regulate themselves."

"I think they should have an independent body."

"I don't think that any organisation that's in the business of making a profit can regulate itself."

No-one felt that the Council should stop mobile phone companies installing masts on Council owned land or properties, unless it was felt to cause harm or nuisance to local people.
"It depends whether the planning permission is infringed, or if anyone's rights are infringed."

"If its Council land, and they consider it to be safe, and profitable, then I don't see why there should be an objection."

"When all facets have been looked at, i.e. the safety, the inconvenience, if the Council considers all those angles and comes up with the right conclusion then I

don't see why it shouldn't go ahead."

The group did feel that they would prefer to see the Council take the lead in the regulation and positioning of mobile phone masts. However, they did highlight their concerns about exactly who in the Council should be responsible for such decisions, as they felt that the responsibility should live with someone who is an expert in the field and fully aware of the potential risks.

"I'm not sure, cause I'm not sure about the Council as an organisation. I think that they would probably drag their feet a bit, and there would be a lot of paperwork. I think that it would have to be a department who are taking it very seriously and looking at the implications, are there other masts nearby, why do you need it. It needs to be regulated, it needs to be properly managed by people who know what they are talking about, who have all the information."

"It would need to be someone specialist in the Council who has all the knowledge, not just anyone working in the Council who would be passing those papers around."

"You need experts to be dealing with it."

With the majority of the group being mobile phone owners, they were all aware of the difficulties surrounding the positioning of mobile phone masts. Although they felt that there may be some areas of concern, they also felt that masts are acceptable development, as no one wanted to give up their mobile phones.

"They are acceptable, totally."

"It's a necessity isn't it?"
Although respondents did feel that mobile phone masts were necessary, they did wonder whether enough was being done by mobile phone companies to ensure that the number of masts in a given area was kept to a minimum by sharing sites.

"I do [think they are necessary], but I just wonder if there has been enough

done with regards to regulations. I mean if you've got four mobile phone companies, you've got four masts in one area, is there not a way around that?"

"Is there not a way they can share?"

Antenna and Beam Information

Existing scientific evidence shows where the main beam from an antenna has maximum power. This is called the RF intensity. The reason why this is important is because erecting an antenna in a school yard or playing field for example may mean that it is less affected by the main beam than if it was, say, located some 200 metres away from the school.

No one in the group was aware of this and were surprised when informed.

"I didn't know that."

"Really? I didn't know."

"I know the theory but it's not something that I'd considered."

This again raised concerns that so much of the negative press given to masts was due to ignorance, rather than being based on fact.

"It's just basic radio waves, all this is just caused by ignorance."

"People just don't understand it, and it only takes one or two people like that and before you know it, it escalates and everyone feels that way, based on what someone read in the newspaper three weeks ago and didn't understand. That's a problem that needs addressing."

Despite this, the group still felt strongly that masts should not be sited near to schools, as they still felt that maximum safety precautions should be taken around children. They did however feel that no one who used a mobile phone had a right to complain about the location of a mast, and that such objection

was hypocritical.

"Not with regards to schools. They should not be by schools full stop."

"If you don't use a mobile phone then I think you have a right to say I don't want a mast near me, but if you use a mobile phone you can't say I don't want one near me. It's just a case of 'not in by back yard'. It comes down to hypocrisy."

Mobile Phone Masts and Public Safety

Respondents were presented with a list of items and asked which they felt emits the greatest level of radiation. They were asked to number the items from 1 to 5, with 1 being the item that emits the greatest level of radiation and 5 the least. Table 4.1 shows the results.

Table 4.13 Level of Radiation Emitted

								Mean Rank
Microwave	4	1	3	1	2	1	1	**1.86**
Colour Television	2	2	1	3	4	3	3	**2.57**
Mobile Phone Masts	5	5	2	2	1	2	2	**2.71**
Telephone Handset	3	4	4	4	3	5	4	**3.86**
Vacuum Cleaner	1	3	5	5	5	4	5	**4.00**

1 = most radiation, 5 = least radiation

Only one respondent was aware that mobile phone masts emit the least radiation compared to the other household appliances, whereas the rest of the group highlighted that they had based their order on making presumptions rather than knowing for a fact.

"From my knowledge of electronic gizmos, I believe mobile masts are much lower."

"That's just a guess. I don't know anything about this sort of stuff."

"I don't know much about it, but I always thought the TV was the strongest. I'm just guessing."

"I haven't got a clue, its pure guess work."

The correct order of radiation levels is as follows;

- Microwave;
- Colour television;
- Telephone handset
- Vacuum cleaner; and
- Mobile phone masts.

The group were very surprised when informed of the correct order.

"Yes, I'm very surprised."

"Not by the microwave, but the rest I'm surprised at."

"We take advantage of using most of these everyday, but we didn't know this."

The group felt that lack of information supplied to the public was responsible for the general attitude that mobile phone masts are responsible for emitting high levels of radiation and thus being a danger to people's health. They felt that people would be far less concerned if they were made aware of information such as this, as most are happy using the other items in their household.

"I'm just surprised, if that's true, which I guess it is, mobile phone masts really don't emit that much radiation, surely before people start moaning about mobile phone masts they should get rid of their television, microwave, vacuum cleaners etc? If that's the case the whole fuss is stupid."

"I think that there are millions of people, including myself, who didn't know that,

so its scaremongering in the media isn't it."

"It's a lack of information."

"You don't see that kind of information do you, but I think that if we did, it would make you think twice."

The group could not understand why mobile phone companies had not done more in the past to highlight this themselves as it would be in their favour to let the public know how small the levels of radiation emitted from masts are. They felt that the task had highlighted in a simple way how in comparison to other more 'acceptable' devises, mobile phone masts were perhaps getting unfair press.

"I'm very surprised that the mobile phone companies are not making that known."

"Trouble is when this information is put out, it's never done in a way that is simple to understand."

The group were all aware that electric power lines emit a greater level of radiation than mobile phone masts.

"Electric power lines are definitely worse."

The group were informed that in May 2000, a government report concluded that the balance of evidence to date indicates that there is no general risk to the health of people living near base stations. This was on the basis that radio frequency exposures are expected to be small fractions of international public exposure guidelines

An independent audit of base stations is being undertaken by Ofcom (previously Radiocommunications Agency). To date the study has examined mobile masts at over 200 sites across the UK, looking particularly at schools and hospitals. The readings showed emission levels ranging from hundreds to million of times

below international guidelines levels which are independently set. This information was presented to the group.

The respondents were asked whether the information that had been presented to them throughout the evening had resulted in their views and feelings towards mobile phone masts changing. Whilst everyone agreed that they were far less concerned as they had been previously, they felt that they needed more information regarding mobile phone masts and safety.

"Not in my case as I'd accepted them as safe anyway."

"I'm still a little bit concerned because at the end of the day if I had a child in a school with a mast near by, I wouldn't know where I'd rather the mast was. I just don't know because I'm not an expert, and I'd be relying on experts to guide me. I don't think that you can be complacent about these things, and people have been complacent in the past. If it's safe, why aren't they telling people?"

"I think that the problem is that you don't know where to turn for information, which is why I think that it would be a good idea for the Council to regulate it, and have a department willing to disperse the information."

The group were asked who they would want and trust to provide accurate information regarding mobile phones and public health. Some felt that independent scientists should be responsible for this, whereas others felt that they would be more open to bribery. They did agree however that they would not want to see phone companies commissioning people to carry out the research for the public as they were not impartial.

"I'd prefer to hear it from independent scientists."

"I think that independent scientists are far to open to bribery and corruption. With a local authority they are there to help the people and can be punished if they were the wrong side. They are more likely to get it right than a private scientist."

"The Government or Council need to commission scientists to do the research for them. If Orange commissioned the scientists to find out the risks of mobile phone masts and there were risks, Orange would never let that come out because they have paid to hear the right thing. But if tax payers money pays for it, then it's more likely to be impartial. I think that is the only way you can do it."

The group also felt that not only was it vital for independent studies to be carried out, but the way in which results were made available to the public was vital. They felt that there needed to be widespread publicity for people to take note of what was being said.

"Somebody needs to do a properly researched report, but then the problem is as you say, getting that over to people. That's the other thing, making the information available. We all know that people don't read notices don't we. The lack of publicity is the other thing."

"It all comes down to education, if people knew about these things they may change their mind. We know it's true, it just needs somebody who's got authority to say yeah, it is true, and I think that this sort of stuff would float away. If you can't listen to an expert then who are you going to listen to."
"It's nice in an ideal world, but you've always got some clown who's got enough clought behind him who starts shouting and confusing everyone."

Group Two

Use of Mobile Phones

In order to establish levels of mobile phone use within the group, respondents were asked whether or not they own a mobile phone, and if so, how frequently they used it. Of those members who had mobile phones, levels of use varied across the group.

"I've got one but I don't use it, I only really have it for emergencies."

"I've got a good deal on mine so I use it quite a lot."

"I need mine for work as I travel round quite a bit."

Only two members of the group did not currently own a mobile phone.

"I don't like to be disturbed which is the reason why I haven't got one. But I will have one eventually I suppose."

"I won't have one because if people want to find me then they know where I am."

Mobile Phone Masts in your Neighbourhood

The majority of the group was not aware if there are any mobile phone masts in their neighbourhood.

"Yes, I've seen one on top of some shops, but that's the only one I know."
"I don't know if there are any."

"No, but we've heard that there may be one coming reasonably close, but we're not sure if that's true."

"There must be because my mobile phone works, but I'm not sure where."
None of the respondents would be happy to have a mobile phone mast in their neighbourhood. Everyone in the group expressed concerns surrounding the safety and appearance of mobile phone masts.

"I'm not really happy about one coming. You hear all about them causing problems with illness, so really I don't think that they are good idea in built up areas."

"I don't know how true it is because you have conflicting reports don't you. It doesn't sound very good anyway."

"There was a comment on the radio the other day by a doctor who said that under nine year olds should not use mobile phones because it affects their growth. Now if a doctor comes on the radio and says that, it does make you think well there must be something wrong with these masts too. Why would a doctor come out with that?"

"You say would I like one near my house and the answer is no, because 'a' its unsightly and 'b' I think it can affect house prices, who's going to buy a house with a phone mast up there?"

Some respondents felt that there was a lot of conflicting information in the media regarding mobile phone masts and public safety, and until such time that it was proven whether or not they were a health risk, then it was difficult to decide their feelings towards them. At this stage however, none of the group would be happy to have a mobile mast situated near to their house.

"I don't think that we know enough about it really, that's the bottom line. We need to be informed about the dangers and what is going on. That's the problem, you can't judge on it if you don't know enough about it."

"The problem you've got is a catch 22. How many people here have got mobile phones? Do we really want to give that up?"

The group did however highlight that they felt more should be done to ensure that, where possible, mobile phone companies attempted to share masts in local neighbourhoods to reduce the overall number needed. They were aware that this would still result in the same amount of 'traffic' being carried, but at least it meant that they were less visual obtrusive.

"Can these companies not share masts?"

"But it's still going to carry the same amount of traffic."

"It will just mean you see less."

Mobile Phone Masts and Schools

The group was asked to give their thoughts on mobile phone masts being situated on or near to school premises. Everyone was strongly against this as they felt it put children's health at unnecessary risk.

"I'm totally against that."

"I wouldn't want one by my home, and I certainly don't think that they should be situated near schools, until they know the effects of them."

"If they were sited near a school where my kids were then I'd be concerned."
One respondent had a child at a school that had mobile masts on the premises. He highlighted how this was a slight concern to him as he had heard negative stories regarding public safety and mobile phones in the media, and wondered if the problems were also related to the masts themselves.

"My son has one in his school playground in Coleshill. They are on top of the scouts hut. I'm a bit mixed about it, because you hear so many things don't you. You hear that they can damage people when they are using them, but is that cause the mobiles themselves are up to the ear, and therefore straight into the brain. How concentrated it is when you are x amount of yards away is something I really don't know."

None of the remaining members of the group was aware if there are masts on school premises in their area.

The group was asked how close to a school they would be happy to have a mobile phone mast located. Everyone agreed that masts should be located as far from schools as possible, due to concerns about the risks to children's health.

The group was however aware that there was a temptation for schools to allow masts on their premises due to the large sums of money they are perceived to receive.

"It's very tempting for them to do it isn't it."

The group was asked where they think would be acceptable to situate masts, given that they felt schools were not suitable. No one could think of a suitable location as they felt that wherever they were located, they could possibly be putting people's health at risk.

"Its catch 22, because wherever you put them in an urban area, there is going to be people."

"If you put them on shops, then there are people in and out of those shops all the time."

"I wouldn't be surprised if there were a few on hospitals around the country, but is that fair to the people who are ill in hospital?"

"Wherever they are, people are at risk."

"I think it's all about where they are placed. If you could say right, 500 yards from where this is sighted, people go there infrequently, and for short periods of time, like in the middle of a park, then it's not so bad."

"But that's children again isn't it."

Effects of Mobile Phone Masts

Everyone in the group was concerned about the potential health risks associated with mobile phone masts. One member highlighted how there had recently been concerns regarding police radio systems that in turn made him worried about the possible risks of radio waves.

"The Police have started to use a new sort of radio system (Tetra). The number of Police that have gone off sick with head complaints from using these things, and its only been introduced in the last two years. It begs the question what's

in radio waves?"

"We don't know what's in radio waves, we don't know if they are dangerous or not."

Respondents also highlighted concerns regarding the appearance of mobile phone masts, as many saw them as a 'blot on the landscape'.

"They are unsightly."

"There are ugly the old ones."

One respondent had seen in the media examples of new mobile phone masts that were designed to blend more easily into the landscape where they are. Others agreed that if masts were installed in their area it would be preferable to make them fit in with the surroundings.

"I've seen some in the newspapers that look like trees, and in lampposts, that was quite clever."

"If you are going to have them at least make them look like something that's already there."

It was clear that all the concern surrounding masts had originated from things respondents had seen in the media.

"It's in the media."

"There has been concerns for years over the radio waves used for mobile phones."

"In Great Barr they put some on a church didn't they? That was all over the evening mail for weeks if not months. And it was on the news."

The only positive information regarding mobile phone masts that respondents

recalled seeing, was from the mobile phone companies themselves, which led to them questioning the validity of the information.

"Yes, but from the companies, and we'd expect them to say that."

The lack of, and what was often conflicting, information had meant that most respondents were unclear exactly what they felt were the concerns regarding mobile phone masts.

"One minute it's frazzling your brain, the next it's giving you cancer, I don't know. I don't know what to believe."

"It's all conflicting."

Birmingham City Council and Mobile Phone Masts

Respondents were asked what their feelings were about businesses being offered money to allow mobile masts to be situated on their premises. Some were unsure as to whether this would be a good idea, and one respondent highlighted how this had already caused problems in his area.

"There is a place in Kings Heath, the Masonic Lodge on Wheelers Lane, they are getting thousands of pounds to put a mast up, but the residents on the lane are getting a petition together to ban it. It's right smack in the middle of a residential area. At the moment that's a hell of an issue. People don't want it."

"That's a big point. If the masts are anywhere near where people work or live, then it's going to be a concern."

Others however were less concerned and felt that it was a good way for businesses to make money, and didn't feel that they should be stopped for doing this.

"Bring it on! If a business is there to make money, and they can use it to get a regular income, then why not?"

The group were mostly in agreement that providing it was in an appropriate location, then they would not object to mobile phone masts being located on Council owned land and properties.

"If it's high enough in the air that the signals aren't strong, then fine. If it's an appropriate building."

However one respondent felt that the Council could only do this if they felt they could prove that there were no health risks involved, as otherwise it may lead to the Council being held responsible for subsequent problems.

"But if it did cause illness, would the Council be happy to be sued? Because it would come to that."

The group could not agree on who they felt should be responsible for carrying out research into the effects of mobile phone masts, including providing information to the general public. Some felt that the Council should be responsible for this, whereas others felt that the responsibility should be placed on the Government. No one however would expect, or want, the mobile phone companies to provide this information.

"Whose job would it be to give us the information about them. The Council? The Government? The phone companies won't do it, because all they are interested in is profit and loss."

"Wouldn't it be the Councils responsibility to find out if it actually affects your health?"

The majority of the group agreed that the City Council should be responsible for regulating the building and location of mobile phone masts in Birmingham. However a couple of members disagreed and would prefer central Government to hold responsibility for this.

"Providing that the Councils planning, or whoever it is, are held accountable."

"And that they have the authority to say no, because a lot of the time they do not seem to have that authority."

"I think it should be Governmental, it's not the Councils responsibility."

"I think it's the Government who should do it."

Some did feel however that until there was scientific evidence proving that the public were not at risk from mobile masts, then the Council should prohibit the installation of further masts.

"Until they know the results yes."

"I think what they need to do is give us a truthful account of what the problems are health wise and everything else, and then be accountable for how many people can put them up."

"Otherwise it's going to get out of hand."

The group stressed that should the Council take on the responsibility of providing the public with information regarding mobile masts, and regulating the location of them, then it was important that the role lay with someone who was trustworthy and committed to having the public's best interests at heart.

"They need to be truthful and not get back handers."

"Well we have to trust somebody don't we. It's not like we can find out ourselves."

The group was asked what they felt would happen if the Council were to prevent mobile phone companies from installing masts on Council owned land and properties. Everyone agreed that it was more than likely that the companies would just look for alternative locations on private property close by.

"They would just go somewhere else."

"It's like red light districts, all you're doing is moving it."

After considering the possible displacement factor, everyone agreed that they would prefer to see the Council regulate the siting of mobile phone masts, rather than leave it up to the mobile phone companies who may instead choose to locate them on private land or properties.

With an increasing number of people owning mobile phones, the group was aware of the difficulties surrounding the growing number of mobile phone masts. Despite their concerns, everyone accepted that masts are an acceptable development. The group realised that it was very unlikely that people would be willing to give up their mobile phones.

"I don't think we have any choice do we."

"Are forty million people going to give up their mobile phones? It's not going to happen is it."

"Let's be realistic, we are not going to give them up are we?"

"It's a catch 22 isn't it. What do we do, we want to evolve and have new ways of communication, but there may be risks."

Antenna and Beam Information

Existing scientific evidence shows where the main beam from an antenna has maximum power. This is called the RF intensity. The reason why this is important is because erecting an antenna in a school yard or playing field, for example may mean that it is less effected by this main beam than if it was, say, located some 200 metres away from the school.

No one in the group was initially aware of this and most were surprised to learn

it.

"I hadn't thought about it but I guess that's obvious."

Everyone agreed that this actually changed their views to a certain extent about where mobile masts should be located, although caution should still be taken in assessing who is potentially affected by the masts.

"Yes. I actually came in here with the view that it was not a good thing to put them on shops, but actually it's probably safer isn't it."

"Before tonight I'd have been against them putting one on my daughter's school, but if that's the truth, and it actually does make logical sense, then I'd prefer it."

"It just depends who lives 200 metres away doesn't it."

It was suggested that the Government did more to inform the public of information regarding mobile masts in order for them to make an informed decision.

"If, and I'm not doubting you, if that is technically proven by the Government that it is a technical fact, why don't they tell us, rather than us sitting and talking about it, at least it would allow people to make an informed opinion."

Mobile Phone Masts and Public Safety

Respondents were presented with a list of items and asked which they felt emit the greatest level of radiation. They were asked to number the items from 1 to 5, with 1 being the item that emits the greatest level of radiation and 5 the least. Table 4.2 shows the results.

Table 4.2 Level of Radiation Emitted

										Mean Rank
Microwave	1	1	3	1	1	1	3	2	5	**2.00**
Mobile Phone Masts	4	2	2	3	2	3	1	3	3	**2.56**
Telephone Handset	5	3	1	2	5	2	2	1	2	**2.56**
Colour Television	2	4	4	4	4	4	4	4	1	**3.44**
Vacuum Cleaner	3	5	5	5	3	5	5	5	4	**4.44**

1 = most radiation, 5 = least radiation

None of the group was confident that they had placed the items in the correct order, although most felt that the household items emit less radiation than mobile phone masts.

"It's a total guess."

"I wouldn't have thought a television transmits that much."

"I couldn't say how much radiation is emitted from a mobile phone mast. I'd just be guessing that."

The correct order of radiation levels is as follows;

- Microwave;
- Colour television;
- Telephone handset
- Vacuum cleaner; and
- Mobile phone masts.

The group was very surprised when informed.

"Oh I didn't know that."

"That really surprises me."

Respondents commented that they were aware that mobile phone masts emit less radiation than electric power lines, but hadn't realised how it compared to other items.

The group felt that once again this showed that there was a lack of information regarding masts made available to the public, and that it was apparent that many people had made judgements on the level of danger that masts actually presented to people's health.

"It just comes down to lack of information."

"Isn't this the media, in some respects, hyping things up. When really there are other things in front of it which are a lot worse."

The group felt that it would take someone such as a chief medical officer to make a statement regarding the safety of mobile phone masts in order for the public to change their views.

"This is where I think that the Government should come in and make that sort of information available, especially the chief medical officer. He's the one that speaks for the health of the country."

"It would change a lot of people's views if they knew that wouldn't it?"

The group was informed that in May 2000, a government report concluded that the balance of evidence to date indicates there is no general risk to the health of people living near base stations. This was on the basis that radio frequency exposures are expected to be small fractions of international public exposure guidelines

An independent audit of base stations is being undertaken by Ofcom (previously Radio communications Agency). To date the study has examined mobile masts at over 200 sites across the UK, looking particularly at schools and hospitals. The readings showed emission levels ranging from hundreds to million of times

below international guidelines levels which are independently set.
This information was presented to the group, and they were asked why they felt that there was currently such a negative attitude amongst the public when it came to mobile phone masts. Everyone agreed it was due to a negative image portrayed by the media and lack of information.

"Cause the media tell us they are bad."
"It's not documented enough."

"I think because there is so much press about mobile phones being bad, that masts just get lumped in with that."

After hearing this information, some of the group highlighted that their views towards mobile masts had changed slightly, and they were less concerned about them than they had been previously. Others however were less convinced, and still would prefer for them not to be located near to their homes.

"I wouldn't have known what you've told me tonight. It's the first time I've heard that."

"Yeah my mind is changed, as long as it wasn't visually intrusive."

"I still think that given the choice, if I was shown two houses, and I could see a mast from one, and not from the other, I'd go for the other."
"Mine haven't that much. I think it will be in 50 years time when we find out the truth."

"I think you should still be cautious, if there is still a risk."

The group stressed how they felt that unfortunately the media amongst others had been responsible for causing a lot of damage to the public opinion of mobile phone masts. Due to this it was felt that people may still be sceptical in the future.

"It's the same principle as the MMR jab, they've proven that's not dangerous,

however, people think its being said because it will save the Government money."

Everyone agreed that someone very influential such as a chief medical examiner would need to make a public statement confirming that there are no health risks associated with mobile phone masts, and only then would public perception perhaps begin to change.

"I would still personally prefer not to have one near me, but maybe I'm being a bit dogmatic. I'd still want the chief medical officer to back up what is being said. I'd rather he made a public statement, rather than in a report that may or may not get shelved somewhere. Why can't he come out on television and make a statement, and wipe out all this concern."

Birmingham City Council Future Plans

The Government policy concerning mobile masts is 'to facilitate the growth of new and existing telecommunications systems whilst keeping the environmental impact to a minimum.'

Respondents were sceptical of the Government's policy on mobile masts, as they felt that it was unlikely they would reject plans for installing masts, given that they had provided the mobile phone companies with licenses to allow phone to progress technically to third generation (3G) phones.

"No wonder they are saying that, they sold all the mobile companies the licenses to go 3G didn't they!'

"They are hardly going to sell a service provider the 3G licenses, and then not allow them to install masts are they."

Respondents were asked to sum up their overall views and feelings towards mobile phone masts. Although everyone agreed that after the discussion they were far less concerned about the dangers of mobile masts, they did still feel that more information was required for them to feel fully confident that they

were not a health risk to the public.

"I think we just all want some more information to be honest. I don't think I'm satisfied at the moment."

"Yes they are obviously not as bad as we thought they were, but lets be sensible about this. They do still give off radiation, so bear that in mind."

"I think it should be made clear where the masts actually are. If they are hidden we should know about it."

"It sounds like we are not getting a balance of information."

"What we need is informed information to make decisions."

Conclusions

Introduction

This chapter highlights the conclusions from the telephone survey and focus groups.

Mobile Phone Masts and the Local Neighbourhood

The majority of respondents are unaware if there are any mobile phone masts in their neighbourhood. Most of those who did believe that there were mobile masts, believed that there was just one.

The focus groups highlighted that a large proportion of respondents were not aware of what a mobile phone masts actually looks like.

Just over half of the respondents in the telephone survey indicated that they would not be happy to have a mobile phone mast in their neighbourhood, with the main reason being that they are concerned that they are dangerous to people's health. They also felt that more research and information was needed regarding the safety of masts, and stated that they had seen adverse publicity/media coverage about the health risks.

Levels of concern regarding mobile masts was particularly high in the survey, with more than eight in ten respondents in the telephone survey highlighting that they are 'a little bit', 'fairly' or 'very concerned' about having mobile masts in their neighbourhood. Almost half of respondents would only be happy to have a mast situated one or more miles away.

Levels of concern were somewhat less in the focus groups. Around half of the respondents highlighted that they would generally not be concerned to have a mobile mast in their neighbourhood, unless there was evidence that they were harmful.

Mobile Phone Masts and Schools

The majority of respondents, both in the focus groups and telephone survey, would be very concerned if a mobile mast was located on a school in their area. More than two thirds of respondents would not want to see a mobile mast located within one mile of school premises.

Respondents in the focus groups felt that until there was clear evidence that mobile phone masts did not cause any harm then it would be better to avoid having masts near to or on school premises, to avoid putting children at risk.
Although respondents did not feel that locating masts on or near schools was appropriate, they were not able to think of suitable alternative locations.

Concerns

The main concern in relation to mobile phone masts was health. Lack of information and negative media stories were frequently given as reasons behind respondent's negativity towards mobile phone masts.
A small proportion of the survey, and focus group members, also highlighted that they were concerned about the appearance of mobile phone masts. It was suggested that if mobile phone masts were to be installed then care should be taken to ensure that they are suitable for the surroundings.
Several respondents in the focus groups felt that currently there was a lot of ignorance amongst the public surrounding mobile phone masts. They were aware that the amount of radiation emitted from masts was not as great as many people are led to believe from the media, and hence there was a lot of unnecessary concern and objections.

Mobile Phone Masts and Radiation

When asked to compare the amount of radiation emitted from mobile phone masts to a number of household items, mobile phone masts were ranked first in the survey, as the item that emits the most radiation, despite the fact that it actually emits the least. Similarly, respondents in the focus groups were unsure as to the level of radiation emitted from masts, ranking masts as the second and third item in terms of radiation emitted.

Respondents in the focus groups were very surprised to learn that mobile phone masts actually emit less radiation than all of the other household appliances. The views and opinions of the majority of respondents changed after learning this. Everyone felt that people would be far less concerned if they were made aware of information such as this, as most people use the other household items on a daily basis without any concern.

This again highlighted how a lack of information supplied to the public was responsible for the general attitude that mobile phone masts are responsible for emitting high levels of radiation and thus being a danger to people's health.
No one in the focus groups was aware of evidence that indicates where the main beam from an antenna has maximum power. Despite being made aware of this, most still maintained the view that they felt masts should be kept away from school premises, until there was independent scientific evidence proving that the masts were not a danger to people's health.

Birmingham City Council and Mobile Phone Masts

Just over half of the respondents in the survey believe that Birmingham City Council should prohibit mobile phone operators from installing masts on Council owned land and properties. The focus group members however were less concerned about this, as they would prefer to see the Council regulating the location of mobile phone masts, as they should be more concerned about the safety of the public than making profits.

The majority of respondents in the focus groups felt that, providing the money was put to good use, and safety implications considered, then they would not object to the Council charging mobile phone companies should they wish to install masts on Council owned land and properties. It was however highlighted that whoever was responsible for this job within the Council should be qualified to do so and fully aware of the potential risks.

Despite the concern raised in the survey and focus groups, almost all respondents agreed that mobile phone masts are an acceptable development. Respondents agreed that it was unlikely that people, including themselves,

would be prepared to give up their mobile phones.

All respondents agreed that further independent research was needed into the effects of mobile phone masts. They felt that information should also be made widely available to the public to allow them to make informed opinions on mobile phone masts. It was felt that widespread publicity would be needed for people to take note of what was being said, although the negative media stories of the past may mean it took time for people to become completely satisfied with the idea of masts.

Appendix 4 EVIDENCE FROM PRESSURE GROUPS

Written submissions have been received from the following pressure groups which have been unedited:

(1) Seriously Concerned Residents Against Masts (S-C-R-A-M)
(2) Mobile Operators Association (MOA)
(3) Birmingham Chamber of Commerce and Industry
(4) Whitehouse Common & District Neighborhood Forum
(5) Sutton Coldfield Association of Neighborhood Forums (SCANF)
(6) Mast Sanity
(7) Birmingham Association of Neighborhood Forums (BANF)
(8) Mast Action
(9) Friends of the Earth Birmingham
(10) Sutton Coldfield ElectroSensitives

Note – The information included here is a summary/selection of the views submitted by interested organisations. These views should not be taken as the views of the Scrutiny Committee of Birmingham City Council

Seriously Concerned Residents Against Masts
(Previously Sutton Coldfield Residents Against Masts)

Evidence submitted by Eileen O'Connor, Chairwoman SCRAM **,** Trustee EM-Radiation Research Trust

Second reading of the STUNELL Bill 18th March, 2005
After renewed interest in the dangers of mobile phones and masts, Andrew Stunell MP has presented to parliament his private members bill, the Telecommunication Masts Planning Control Bill. If passed it will stop companies from putting up mobile phone masts without consulting local communities and gaining planning approval from the Local Authority. The Bill would bring in the so-called 'precautionary principle', giving planners more powers to refuse mast applications. It is due to have its second reading on the 18th March (though may fail to be read as two other private members bills are scheduled for the same day).

STUNELL: The Government have backed out of repeated promises to change the planning laws. This Bill is long overdue and has cross-party support. It is a chance to make the Government take notice of the concerns of people all over the country. The Bill would give extra protection to schools, medical facilities and homes from high radiation levels from all telecommunication masts. (Andrew Stunell MP, 18/01/05)

I supplied a huge box of research almost a year ago to MP Mike O'Brien. Mike has taken the research to the Department of Health and the DTI; he recently passed it onto the NRPB for advice. I encouraged Mike O'Brien and the Government to focus on research from Russia, China, Sweden and other European Countries.

The UK has allowed the highest output of radiation in the world. They recently brought the guidelines down to meet ICNIRP standards. However this does not offer any form of protection at levels below the microwave heating stage. They simply make sure that the radiation does not allow your body to cook. We all know that before cooking takes place many biological changes have already happened. See Statement by Dr Mike Clark NRPB

The Government and NRPB now admit that radiation from electric pylon's doubles the risk of contracting leukaemia at the power levels of 0.4 microtesla, other European Countries have brought down their power levels to 1 or 2 microtesla, however the UK have remained 100 times higher than the rate known to double the rate of leukaemia. They also admit that they have known about this for over three years.

The Government has taken over £22 billion in the selling of the licences to the mobile phone Industry. They put £3.5 million back into research along with £3.5 million from the Mobile Phone Industry. Further support was announced on

10th November, 04 for research on three additional studies for the MTHR programme. While we welcome further research, we are concerned that it lacks true independence and would prefer the funding to go to an independent trusted group of scientists.

Other Countries now medically recognise that some people are electro-sensitive to this form of radiation. Sweden now has a medical register of 285,000 and California has 700,000. We believe these figures are an under estimated as many people are not aware that their symptoms are connected to the surrounding background radiation. However if the same figures apply to the UK we could have over 2.1 million people affected.
Sir William Stewart, Head of Health Protection, UK has called for the precautionary principle especially when children are concerned as they will absorb a higher dose of radiation.

The Precautionary Principle lacks a clear and universally accepted definition (Foster et al., 2002) and actions by some countries suggest that there is confusion and debate about what the Precautionary Principle means and how it should be applied. I believe that the UK Government must be confused by the Precautionary Principle -:

<u>The Rio Declaration on Environment and Development, 1992</u>
"In order to protect the environment the Precautionary Approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation".

<u>Treaty on European Union (Maastricht Treaty), 1992</u>
"Community policy on the environment …shall be based on the precautionary principle and on the principles that preventative actions should be taken, that the environmental damage should as a priority be rectified at source and that the polluter should pay."

<u>Wingspread Statement</u>
"It is necessary to implement the Precautionary Principle: When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. "The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action".

<u>European Environment Agency, 2004</u>
"The Precautionary Principle provides a framework, procedures and policy tools for public policy actions in situations of scientific complexity, uncertainty and ignorance, where there may be a need to act before there is strong proof of harm in order to avoid, or reduce, potentially serious or irreversible threats to health or the environment, using an appropriate level of scientific evidence, and taking into account the likely pros and cons of action and inaction".

<u>Children Act 1989 Part 3 Section 17</u>

Places a legal obligation on Local Authorities to protect children in their area against significant harm and or abuse or the risk of. The Children Act stands apart from other legislation in so much as the risk of harm does not have to be proven or to have taken place, but could be likelihood or perceived risk.

We are now seeing evidence of cancer clusters appearing in the main beam of radiation throughout the UK after long term exposure.

The Naila Study, Germany (November 2004) – This study was conducted over 10 years has just been released by The Federal Agency for Radiation Protection, Germany. Medical doctors compiled case histories since 1994 – 2004 looking at heightened risk of taking ill with malignant tumours. They discovered a threefold increase after five years exposure to microwave radiation from a mobile phone mast transmitter for up to 400 metres distance, compared to those patients living further away.

Another study carried out by Ronni Wolf MD and Danny Wolf MD, Kaplan Medical Centre, Israel (April 2004) discovered a fourfold increase in cancer within 350 metres after long term exposure to a phone mast and a tenfold increase specifically among women, compared with the surrounding locality further from the mast.

Three other short term mobile phone mast studies have also found significant health effects such as headaches, dizziness, depression, fatigue, sleep disorder, difficulty in concentration and cardiovascular problems. Click on the studies for more information.

1. Santini et al (Paris) [Pathologie Biologie (Paris)] 2002

2. Netherlands Ministries of Economic Affairs, Housing, Spatial Planning and Environment and Health Welfare and Sport. (TNO) 2003

3. The Microwave Syndrome – Further Aspect of a Spanish Study – Oberfeld Gerd. Press International Conference in Kos (Greece), 2004

Campaign groups have been working with physicist Dr John Walker. Six studies now show increase in serious illness appearing in the main beam of radiation after long term exposure. I would suggest that the threefold increase found in the Naila study up to 400m and the fourfold increase found in the Israel study will be much higher. These figures will be diluted; they will have taken in the whole area within the 350/400m range. Dr John Walker's research clearly shows the clusters of illness appear in the main beam of radiation around 1.5volts which is way below the guidelines. Areas clear of radiation in between the main microwave beams of are not reporting illness. This proves that people are not worrying themselves sick and that this situation is real. We believe the increase will be approx 10 to 12% within the main beams.

The hamlet of Wishaw is a prime example (telegraph news article – contact SCRAM for copy)

- Five ladies developed breast cancer
- One case of prostrate cancer

- One bladder cancer
- One lung cancer
- Three cases of pre-cancer cervical cells
- One motor neurone disease age 51, who also had massive tumour removed from the top of his spine.
- People have developed benign lumps
- Electro sensitivity
- Three cases of severe skin rashes
- Many villagers suffering with sleep problems, headaches, dizziness and low immune system problems.
- Horse with blood problems, continuous treatment needed by the vet.

Out of the eighteen houses surrounding the mast at up to a range of 500 metres, 77% of the tiny hamlet had health related illness believed to be as a result of radiation from the mast, the out-break of illness occurred in 2001 after seven years of exposure to the radiation emitted by the T-Mobile mast. We are now in contact/communication with many people who are suffering from this form of radiation.

One other important fact is that since the Wishaw Mast vanished on 6th November 2003, many of the residents are reporting a feeling of well-being. The residents are reporting improvement in their sleep patterns and increased energy levels. The headaches and dizzy symptoms have disappeared. We have recently seen a baby boom with three babies born in the village, one of the ladies had previously had treatment for pre-cancer cervical cells, and another had previously suffered a miscarriage. We have also seen a return of wildlife in the area and the horse has since recovered and is now strong and healthy and no longer needs treatment. Finally a tree has blossomed for the first time in 10 years in line with the mast.

The effects of EMR are being felt by wildlife and the environment as a whole, Birds, bees, worms, trees are all being affected. We need to fight for not only the future of mankind but for the future of the whole environment.

Medical Doctors are also campaigning for precaution.

Finland: Helsinki Appeal 2005 (see SCRAM website)
The Helsinki Appeal 2005 from "EMF Team Finland" calls on the European Parliament to act promptly for the adoption of the new safety standard in the European Union. Physicians and researchers, feel great concern about the Precautionary Principle not being sufficiently applied to the electromagnetic fields. They want that the standards recommended by ICNIRP to be rejected, because recent scientific studies report about various disturbances caused by mobile phone and other RF radiation. They also appeal to the European Community to take prompt measures for solving the refunding of the NEW REFLEX project, which showed evidence of genotoxic effects of mobile phone radiation and should be continued.
http://www.emrpolicy.org/

Irish Doctors Environmental Association [IDEA] (see SCRAM Website)

The Irish Doctors' Environmental Association believes that a sub-group of the population are particularly sensitive to exposure to different types of electro-

magnetic radiation. The safe levels currently advised for exposure to this non-ionising radiation are based solely on its thermal effects. However, it is clear that this radiation also has non-thermal effects, which need to be taken into consideration when setting these safe levels. The electro-sensitivity experienced by some people results in a variety of distressing symptoms which must also be taken into account when setting safe levels for exposure to non-ionising radiation and when planning the siting of masts and transmitters

Two Top Birmingham Consultants
Following a meeting I arranged with a group of scientists, my oncologist and breast cancer surgeon. My consultants supplied me with a letter on 9th December 2003, stating that "we agree that there is some scientific evidence that suggests microwaves can damage cells but as yet there is no direct evidence that this is a problem in humans. We would agree that this issue needs to be raised at the highest level and funding released to support the debate and independent research to get a definitive answer."

Thirty GP' in Liverpool (news article – contact SCRAM for a copy)
It was reported in the Liverpool Echo on 24th November 2003 "Its bad medicine". A group of thirty GP's, hospital doctors and consultants have signed a petition over the installation of a mast which they believe is a risk to health.

Freiburger Appeal (See SCRAM website)
In October 2002 a team of German medical doctors started the Freiburger Appeal. After seeing a dramatic rise in severe and chronic diseases, they have noted a clear temporal and spatial correlation between disease and exposure to microwave radiation. The appeal has since been signed by 1000's of doctors.

There is a conflict in the science world concerning the adoption of the ICNIRP standards. The western world scientists are tying to force through acceptance of ICNIRP guidelines in order to create harmony and globalization. Many new European Counties are eager to join the European Union and willing to accept the ICNIRP guidelines as a consequence. emfacts (more info here)

However the Russians, Chinese and many other parts of Europe are rejecting ICNIRP standards and are concerned about the biological effects. The Ministry of Chinese Health revealed that in the last ten years studies on radiation similar to that emitted by the mobile phone industry have shown a majority of results are showing biological effects. Out of 154 studies, 88 or 57% have shown biological effects such as cancer, genetic molecular and cellular changes, electro physiology effects, behaviour changes etc. in a survey by Dr Henry Lai, Washington University, Seattle 2003. It said that the amount of evidence for biological effects and the characteristics of these are so alarming, that all efforts should be dedicated to find a way to minimize these effects.

I would advise all parents to encourage their children to use their mobile phones for emergency use only. There is now research confirming brain tumour connection with over use of mobile phones. We are also seeing a 40% increase in brain tumours across Europe. A top brain surgeon spoke live on TV in Australia earlier this year saying he has seen chronic rise in brain tumours and a 21% increase in children. Brain tumours are now the number one childhood disease. (News article- available from SCRAM)

It has also been reported in the "Midlands by a top Dental University Lecturer that we are now seeing a massive increase in mouth cancer in children and teenagers". I am worried that radiation from phones will intensify around the mouth if children are wearing braces or have fillings, metal intensifies radiation. What do our children and teenagers have in common? Over use of mobile phones, it doesn't take a Rocket Scientist to work out why we are now seeing a rise in mouth cancers and brain tumours.

I realise that there is an urgent need for education on the health issues and research. I have been alarmed at the amount of mobile phone masts that have been put near schools, hospitals and densely populated areas. **(**News item – detail available from SCRAM)

There are many ordinary people committed to fighting for justice. This has become one of the number one issues in our MP's post bags. Join the fight to bring about sensible legislation calling for all masts to go through the full planning process and greater INDEPENDENT research.

I would like to leave you with some final words from an ex-Government Military Scientist Barry Trower he said "This Government, some of the Government Scientists and this Industry, will be held responsible for more deaths in peace time than any terrorist group in the World ever."

NOTE – Where the submission makes reference to links and reports please refer to the SCRAM website for details/copies.

FIVE STUDIES SHOWING ILL-HEALTH EFFECTS FROM MASTS
DOCUMENT PRODUCED BY DR GRAHAME BLACKWELL 21 FEB 2005

1. Study of the health of people living in the vicinity of mobile phone base stations.
   Santini et al.
   Pathol Biol (Paris) [Pathologie Biologie (Paris)] 2002; 50: 369 – 73

   Found significant health effects on people living within 300 metres of mobile phone base stations.

   Conclusions include the recommendation:
   "… it is advisable that mobile phone base stations not be sited closer than 300meters to populations"

2. Netherlands Organization for Applied Scientific Research (TNO)
   Study for the Netherlands Ministries of Economic Affairs, Housing, Spatial Planning and the Environment,and Health, Welfare and Sport
   "Effects of Global Communications System Radio-Frequency Fields On Well Being and Cognitive Function of Human Subjects With and Without Subjective Complaints"
   (September 2003)
   Found significant effects on wellbeing, according to a number of internationally-recognised criteria (including headaches, muscle fatigue/pain, dizziness etc) from 3G mast emissions well below accepted 'safety' levels (less than 1/25,000th of ICNIRP guidelines). Those who had previously been

noted as 'electrosensitive' under a scheme in that country were shown to have more pronounced ill-effects, though others were also shown to experience significant effects.

3. THE MICROWAVE SYNDROME - FURTHER ASPECTS OF A SPANISH STUDY

Oberfeld Gerd[1], Navarro A. Enrique[3], Portoles Manue1[2], Maestu Ceferino[4], Gomez-Perretta Claudio[2]

1) Public Health Department Salzburg, Austria
2) University Hospital La Fe. Valencia, Spain
3) Department of Applied Physics, University Valencia, Spain
4) Foundation European Bioelectromagnetism (FEB) Madrid, Spain

Presented at an International Conference in Kos (Greece), 2004

This study found significant ill-health effects in those living in the vicinity of two GSM mobile phone base stations. They observed that:

"The strongest five associations found are depressive tendency, fatigue, sleeping disorder, difficulty in concentration and cardiovascular problems."

As their conclusion the research team wrote:

"Based on the data of this study the advice would be to strive for levels not higher than 0.02 V/m for the sum total, which is equal to a power density of 0.0001 µW/cni^2 or 1 µW/m^2, which is the indoor exposure value for GSM base stations proposed on empirical evidence by the Public Health Office of the Government of Salzburg in 2002."

4. INCREASED INCIDENCE OF CANCER NEAR A CELL-PHONE TRANSMITTER STATION.

Ronni Wolf MD[1], Danny Wolf MD[2]

1. The Dermatology Unit, Kaplan Medical Center, Rechovot, and the Sackler Faculty of Medicine, Tel-Aviv University, Tel-Aviv, ISRAEL.
2. The Pediatric Outpatient Clinic, Hasharon Region, Kupat Holim, ISRAEL.

Published in:

International Journal of Cancer Prevention Volume 1, No. 2, April 2004

This study, based on medical records of people living within 350 metres of a long-established phone mast, showed a fourfold increased incidence of cancer generally compared with the general population of Israel, and a tenfold increase specifically among women, compared with the surrounding locality further from the mast.

5. Naila Study, Germany (November 2004)

Report by researchers (five medical doctors)

Following the call by Wolfram König, President of the Bundesamt für Strahlenschutz (Federal Agency for radiation protection), to all doctors of medicine to collaborate actively in the assessment of the risk posed by cellular radiation, the aim of our study was to examine whether people living close to cellular transmitter antennas were exposed to a heightened risk of taking ill with malignant tumors.

The basis of the data used for the survey were PC fi1es of the case histories of patients between the years 1994 and 2004. While adhering to data

protection, the personal data of almost 1.000 patients were evaluated for this study, which was completed without any external financial support. It is intended to continue the project in the form of a register.

The result of the study shows that the proportion of newly developing cancer cases was significantly higher among those patients who had lived during the past ten years at a distance of up to 400 metres from the cellular transmitter site, which bas been in operation since 1993, compared to those patients living further away, and that the patients fell ill on average 8 years earlier.

In the years 1999-2004, i.e. after five years' operation of the transmitting installation, the relative risk of getting cancer had trebled for the residents of the area in the proximity of the installation compared to the inhabitants of Naila outside the area.

NOTE: These are the only studies known of that specifically consider the effects of masts on people. All five of these studies show clear and significant ill-health effects. There are no known studies relating to health effects of masts that do not show such ill-health effects.

In this respect, any statement by industry or official sources that claims (or suggests) that:

(a) There is no evidence of ill-health effects from masts;

or

(b) The overwhelming evidence is that masts do not cause ill-health effects;

is completely and blatantly untrue.

BIRMINGHAM CITY TENANTS COMPLAINING ABOUT HEALTH PROBLEMS – HIGH RISE FLATS

Scram has a folder containing approximately 500 replies from residents in Birmingham City and surrounding authority high rise flats, where a mast has been sited on its roof or an adjacent high rise roof.

These were sent to researcher Geraldine Attridge who for over 6 months, visited flats throughout the city. Simply by taking a bus journey getting off the bus when she saw a mast sited on a high rise roof and distributing questionnaires to the properties residents. She had 500 returned to her.

Geraldine was prompted to do this when she and her partner fell ill in a top floor flat with a mast on its roof in Walsall, her neighbours too became ill. Geraldine found that when she stayed at her mother's home in Great Barr, a hearing problem rectified itself as did her boyfriend's health. The symptoms returned when they moved back into her Walsall flat. These intermittent symptoms baffled medical practitioners.

We have questionnaires from city owned flats as follows:

Acocks Green:

- Needwood House – Woodcock Lane
- Coppice House – Woodcock Lane

- Rayleigh House – Woodcock Lane

Aston:
- Normansell Tower – Water Works Street
- Barry Jackson Tower – Estone Walk

Bartley Green:
- Kempsey House – Kitwell Lane
- Beech Hill House – Field Lane

Billesley:
- Kenilworth House – Hollybank Road

Bromford:
- Chilinghome Tower – Hyperian Road
- Holbrook Tower – Bramford Drive

City Centre:
- Cambridge Tower – Brindley Drive
- Stephenson Tower – Brindley Drive

Druids Heath:
- Pitmeadow House – Pound Road
- Brookpiece House – Milston Close

Erdington:
- Harlech Tower – Wilmott Drive
- Cleeve House – Branford Lane

Edgbaston:
- Wickets Tower – Wyall Close
- Century Tower – Dollery Drive
- Hollymount Vancouver House – Benmore Avenue
- Windermere House – Vincent Drive

Halesowen:
- Worcester House – Hill Street
- Gower House – Lockington Croft

Hall Green:
- Baldwins House – Baldwins Lane

Handsworth Wood:
- Enwood Court – Handsworth Wood Road

Harborne:
- Kendrick Tower – Malins Road

Kings Heath**:**
- Brandwood House – Grove Road

Kings Norton:

- Hobbs House – Redditch Road
- Saffron House – Redditch Road
- Campian House – Redditch Road

Longbridge:
- Risborough House – Shifnall Walk

Moseley:
- Moseley Court – Yardley Wood Road
- Bowen Court – Wake Green Road

Nechells:
- Home Tower – Duddeston Manor Road

Newtown:
- Hodgson Tower

Perry Barr:
- Birchfield Tower – Birchfield Road

Quinton:
- Dunedin House –
- Aukland House – Welsh House Farm Road
- Tintern House – Selcroft Avenue

Rubery:
- Rushmore House – Cockhill Lane

Shard End:
- Adelaide Tower – Packington Avenue

Shirley:
- Ardendale – Harwood Grove

Sutton Coldfield:
- Elizabeth House – Berryfields Road
- Margaret House – Berryfields Road

Ward End:
- Essington House – Sladefield Road

West Heath:
- Shelley Tower – Averbury Road

Witton:
- Josephs Court – Leasaves Drive

The replies to Geraldine's survey appear to be falling into a pattern. Those reporting illnesses tend to be on third floor up, and inside flats where a mast exists on adjacent flats. In other words, those falling in main beam.

STRAY VOLTAGE CASE 1

I would like to draw the Scrutiny Committee's attention to an incident reported to Scram by an electrical contractor some 12 – 18 months ago, when he discovered stray voltage in an office block at the Kingfisher Centre Redditch.

This contractor who has been a qualified electrician for over 35 years was asked to carry out what he describes as very routine work over a weekend. The work involved moving sockets etc.

He was horrified by the discovery of registering readings at 1000 volts per metre on his equipment and even more astonished when having shut down the whole of the electricity supply to the building found that his metre was still recording 1000 volts.

Concerned by this stray voltage, he ordered the evacuation of all people from the building and alerted the Electricity Board's Inspectorate who attended from George Road, Erdington. The Inspector was extremely concerned and baffled by what was happening and called upon a senior inspector.

The Contractor was advised that this stray voltage was certainly not caused by anything that he was doing and that in fact it was not electricity, but likely to be microwaves entering the building from a mobile phone mast close by, and that as his monitor was unable to read microwaves, it was transferring it into electricity or in fact voltage.

This gentleman shares my concern that microwaves equivalent to 1000 volts of electricity are present in the room, and that should it be the case electricity at that level was emitting into the building the electricity industry would immediately respond. No-one in this present situation is accountable, or can guarantee that this is not getting into the National Grid.

Dr Walker has picked up 6 volts per metre in a flat in Boldmere, he has sophisticated equipment which translates microwaves into electrical voltage.

Both Dr Walker and the electrical contractor are prepared to discuss their findings with your Committee. Dr Walker is contactable via SCRAM.

STRAY VOLTAGE CASE 2

A second example occurred at the home of an 81 year old lady (age 81) at a 7th floor flat in Manchester. Her son is contactable.

There exists in this lady's flat a low frequency hum. Various officials visited her

home over a six month period, heard the hum, but could not attribute it to their particular remit. Others witnessed the intermittent lighting of an electrician's screwdriver indicating some type of power surging into the room.

The professionals called into investigate were the Electricity Board, Ofcom Investigating radio waves, Salford University Physics Department and the lady's own GP. All agreed that there was a problem, with low frequency noise and some type of energy which was intermittent and causing painful spasms and electric shocks throughout this lady's body.

Manchester Housing at the advice of Ofcom and the GP are rehousing her, but the cause of the problem still remains unknown. I and one or two scientists suspect it could again be microwaves from a nearby mast, manifesting as electrical type surges.

Witnesses to the Hum and Screwdriver lighting up include a Councillor, Housing Department, a GP, Salford University Physics Department, the Electricity Board and Ofcom. Details can be obtained from SCRAM

A representative from Ofcom advised the lady that she should be rehoused immediately and suggested that Manchester City Council referred to the Stewart report of May 2000 and January 2005 which in particular could be found on offcom.org.uk. He put his concerns in writing.

<u>DISPARITY AMONGST PLANNING DECISIONS AT LOCAL PLANNING AND INSPECTORATE LEVEL</u>

We draw the Committee's attention to the letter sent by Emrys Jones our City's Chief Planning Officer (Jan '04) to the office of the Deputy Prime Minister expressing his and others grave concerns as to the ambiguity associated with planner's decisions based only on asthetic issues and ignoring health. (Appendix 3)

We also draw your attention to John Stambollouians reply advocating asthetic issues are the only criteria for planners and that health considerations are not their role.

Thirdly we forward a planning inspector's decision (quite rightly considering health). This is not only a ridiculous situation it is also a totally unfair system whereby residents are being entered into some type of lottery. The majority of campaigners now believe that by ignoring the growing evidence showing biological affects, planners are in fact skating on very thin ice, particularly when siting near to homes, schools and hospitals and could become scapegoats in the future for the Industry, NRPB and Government ministers when people take legal action!

<u>IMBALANCE – PHONE OPERATORS RIGHTS SEEMINGLY GREATER THAN CITY PLANNERS AND THE PUBLIC</u>

Emergency Powers

Siting of Telecommunications Equipment on Council Owned Land and Premises

There have been two very disturbing cases, Baltimore Road Perry Barr, and Chipstead Road, Erdington. Mobile phone operators stormed in with a mast under Emergency Powers. They had no such powers. This power is only permitted where a mast already exists and has failed for some reason.

Enforcement – Clearly Enforcement have no power to immediately remove a mast illegally placed.

Appeal System – The phone operators have the right of appeal, the local community and City Planners do not. This is not right, and is being investigated by campaigners working with experts considering the Human Rights Act '98.

Consultation or lack of it – Operators in the majority of cases consult a limited number of people in an area where a mast is proposed, wait for the outcome of objections, and go ahead regardless. We can provide many examples of this.

Walmley – A recent example is the BT Exchange at Walmley, when T Mobile not only ignored 40 plus letters and a 700 signature petition; they also ignored the advice of Sir William Stewart. On 11.1.05 Sir Stewart stated that under the precautionary principal masts should not be sited near to schools. The Deanery School, SCRAM and residents urged T Mobile to take notice of this advice but Andrew Muir for T Mobile ignored us and went ahead anyway.

Coleshill – Eileen O'Connor approached Verity Stanhope Hutchinson when a mast appeared without warning in a pub car-park adjacent to a nursery in February 2005. She argued that there had been consultation when they wrote to local residents in September 2003 (18 months ago). Residents say that having put a huge objection forward at the time and not hearing anything further, assumed that the proposal had been dropped.

T Mobile's Gill Kerr implied that City Planners suggested a way of getting an application through (Appendix 7) would be by disguising the mast as a tree.

AAP Boldmere – Evidence can be supplied regarding this case. An application for security lighting was passed and instead a mast was erected without Planner's knowledge. An additional mast was erected without permission and when questioned Mr Alexander said it was a mistake on the part of O2. He told a television interviewer that it would be taken down, but has not complied. Enforcement are involved along with the Inspectorate at Bristol.

Meanwhile an illegal mast still pumps out into residential property and a local school.

T Mobile and Crown Castle playing games with Wishaw Residents – Naïve residents in Wishaw asked for emissions to be read on our mast and agreed that Alisdair Philips of Powerwatch would come if T Mobile/Crown Castle paid his expenses.

Alisdair reported that the levels were in fact lower than he had anticipated. The following day residents were alerted to men working on the mast at 7.30.a.m. Villagers came out in large numbers to question them, we were told they had been instructed to upgrade the signal to give it a stronger signal as it had recently lowered in capacity.

Furious residents contacted T Mobile and Crown Castle who denied having sent the men out, emphatically denying they had turned it down prior to Alisdair's appointment and then raising it the following day.

We contacted the police to report two unknown men tampering with telecommunication equipment. The police investigated, and we were able to supply them with a photograph of the men and van recording the date and time of the incident and the vehicle registration number.

The police tracked down the van and men to JC Electrical, Cannock, Staffs who confirmed they had been engaged by T Mobile to carry out work on the mast and enable a stronger signal as the signal had become weak a few days prior to their visit! We have photographic evidence and police retained a copy.

18 July 2005

SELF CERTIFICATION AND NO CHECKS

When any mast application is put forward to planners, the operators are usually asked to confirm that this particular installation will comply with ICNIRP guidelines.

At the recent public meeting (Scrutiny) in Erdington North Birmingham, it became very clear, that the Scrutiny Committee members were unaware that the Operators self certify (see Appendix 4) and that they do not actually measure emissions to ascertain whether or not they are in fact within the permitted levels.

Indeed there is not even an official safety spot check system in place. Throughout the whole of Britain there exists only one officer working for the Health & Safety Executive based in Bootle. He is Mr J Arwel Barrett, Principal HM Specialist Inspector, Radiation Safety, Health & Safety Executive, Room 425 Magdalen House, Stanley Precinct, Bootle, L20 3QZ Tel No: 0151 951 4819.

He admitted to me on the telephone some 18 months ago that he could not possibly visit all sites and check for their compliance, he would neither have the time or equipment, and that he has no reason to disbelieve the operator's self certification.

Our Concern

Areas where extra equipment below 15 metre planning regulations has been added, do these collectively exceed the guidelines? An example of this is Union Drive, Boldmere, Sutton Coldfield, where 23 antennae are sited, and microwaves to the equivalent of 6 volts per metre were found in a property in close proximity.

ICNIRP are only guidelines, and were intended for short term exposure only – see ICNIRP website and ICNIRP Dan Masch (Scram's Website).

Siting of Telecommunications Equipment on Council Owned Land and Premises

18th January 2005

Councillor Michael Wilkes
Chair – Co-ordinating Overview and Scrutiny Committee
Birmingham City Council
Victoria Square
Birmingham
B1 1BB

Dear Councillor Wilkes,

Review into the siting of telecommunications equipment on Council land and premises

Thank you for your letter of 14th December 2004 inviting the MOA to take part in your Committee's Review into the siting of telecommunications equipment on Council land and premises.

The Mobile Operators Association (MOA) represents the five UK mobile phone network operators – 3, O2, Orange, T-Mobile and Vodafone – on radio frequency health and planning issues.

There are currently 55 million mobile phone subscribers in the UK and approximately 40,000 radio base stations to support that use. Without a network of radio base stations where people want to use their mobile phones they will not work.

The provision of telecommunications infrastructure is increasingly becoming a key factor in attracting business investment and leisure and sporting events to an area or city. The operators are keen to work with Birmingham City Council and to be part of the positive developments that are taking place in the city.

In September/October of each the year the operators provide their annual rollout plans to the Chief Planning Officer of all local planning authorities in the country. The annual rollout plans provide details of operators' existing operational sites in Birmingham and indications of sites that the operator anticipates requiring within the twelve months.

Siting of Telecommunications Equipment on Council Owned Land and Premises

Siting Equipment on Council Land and Premises

Local Authority owned land and property is often well suited to telecoms development due to location. The Government provides guidance to Councils in Planning Policy Guidance Note 8 (PPG8) and states (section titled Environmental Considerations) that:

'Authorities are encouraged to help applicants identify existing and potential sites by making suitable local authority owned property available to users and by encouraging others to do the same.'

If a local authority takes a decision not to allow the siting of telecommunications equipment on its land and property it restricts the number of potential sites available for consideration. This may place operators in a situation where they may select a more contentious site or require additional sites to meet the network coverage requirement and/or capacity need. A decision to no longer allow the location of new sites or upgrade of existing sites on Council land and property would also reduce the revenue the Council currently receives in rental from the operators.

The more sites available for consideration the greater the likelihood of achieving a balance between environmental impact, technical requirements and community expectation.

Operators are currently in the process of upgrading their existing 2G installations to provide 3G services. Where possible, operators are seeking to upgrade existing sites as this reduces the need for additional sites. Existing sites are suitable as they have existing telecoms use and use of existing sites is encouraged by PPG8. PPG 8 (section Environmental Considerations) states:

"….The re-use of the existing sites is encouraged to minimise the need for new second and third generation base station sites."

The operators would be pleased to work with the Council to refine the estates and acquisition processes to ensure that they operate effectively for all parties.

Health Advice

The National Radiological Protection Board (NRPB) last week published a report providing updated advice to the public on the issue of mobile phones, base stations and health. You can view the advice in full on the NRPB website at www.nrpb.org**.**

This latest report from the NRPB largely repeats the conclusions and recommendations of the Stewart Report published in 2000. The key point of the NRPB advice is that there is no hard information linking the use of mobile telephony with adverse health effects (Executive Summary, paragraph 9).

This advice is consistent with the reassuring conclusion reached a year ago by the NRPB's Advisory Group on Non-ionising Radiation (AGNIR) when it found that the weight of scientific evidence available does not suggest that mobile technologies operating within international health and safety guidelines cause

illness. Details of the AGNIR report can be found on the NRPB website at www.nrpb.org/advisory_groups/agnir/index.htm.

All base stations in the UK comply with the emissions levels set by the International Commission on Non-Ionising Radiation Protection (ICNIRP). A certificate stating that the proposed site complies with the ICNIRP guidelines is submitted with each planning application.

Ofcom (formerly the Radiocommunications Agency) carries out independent surveys of base station emissions and the results are published on their website. A survey can be requested and results can be viewed at the Ofcom website at: http://www.ofcom.org.uk/consumer_guides/mob_phone_base_stat/. The results demonstrate that emissions levels are hundreds and often thousands of times below the ICNIRP guidelines.

Planning

The operators comply with Government planning guidance and health advice regarding the siting and operation of telecommunications equipment.

In September 2001 the MOA published the Ten Commitments to best siting practice, which are now contained in the Codes of Best Practice for mobile telecommunications development issued by the Governments of England and Wales. Details of the Ten Commitments can be found on the MOA website at www.mobilemastinfo.com and the Government Code of Best Practice at www.odpm.gov.uk**.**

The operators carry out the pre-application consultation set out in the Code of Best Practice prior to the submission of planning for all sites on Council land and premises.

Summary

The ability to consider potential sites on Council land and premises is important if there is not to be a restriction of choice for operators, communities and the local planning authority. A restriction of site choice could result in operators having to progress less suitable sites in terms of planning, environmental impact and community terms.

When making their land and property available Council retains the ability to consider the suitability of a proposal on a case-by-case basis.

The MOA will be represented at the evidence session on 18th February by Stuart Eke, Public Affairs Manager, along with representatives from each of the operators and will be pleased to expand upon the contents of this letter and answer questions that members may wish to raise.

Yours sincerely,

Mike Dolan
Executive Director

Birmingham Chamber of Commerce and Industry

10th February 2005

Cllr Michael Wilkes
Birmingham City Council Scrutiny Committee
The Council House
Victoria Square
Birmingham
B1 1BB

Dear Cllr Wilkes,

Re: Siting of telecommunication equipment on Council owned land and premises

1. Introduction

Birmingham Chamber of Commerce was invited by the Overview and Scrutiny Committee to submit evidence to its inquiry into Birmingham City Council's policy on the siting of telecommunication equipment on Council owned land and premises.

The Chamber's submission will focus on the growing demand for mobile phone services and stress the business benefits of an improved telecommunications infrastructure, with particular focus on 3G technology.

Birmingham has been undergoing a reinvention over a period of years, moving the City away from its industrial past to modern industries, from professional and financial services to logistics and telecommunications.

2. Background to the Chamber of Commerce

The Birmingham Chamber of Commerce's aim is to support businesses in Birmingham, encouraging growth and development.

Through both direct delivery and our holding of the Business Link franchise, we provide business advice and support to thousands of businesses across the city each year, with the aim of making Birmingham one of the best places in the UK and Europe to do business.

Birmingham Chamber of Commerce and Industry has also recently worked with Birmingham City Council on its Economic Development Partnership plan – *Developing Birmingham – an Economic Strategy for the City 2005 – 2015*. The strategy's aim is to secure investment, encourage business growth and regenerate local communities.

The Chamber believes an improved telecommunications infrastructure is a

crucial way to support regeneration in the City.

3. What is 3G?

3G stands for 3rd Generation of mobile phones. 3G has significantly more bandwidth than existing mobile phones, enabling a range of applications from broadcast quality video messaging to secure, fast mobile transactions.

Demand for 3G is growing across the UK and providing infrastructure to meet 3G requirements is an integral part of Birmingham becoming a world-class ICT city.

4. Benefits of 3G to business

Combining the capabilities of a PC, phone, PDA and video camera all in one, 3G is set to become an essential business tool to small and medium-sized businesses (SMEs) allowing remote working and resulting in increased productivity and reduced costs.

In particular we believe that 3G is essential to:

Improving business efficiency and productivity

3G will provide high speed access to the Internet and email allowing faster downloading and web browsing times. This will improve businesses efficiency, cost effectiveness and productivity. Employees will also be able to access email, voicemail, company information, customer accounts, telephone directories, shared diaries – all remotely. This will allow businesses to become involved in overseas travel and reduce overheads of office facilities. 3G will allow businesses to accept payments remotely (m-commerce). Banking and retail sectors already use it for secure immediate sales while fully connected to the company's customer account system in the office.

Increasing business security

A key issue for Birmingham is the increase in business crime, particularly in the last 12 months. Through 3G employees will be able to work remotely. 3G can also support CCTV as well as high-quality picture messaging, allowing visual records and complex information to be sent instantaneously. Both these has the potential to improving business security.

Tackling transport issues

As Birmingham is located centrally in the UK traffic congestion is one of the key issues Birmingham faces. 3G will reduce the need for business travel. Video calling and group conferencing will allow salespeople to conduct business using video messaging and colleagues can hold face-to-face meetings no matter where they are. Also, 3G devices will provide the latest local location based information, for example, maps and transport news, allowing people to anticipate and avoid delays and plan activities to ensure maximum cost effectiveness and productivity.

Encouraging inward investment

Siting of Telecommunications Equipment on Council Owned Land and Premises

In order to consolidate its position as a world-class City Birmingham must be able to provide world-class facilities. A leading telecommunications infrastructure is essential if we are to encourage economic regeneration. Inward investment and business growth in the City would also allow us to help people into the market place.

5. Benefits to Birmingham

As well as the benefits it would bring to Birmingham's businesses, 3G would also bring important benefits to the entire city and its communities. It is crucial that the opportunity to position Birmingham as a leading ICT City is not missed.

Including all our communities

3G, through mobile and PDA, is more accessible and cost effective to individuals and communities where computer access is currently low. 3G will help social inclusion and can help us to tackle unemployment and skills shortages.

Birmingham like other major UK cities has a relatively high unemployment rate, in particular amongst ethnic communities. An improved ICT infrastructure would enable increased access for a wide range of our communities as well as the employment benefits of encouraging inward investment. Birmingham has also inherited a legacy of under-skilled employees from its industrial past. The UK has also seen an increasingly older workforce with the percentage of workers over 45 rising. This group is not as IT literate; improvements in infrastructure will improve access to a wider group of people.

High quality ICT infrastructure will help businesses and education organisations to provide easier access to training to develop future proofed skilled workers across Birmingham.

Community safety

Police, firemen and traffic wardens will be able to record and access information on the move; this will mean they can spend more time patrolling communities and less time in their offices. The local authority will be able to send warning alerts, via text message, to people located in a specific area. Emergency services will be able to locate the caller within metres, potentially improving response times.

Education

The local authority could provide mobile broadband access to students; revision aids such as exam tips could be sent to student's mobile phones; and 3G will provide teachers with more opportunities to improve communication with parents.

Environment

Video capabilities could help the local authority monitor and record environmental infringements; co-ordination of waste management across the city could improve with the local authority able to direct refuse trucks to rubbish hot spots; and hanging data could provide residents with useful information

about schemes to encourage biodiversity and recycling.

Health

Medical guidance and medication databases could be accessed through handheld devices; appointment reminders could be sent to patients; and improved communication with patients and on health awareness programmes.

Tourism

Virtual multimedia tour guides of Birmingham; TV screens in the City centre; and free hanging data on historical and cultural attractions in City.

Communicating with and consulting residents

3G will connect residents to the Council through improved interactivity and consultation; encouraging more engagement with residents over community issues and Council services; and narrowing the digital divide through enabling lower-cost and simplified access to broadband internet services.

6. Balancing stakeholders' demands for, and concerns about, providing a first-class infrastructure

Demand for mobile services is growing

There are already 58 million mobile phone users in the UK and experts forecast that subscribers to advanced mobile services will increase by 250% between now and 2009.[1]

Businesses are looking for ever higher standards of mobile coverage to cope with their growing need for wireless based applications and services. It is important for Birmingham not to fall behind the rest of the UK and Europe in its ability to provide the latest equipment, facilities and services to businesses. Preventing improvements to our telecommunications infrastructure would have a damaging impact on its profile as a forward thinking business centre.

Communities are also concerned about visual impact and potential health effects

In order to support the growing demand for mobile phone services more base stations will be needed. Industry estimates that the deployment of 3G will require a three-fold increase in traditional base stations. Some local residents are concerned about the visual impact and potential health effects of mobile phone masts.

Mobile operators and industry working to balancing stakeholder needs

The mobile operators and industry are working hard to find solutions to meet the needs of local communities. The Mobile Operator's 10 commitments and the Office of Deputy Prime Minister (ODPM)'s Best Practice Guide to Network Development both advocate the sensitive siting of masts and the sharing of

[1] Analysis report, 2004

existing infrastructure. The latest independent audit carried out by Deloitte and Touche shows that industry is rising to this challenge.

According to the latest research, there is no scientific evidence to suggest mobile phone masts pose a risk to human health. Radio Frequency (RF) emissions from mobile phone masts are much lower than international exposure guidelines.

Industry is also striving to improve the visual appearance of masts and is developing alternatives to traditional masts, for example, BT has developed Microconnect as a solution. The Chamber would urge the Local Authority to work with industry to encourage the use of new technology and the responsible siting of infrastructure.

7. Conclusion and recommendation

The Chamber's view is Birmingham needs to work with mobile operators and industry to adopt an effective approach to introducing this technology so ensuring the maximum benefits of 3G are felt by Birmingham and its business community.

We would support the removal of the Council's moratorium on siting telecommunication equipment on Council owned land and premises. The Council will therefore retain control of the siting of infrastructure but will have an increased flexibility that will ensure the best sites are chosen and the introduction of 3G is not stifled.

Yours sincerely

Jerry Blackett
Policy & Communications Director

Whitehouse Common & District Neighbourhood Forum

Dear Sirs,

The Government, advised by scientists, some of whom seem to have connections with the mobile 'phone companies, tell us that there is no evidence that the radiation from these masts is harmful to health. We wish to emphasise most strongly to you that this statement is very different from saying that there is no evidence that the radiation is NOT harmful. Remembering various government statements on such matters as thalidomide, BSE and Gulf War Syndrome, the advise of such scientists cannot be accepted as trustworthy nor can the government's statement be regarded as reassuring.

At a public meeting of this Forum two years ago total distrust and total disbelief of the Government's position was expressed. The view was, and remains, that their arguments were tainted by huge financial factors and not by cool assessment of the facts. Considerable contrary evidence has been gathered and can be offered to the Committee if they are prepared to give it the necessary time and unbiased attention.

Yours faithfully,
Fred Goff.
(Chairman)

Siting of Telecommunications Equipment on Council Owned Land and Premises

Sutton Coldfield Association Of Neighbourhood Forums [Scanf]

[Minworth, Falcon Lodge, Walmley, New Hall, Mere Green, Vesey[North], Banners Gate,]

From : Ken Rushton [Secretary SCANF]

To: Councillor Michael Wilkes [Chair Co-ord. Overview and Scrutiny Committee]

Phone Mast Safety

SCANF is a centralised group with representation from all of the seven Sutton Forums, the aim being to present a common view from all of these Sutton Forums when this is considered appropriate.

With reference to the publicised work of your committee to seek views on the location and safety of phone masts. We work closely with the Sutton SCRAM group and have been active in a number of instances, particularly when masts are overlooking schools, homes, or places of work.

The industry of course, maintains the view that there is no proof that emissions are harmful and that they follow government guidelines. They argue that this is indisputable.

What is also indisputable is that UK government guidelines on emissions are the most relaxed in Europe and indeed beyond, in the UK far higher emissions are permitted than in most countries.
With successive past UK governmental record on issues like this, it does not engender confidence.

The rule in the UK always seems to be to allow industries to proceed until something is proved dangerous. Many other developed countries take the view that things should not proceed unless they are proved to be safe, a huge difference.

The Sutton Forums take the view that the job of a council or government is to protect its residents from any mast emissions not fully proven to be safe beyond all doubt, and supported by international opinion.

This situation does not currently exist and our request to your committee is to ensure that local planning permission has to be obtained, and that this is not given for locations where emissions can reach Schools, Homes, and workplaces. We want European ‘type’ standards applied by Birmingham Council.

Mast Sanity

The most recent and up-to-date research will have been provided by my colleagues in SCRAM and BRAM, so rather than waste time repeating those submissions, MS would like to submit the following points:

As a national organisation, we receive around 300 enquiries per week, and over 1000 hits on the website. Our enquiries arise from all corners of Britain, ROI and the rest of the world. We have a sister organisation in Australia, where the biggest childhood killer is brain tumours, compared with ours, which is childhood leukaemia. In Australia, a leading neurosurgeon, Dr. Teo, voiced his concern about the large number of tumours he was operating on among children, particularly the acoustic neuromas, which were usually positioned where a mobile phone is held to the head! More and more research is unfolding on a daily basis to indicate that there is a definite link between emf radiation and childhood leukaemia, as was demonstrated at a recent conference in September of last year, hosted by the charity Children with Leukaemia, which was opened by Sir William Stewart.

Sir Stewart himself criticised the telecoms industry when he opened the conference, for misinterpreting his report, by picking bits out of context and giving the impression that Sir Stewart had proclaimed emissions from mobile phones and masts as 'safe'. Stewart said in an interview two years earlier (Express and Echo - 3/08/02), that a blanket dismissal of possible health implications was wrong as further research was needed before the full effects of mobile phone masts were known. Another version of the Stewart Report is due out at the time of writing, which is expected to reiterate his earlier concerns about the use of mobiles by children, and an adherence to the precautionary principle.

At the same conference, Cindy Sage, an epidemiologist from the USA, has demonstrated an overwhelming correlation between living near to a mast and a detrimental effect on health, in her study of all of the research conducted in the area, and pointed out the fact that those living near to such sources do not have a choice in the matter. Moreover, they are constantly exposed to the pulsing microwaves, whether or not they choose to take the risk associated with phones.
The recent case in the High Court re Harrogate found that the government has stated that if a mast complies with ICNIRP guidelines (International Committee on Non Ionising Radiation, which is devised by the industry, for the industry!), then health is not a material Planning consideration. This is in Contrast to the decision made in the case brought by Yasmin Skelt, in which the judges found that ICNIRP guidelines were not sufficient, and health was a material Planning consideration!

Just as there is no consistency between judges, there is little between, or even within, Local Authorities regarding the implication of PPG8. Enclosed is a copy of a Planning briefing from Planning Sanity on the 2004 compulsory purchase act etc. Note the references to the use of the word 'may' in the literature, which indicates that interpretation is open to the Local Authority. As Birmingham is one

of the largest Authorities in Europe, its policies impact on the health of not only its own residents, but also those of other authorities, who may well follow its example to protect its residents.

With more and more research to support a precautionary approach, and growing concern among the independent scientific community regarding the long term effects of masts and phones, Birmingham City Council has the opportunity to lead the way to ensuring a safe environment for its citizens by protecting them from illness and disease, just as it did when Birmingham was the first city to provide its citizens with running water and sanitation in the time of Chamberlain et al.

Amanda Wesley

Birmingham Association of Neighbourhood Forums (BANF)

BANF and BANF delegates have for sometime been concerned over the sighting of telecommunications equipment. The proximity to schools of all types, community centres and homes for the elderly are some of the concerns.
Its encouraging to see that BCC is listening to people and refusing planning applications for poles and equipment. Concerns are once more raised when refused applications go to appeal and BCC decisions are overturned. I doubt very much whether government officials in Bristol have a clue about the sighting of the masts. There are instances of poles and equipment cabinets being allowed to be sighted 15metres from a community centre, 25 metres from a nursery school and 30 metres from a junior school. We are told time and time again by mobile phone companies and agents acting for them how safe the equipments is and there are no effects on people. We have been told how safe things have been in the past. Cigarettes for example. Now it has been proven that they are detrimental to our health. Will this be the same in 20 yrs time? Will proof be available that states the detrimental effect this equipment has on people. It would be reassuring to think that mobile phone companies share some of our concerns and start sighting their equipment away from our homes and other sensitive areas. It is hoped that the companies and scientists are right in their views on how safe this equipment is but until we have definite proof one way or the other action needs to be taken by all sides.

We recommend that when commenting on planning applications and on planning appeals for telecommunications equipment that there is a paragraph in the letter stating that if it is proven in the future that the equipment has a detrimental effect on health then legal action will be taken not only against the mobile phone companies but also against the councils or government departments that allowed the applications to go ahead.

Terry Edwards

Siting of Telecommunications Equipment on Council Owned Land and Premises

Mast Action

1. In a conurbation probably different consideration may apply as opposed to those applicable to a residential dormitory or village community.

2. A distinction should be made between industrial land and buildings and Council blocks of residential housing. The amenity needs of residential tenants and their wellbeing should dictate Council policy to comply with Housing Circular PPG3 - 'providing an environment in which people would choose to live'

3. 2G networks were a 'necessity' or put legally 'a necessary'. However in dormitory residential areas 3G with its requirements for many more 'infilling' masts are probably not a 'necessary'. So other requirements should have equal priority wherever possible.

4. As the Stewart Report (May 2000) and now the following NRPB Report (January 2005) have made clear 'populations are not homogenous' and some groups are more susceptible to environmental hazards. Clearly, like in Sweden, California, Australia and New Zealand some proportion of the UK Population are Electro Sensitive and susceptible to the EMF emissions from Masts.

5. Notice should be taken seriously now of the Irish Doctors Environmental Associations Report to the Irish Government that the ICNIRP Guidelines limited as they are to solely 'thermal' heating are 'not appropriate', as many of the effects of this type of Electro-Magnetic Radiation are not related to these 'thermal' effects.

Regards

Alan Meyer
Legal Director Mast Action UK

Siting of Telecommunications Equipment on Council Owned Land and Premises

Friends of the Earth Birmingham

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Friday 18th February 2005

Councillor Michael Wilkes
Chair of the Co-ordinating Overview &Scrutiny Committee
c/o The Council House
Victoria Square
B1 1BB

Re: Review into the siting of Telecommunications Equipment on Council Land and Premises

Dear Cllr Wilkes,

Thank you for the invitation to make a submission to the above Review process. I apologise for the late response.

We are concerned that when considering applications for telecommunications installations local authorities are prevented from acting fully in the public interest by:

1. The immense pressure on local authorities to accept mast applications in order to avoid costly appeals by the operators, who are more likely to challenge decisions than local residents.
2. The short time-scale for planning permission (56 days) which leaves local communities with insufficient time to participate fully in the planning process.
3. The anomalous special provision granted to mobile network operators whereby telecommunications masts under 15 metres in height do not require planning permission.

The Independent Expert Group on Mobile Phones (Stewart) Report (2000) recommends that: 'for all base stations, including those with masts under 15m, permitted development rights for their erection be revoked and that the siting of all new base stations should be subject to the formal planning process.'[1]

1

[1] Independent Expert Group on Mobile Phones, Report of the Group (the Stewart Report), May 2000, Section 1.36

The report acknowledges that more research is needed into of the possible health effects of radiation from masts and recommends that comprehensive databases of the positions and emission levels of all telecommunications masts are made available to the public. It also supports mast sharing whenever possible along with frequent, independent random auditing of masts.

Therefore, we recommend that the City Council:

1. Urge the Government to implement the recommendations of the Stewart report and revoke permitted development rights for the erection of all base stations, including those with masts under 15m.
2. Make provisions for public consultation in cases of prior approval notifications.
3. Ban all new mast applications on City Council property until legislation recommended by the Stewart report is brought into effect.
4. Continue to uphold its draft Unitary Development Plan (UDP) and draft Supplementary Planning Guidance for the installation of mobile 'phone masts by disallowing telecommunications equipment in 'sensitive areas'[2](such as residential areas, school or hospital grounds, listed buildings, greenbelts, conservation areas or transport corridors), even in so-called 'exceptional circumstances'.
5. Publish a map of all the City's telecommunications' installations.

Yours sincerely,

James Botham
Birmingham Friends of the Earth

[2] Birmingham City Council Daft Supplementary Planning Guidance for the Installation of Mobile Phone Telecommunications Equipment, Nov 2000, para .2.1

Sutton Coldfield ElectroSensitives

SCATS©
Reacting to Radiation

7th March 2005

Councillor Michael Wilkes
Chair of Scrutiny Committee re siting of mobile phone masts
The Council House
Victoria Square
Birmingham B1 1BB

Dear Councillor Wilkes

Further to my statement at the public meeting in Stockland Green on 17th January, I write to you on behalf of Sutton Coldfield ElectroSensitives to express our extreme concern regarding health issues relating to mobile phone mast emissions.

We are a group of people who live in Sutton Coldfield and who have become sensitised to electromagnetic fields and radiation. In the past this condition has been called Microwave Sickness or Radiation Sickness, and is now known as Electromagnetic Hypersensitivity (EHS). Our bodies react physically to these unseen emissions, and this is linked to long-term serious, debilitating and sometimes life-threatening, ill-health.

Though the medical profession has yet to accept this manifestation of allergy, there is considerable worldwide growing concern and there has been serious research over many years into the syndrome. To cite just two examples:

a) The Freiburger Appeal. This has now been signed by 6,000 medical professionals and professors of Environmental Medicine. In Germany now, 5% of the population have developed some degree of EHS.

b) The research of Professor Olle Johansson at the Karolinska Institute in Sweden demonstrates that the skin cells of EHS sufferers show specific changes in the mast cells – the dermis has a unique imprint of Electromagnetic Hypersensitivity.

Here in England, a national charity (ES-UK) was set up a year ago for EHS people. Sutton Coldfield ElectroSensitives works closely with ES-UK to research the syndrome, to network and especially to support sufferers. We also work with scientists and researchers, and interact with many sufferers via various national and international support groups.

For most of us EHS sufferers, our condition is disabling and prevents us from accessing normal living in today's environment and society. Many are unable to go shopping, travel, attend meetings or appointments, or even visit friends' homes because we become ill when exposed to the emissions from mobile phone masts, people's mobile calls and DECT phones.

In my own case, which is fairly representative, I am unable to access my doctor's surgery, hospitals, the library, shopping centres, travelling on trains (high electromagnetic fields) and buses etc. because of reactions not only to fluorescent lighting, computer systems and office equipment, but to the widespread use of mobile communications systems.

In common with other sufferers, I became too ill to work (as a teacher) and my life has

Sutton Coldfield ElectroSensitives PO Box 12560 Sutton Coldfield B73 9PB
Tel: 0121 308 1549
Supported by Disability West Midlands

become extremely limited. Though I have spent thousands of pounds in working towards better health, and had the help of private specialists with experience of EHS, the physical reactions to mobile emissions are becoming increasingly disabling.

Our members suffer horrible adverse biological reactions to the frequencies emitted from mobile phones and transmitters. And some are also virtually housebound with poor health. We appear to have in common that our bedrooms are situated within the beam from a transmitter and our sleeping patterns are disturbed by digital frequencies. We believe that sleep disturbance, when the body should be undergoing a melatonin / immune system repair overnight, was a major contributing factor to the body's 'electrical injury', sensitivity and susceptibility.

With reference to the Disability Discrimination Act 2004, we feel that our illness demands due consideration. Our health is already seriously undermined. The siting of further masts must not endanger our health any further, nor the health of the 3 to 5% of the population who, to date, appear to be susceptible. Note that the Stewart Report, specifically refers to 'the balance of evidence **to date'** (ie May 2000, nearly 5 years ago); the electrical environment in which we live has changed considerably since then. Please read carefully paragraphs 1.17, 1.18, 1.19 & 1.20 of the Main Conclusions of this Report, from which the above reference is taken; the Report refers to the 'general population' and states that 'people can vary in their susceptibility to environmental hazards'.

Conferences relating to EHS have taken place in London for the last three years; British and international doctors, specialists, professors, researchers and sufferers have convened to share their research and experience of the EHS syndrome. Dr Jill Meara, Deputy Director of the National Radiological Protection Board and Public Health Physician attended and gave a presentation at the 'Electrosensitivity in Human Beings' symposium at the Royal Society of Medicine in September 2004.

As residents of Sutton Coldfield, paying taxes to Birmingham City Council, we request that our voices are heard regarding this serious health issue. Birmingham has the opportunity to lead the country in developing further policies to protect the health of its residents by adopting a true 'precautionary approach' in taking seriously illnesses relating to the transmission of digital frequencies.

Surely we have a human right to live in our own homes without these sanctuaries being invaded by waveforms and frequencies which are toxic to our bodies. As policy makers making crucial decisions on our behalf, we appeal to you to undertake a duty of care.

We have papers, documents and books which have research material specific to this environmental illness, and would appreciate the opportunity to present these to the Scrutiny Committee.

Yours sincerely

Freda Thornhill (Mrs.)
Chair, Sutton Coldfield ElectroSensitives

Copies to: Mr. Rod Read, Director, ES-UK
Mr. Andrew Mitchell, MP for Sutton Coldfield
Sir William Stewart

Review of the Policy of Siting of Telecommunications Equipment on Council Owned Land and Premises

In Sweden, electrohypersensitivity (EHS) is an officially fully recognized physical impairment (i.e., it is not regarded as a disease). Survey studies show that somewhere between 230,000 - 290,000 Swedish men and women report a variety of symptoms when being in contact with electromagnetic field (EMF)-sources.

The EHS persons have their own handicap organisation; The Swedish Association for the ElectroSensitive; www.feb.se (the website has an English version). This organisation is included in the Swedish Disability Federation (Handikappförbundens SamarbetsOrgan; HSO). HSO is the unison voice of the Swedish disability associations towards the government, the parliament and national authorities and is a cooperative body that today consists of 43 national disability organisations (where The Swedish Association for the ElectroSensitive is 1 of these 43 organisations) with all together about 500,000 individual members. You can read more on www.hso.se (the site has an English short version).

Swedish municipalities, of course, have to follow the UN 22 Standard Rules on the equalization of opportunities for persons with disabilities ("Standardregler för att tillförsäkra människor med funktionsnedsättning delaktighet och jämlikhet"; about the UN 22 Standard Rules, see website: www.un.org/esa/socdev/enable/dissre00.htm). All persons with disabilities shall, thus, be given the assistance and service they have the right to according to the Swedish Act concerning Support and Service for Persons with Certain Functional Impairments (LSS-lagen) and the Swedish Social Services Act (Socialtjänstlagen). Persons with disabilities, thus, have many different rights and can get different kinds of support. The purpose of those rights and the support is to give every person the chance to live like everyone else. Everyone who lives in the Swedish municipalities should be able to lead a normal life and the municipalities must have correct knowledge and be able to reach the persons who need support and service. Persons with disabilities shall be able to get extra support so that they can live, work, study, or do things they enjoy in their free time. The municipalities are responsible for making sure that everyone gets enough support. Everyone shall show respect and remember that such men and women may need different kinds of support.

In Sweden, impairments are viewed from the point of the environment. No human being is in itself impaired, there are instead shortcomings in the environment that cause the impairment (as the lack of ramps for the person in a wheelchair or rooms electrosanitized for the person with EHS). This environment-related impairment view, furthermore, means that even though one does not have a scientifically-based explanation for the impairment EHS, and in contrast to disagreements in the scientific society, the person with EHS shall always be met in a respectful way and with all necessary support with the goal to eliminate the impairment. This implies that the person with EHS shall have the opportunity to live and work in an electrosanitized environment.

This view can fully be motivated in relation to the present national and international handicap laws and regulations, including the UN 22 Standard Rules and the Swedish action plan for persons with impairments (prop. 1999/2000:79 "Den nationella handlingplanen för handikappolitiken - Fran patient till medborgare"). Also the Human Rights Act in the EU fully applies.

A person is disabled when the environment contains some sort of impediments. It means that in that moment a man or woman in a wheelchair can not come onto the bus, a train, or into a restaurant, this person has a disability, he or she is disabled. When the bus, the train or the restaurant is adjusted for a wheelchair, the person does not suffer from his disability and are consequently not disabled. An EHS-person suffers when the environment is not properly adapted according to their personal needs. Strategies to enable a person with this disability to attend common rooms such as libraries, churches and so on, are for instance to switch off the high-frequency fluorescent lamps and instead use ordinary light bulbs. Another example is the possibility to switch off - the whole or parts of - the assistive listening systems (persons with EHS are often very sensitive to assistive listening systems).

In the Stockholm municipality - were I live and work as a scientist with the responsibility to investigate comprehensive issues for persons with EHS - such persons have the possibility to get their home sanitized for EMFs. It means for example that ordinary electricity cables are changed to special cables. Furthermore, the electric stove can be changed to a gas stove and walls, roof and floors can be covered with special wallpaper or paint with a special shelter to stop EMFs from the outside (from neighbours and mobile telephony base stations). Even the windows can be covered with a thin aluminium foil as an efficient measure to restrain EMFs to get into the room/home. If these alterations turn out not to be optimal they have the possibility to rent small cottages in the countryside that the Stockholm municipality owns. These areas have lower levels of irradiation than others. The Stockholm municipality also intend to build a village with houses that are specially designed for persons who are electrohypersensitive. This village will be located in a low-level irradiation area.

Persons with EHS also have a general (legal) right to be supported by their employer so that they can work despite of this impairment. For instance, they can get special equipment such as computers that are of low-emission type, that high-frequency fluorescent lamps are changed to ordinary light bulbs, no wireless DECT telephones in their rooms, and so on.

Some hospitals in Sweden (e.g. in Umea, Skelleftea and Karlskoga) also have built special rooms with very low EMFs so that persons who are hypersensitive can get medical care. Another example is the possibility for persons who are electrohypersensitive to get a specially designed car so that the person can transport himself/herself between his/her home and their workplace.

Recently, some politicians in the Stockholm municipality even proposed to the politicians responsible for the subway in the Stockholm City that a part of every trainset should be free from mobile phones; that the commuters have to switch of the phones in these selected parts to enable persons with EHS to travel with the subway (compare this with persons who have an allergy for animal fur whereupon people consequently is prohibited to have animals, such as dogs or cats, in selected parts of the trainset).

In addition, when the impairment EHS is discussed it is also of paramount importance that more general knowledge is needed with the aim to better adapt the society to the specific needs of the persons with this impairment. The Swedish "Miljöbalk" (the Environmental Code) contains an excellent prudence

avoidance principle which, of course, most be brought into action also here, together with respect and willingness to listen to the persons with EHS.

Naturally, all initiatives for scientific studies of the impairment EHS must be characterized and marked by this respect and willingness to listen, and the investigations shall have the sole aim to help the persons with this particular impairment. The presently proposed WHO initiative seem to lack this aim and the suggested research programme rather seems to question, throw suspicion on, and - on very flimsy grounds - psychologize the impairment EHS. This is a set-up that completely is in contrast to Rule 13 in the UN 22 Standard Rules which clearly says that scientific investigations of impairments shall, in an unbiased way - and without any prejudice - focus on cause, occurrence and nature and with the sole and explicit purpose to help and support the person with the impairment. Nothing else!

In addition, it must also be mentioned that quite recently, by the end of 2004, The Irish Doctors' Environmental Association (IDEA) has announced that "they have identified a sub-group of the population who are particularly sensitive to exposure to different types of electromagnetic radiation. The safe levels currently advised for exposure to this non-ionising radiation are based solely on its thermal effects. However, it is clear that this radiation also has non-thermal effects, which need to be taken into consideration when setting these safe levels. The electrosensitivity experienced by some people results in a variety of distressing symptoms which must also be taken into account when setting safe levels for exposure to non-ionising radiation and when planning the siting of masts and transmitters. (The Irish Doctors' Environmental Association (IDEA), 2004, "IDEA position on electro-magnetic radiation"; www.ideaireland.org/emr.htm)

Furthermore, the IDEA also points out the following:

1. An increasing number of people in Ireland are complaining of symptoms which, while they may vary in nature, intensity and duration, can be demonstrated to be clearly related to exposure to electro-magnetic radiation (EMR)

2. International studies on animals over the last 30 years have shown the potentially harmful effects of exposure to electro-magnetic radiation. In observational studies, animals have shown consistent distress when exposed to EMR. Experiments on tissue cultures and rats have shown an increase in malignancies when exposed to mobile telephone radiation.

3. Studies on mobile telephone users have shown significant levels of discomfort in certain individuals following extensive use or even, in some cases, following regular short-term use.

4. The current safe levels for exposure to microwave radiation were determined based solely on the thermal effects of this radiation. There is now a large body of evidence that clearly shows that this is not appropriate, as many of the effects of this type of radiation are not related to these thermal effects.

(The Irish Doctors' Environmental Association (IDEA), 2004, "IDEA position on electro-magnetic radiation"; www.ideaireland.org/emr.htm).

Finally, The Irish Doctors' Environmental Association "believes that the Irish Government should urgently review the information currently available internationally on the topic of the thermal and non-thermal effects of exposure to electro-magnetic radiation with a view to immediately initiating appropriate research into the adverse health effects of exposure to all forms of non-ionising radiation in this country, and into the forms of treatment available elsewhere. Before the results of this research are available, an epidemiological database should be initiated of individuals suffering from symptoms thought to be related to exposure to non-ionising radiation. Those claiming to be suffering from the effects of exposure to electro-magnetic radiation should have their claims investigated in a sensitive and thorough way, and appropriate treatment provided by the State. The strictest possible safety regulations should be established for the installation of masts and transmitters, and for the acceptable levels of potential exposure of individuals to electro-magnetic radiation, in line with the standards observed in New Zealand." (The Irish Doctors' Environmental Association (IDEA), 2004, "IDEA position on electro-magnetic radiation"; www.ideaireland.org/emr.htm).

Of course, these very recent findings must also be taken into serious consideration for any research proposal.

Olle Johansson

Dr Olle Johansson, Karolinska Institute, Stockholm, Sweden, provided scientific data as well as general information on Swedish men and women seeking medical care for skin symptoms in conjunction with VDT work. He informed us about the fact that persons with electrohypersensitivity has been fully recognized as an physical impairment, and that The Swedish Association for the ElectroSensitive has been likewise officially recognized as a handicap organization, both since 1993. The latter receives financial support from the government for its activities.

Dr Johansson has been studying skin biopsies from persons with the impairment electrohypersensitivity and reported that, in their skin, PGP 9.5-positive nerve fibres are scarce and short, and this might, in some way, lead to each nerve terminal having to work more and thus become supersensitive. He also found an increased number of mast cells in facial skin samples from persons with electrohypersensitivity. In addition to this, he also summarized a large number of other observations, both in persons with electrohypersensitivity as well as in normal healthy volunteers subjected to VDTs, mobile phones, etc.

<u>Extract from the NRPB Report (204) “Mobile Phones and Health</u>

Sensitive groups

Populations as a whole are not genetically homogeneous and people can vary in their susceptibility to environmental hazards. There could also be a dependency on age. The issue of individual sensitivity remains an outstanding one in relation to RF exposure and one on which more information is needed.

IEGMP considered that children might be more vulnerable to any effects arising from the use of mobile phones. The potential for undertaking studies to examine any possible effects on children are, however, limited for ethical reasons. It was recommended in the Stewart Report that the use of mobile phones by children

should be minimised and this was supported by the Departments of Health. Text messaging has considerable advantages as the phone is in use for only a short time, when the phone transmits the message, compared with voice communication.

The Board concludes that, in the absence of new scientific evidence, the recommendation in the Stewart Report on limiting the use of mobile phones by children remains appropriate as a precautionary measure.

The Board also welcomes an initiative by the World Health Organization in its EMF programme to focus attention on research relevant to the potential sensitivity of children.

Additionally, there is concern by an increasing number of individuals, although relatively small in relation to the total UK population, that they are adversely affected by exposure either to EMFs in general or specifically to RF fields from mobile phones. A European Commission group of experts termed the syndrome 'electromagnetic hypersensitivity'. Similar concerns have been raised in the past in relation to exposure to agricultural chemicals and other materials.

Members of the public who have written to the Department of Health in England in relation to RF exposure have reported a variety of distressing symptoms including dizziness, fatigue, chronic headache, irregular heart beat, nausea and vertigo, and loss of memory and concentration. These and other symptoms are reported to result from exposure to a range of EMFs, including RF fields, encountered in everyday life. Similar symptoms were reported to IEGMP at open meetings. Many people also consider that there are serious long-term risks associated with such exposures. In Sweden electromagnetic hypersensitivity has been addressed nationally, accepted as a physical impairment, and a scheme is in place to improve home and working conditions for people who consider themselves to be sufferers.

The Board considers that the issue of electromagnetic hypersensitivity needs to be carefully examined in the UK. It supports the strengthening of work designed to understand the reasons for the reported electromagnetic hypersensitivity of some members of the public.

<u>Cell phone base stations change brain currents and cause unwellness</u>

Research in Austria

The radiation of a cell phone base station at a distance of 80 metres causes significant changes of the electrical currents in the brains of testees (measured by electroencephalogram, EEG). All the testees said they felt unwell during the radiation, some of them seriously. That is the result of an investigation by a team of Austrian scientists.

They measured alpha 1 (8 to 10 Hz), alpha 2 (10 to 12 Hz) and beta waves (13 to 20 Hz). A small density of GSM 900 and GSM 1800 radiation already caused several significant changes in these three frequency ranges. This means the body is stressed - temporarily this may have some positive effect, in the long

run however stress certainly reduces the quality of life, capacity for work and state of health.

The results of the research will be published in international scientific magazines and confirmed by replication. The research was financed by Land Salzburg in Austria. The testees were nine women and three men between 20 and 78, who considered themselves 'electrosensitive'. They were invited to sit in a chair, eyes covered and ears plugged. Of course they were not aware of the sequence of the tests.

The side of the room directed at the cell phone base station was shielded against radiation, except for a small part which could be (un)shielded easily. In the first phase, the radiation density near the head was 26 mikroWatt/m2, in the second phase 3327 mikroWatt/m2 and in the third phase 26 mikroWatt/m2 again. Several other environmental parameters were measured to be sure they could not influence the results, such as radiation by television and FM-radio, noise, CO2, temperature, relative humidity, low frequency magnetic fields and soherics (electrical discharges in the atmosphere, possibly causing radiation).

During the second phase the parameters of all the brainwaves, measured by EEG, changed significantly. Afterwards the testees were asked to describe their experiences. All of them felt unwell during the second phase. They reported symptoms like buzzing in the head, palpitations of the heart, unwellness, lightheadedness, anxiety, breathlessness, respiratory problems, nervousness, agitation, headache, tinnitus, heat sensation and depression.

According to the scientists, this is the first worldwide proof of significant changes of the electrical currents in the brain by a cell phone base station at a distance of 80 metres. It has been scientifically established before that the radiation of cell phone base stations leads to unwellness and health complaints. Cell phone base stations are not the only source of radiofrequent radiation. Also UMTS-videophones, DECT-telephones, WLAN- and WIFI-networks, C2000/TETRA-networks and many other digital wireless communication systems contribute to the level of radiation. In many houses and offices the densities by DECT and WLAN are higher than those by cell phone base stations.

The scientists involved were dr. med. Gerd Oberfeld (Land Salzburg, dept. of environmental medicin), dr. Hannes Schimke (Salzburg University, EEG-measurements, psychofysiology, statistics) and univ. prof. dr. Günther Bernatzky (Salzburg University, neurodynamics and neurosignalling). The research was supported by dr. med. univ. Gernot Luthringshausen (permanent member of the ethical commission of Land Salzburg, neurology and psychiatry).

Here is what scientists are finding:

Every cell phone call damages brain cells

Scientists at Lund University in Sweden exposed rats to a cell phone just once for two hours, and then sacrificed them two months later. The rats which had been exposed had scattered areas of dead or damaged neurons throughout their brains.[1]

This is alarming, because up to 70% of cell phone users feel one or more of the following: warmth around the ear, tingling or burning sensations in the face, fatigue, headache, dizziness, discomfort, difficulty concentrating, and memory loss.[2,3] These are warning signs of nervous system damage.

Like cigarettes, cell phones harm both users and non-users

Second-hand radiation comes from nearby cell phones, and from nearby and even distant cell towers.

The researchers at Lund University found brain cell damage even when exposure levels were no higher than what people who live near cell towers are being exposed to.[1]

French researchers found that the closer people live to cell towers, the more likely they are to suffer from fatigue, irritability, headaches, dizziness, nausea, loss of appetite, sleep disturbances, difficulty concentrating, memory loss, skin problems, visual and hearing disturbances, and cardiovascular problems.[4]

Spanish researchers found the same thing.[5]

When third generation cell phone technology was developed, the Dutch government did double blind experiments to test it. Exposed subjects experienced dizziness, nervousness, chest pain, shortness of breath, numbness and tingling, weakness, and difficulty concentrating. Exposure levels were equal to what people who live near cell towers are exposed to.[6]

Men who wear cell phones on their waist have lower sperm count

Cell phones emit radiation continually, even in stand-by mode when they are not in use.

Fertility specialists at the University of Szeged in Hungary have found that men who carry a cell phone on their belt or in a trouser pocket have up to a 30% reduction in both sperm count and sperm motility. The research, conducted over a 13-month period with 221 patients, showed that the reduction in fertility was strongly correlated with both intensity of cell phone use, and the amount of time the men carried the phone on their body everyday.[7]

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[1] Leif G. Salford *et al.*, "Nerve Cell Damage in Mammalian Brain after Exposure to Microwaves from GSM Mobile Phones," *Environmental Health Perspectives* 111:881-883, 2003.

[2] Monica Sandström *et al.*, "Mobile Phone Use and Subjective Symptoms: Comparison of Symptoms Experienced by Users of Analogue and Digital Mobile Phones," *Occupational Medicine (London)* 51:25-35, 2001.

[3] Roger Santini *et al.*, "Symptoms Experienced by Users of Digital Cellular Phones," *Electromagnetic Biology and Medicine* 21:81-88, 2002.

[4] Roger Santini *et al.*, "Survey Study of People Living in the Vicinity of Cellular Phone Base Stations," *Electromagnetic Biology and Medicine* 22:41-49, 2003.

[5] Enrique A. Navarro *et al.*, "The Microwave Syndrome: A Preliminary Study in Spain," *Electromagnetic Biology and Medicine* 22:161-169, 2003.

[6] *Effects of Global Communication System Radio-frequency Fields on Well Being and Cognitive Functions of Human Subjects With and Without Subjective Complaints.* Netherlands Organization for Applied Scientific Research (TNO), 2003.

[7] Imre Fejes *et al.*, "Relationship Between Regular Cell Phone Use and Human Semen Quality," paper presented at the 20th Annual Meeting of the European Society of Human Reproduction and Embryology, Berlin, June 29, 2004.

"I have no doubt in my mind that at the present time, the greatest polluting element in the earth's environment is the proliferation of electromagnetic fields. I consider that to be far greater, on a global scale, than warming, and the increase in chemical elements in the environment."

— Robert O. Becker, M.D.

A discussion of potential exposure metrics for use in epidemiological studies on human exposure to radiowaves from mobile phone base stations.

Schüz, Mann

There is currently a high level of concern in many countries that exposure to radiowaves from mobile phone base stations may be hazardous to health. When investigating such suggested risks, epidemiologists need to define an exposure metric that can reliably discriminate between exposed and unexposed groups of people. We conducted a feasibility study to investigate if either short-term measurements of electric field strength, calculations of electric field strength, or distance from nearby mobile phone base stations could be used to develop a metric reflecting an individual's exposure to radiowaves. With electric field strengths in the range of 0.012-0.343 V/m, radiowaves from mobile phone base stations were found to give a material contribution to total exposure; however, stronger signals were frequently measured from other sources such as broadcast radio and television transmitters. Theoretical considerations and the measurements made during this work demonstrated that studies at the population level on suggested adverse effects of radiowaves from mobile phone base stations are not feasible since no valid metric for estimating historical exposures is currently available. The pace of radio infrastructure development is also such that today's measurements are unlikely to be good proxies for either past or future exposures. The complex propagation characteristics affecting the beams from base station antennas include shielding effects and multiple reflections from house walls and other buildings. These factors, combined with the presence of other environmental sources of radiowaves, cause distance from a base station to be a poor proxy for exposure to radiowaves indoors. It may be possible to adapt computer models developed by network providers to predict network coverage for epidemiological purposes; however, this has yet to be investigated. Furthermore, there is little evidence that presently justifies epidemiological studies being restricted to adverse effects of radiowaves from mobile phone base stations while neglecting radiowaves at other frequencies produced by different transmitters.
EMAIL: schuez@imsd.uni-mainz.de

Sutton Coldfield ElectroSensitives - References re the syndrome of Electromagnetic Hypersensitivity

The books listed below have special reference to illness related to exposure from electromagnetic radiation.

'The Invisible Disease**:** The Dangers of Environmental Illnesses caused by Electromagnetic Fields and Chemical Emissions' by Gunni Nordstrom.

'Electromagnetic Man: Health & Hazard in the Electrical Environment' by Cyril Smith & Simon Best.

'The Boiled Frog Syndrome: Your Health and the Built Environment' by Thomas Saunders

'Living Dangerously: Are everyday toxins making you sick?' by Pat Thomas.

'The Electrical Sensitivity Handbook: How electromagnetic fields are making people sick' by Lucinda Grant.

'Biological Effects of Radiofrequency Electromagnetic Fields' A compilation of 32 scientific studies published in the Soviet Union in 1974 documenting a range of biological hazards associated with chronic exposure to low level RF.

'Cell Phones: Invisible hazards in the wireless age' by George Carlo & Martin Schram

'Cell Towers: Wireless convenience? or Environmental Hazard?' Ed. by B. Blake Levitt

'Crosscurrents: Promise of Electromagnetisms, Perils of Electropollution.' By Robert O. Becker

'Something in the Air: The hazards of electromagnetic technologies, the benefits of magnetotherapy and the impact on and use by the natural world of the subtle energies nw permeating our planet' by Roger W. Coghill

'Microwave Sickness' Papers reprinted from *Electrical Sensitivity News, Vol.1, No. 6 & Vol.2, Nos.1-4*

'Electrical Hypersensitivity, A Modern Illness' by Alisdair and Jean Philips

All over the world there are groups of people highlighting illness relating to mobile phones and cell towers. Some of the newsletters published in English are listed below:

'Electromagnetic Hazard and Therapy' British Publication.

'No Place to Hide' USA

'Electromagnetic Radiation Alliance of Australia News' Australia

There are a huge number of websites and some e-mail contact groups; some are listed below:
www.electrosensitivity.org.uk
www.powerwatch.org.uk
www.feb.se
www.starweave.com

Appendix 5 WRITTEN EVIDENCE RECEIVED FROM THE PUBLIC

List of members of the public who wrote to the committee (followed by their submissions):

(1) Tim Rhys-Roberts
(2) Mrs Thornton
(3) J.A.Lawrence
(4) S.B. Wardell
(5) M Brennan
(6) Vinod Mahindru
(7) Jay Johnson
(8) David Baldwin
(9) Ankaret Harmer
(10) Carol Baizon
(11) Anne Silk
(12) Geraldine Attridge
(13) Ron O'Malley

Note – The information included here is a selection of the views submitted by individual members of the public. These views should not be taken as the views of the Scrutiny Committee of Birmingham City Council.

Review of the Policy of Siting of Telecommunications Equipment on Council Owned Land and Premises

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From: Tim Rhys-Roberts (1)

3 February 2005

Dear Councillor Wilkes,

I would to congratulate you and your committee on the consultation initiative re: mobile 'phone masts, upon which you have embarked. In my capacity as spokesman for R.A.M (Residents against masts, Baltimore Road), I attended the Stockland Green meeting and felt that it was a worthwhile exercise.

Like it or not, mobile 'phone technology has become an essential part of our communication infrastructure and like every technical advance since the start of the industrial revolution it has serious downsides as well as benefits. You have only to look at our industrial history over the past 200 years to see how slowly changes in safety and control take to implement. Take as an example lead in petrol and asbestos in the automotive and building industry. The potential health hazards of these products were noted early on in their usage, yet it took over 50 years for them to be phased out.

Regarding mobile 'phone and Tetra masts, the situation is compounded by the enormous revenue generated by this technology, both to the government in the form of licence fees and to the industry from subscribers, advertising and government contracts. Sadly when very large sums of money are involved, safety and health come off a very poor second. Both government and industry dislike being called to account, and while concerned groups such as ours can raise awareness to potential problems at a local or regional level, the voice of the second city's council could evoke a national response and its influence could be used to bring some sanity to the planning regulations and guide lines imposed upon it by central government.

By lifting the current moratorium on masts on council land, you would at least have some control on where these masts can be safely placed, bearing in mind that the current safety guidelines are woefully inadequate and lag far behind those in mainland Europe Russia and even China. What is to stop you as a planning authority from laying down your own guidelines in the form of local planning by-laws? For example you could insist on masts being a minimum distance from schools and residences. You would after all be following Professor Stewart's urge to adopt caution in these matters. The only drawback I can see to you continuing as mast landlords is that when current installations are shown to be hazardous to health and the value of nearby property, then you find yourselves embroiled in compensation litigation.

At the Stockland Green meeting your were made aware of the farce of conformity certification and how it does not apply to the new generation of G3 masts: it would be bar better to ensure that as part of the planning application both the operator and landlord could demonstrate that they have adequate insurance cover to deal with any health effects from their installation and for any reduction in local property values. We have already seen recently how a house was devalued by £50,000 due to the proximity of a 'phone mast.

Government and "big business" shy away from adverse publicity. You, as the country's second largest local authority can publicly lobby for a simplification of planning guidelines, a tightening up of safety standards to bring us more in line with the rest of the world, and to demand an increase in independent research to examine the effects of sub heating microwave radiation on not only human tissue, but bacteria, viruses and the micro environment as well.

Where Birmingham leads the rest will soon follow: It is perfectly possible to have a safe and usable mobile communications system. If the government were prepared to expend just 5% of their licence revenue on proper research this goal sooner rather than at some vague point in the future.

When your deliberations reach a conclusion later this year, I am sure you will realise that the current situation is neither satisfactory nor safe.

The CATNIP (cheapest available technology, not incurring prosecution) approach by both industry and government to mobile technology is not acceptable and we need every loud voice such as yours to air our fears. We owe it to future generations.

Yours sincerely
Tim Rhys-Roberts (BSc.Hon)

From: Mrs Thornton (2)

17 January 2005

Dear Sirs,

I am very concerned regarding the effects of mobile phones in relation especially to children's health and also the effects of mobile phone masts to people living nearby.

I feel these masts should not be sited nearby to where people live or nearby to public facilities. I feel peoples lives are being put at risk and it is unfair of mobile phone companies or local authorities/government to expect the public to live nearby or use facilities nearby to them.

Yours faithfully

Mrs Thornton

From: J A Lawrence (3)

31 January 2005

Dear Sir,

I would like to make the following points to the committee carrying out the review on telecom masts in the Birmingham Area.

Review of the Policy of Siting of Telecommunications Equipment on Council Owned Land and Premises

After the recent ruling of three appeal court judges, allowing telecom companies to erect their masts anywhere they like, as matter of urgency, we need a change in the law to the effect that ALL masts have full planning permission and the MUST be full consultation with all parties affected. How can three judges using guidelines overrule the 1989 Children Act and the Health and Safety at Work Act?

These judges only based there ruling on the ICNIRP guidelines which are absolutely useless as they only consider the heating effects which are negligible! There is now an overwhelming amount of evidence from very eminent INDEPENDENT scientists such as Dr Hyland, Dr Coghill, Dr Blackwell and our own Dr Walker, Barry Trower has also written a technical paper on TETRA for the Police.

I suggest that several of these experts are invited to your future meetings.

The pulsing non-ionising radiation from these masts reduces the ability of the pineal gland to produce melatonin which is a cancer inhibitor – hence the growing number of cancer clusters around these masts.

The new law should provide that:-

1. ALL masts have full planning permission.

2. Adequate notice of say two months, is given to schools and residents within say a 300 metre area of the proposed mast. In our area the local school was notified about the erection of a mast during the school holidays in order to reduce the time for objections. At the same time, only ten addresses were given notification of the erection of this mast.

3. Ban all mass from say within 300 metres – the above experts to advise on the actual distance set – of all schools, hospitals and residential area.

4. The ICNIRP guidelines to be scrapped and the Saltzburg recommendations to brought into force.
   i.e 1998 0.614 V/M and 2002 0.61 V/M. THE ICNIRP GUILDELINES ARE 58.2 V/M!!

Unless things have recently changed, these telecom companies cannot get insurance to cover them for claims made by the employees or the general public. Lloyds, Mercantile Credit and Skandia are reported to have refused them cover.

Yours sincerely

J A Lawrence

From: S B Wardall (4)

20 January 2005

Review of the Policy of Siting of Telecommunications Equipment on Council Owned Land and Premises

Dear Sir

Re: 'Have a say on masts'

I have been concerned about the effect mobile phone masts/base stations heave on our Health since quite a few were erected on land behind my house in 1995 when I was expecting may daughters.

The land is owned by Severn Trent Water who I had to telephone to find out what exactly was being erected as the residents in Endhill Road had not been notified. Two other roads surround the land: George Frederick Road and Rough Road (copy of A-Z attached). Incidentally when masts have been added in the past to those already there it has been common practice for the council to only notify the residents living in George Frederick and Rough Road but not Endhill Road.

Masts are forever being added to those already there.

In 1999 I was so concerned that it prompted me to contact various organisations for information. This culminated in me addressing a letter to Dr A McKinlay Head of NRPB Non-Ionising Radiation Dept. An extract from my letter follows which I feel applies as much today as it did 6 years ago:-

1. When base stations are installed does the mobile phone company measure the radio wave levels which fall within the nearest public area, i.e as in a playground.

2. If further research is being undertaken worldwide and some makers of mobile phones are to launch TETRA mobile telephony, then shouldn't we err on the side of caution.

3. Planning Permission should be required in order to control the siting of these base stations as I feel:-

4. a) Siting them at schools is totally unacceptable.

5. b) The sub station at the rear of my home was sufficient without the addition of the Vodafone and Orange masts. Some for control should be instigated to control the number of base stations sited within a small area.

The attached map of the area shows a number of my acquaintances who have mysteriously developed illnesses since 1995 and who have since passed away. The majority at quite a young age. Considering these were people known to me, I feel there may be a lot more residents in the locality who have contracted Cancers.

I am very concerned about the proximity of our home to the masts and the effect in years to come it may have on our Health. As we are dealing with an unknown quantity I feel Councils and Government and should indeed 'err on the side of caution'.

When my daughter started the local school (Banners Gate) I discovered in a

local paper that there was a mast on the water tower at the school. The school had a meeting 16.11.99 between parents and Governors and Mr Alasdair Phillips, Technical Director of Power Watch (an expert in electromagnetic fields) who chaired the meeting.

The outcome of this meeting was basically that:-

1. No modifications should be made without prior consultation with the school.

2. The LEA should arrange regular monitoring of the signal output to ensure that it remains within safe limits (those recommended by Powerwatch) and should appraise the schools of the results.

Thank you for taking the time to read this letter.

Yours faithfully

S B Wardell (Mrs)

From: Mrs M Brennan (5)

18 January 2005

Dear Sir,

Subject: Mobile Phone Mast Siting Policy

I regret that due to family commitments I was unable to attend the meeting held on 17 January 2005 but am very pleased to have the opportunity to convey my thoughts on this subject to you and your colleagues.

As a resident of Boldmere and a mother of two children who attend St Nicholas School on Jockey Road, I have major issues with the current policy on siting Mobile Phone masts in residential areas and adjacent to Schools/Education facilities.

More and more scientific evidence is being produced suggesting there are potential health risks to those living within areas where mobile phone masts are situated and although the Government says it is not conclusive, the threat is ever present and upper most in our thoughts. As a parent I have a duty to protect my children and feel there is a real and present danger to their health and welfare courtesy of local companies who have masts erected on their premises which are situated adjacent to the School.

You may be aware that many parents/residents have united as a community to protest against the masts within this particular area and we have lobbied our local MP Andrew Mitchell, Councillor Roy and have all written numerous letters on this subject to Mr Mitchell of Birmingham City Council. We have taken part in a protest march, produced petitions, collected almost 400 letters which were delivered to the City Council and the Office of the Deputy Prime Minister. Articles have been printed in the newspapers and this particular situation also featured

in a BBC3 documentary regarding Mobile Phone Masts and the potential risks to people's health.

You may be aware of a particular local case where a business currently has an illegal mast erected on its premises. The proprietor applied for planning permission for a CCTV camera pole which was agreed but on the day that the pole was erected, local residents took photographs of the structure as they noticed there were masses of cables protruding from the actual pole. Evidence obtained by local residents and submitted to the City Council/Office of the Deputy Prime Minister indicated it was clear from the moment the workmen arrived that this was never intended to be anything but a Mobile Phone mast. This was first brought to the Council's attention in July 2004. It is now January 2005 and despite the local community objecting and the media coverage the pole is still on the site. We are now awaiting the results of a hearing due to take place in March 2005 before a decision can be made as to whether this structure should be taken down or not. This type of situation is farcical and should not be allowed to continue. You as a Council have evidence to prove the proper guidelines were not followed and yet apparently, you do not have the power to take the structure down.

Council policy should be changed so that:

1. Mobile Phone masts should not be sited alongside education facilities or within residential areas.
2. If a mobile phone mast request is received, the local community should all immediately be informed so they have the opportunity to look at the request and make any comments to the Planning Committee before any decision is taken.
3. Anyone who has erected an illegal mobile phone mast should have the structure removed immediately and should not be allowed to have any more on their property.
4. Any one with an existing mast on their premises which is upgraded to a Tetra mast should seek permission of the local council/community before doing so, as there are greater health risks posed to public health from these structures.
5. City Councils who have allowed residential areas to have numerous mobile phone masts within the area should consider some form of compensation for local residents who have incurred loss in property values and deterioration in health.
6. Any education facility which has existing mobile phone masts within the local area should have regular readings taken by the City Council or an independent body to measure to emissions from the mast and report the findings to the local community.
7. Local Councils should have the authority to remove mobile phone masts where the emissions are above the recommended levels as set out by Scientists associated with SCRAM.
8. The Education department should provide schools with mobile phone masts in the local area with funds to assist the School in purchasing materials to protect the children i.e. special curtains for the windows which deflect the mobile mast rays and so on.
9. City Council officials should be present when a mobile phone mast is erected so that should anything untoward occur the Council can

immediately put a stop to the building of the structure thus avoiding the subsequent costly and time consuming appeals process.

Surely you must agree that the current situation we find ourselves in is not acceptable. It is not the "norm" for a whole community to join forces in order to prevent an illegally constructed mast from being set up so close to where our children go to school on a daily basis. This is a very stressful state of affairs for all involved and could have been avoided if the Council had more power in these matters.

History has shown that the early voices of concern regarding the potential risks from cigarette smoking, passive smoking and asbestosis were all subsequently found to be correct. This is why we are so concerned for the health and welfare of our children. Please take our comments in to account and make the right policy decisions Think of the well being of the local residents and not the profit of the fat cat Mobile Phone Industry. Don't allow our children to be the statistics of the future,

I look forward to hearing from you in the near future.

Yours sincerely

Mrs M Brennan

From: Vinod Mahindru. (6)

4 February 2005

Dear Sir,

Thank you for having another important topic for discussion. I am a council tenant in Birmingham, living two floors beneath a mobile phone mast. What concerns me is the fact that these things are predominantly placed in less affluent areas and given that the Stewart report is largely inconclusive on the safety of such technology, it seems that the elderly and the working class are being used as guinea pigs. I am also very sceptical about the existence of resident consultation before erecting such things. With thousands of pounds going to the council in leasing our homes as platforms for masts, there is no evidence that this money is being used for regeneration. There is a proven link between childhood leukaemia and electricity pylons, so why do the Government and the phone companies not categorically state that these mobile phone masts are safe, and who is accountable if in years to come it is proven that they do cause cancer like the contemporary view on cigarettes today(unlike many years ago!).The feeling is that this Government panders to big business as long as the vulnerable British people put up and shut up. We don't want to live underneath mobile phone masts yet our voices aren't being heard.

Yours Sincerely,

Vinod Mahindru. (Birmingham).

Review of the Policy of Siting of Telecommunications Equipment on Council Owned Land and Premises

From: J Johnson (7)

19 January 2005

Dear Councillor,

I feel strongly that we should not have masts on council land because of the health problems which these can cause. I do not want my family to have headaches, migraines, skin problems and much worse problems from living near to one of these things. Whatever can be done to remove them would please me very much.

Thank you for your help.

Yours sincerely,

J. Johnson

From: W D Baldwin (8)

9 January 2005

I am not able to attend the meeting. I should be obliged if you would arrange for the following points to be aired. I am particularly concerned with the site on the roof of a block of flats at Wylde Green Shopping Centre, Birmingham Road, Sutton Coldfield. My submission is based on a report announcing the meeting in "Sutton Coldfield News" January 7, 2005. If a report of the meeting is produced, I would appreciate a copy.

1 I am not qualified to comment on health hazards. However, if there is any risk which cannot be rebutted, then it should not be taken. I see from diagrams in official leaflets that my property is in a particularly vulnerable position as it is 75 metres away from the installation.

2 If it is true that the Council has imposed a moratorium on applications affecting Council owned land, then this is grossly unfair since it merely directs applicants to other sites. The moratorium should cover ALL applications.

3 The Wylde Green Shopping Centre is an absolute eyesore. The Council and its Officers are entirely to blame for the unplanned, piecemeal development of this abomination. It has been said to me that "it is no use objecting/refusing because the applicant will just appeal - and the Inspector will allow that appeal". Foolishly, I always thought that it was a function of a local authority to protect the interests of residents.

4 It is interesting to comment that, whilst I am not allowed to object to an application because it reduces the value of my property, the land owner stands to make money if the application is approved. I see no reason why approval could be given subject to condition that the applicant pays

compensation to adversely affected nearby properties.

5 The industry is reputed to pay high fees to site owners - which must affect the value of the property. When and how does the increased rateable value of the site feed into the valuation system resulting in increased business rate contributions?

W D Baldwin

From: Ankaret Harmer (9)

12 January 2005

Here are my views on the above, which were asked for in "Forward". I don't like them, I would prefer to have only the lowest power possible (as I've got a mobile fone but not a very fancy one). There is no proof that they don't make people ill. I have a friend who has been made ill, she lives right near a huge phone mast & also near Police HQ with all their high-frequency stuff as well. Every time she goes away she feels better, and when she's been home a day or so she gets ill again. She will have to give up a lovely Council flat & get a private flat somewhere in Wales. Another friend lives in a tower block underneath a mast, and has lost her sense of balance. Another friend lives near a mast & is only 40 & vegan, yet got very fast-growing breast cancer.

What is worrying is that "base stations" (whatever they are!) are being put inside buildings and one is being put inside a church steeple in Moseley (I found this out from Friends of the Earth) and no-one even knows it's there, they can't see it, they don't know they are getting a dose of radiation.

Also why do people need such silly phones? They are just a gimmick, if you want to take photos just get a camera. There is no need whatever to beam photos from phone to phone!

My opinion is no, I don't want mobile phone masts anywhere, only tiny ones.

Ankaret Harmer

From: Carol Baizon (10)

14 January 2005

Dear Sir,

I have just read the article in the Birmingham News/Forward regarding the siting of mobile phone masts and that you wished to receive residents views. I would like to say that I think the siting of phone masts in residential areas is terrible. I live near Stockland Green and just prior to Christmas we received notification of a planning application to erect a 40ft!!!!!!! mast on the corner of Marsh Hill and Streetly Road. This is totally appalling and I have passed my views to my local councillors.

Review of the Policy of Siting of Telecommunications Equipment on Council Owned Land and Premises

A few years ago "Orange" tried to put a mast up on the Reservoir which we managed to stop because it is too close to schools and houses. The health risks are too great especially to children and especially in light of recent newspaper reports showing medical research that the waves from phones and masts can alter a child's DNA and can cause cancer!!!!!!!!!

It has been known for years that the waves from X-Rays can cause miscarriage sterility and be harmful to children if they have too many. In fact my son broke his ankle in November which of course was x-rayed but they would not x-ray it again before plaster removal because they said "too many x-rays as a child can cause damage." Radio waves from masts have the same effects.

The waves from mobile phone masts have also been shown in medical studies to be very close to the pattern of a child's brain waves and this can affect their brain pattern and cause behaviour problems and sleep problems as well as medical problems including cancer.

I would hope that the council, being responsible for it's citizens would not approve any masts being put on council property or being sited near to schools, hospitals or built up residential areas.

The proposed mast on Stockland Green is a very big concern as in the immediate area there is a senior school, an old peoples home, a health centre, primary care unit, several mental health units, 2 churches and just down Marsh Hill (which is in the high risk area for radiation from mast waves) are 2 primary schools, a nursery school and 2 more old peoples homes. Just up the hill on Reservoir Road we have a Nursery School, a school for children with mental and physical disabilities, a day nursery and several social services units. Down the bottom of Streetly Road are Short Heath and St Margaret Mary's schools. This is a highly populated area with a lot of children, it is also populated with a Bingo Hall, Doctors Surgery, Dentist and several other establishments serving the public including a soon to be opened chinese restaurant replacing the old pub. People spend enough time in these places (including the nail salon, hairdressers etc.) to be affected by these waves. If the Planning Department approve this eyesore of a mast in such a highly populated area they are signing the death warrant of who knows how many people. The effects might not be immediate but in a few of years I'm sure we will see the fall out from these masts. For many years patterns have emerged of cancer nucleus around electricity pylons I'm sure we will see the same around masts.

Yours sincerely

A very concerned

Carol Baizon

From: Anne C Arnold Silk (11)

7 March 05

Dear Councillor Wilkes

I have been asked to contact you by Mrs Insley of Wishaw as I have been working on Human effects of Radiofrequency fields, Infrasound and Electro sensitivity for several years and have given many presentations on these subjects in the UK, Tokyo, Prague etc etc – a list is attached.

Last October I presented – abstract enclosed – at a WHO meeting and have spoken at the Royal Society of Medicine on the same subjects. I am advised that the Scrutiny committee would welcome my input and I would welcome a face-to-face meeting with any of your members. I met both Dr Rau and Gavin Tringham a few years ago when with a colleague I visited Wishaw they may remember me.

Adverse health effects are complex; sadly many of the highly vociferous lay groups do not take into account latency periods, occupations, particulates, chemical ingestion etc. For your interest I enclose a current paper from Professor Olle Johnannson in the Karolinska Institute in Stockholm. Yesterday I was at the GovNet meeting in London, as were several of the staff from Birmingham City Council. The object is to put almost all Government business and affairs on mobile communications – even outdoor staff.

It would like me to come up to Birmingham, please suggest some dates – I am abroad April 3- 8.

With best wishes.

Yours sincerely

Anne C Arnold Silk

From: Miss Geraldine Attridge (12)

21 March 05

Dear Sir,

I am writing as a resident of a tower block where we have mobile phone equipment on the roof. As I live on the top floor, these masts are only approximately 7 feet above my head as I stand in my home, and obviously, the same for other residents on that floor. This is absolutely appalling, as although they are some feet from ground level, in our cases, ground level is the top floor.

Having had several health problems since these masts were placed their – which

I firmly believe are related to the emissions, and having contacted many hundreds of other top-floor residents all across the West Midlands who are experiencing very similar problems. I would beg you to please remove these masts from above our homes with immediate effect.

They should never have been erected at such close proximity to peoples to peoples homes, and the theory that the waves go outwards and not down, is rubbish. Can you explain to me why there are demarcation lines behind the masts on Holly Court, at a distance of some fee, if the emissions only go outwards?

We live the same distance directly beneath!

Also, the noise picked up by an 'Acousticom – which I am sure you will have head of, is dreadful in our homes. If nothing comes downwards, what is it detecting?

I am not that old, but have suffered with heart rhythm disturbance, hearing problems and persistent coughing since living under these masts, and may others have found the same thing.

My hearing was excellent prior to the installation of this equipment and I have never had heart problems. I have never smoked and the Consultants can offer no explanation as to the cause of these problems despite many tests. My 24 year old next door neighbour also started to get sever palpitations. Again, his doctor and the hospital are at a loss to explain it.

Please, please, do not allow any more masts on residential building and please remove those already there to a safer distance.

I am enclosing one of my medical letters and a newspaper copy relating to what I found from contacting other people in similar situations.

I like to think I am a very sensible, level headed person, and certainly not prone to worrying for no reason. I firmly believe these masts are certainly not safe at such close range and speak for many others who are living underneath them.

Yours sincerely

(Miss) Geraldine Attridge

From: Mr Ron O'Mally (13)

24 January 2005

You have invited comments for your enquiry into mobile phone masts

I believe there is a very big difference between the councils responsibility as a planning authority and their responsibility as the custodians of council property owned by residents.

Review of the Policy of Siting of Telecommunications Equipment on Council Owned Land and Premises

As I see it, as the planning authority the council must abide by government guidance and PPG8 etc in arriving at a decision and I understand the councils difficulty with that, but the telephone operators also require the permission of site owners to erect the mast on their land/building. Here the council are not bound by any guidelines and there is no appeal available to the operators against refusal.

I urge you to consider the wishes of the general public, who are the real owners of council property, and if you conclude they do not want masts on their property then that is sufficient reason to say your hands are tied “we are reflecting the instruction of our residents" and refuse permission.

I understand there is a question over masts on highways where the utilities have special rights, and in this case surely it is not unreasonable to impose a planning condition, that in circumstances where the site is normally accessible to the public, then independent public liability insurance must be obtained.

I believe the public are entitled to have assurance that compensation will be available to them if at some future date a link between ill health and radiation from masts is established. In fact the condition suggested should apply to all masts wherever they are.

Thank you for listening

Yours sincerely

Ron O'Malley

Appendix 6 OFCOM EMISSIONS AUDIT REPORT

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ML2-006/05

Baldock Radio Station
Royston Road
Baldock
Herts SG7 6SH
01462 428500

Mobile Phone
Base-Station Audit

Audit Site: Area around Centre Court
Stratford Road
Hall Green
Birmingham B28 9HH

Work Perfomed by			Distribution List	
James Loughlin Field Manager	3G measurements & Report		Lloyd Tailby	1
			Ajmal Hussain	1
Mike Reynolds Field Officer	3G measurements & data plots		John Taylor	1
John Taylor T.I. Officer	2G measurements & 2G Report		Technical Manager	1
			Case/Year file	2
Dick Gilbert T.I. Officer	2G measurements			

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ML2-006/05

Report Summary

As the radio spectrum is continually changing, these measurements can only provide information on the radio frequency (RF) conditions for the specific locations at the time of the survey.

The Office of Communications (Ofcom) performed this survey of the RF emission environment in the vicinity of Centre Court, Stratford Road, Hall Green, Birmingham B28 9HH on the 24th May 2005. Both second generation (2G) and third generation (3G) base station emissions were measured separately and the signal levels combined to give the Total Band Exposure as detailed below. Some low level TETRA activity was noted in the 380 – 400 MHz band but sweep measurements taken in Waitrose Car Park indicated that these transmissions did not originate from the Centre Court installation.

The table, sorted in descending order of signal level, summarises the total results obtained at each measurement location.

Summary of results:

Location	NGR	3G Exposure Quotient	2G Exposure Quotient	TOTAL 3G + 2G Exp. Quot.	Related to ICNIRP limit
Entrance to Hall Green Junior School	SP 1069 8145	8.04E-06	2.54E-04	2.62E-04	1/3816
Junction of Stratford Rd & Highfield Rd	SP 1078 8116	1.23E-05	1.88E-04	2.00E-04	1/4993
Coniston Close	SP 1076 8140	3.43E-06	1.53E-04	1.56E-04	1/6393
Junction of Romney Close & Delamere Rd	SP 1065 8130	8.92E-06	4.39E-05	5.28E-05	1/18932
Hall Green School Petersfield Rd Entrance	SP 1055 8158	1.13E-05	9.05E-06	2.04E-05	1/49140
Waitrose Car Park	SP 1091 8114	1.89E-06	1.23E-05	1.42E-05	1/70472

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The Peterborough office carried out the 2G audit, while mobile team 2 from Baldock completed a concurrent 3G survey. The results from both have been combined to provide the summary of results on page 3.

Initially the base station was scanned to ascertain the extent of 3G activity.

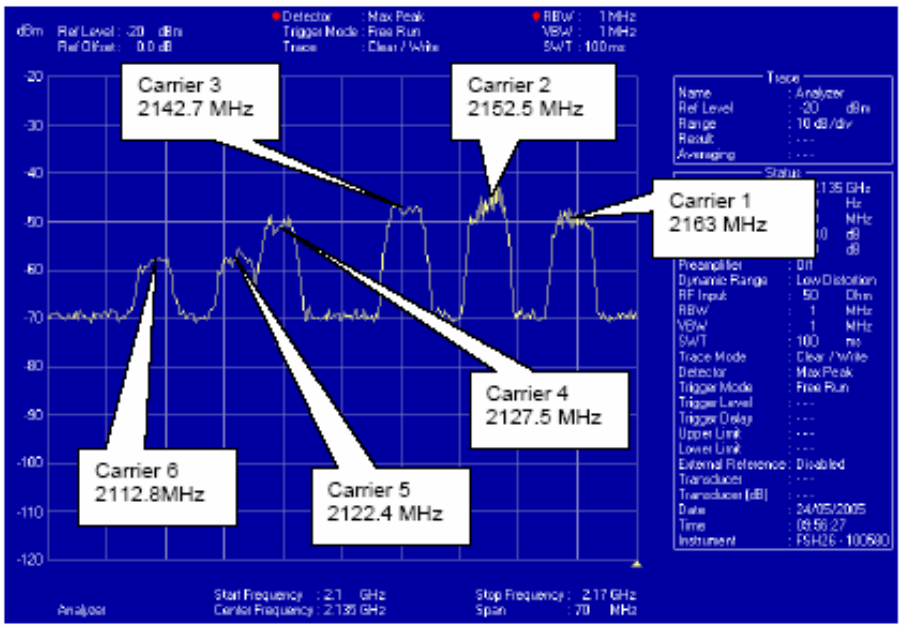

Figure 1

Figure 1 shows that six transmission where active in this area. At each measurement location the measuring antenna was then set up on a tripod 1.5m above ground level on the pavement. In this position each of the carriers field strengths were recorded.

For each measurement location the 3G exposure quotient was then calculated for the individual carriers and then the total exposure quotient for all six carriers was calculated. This in turn was added to the 2G exposure quotient before calculating the Total Exposure Quotient for each survey site.

All the 3G measurement data is given on pages 5 to 10, while the 2G data is contained in the annex to this report.

Equipment:	serial number:	CEMS number
FSH6 Spectrum Analyser	100580	200103
EMCO DRG 3115 horn Antenna	2153	200005
Garmin GPS75 receiver	37524369	200011
Reynolds cable type 219-0088 0201	067	-

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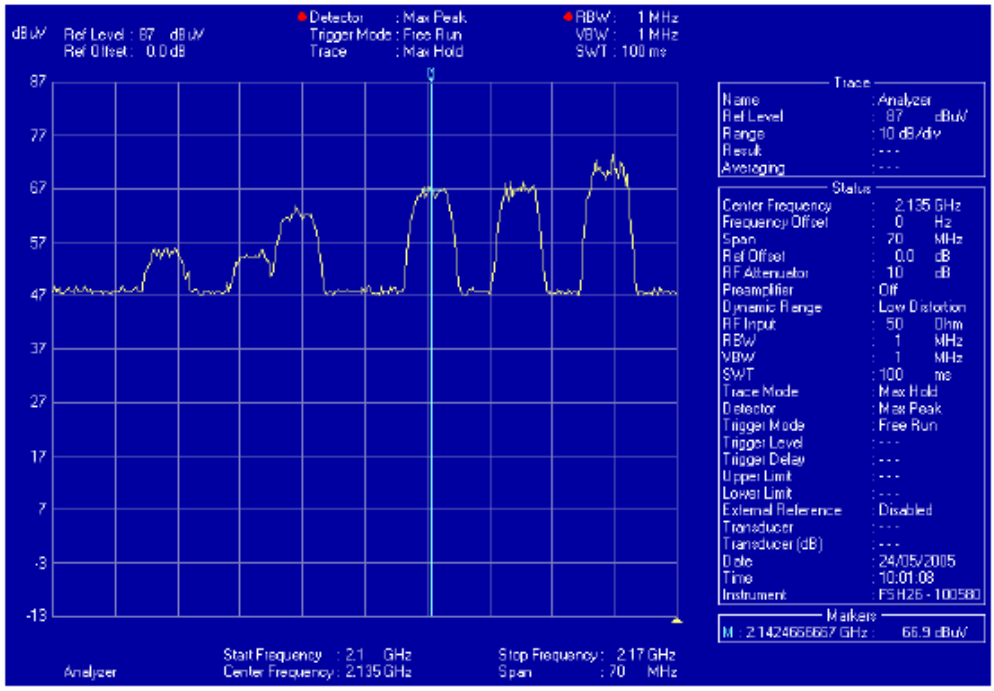
Location 1: Junction of Stratford Road and Highfield Road



Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m^2	Power W/m^2	ICNIRP W/m^2	3G Exposure Quotient	3G Exposure Quotient	
1	2163	103	141,253.8	0.141254	0.0000529249	5.292E-05	10	0.000005292490	5.29E-06	
2	2152.5	100	100,000.0	0.100000	0.0000265252	2.653E-05	10	0.000002652520	2.65E-06	
3	2142.7	100.1	101,157.9	0.101158	0.0000271431	2.714E-05	10	0.000002714310	2.71E-06	
4	2127.5	96.4	66,069.3	0.066069	0.0000115785	1.158E-05	10	0.000001157850	1.16E-06	
5	2122.4	89	28,183.8	0.028184	0.0000021070	2.107E-06	10	0.000000210700	2.11E-07	
6	2112.8	89.6	30,199.5	0.030200	0.0000024192	2.419E-06	10	0.000000241920	2.42E-07	Total 3G 1.23E-05

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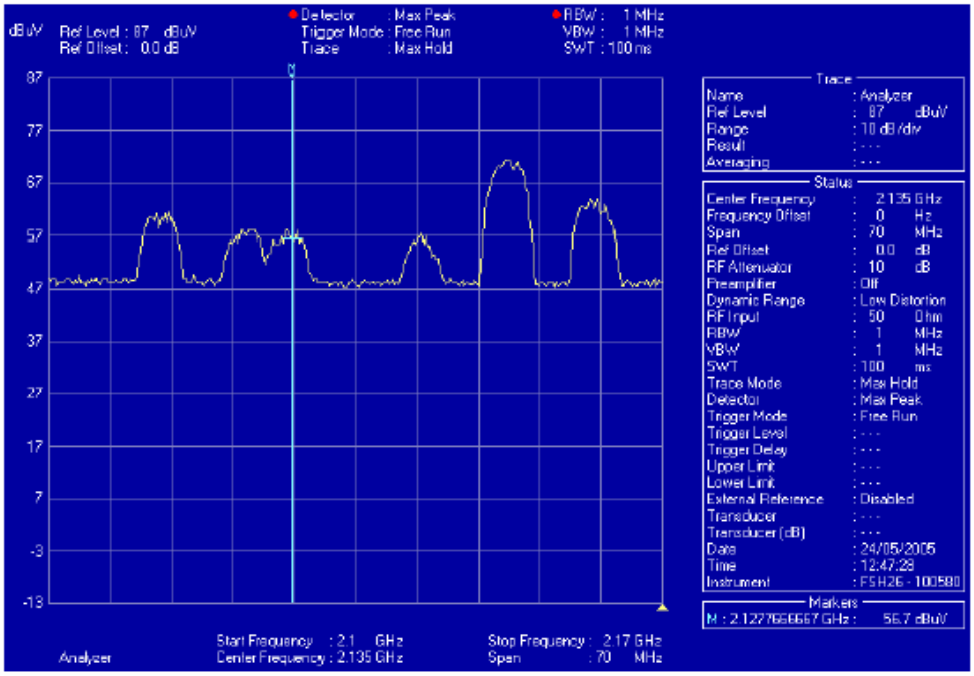
ML2-006/05

Location 2: Junction of Romney Close and Delamere Road

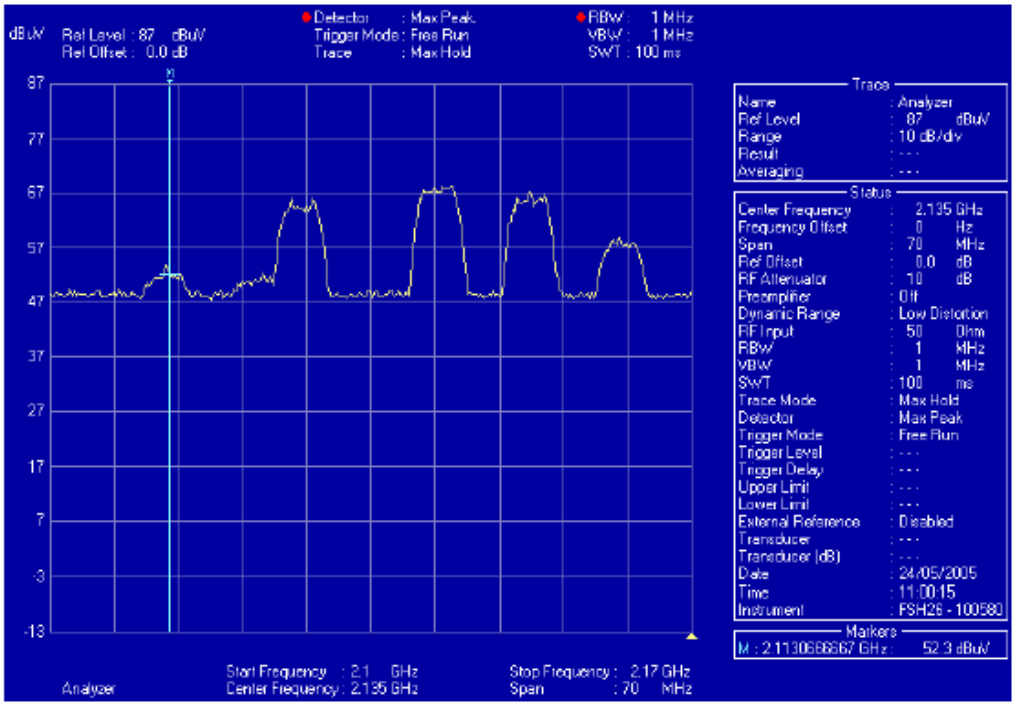


Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m^2	Power W/m^2	ICNIRP W/m^2	3G Exposure Quotient	3G Exposure Quotient	
1	2163	96.5	66,834.4	0.066834	0.0000118482	1.185E-05	10	0.000001184820	1.18E-06	
2	2152.5	103.8	154,881.7	0.154882	0.0000636298	6.363E-05	10	0.000006362980	6.36E-06	
3	2142.7	87.2	22,908.7	0.022909	0.0000013921	1.392E-06	10	0.000000139210	1.39E-07	
4	2127.5	91.9	39,355.0	0.039355	0.0000041083	4.108E-06	10	0.000000410830	4.11E-07	
5	2122.4	92.4	41,686.9	0.041687	0.0000046096	4.61E-06	10	0.000000460960	4.61E-07	
6	2112.8	91.4	37,153.5	0.037154	0.0000036616	3.662E-06	10	0.000000366160	3.66E-07	Total 3G 8.92E-06

OFFICE OF COMMUNICATIONS

ML2-006/05

Location 3: Entrance to Hall Green Junior School



Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m²	Power W/m²	ICNIRP W/m²	3G Exposure Quotient	3G Exposure Quotient	
1	2163	90.4	33,113.1	0.033113	0.0000029084	2.908E-06	10	0.000000290840	2.91E-07	
2	2152.5	99.9	98,855.3	0.098855	0.0000259212	2.592E-05	10	0.000002592120	2.59E-06	
3	2142.7	100.7	108,392.7	0.108393	0.0000311646	3.116E-05	10	0.000003116460	3.12E-06	
4	2127.5	98.5	84,139.5	0.084140	0.0000187786	1.878E-05	10	0.000001877860	1.88E-06	
5	2122.4	83.5	14,962.4	0.014962	0.0000005938	5.938E-07	10	0.000000059380	5.94E-08	
6	2112.8	85.9	19,724.2	0.019724	0.0000010319	1.032E-06	10	0.000000103190	1.03E-07	Total 3G 8.04E-06

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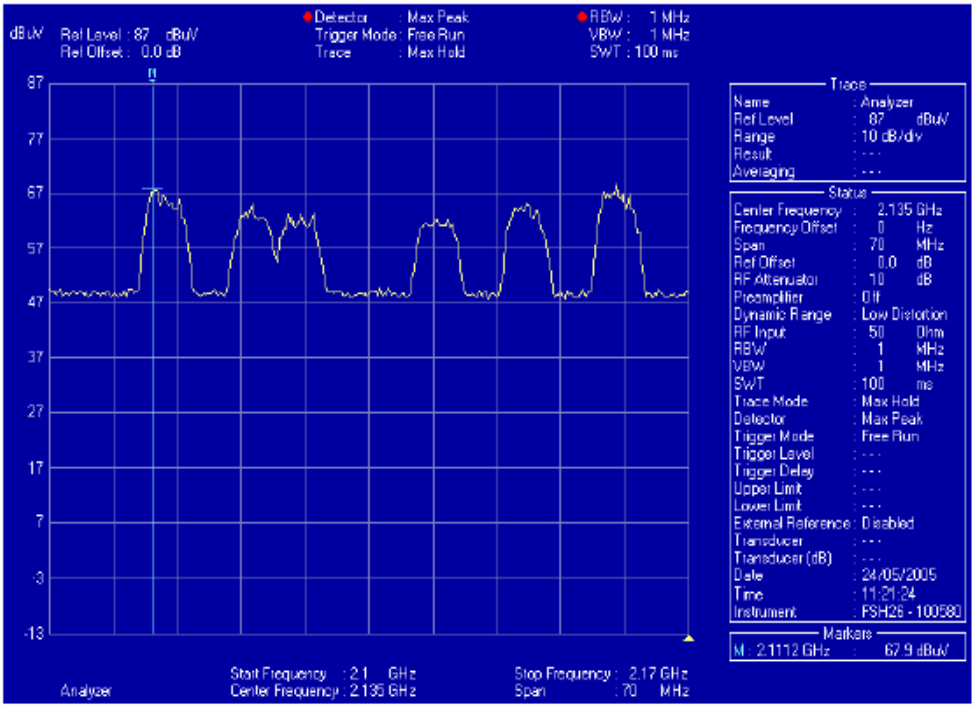
ML2-006/05

Location 4: Hall Green School at Petersfield Road Entrance



Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m^2	Power W/m^2	ICNIRP W/m^2	3G Exposure Quotient	3G Exposure Quotient	
1	2163	101.3	116,144.9	0.116145	0.0000357816	3.578E-05	10	0.000003578160	3.58E-06	
2	2152.5	97.6	75,857.8	0.075858	0.0000152638	1.526E-05	10	0.000001526380	1.53E-06	
3	2142.7	94.7	54,325.0	0.054325	0.0000078281	7.828E-06	10	0.000000782810	7.83E-07	
4	2127.5	95.7	60,953.7	0.060954	0.0000098551	9.855E-06	10	0.000000985510	9.86E-07	
5	2122.4	97.7	76,736.1	0.076736	0.0000156191	1.562E-05	10	0.000001561910	1.56E-06	
6	2112.8	100.4	104,712.9	0.104713	0.0000290844	2.908E-05	10	0.000002908440	2.91E-06	Total 3G 1.13E-05

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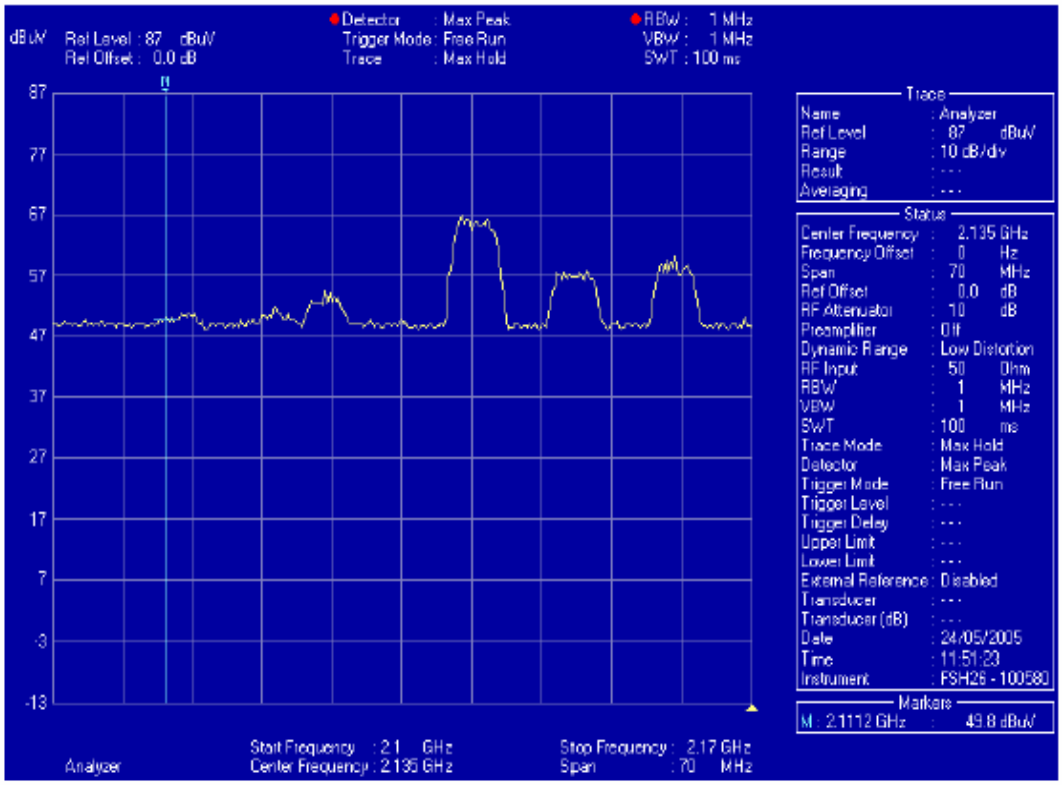
Location 5: Coniston Close



Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m²	Power W/m²	ICNIRP W/m²	3G Exposure Quotient	3G Exposure Quotient	
1	2163	92.7	43,151.9	0.043152	0.0000049392	4.939E-06	10	0.000000493920	4.94E-07	
2	2152.5	89.8	30,903.0	0.030903	0.0000025331	2.533E-06	10	0.000000253310	2.53E-07	
3	2142.7	99.6	95,499.3	0.095499	0.0000241911	2.419E-05	10	0.000002419110	2.42E-06	
4	2127.5	87.1	22,646.4	0.022646	0.0000013603	1.36E-06	10	0.000000136030	1.36E-07	
5	2122.4	84.4	16,595.9	0.016596	0.0000007306	7.306E-07	10	0.000000073060	7.31E-08	
6	2112.8	83.1	14,288.9	0.014289	0.0000005416	5.416E-07	10	0.000000054160	5.42E-08	Total 3G 3.43E-06

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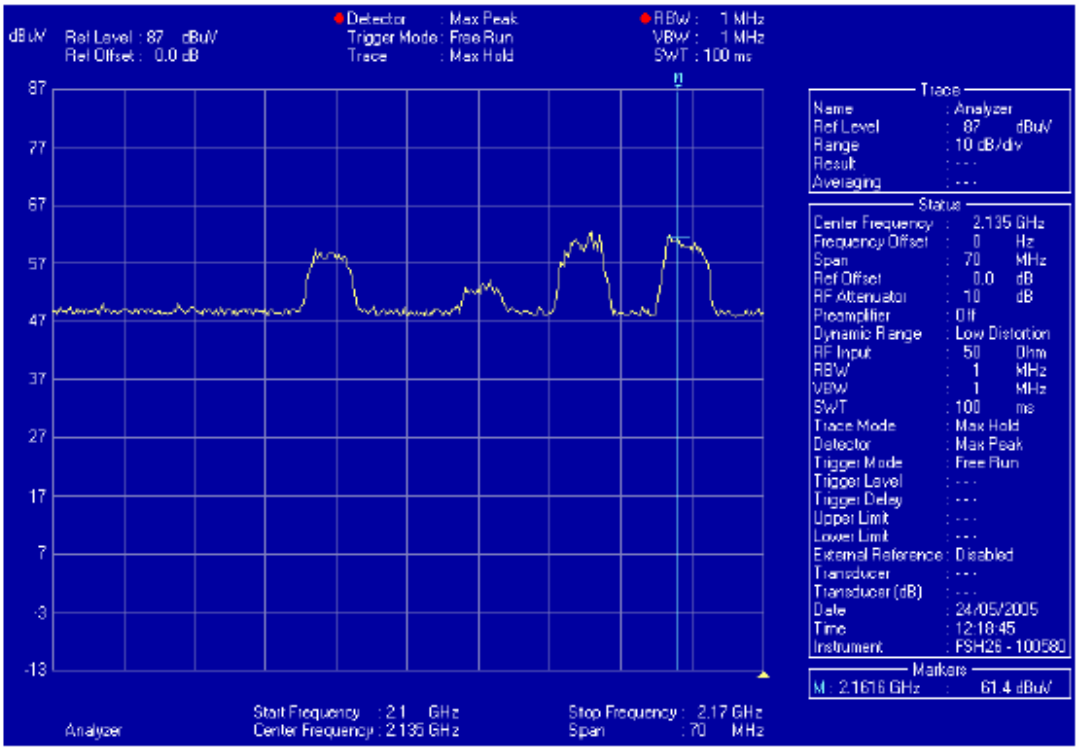
ML2-006/05

Location 6: Waitrose Car Park



Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m^2	Power W/m^2	ICNIRP W/m^2	3G Exposure Quotient	3G Exposure Quotient	
1	2163	93.9	49,545.0	0.049545	0.0000065112	6.511E-06	10	0.000000651120	6.51E-07	
2	2152.5	94.9	55,590.4	0.055590	0.0000081969	8.197E-06	10	0.000000819690	8.20E-07	
3	2142.7	86.2	20,417.4	0.020417	0.0000011057	1.106E-06	10	0.000000110570	1.11E-07	
4	2127.5	90.7	34,276.8	0.034277	0.0000031165	3.117E-06	10	0.000000311650	3.12E-07	
5	nil	seen								
6	nil	seen								Total 3G 1.89E-06

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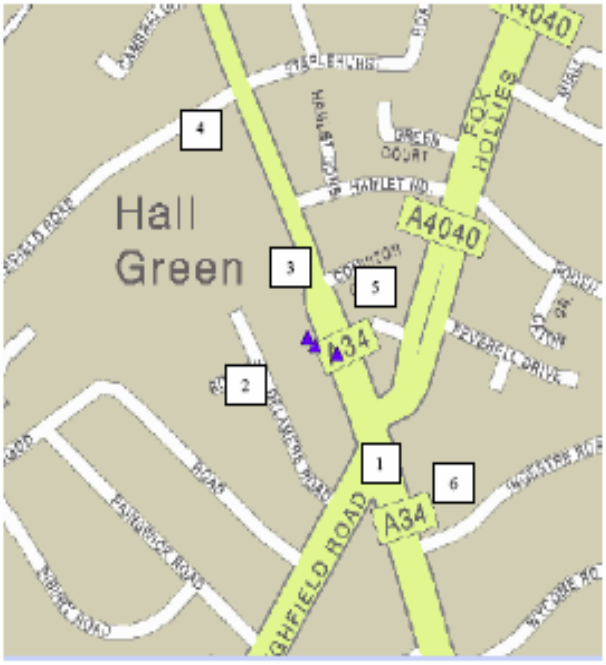
ML2-006/05

Measurement locations



Location	Site name
1	Junction of Stratford Road & Highfield Road (central reservation)
2	Junction of Romney Close & Delamere Road
3	Entrance to Hall Green Junior School
4	Hall Green School at Petersfield Road entrance
5	Coniston Close (Car Park area)
6	Waitrose shoppers Car Park

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ML2-006/05

Annex

2G Mobile Phone Base-Station Audit

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Mobile Phone Base-Station Audit

Audit site: Area around Centre Court
Stratford Road
Hall Green
Birmingham
B28

In 2000 the Government asked the Radiocommunications Agency to implement a national measurement programme to ensure that emissions from cellular base stations do not exceed the guidelines for public maximum exposure set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). Ofcom took over the functions of the Radiocommunications Agency, along with those of the Independent Television Commission, Radio Authority, Oftel and Broadcasting Standards Commission, on 29 December 2003.

Electric field strength measurements made in various bands are referenced to and presented alongside the relevant ICNIRP public maximum exposure levels. On the left hand side of the results page(s) is a graphical representation of the radio spectrum surveyed at each location on the site. The green line on each graph indicates the ICNIRP guideline exposure level for that frequency band. To the right hand side of each graph is a table showing the ten highest level emissions recorded within a band.

Further explanation of the results and their context within the ICNIRP guidelines can be provided by the Ofcom officers at the time of the audit or by contacting Ofcom on 0845 456 3000, or by email at contact@Ofcom.org.uk. Results taken from all audit sites and further information on the audit programme can be found on the Ofcom website at www.ofcom.org.uk.

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Report Summary

As the radio spectrum is continually changing, these measurements can only provide information on the radio frequency (RF) conditions for the specific locations at the time of the survey.

Ofcom performed this survey of the RF emission environment prevailing in the vicinity of Area around Centre Court on 24 May 2005.

The following table, sorted in descending order of signal level, summarises the results obtained at each measurement location.

Summary of results:

Location	Total Band Exposure	Relationship to ICNIRP Limit
Entrance to Hall Green Junior School	2.54E-04	1/3934
Junction of Stratford Road and Highfield Road	1.88E-04	1/5314
Coniston Close	1.53E-04	1/6531
Junction of Romney Close and Delamere Road	4.39E-05	1/22759
Waitrose car park	1.23E-05	1/81165
Hall Green School at Petersfield Road Entrance	9.05E-06	1/110530

Issued on behalf of Ofcom.

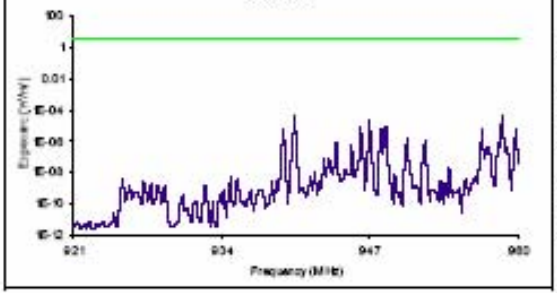
Issued by: Received by:

John Taylor
Technical Investigation Officer

Ofcom
OFFICE OF COMMUNICATIONS

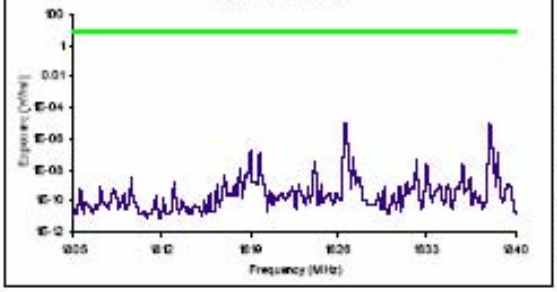
Site:	Area around Centre Court	**Receiver:**	
Location:	Junction of Stratford Road and Highfield Road	Manufacturer:	ROHDE&SCHWARZ
		Model:	EB200
NGR:	SP 1078 8116 **Taken from GPS**	Serial Number:	837.752/003
Start Time:	24 May 2005 9:57:29	**Antenna:**	
Officer:	John Taylor	Manufacturer:	Rohde & Schwarz
		Model:	HE200
		Serial Number:	728264/025

GSM 900



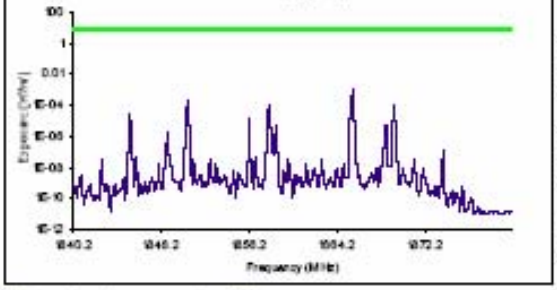
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
940.400	4.31E-05	4.70	9.16E-06
958.600	4.39E-05	4.79	9.16E-06
947.000	2.89E-05	4.74	6.10E-06
948.400	8.76E-06	4.74	1.85E-06
946.200	8.71E-06	4.73	1.84E-06
948.000	7.28E-06	4.74	1.54E-06
939.400	6.81E-06	4.70	1.45E-06
956.800	5.38E-06	4.78	1.12E-06
959.800	5.17E-06	4.80	1.08E-06
950.200	1.36E-06	4.75	2.87E-07
		Band Exposure Quotient:	3.63E-05

GSM 1800 (lower)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,826.600	1.24E-05	9.13	1.35E-06
1,838.000	1.13E-05	9.19	1.23E-06
1,826.400	4.72E-07	9.13	5.17E-08
1,819.000	1.90E-07	9.10	2.09E-08
1,826.800	1.53E-07	9.13	1.67E-08
1,838.200	1.33E-07	9.19	1.44E-08
1,819.800	1.26E-07	9.10	1.38E-08
1,838.600	1.24E-07	9.19	1.35E-08
1,837.800	1.05E-07	9.19	1.15E-08
1,827.200	6.99E-08	9.14	7.65E-09
		Band Exposure Quotient:	2.78E-06

GSM 1800 (upper)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,865.600	9.62E-04	9.33	1.03E-04
1,860.600	1.83E-04	9.25	1.98E-05
1,868.000	8.66E-05	9.29	9.32E-06
1,869.400	8.63E-05	9.35	9.23E-06
1,845.400	2.81E-05	9.23	3.04E-06
1,866.200	1.22E-05	9.28	1.31E-06
1,865.800	1.06E-05	9.33	1.13E-06
1,865.400	1.05E-05	9.33	1.13E-06
1,868.600	4.85E-06	9.34	5.19E-07
1,868.600	4.66E-06	9.29	5.01E-07
		Band Exposure Quotient:	1.60E-04

Total number of measurements: 572

Total Band Exposure Quotient: 1.88E-04

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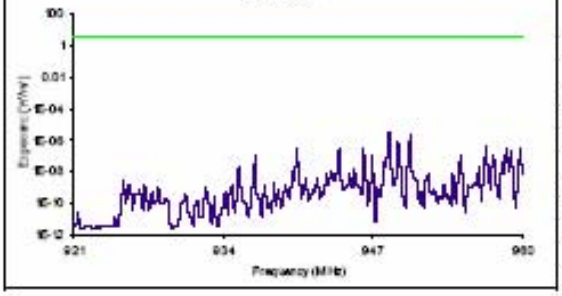
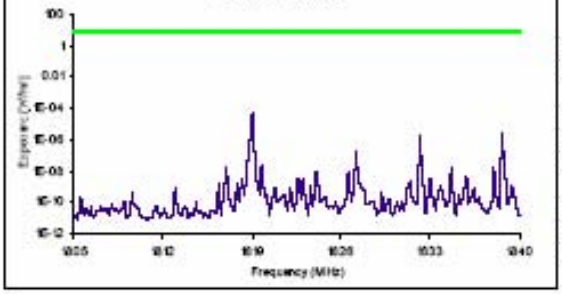
Site:	Area around Centre Court	Receiver:	
Location:	Junction of Romney Close and Delamere Road	Manufacturer:	ROHDE&SCHWARZ
		Model:	EB200
		Serial Number:	837.752/003
NGR:	SP 1065 8130 Taken from GPS	Antenna:	
Start Time:	24 May 2005 10:22:19	Manufacturer:	Rohde & Schwarz
Officer:	John Taylor	Model:	HE200
		Serial Number:	728264/025

GSM 900



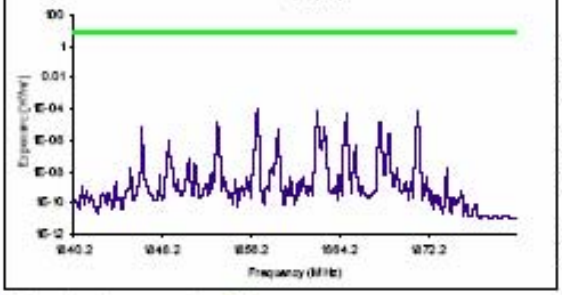
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
948.400	3.41E-06	4.74	7.19E-07
950.200	2.48E-06	4.75	5.22E-07
949.200	7.64E-07	4.75	1.61E-07
956.800	3.72E-07	4.78	7.78E-08
958.600	3.41E-07	4.79	7.11E-08
946.200	3.16E-07	4.73	6.69E-08
940.400	2.42E-07	4.70	5.15E-08
944.000	2.33E-07	4.72	4.94E-08
959.800	2.31E-07	4.80	4.82E-08
959.000	2.10E-07	4.79	4.39E-08
		Band Exposure Quotient:	2.00E-06

GSM 1800 (lower)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,819.000	5.86E-05	9.10	6.45E-06
1,838.600	2.77E-06	9.19	3.02E-07
1,832.200	2.03E-06	9.16	2.22E-07
1,819.200	5.87E-07	9.10	6.45E-08
1,818.800	4.99E-07	9.09	5.49E-08
1,827.200	2.16E-07	9.14	2.36E-08
1,819.800	2.81E-08	9.10	3.09E-09
1,838.800	2.71E-08	9.19	2.95E-09
1,817.000	2.12E-08	9.09	2.34E-09
1,834.600	2.14E-08	9.17	2.33E-09
		Band Exposure Quotient:	7.14E-06

GSM 1800 (upper)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,856.800	8.84E-05	9.28	9.52E-06
1,871.200	7.37E-05	9.36	7.88E-06
1,862.200	6.03E-05	9.31	6.48E-06
1,864.800	4.49E-05	9.32	4.82E-06
1,853.200	1.43E-05	9.27	1.54E-06
1,867.800	1.33E-05	9.34	1.43E-06
1,846.400	7.56E-06	9.23	8.19E-07
1,862.800	6.47E-06	9.31	6.95E-07
1,858.600	4.25E-06	9.29	4.57E-07
1,868.600	2.12E-06	9.34	2.26E-07
		Band Exposure Quotient:	3.48E-05

Total number of measurements: 572

Total Band Exposure Quotient: 4.98E-06

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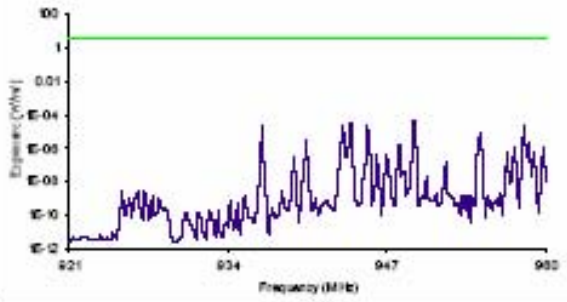
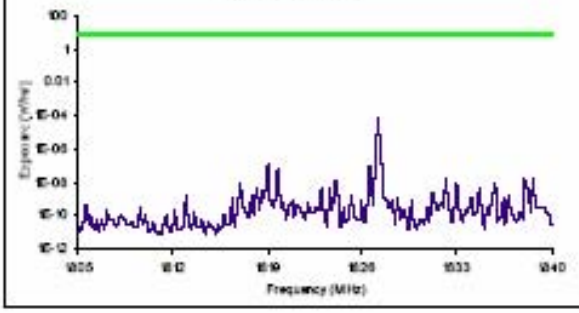
Site:	Area around Centre Court	**Receiver:**	
Location:	Entrance to Hall Green Junior School	Manufacturer:	ROHDE&SCHWARZ
		Model:	EB200
		Serial Number:	837.752/003
NGR:	SP 1069 8145 **Taken from GPS**	**Antenna:**	
Start Time:	24 May 2005 10:48:32	Manufacturer:	Rohde & Schwarz
Officer:	John Taylor	Model:	HE200
		Serial Number:	728264/025

GSM 900



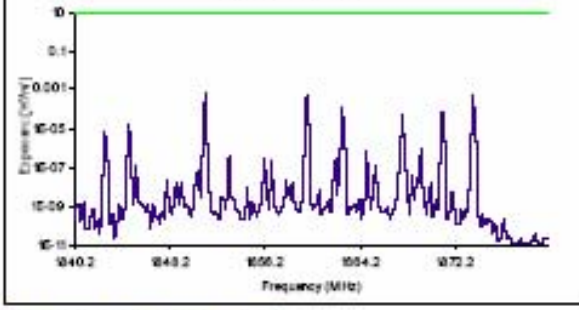
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
949.200	5.41E-05	4.75	1.14E-05
944.000	3.70E-05	4.72	7.84E-06
945.400	2.95E-05	4.73	6.23E-06
936.800	2.82E-05	4.68	6.03E-06
943.400	2.44E-05	4.72	5.17E-06
958.200	2.01E-05	4.79	4.19E-06
954.600	8.29E-06	4.77	1.74E-06
940.400	2.78E-06	4.70	5.92E-07
958.600	2.41E-06	4.79	5.03E-07
948.000	1.83E-06	4.74	3.86E-07
		Band Exposure Quotient:	4.80E-06

GSM 1800 (lower)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,827.200	7.66E-05	9.14	8.39E-06
1,827.400	7.15E-07	9.14	7.83E-08
1,827.000	5.99E-07	9.13	7.65E-08
1,819.000	1.65E-07	9.10	1.82E-08
1,826.600	9.64E-08	9.13	1.05E-08
1,819.800	5.29E-08	9.10	6.92E-09
1,832.200	2.13E-08	9.16	2.32E-09
1,838.000	1.75E-08	9.19	1.90E-09
1,838.600	1.67E-08	9.19	1.82E-09
1,824.000	1.52E-08	9.12	1.67E-09
		Band Exposure Quotient:	8.80E-06

GSM 1800 (upper)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,851.200	6.20E-04	9.26	6.70E-05
1,873.800	4.78E-04	9.37	5.10E-05
1,859.800	4.66E-04	9.30	5.02E-05
1,862.800	1.00E-04	9.31	1.08E-05
1,871.200	7.90E-05	9.36	8.44E-06
1,867.800	5.19E-05	9.34	5.55E-06
1,844.800	1.58E-05	9.22	1.71E-06
1,851.000	6.49E-06	9.26	7.01E-07
1,842.800	6.40E-06	9.21	6.94E-07
1,874.000	5.88E-06	9.37	6.28E-07
		Band Exposure Quotient:	2.00E-04

Total number of measurements: 572 Total Band Exposure Quotient: 2.64E-04

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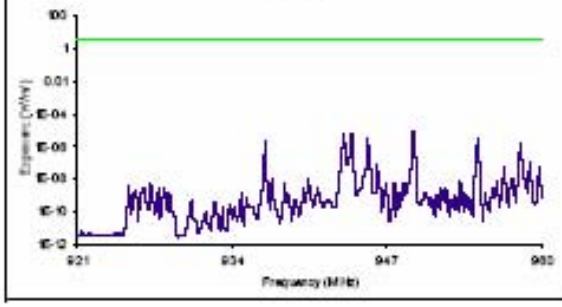
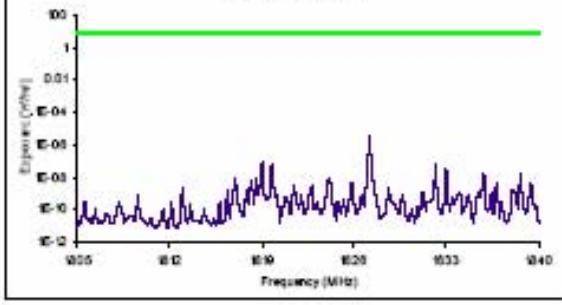
Site:	Area around Centre Court	**Receiver:**	
Location:	Hall Green School at Petersfield Road Entrance	Manufacturer:	ROHDE&SCHWARZ
		Model:	EB200
		Serial Number:	837.752/003
NGR:	SP 1055 8158 **Taken from GPS**	**Antenna:**	
Start Time:	24 May 2005 11:08:22	Manufacturer:	Rohde & Schwarz
Officer:	John Taylor	Model:	HE200
		Serial Number:	728264/026

GSM 900



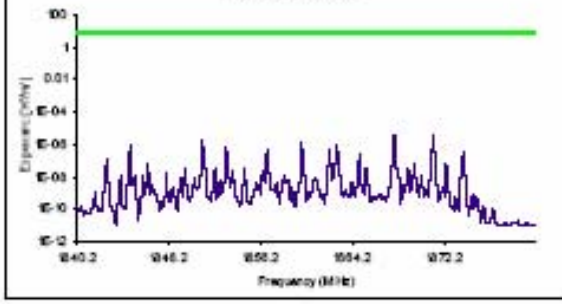
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
949.200	9.19E-06	4.75	1.94E-06
944.000	7.05E-06	4.72	1.49E-06
943.400	5.85E-06	4.72	1.24E-06
954.600	3.01E-06	4.77	6.31E-07
945.400	2.95E-06	4.73	6.23E-07
936.800	2.52E-06	4.68	5.37E-07
958.200	1.63E-06	4.79	3.40E-07
959.000	1.08E-07	4.79	2.25E-08
943.200	9.94E-08	4.72	2.11E-08
949.000	8.77E-08	4.75	1.85E-08
		Band Exposure Quotient:	7.03E-06

GSM 1800 (lower)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,827.200	3.42E-06	9.14	3.75E-07
1,819.000	1.09E-07	9.10	1.20E-08
1,819.800	8.89E-08	9.10	9.77E-09
1,832.200	6.89E-08	9.16	7.52E-09
1,833.000	4.25E-08	9.16	4.64E-09
1,827.000	3.12E-08	9.13	3.42E-09
1,835.800	2.35E-08	9.18	2.55E-09
1,827.400	1.97E-08	9.14	2.16E-09
1,838.600	1.79E-08	9.19	1.95E-09
1,824.200	1.21E-08	9.12	1.32E-09
		Band Exposure Quotient:	4.32E-07

GSM 1800 (upper)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,871.200	3.87E-06	9.36	4.13E-07
1,867.800	2.85E-06	9.34	3.05E-07
1,861.200	1.63E-06	9.26	1.76E-07
1,869.800	1.35E-06	9.30	1.45E-07
1,844.800	1.04E-06	9.22	1.13E-07
1,862.800	8.53E-07	9.31	9.16E-08
1,863.200	6.37E-07	9.27	6.87E-08
1,856.800	4.86E-07	9.28	5.23E-08
1,862.200	3.81E-07	9.31	4.09E-08
1,873.800	3.23E-07	9.37	3.45E-08
		Band Exposure Quotient:	1.68E-06

Total number of measurements: 572

Total Band Exposure Quotient: 8.05E-06

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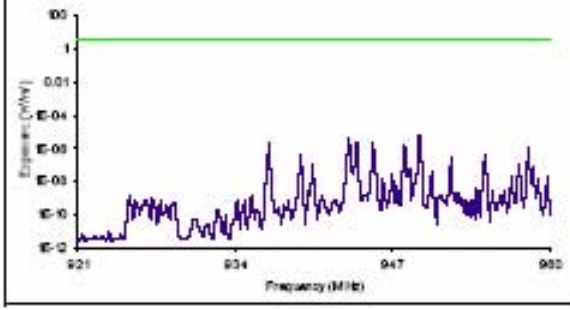
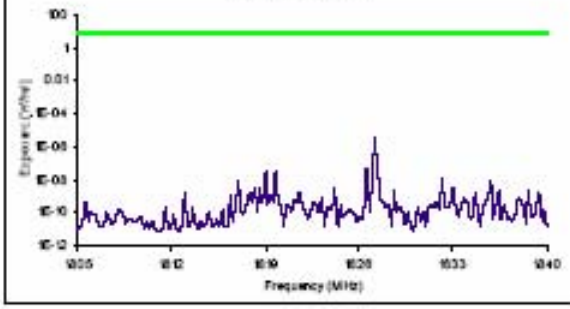
Site:	Area around Centre Court	Receiver:	
Location:	Coniston Close	Manufacturer:	ROHDE&SCHWARZ
		Model:	EB200
		Serial Number:	837.752/003
NGR:	SP 1076 8140 Taken from GPS	Antenna:	
Start Time:	24 May 2005 11:35:01	Manufacturer:	Rohde & Schwarz
Officer:	John Taylor	Model:	HE200
		Serial Number:	728264/025

GSM 900



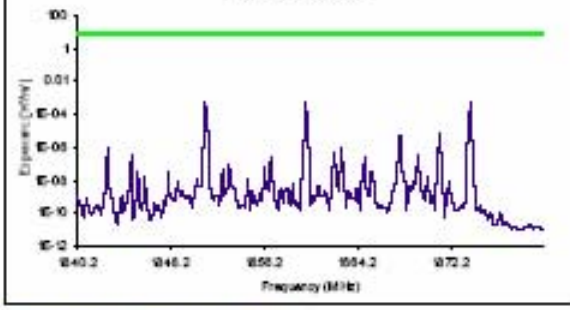
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
949.200	6.97E-06	4.75	1.47E-06
943.400	4.34E-06	4.72	9.20E-07
944.000	2.56E-06	4.72	5.42E-07
945.400	2.45E-06	4.73	5.19E-07
936.800	2.19E-06	4.68	4.68E-07
948.000	1.63E-06	4.74	3.44E-07
958.200	1.01E-06	4.79	2.10E-07
939.400	4.50E-07	4.70	9.58E-08
954.600	3.88E-07	4.77	8.12E-08
951.800	2.55E-07	4.76	5.35E-08
		Band Exposure Quotient:	4.82E-06

GSM 1800 (lower)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,827.200	3.58E-08	9.14	3.92E-07
1,826.600	4.94E-08	9.13	5.41E-09
1,827.400	4.31E-08	9.14	4.72E-09
1,819.800	4.06E-08	9.10	4.47E-09
1,827.000	3.93E-08	9.13	4.30E-09
1,819.000	3.37E-08	9.10	3.71E-09
1,832.200	1.51E-08	9.16	1.65E-09
1,817.000	1.19E-08	9.09	1.31E-09
1,835.800	8.33E-09	9.18	9.08E-10
1,818.200	3.61E-09	9.09	3.97E-10
		Band Exposure Quotient:	4.25E-07

GSM 1800 (upper)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,873.800	4.56E-04	9.37	4.87E-05
1,859.800	4.46E-04	9.30	4.79E-05
1,851.200	4.39E-04	9.26	4.74E-05
1,871.200	7.20E-06	9.36	7.70E-07
1,851.400	5.16E-06	9.26	5.57E-07
1,851.000	4.49E-06	9.26	4.85E-07
1,867.800	4.31E-06	9.34	4.62E-07
1,874.000	4.16E-06	9.37	4.44E-07
1,859.600	2.81E-06	9.30	3.02E-07
1,873.600	1.35E-06	9.37	1.44E-07
		Band Exposure Quotient:	1.48E-04

Total number of measurements: 572

Total Band Exposure Quotient: 1.63E-04

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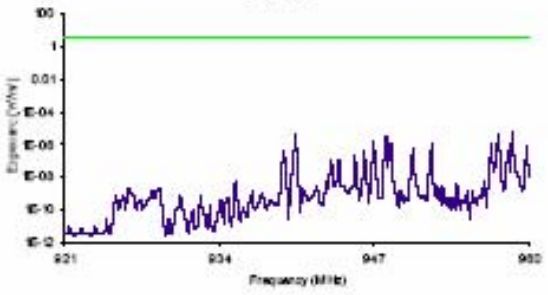
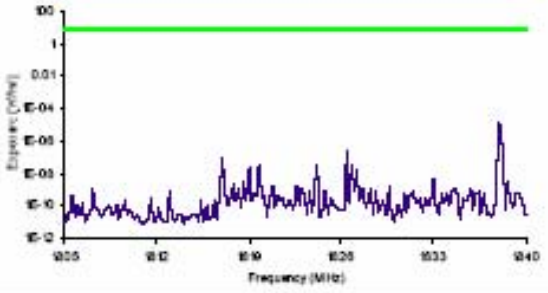
Site:	Area around Centre Court	Receiver:	
Location:	Waitrose car park	Manufacturer:	ROHDE&SCHWARZ
		Model:	EB200
		Serial Number:	837.752/003
NGR:	SP 1091 8114 Taken from GPS	Antenna:	
Start Time:	24 May 2005 12:00:52	Manufacturer:	Rohde & Schwarz
Officer:	John Taylor	Model:	HE200
		Serial Number:	728264/025

GSM 900



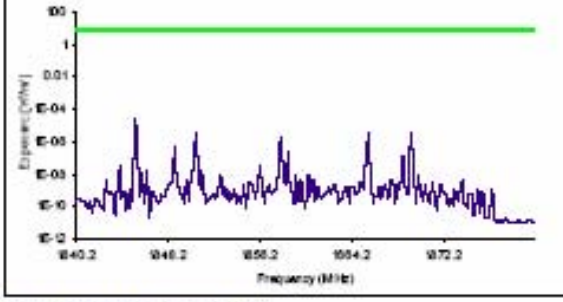
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
958.600	7.99E-06	4.79	1.67E-06
940.400	4.62E-06	4.70	9.82E-07
957.400	4.38E-06	4.79	9.15E-07
948.000	3.82E-06	4.74	8.06E-07
947.000	1.48E-06	4.74	3.13E-07
956.800	1.12E-06	4.78	2.35E-07
948.400	1.08E-06	4.74	2.27E-07
951.800	1.01E-06	4.76	2.13E-07
959.800	7.83E-07	4.80	1.63E-07
950.200	5.95E-07	4.75	1.25E-07
		Band Exposure Quotient:	8.15E-06

GSM 1800 (lower)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,838.000	1.79E-05	9.19	1.95E-06
1,838.200	3.65E-07	9.19	3.97E-08
1,837.800	3.49E-07	9.19	3.79E-08
1,826.400	3.12E-07	9.13	3.41E-08
1,817.000	1.04E-07	9.09	1.14E-08
1,819.800	4.06E-08	9.10	4.47E-09
1,826.800	3.75E-08	9.13	4.11E-09
1,824.200	3.57E-08	9.12	3.91E-09
1,819.000	2.56E-08	9.10	2.81E-09
1,827.200	1.76E-08	9.14	1.92E-09
		Band Exposure Quotient:	2.09E-06

GSM 1800 (upper)



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,845.400	2.56E-05	9.23	2.77E-06
1,865.600	3.19E-06	9.33	3.42E-07
1,850.600	2.83E-06	9.25	3.06E-07
1,869.400	2.86E-06	9.35	3.06E-07
1,858.000	1.50E-06	9.29	1.62E-07
1,848.800	3.90E-07	9.24	4.21E-08
1,845.200	2.62E-07	9.23	2.84E-08
1,845.600	2.44E-07	9.23	2.65E-08
1,858.600	1.85E-07	9.29	1.99E-08
1,868.600	1.01E-07	9.34	1.08E-08
		Band Exposure Quotient:	4.07E-06

Total number of measurements: 572

Total Band Exposure Quotient: 1.23E-05

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Glossary

Site: The building or area around which sets of measurements are taken

Location: The position within a site at which a single set of measurements is taken. A set of measurements consists of multiple scans of many frequencies within a number of bands

Band: A portion of the electromagnetic spectrum reserved for specific radio services

NGR: The Ordnance Survey national grid reference coordinates of the location. In this survey NGRs are specified to 8-digit (10-metre) resolution. E.g. SJ 9755 9888

GPS: The Global Positioning System

Start Time: The date and time at which the receiver started taking its measurements at a location

Officer: The name of the RA representative who carried out the audit

Receiver: The receiver used to perform the measurements

Antenna: The antenna used to perform the measurements

Exposure: The maximum measured electric field strength (dB(μV/m)) converted to an equivalent power density (W/m²)

Power Density: The electromagnetic energy flowing through a unit area normal to the direction of propagation in a unit time. Measured in Watts per square metre (W/m²)

ICNIRP Limit: The reference level given by the International Commission for Non-Ionizing Radiation Protection (ICNIRP) for general public exposure to electromagnetic fields

Frequency	*ICNIRP limit*
10MHz to 400 MHz	2 W/m²
400MHz to 2GHz	f / 200 W/m²
2GHz to 300GHz	10 W/m²

(where f is frequency in MHz)

Frequency Exposure Quotient:
The ratio of the measured maximum power density to the ICNIRP limit at a given frequency. A value close to 1 signifies that exposure levels could be near to the ICNIRP limit for that frequency

Band Exposure Quotient:
The sum of the frequency exposure quotients for a single band at a location

Total Band Exposure Quotient:
The sum of the frequency exposure quotients for all of the measured bands at a location

GSM: Global System for Mobile communication
ETACS: Extended Total Access Communications
TETRA: Terrestrial Trunked Radio
3G: Third Generation mobile-phone services

1.00E-03: Exponential (or 'scientific') number format. Equal to one thousandth
1.00E-06: Equal to one millionth
1.00E-09: Equal to one thousand-millionth
1.00E-12: Equal to one million-millionth

Appendix 7 ICNIRP GUIDELINES AND CERTIFICATE

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) is an international scientific organisation formally recognised by the World Health Organisation. ICNIRP reviews the science relating to exposure to electromagnetic fields and produces guidelines for limiting people's exposure.

The latest set of ICNIRP guidelines were published in 1998 and ICNIRP intends that they should be used as an input to the development of national standards. The guidelines contain basic restrictions on exposure that are set to avoid adverse effects of exposure on health. The basic restrictions are specified in terms of fundamental dose quantities that occur inside the body; consequently, they are not easy to measure. Reference levels are therefore given also in terms of measurable quantities outside the body such as field strength and power density.

This is a two tier system that discriminates between occupational and general public exposure. The rationale for this is that it is assumed younger and older people are more sensitive to the thermal effects than people who are economically active. The guidelines are based on the Specific Absorption Rate (SAR) of energy.

Mobile phones expose that part of the head to which they are held to a greater extent than other parts of the body, which are further away. Therefore, for mobile phones, the most important restriction in the guidelines is that placed on the localised Specific Absorption Rate (SAR) of energy in the head. Base station antennas tend to be much further away from the body and the reference level in terms of power density is usually meaningful as an indicator of SAR averaged over the whole body.

The "ICNIRP Declaration" certifies that the site is designed to be in full compliance with the requirements of the radio frequency (RF) guidelines of the International Commission on Non-Ionizing Radiation (ICNIRP) for public exposure as expressed in EU Council recommendation of July 1999.

A sample ICNIRP certificate is attached overleaf.

Declaration of Conformity with ICNIRP Public Exposure Guidelines
("ICNIRP Declaration")

Vodafone Limited,
Vodafone House,
The Connection,
Newbury,
RG14 2FN.

Declares that the proposed equipment and installation as detailed in the attached GPDO application at

53054 – Finham 2
Grass Verge adjacent to London Road
London Road
North Cheylesmore
Coventy
CV3 5PN

E 434489 N 277349

Is designed to be in full compliance with the requirements of the radio frequency (RF) public exposure guidelines of the International Commission on Non-Ionizing Radiation (ICNIRP), as expressed in EU Council recommendation of 12 July 1999 * "on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)".

* Reference: 1999/519/EC

Date:	12th April 2005
Signed:	
Name:	Mark Mytton
Position:	Project Controller

Vodafone Limited

Registered Office: Vodafone House, The Connection, Newbury, Berkshire, RG14 1JX
Registered in England No 1471587

Appendix 8 BACKGROUND SOURCES

AGNIR (2001) "Possible health effects from terrestrial trunked radio (TETRA)" Report of an Advisory Group on Non-Ionising Radiation.
Available at www.hpa.org.uk/radiation

IEGMP (2000) "Mobile Phones and Health. Report of an Independent Expert Group on Mobile Phones. Chairman, Sir William Stewart, Chilton, NRPB.
Available at www.iegmp.org.uk

Mobile Operators Association, MOA (2004) "Working with the Community. Handbook on mobile telecoms community consultation for best siting practice", London, Mobile Operators Association, Available at www.mobilemastinfo.com

Mobile Operators Association, MOA (2001) "Ten Commitments to Best Siting Practice", London, Mobile Operators Association, Available at www.mobilemastinfo.com

National Radiological Protection Board, NRPB (now incorporated into the Health Protection Agency) "Mobile Phones and Health 2004" (2004), Chilton, NRPB, Available at www.hpa.org.uk/radiation

Office of the Deputy Prime Minister, ODPM (2002) "Code of Best Practice on Mobile Phone Network Development", London, ODPM. Available at www.odpm.gov.uk

Interest Groups - Internet and Contact Details

Birmingham Association of Neighbourhood Forums (BANF)
Neighbourhood Forums Resource Centre
Revesby Walk
Nechells
Birmingham
B7 4LG
www.banf.org.uk

Birmingham Friends of the Earth
54-57 Allison Street
Digbeth
Birmingham
B5 5TH
www.birminghamfoe.org.uk

Mast Action
PO Box 312
Hertfordshire
EN7 5ZE
www.mastaction.co.uk

Mast Sanity
97 Spa Crescent
Little Hulton
Greater Manchester
M38 9TU
www.mastsanity.org

Seriously Concerned Residents Against Masts (S-C-R-A-M)
formerly Sutton Coldfield Residents Against Masts
PO BOX 11329
Sutton Coldfield
B76 9ZS
www.scram.uk.com

Tetrawatch
Amberley
The Causeway
Arundel
West Sussex
BN18 9JJ
www.tetrawatch.net

Sutton Coldfield Electrosensitives
PO Box 12560
Sutton Coldfield
B73 9PB
The organisation does not have a website