THE INVISIBLE MADE VISIBLE

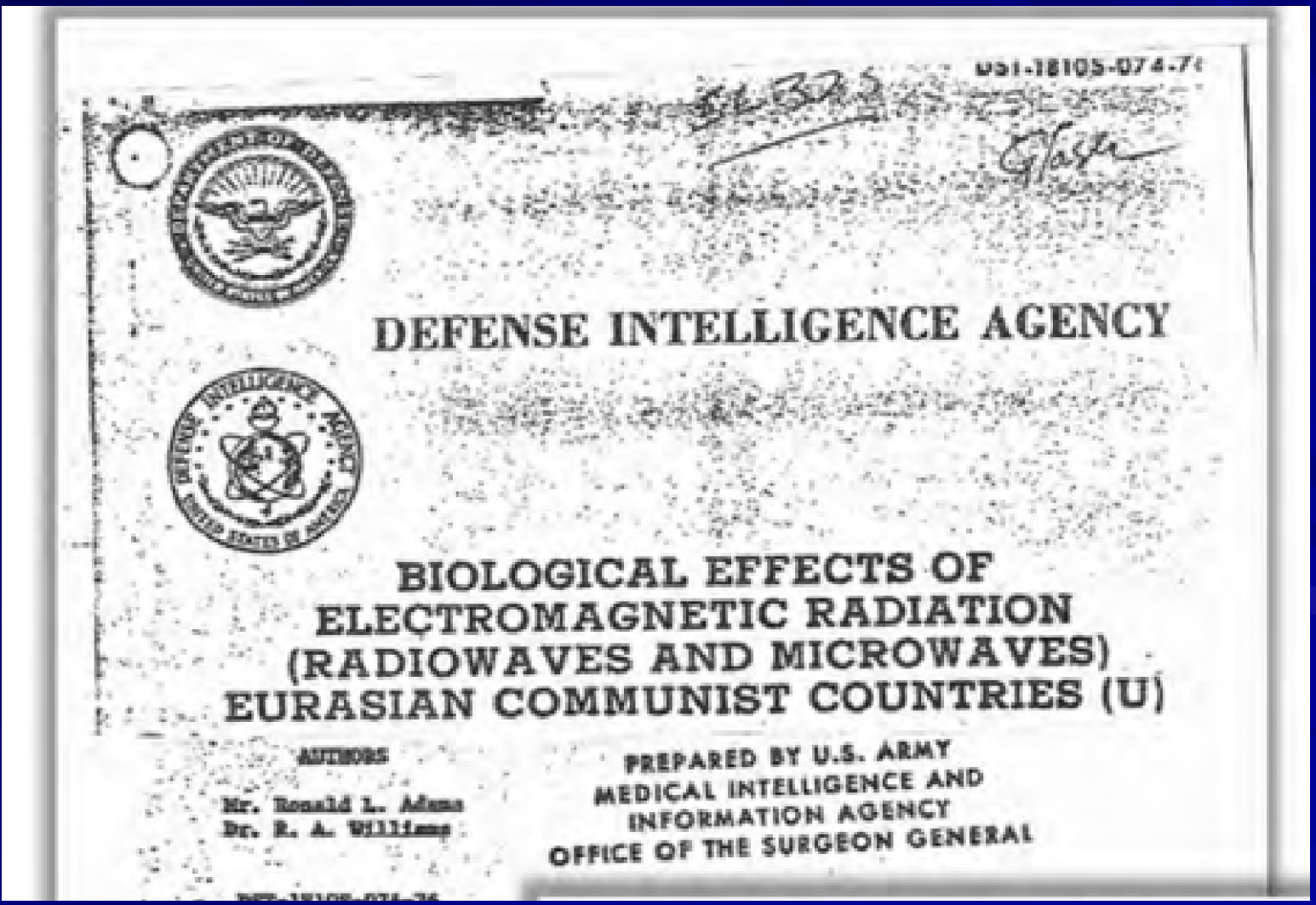
NO PLACE TO HIDE

A GLOBAL PHENOMENON

Systems and Mitigation

Robert Steller, BBEC, BBEI, EE, CMR, EMRS, CRMT

The US army is concerned



DEFENSE INTELLIGENCE AGENCY

BIOLOGICAL EFFECTS OF ELECTROMAGNETIC RADIATION (RADIOWAVES AND MICROWAVES) EURASIAN COMMUNIST COUNTRIES (U)

AUTHORS

Mr. Ronald L. Adams
Dr. R. A. Williams

PREPARED BY U.S. ARMY
MEDICAL INTELLIGENCE AND
INFORMATION AGENCY
OFFICE OF THE SURGEON GENERAL

JPRS L/7298

3 August 1977

Auszug

CIA Bericht zu sowjetischer HF-Forschung

CIA-RDP88B01125R000300120005-6.pdf

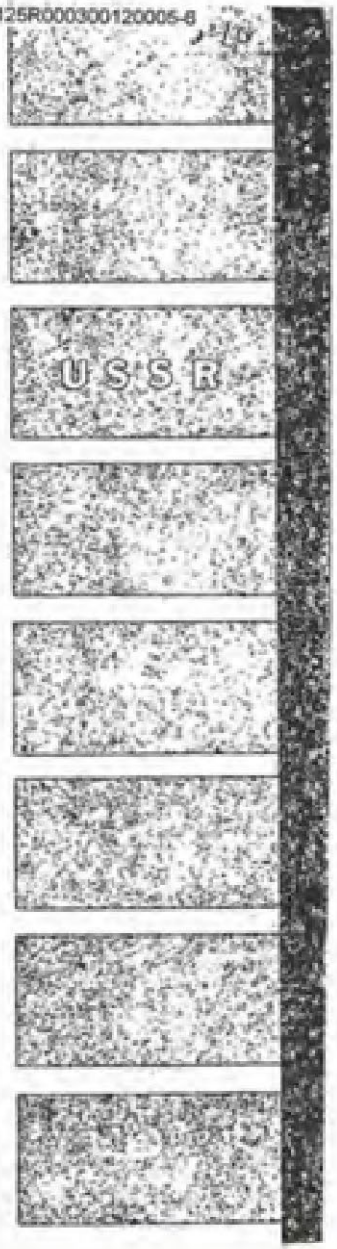
TRANSLATIONS ON USSR SCIENCE AND TECHNOLOGY

BIOMEDICAL SCIENCES

(GUO 28/77)

EFFECTS OF NONIONIZING ELECTROMAGNETIC RADIATION

U. S. JOINT PUBLICATIONS RESEARCH SERVICE



CIA is concerned

The German physician Dr. Erwin Schliephake describes Radio and Microwave sickness near transmitters since 1932

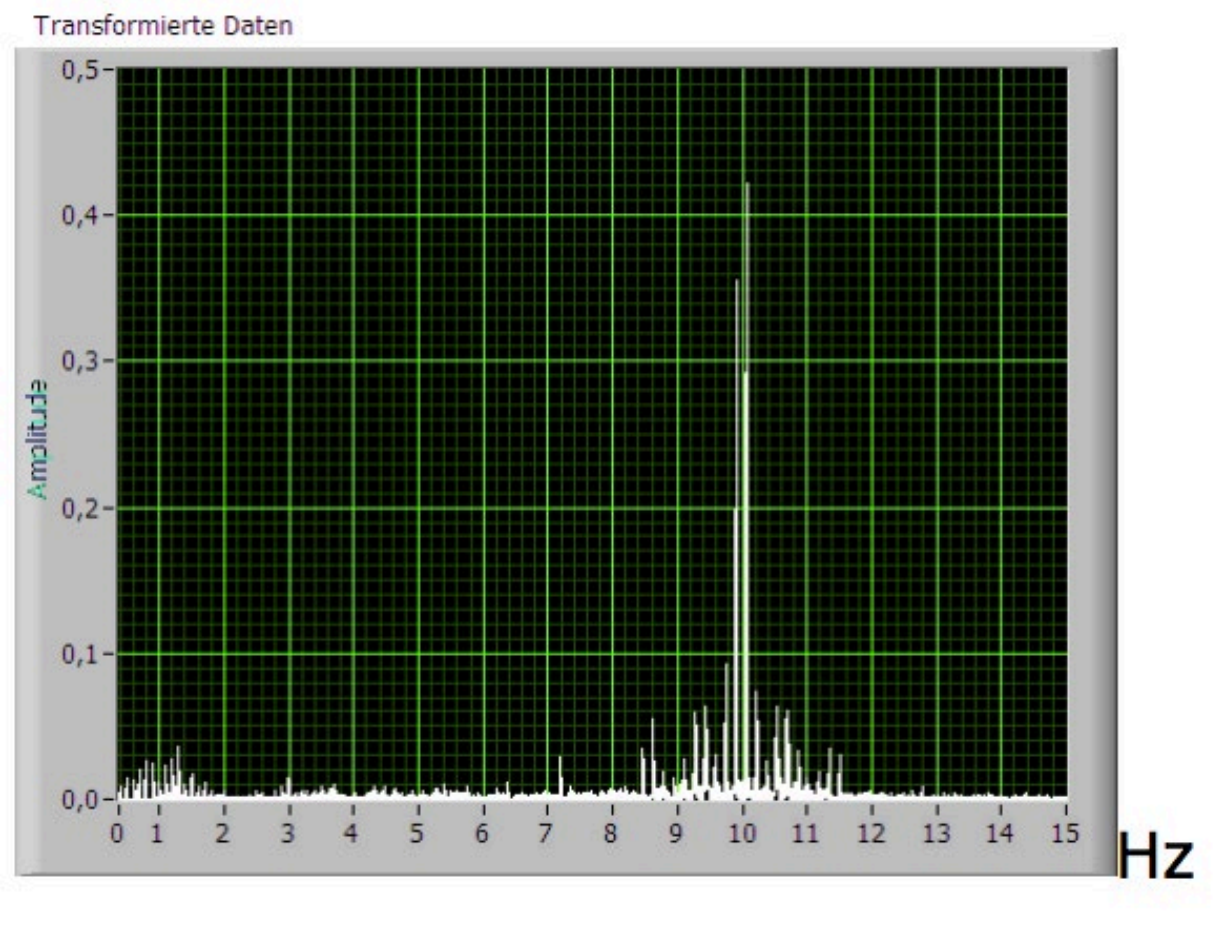
He found and my clients tell me this

Arrhythmia
Severe fatigue
Exhaustion
Sleep disorder
Strong headaches
Infections
et al

3.26 Radiowellen- oder Mikrowellenkrankheit seit 1932 bekannt und objektiv Schäden nachgewiesen

Im August 1932, also vor 75 Jahren, veröffentlichte der deutsche Arzt Erwin Schliephake in der Deutschen Medizinischen Wochenschrift wissenschaftliche Daten über die von Radiosendeanlagen hervorgerufene „Mikrowellen-" oder „Radiowellen-Krankheit" mit folgenden Symptomen: starke Müdigkeit und Erschöpfung am Tage, unruhiger Schlaf in der Nacht, Kopfschmerzen bis zur Unerträglichkeit, hohe Infektanfälligkeit.

The major concern



Artificial 10 Hz peak showing in an EMG after turning on a WIFI router

This desynchronizes the Schumann effect on the brain and creates a 10 Hz WIFI pulsation stress memory and once “engraved” in the brain” it becomes permanent for life

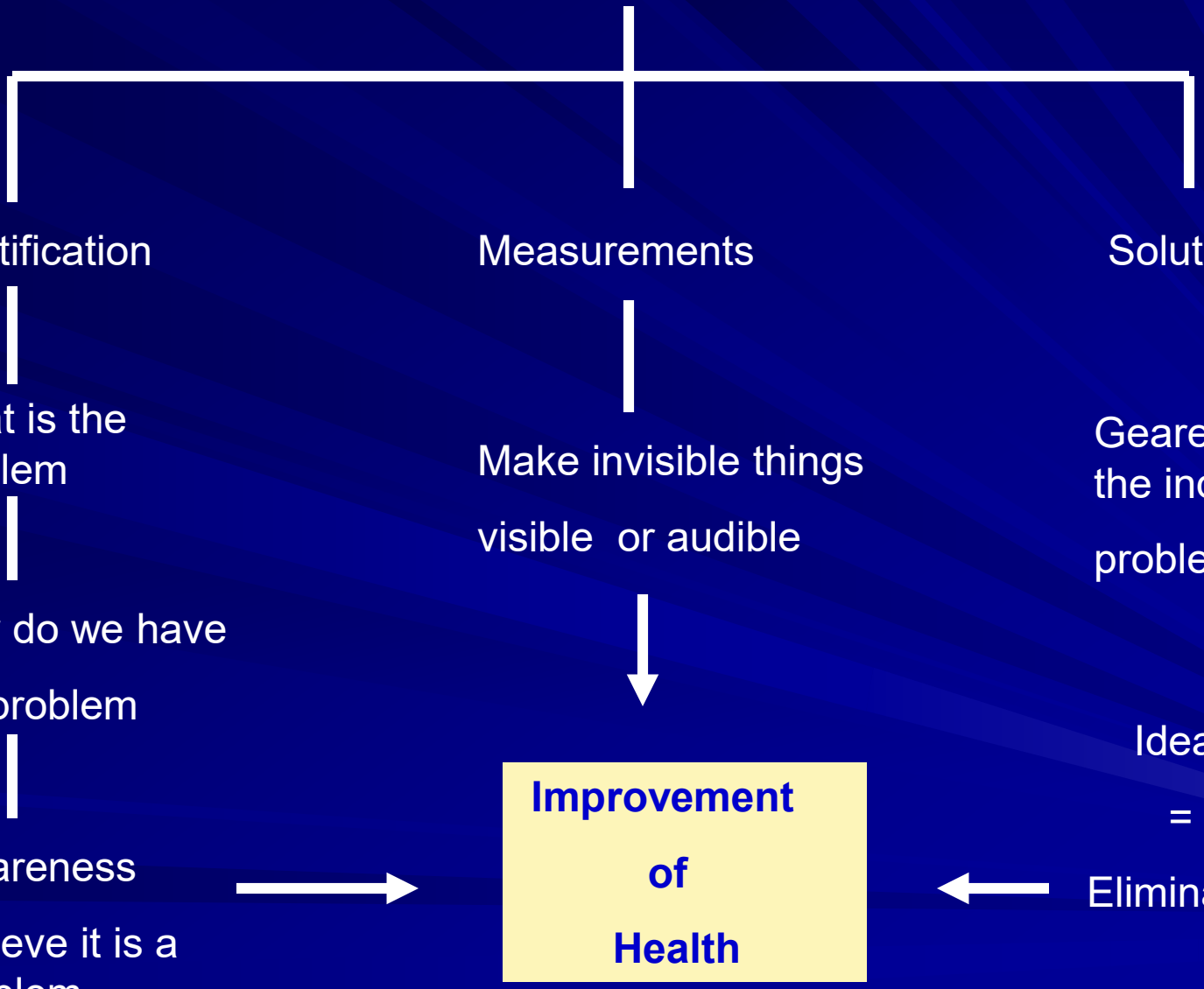
=> EHS for life !

Prof. Lebrecht von Klitzing – Prof. Prof.. Dr. med. Habil. Karl Hecht

Router cases

- Calgary autistic 14 year old
- Toronto condo (initially mould complaint)

PROBLEM


Identification
What is the problem
Why do we have the problem
Awareness
Believe it is a problem
Measurements
Make invisible things visible or audible
Solution
Geared to the individual problem
Ideal
=
Elimination
Improvement of Health

ELECTRO MAGNETIC WAVES – BASICS

What are they – where do they come from

HF Radiation 30 kHz – 300 GHz

Natural

Spherics – Light

Cosmic

Artificial - man made

Radio – TV

Mobile Communication – UMTS – DECT – Cordless Phones - Bluetooth

Data and Directional Transfer

Pager and Trunked Radio (Buendelfunk)

Privat and CB Radio

Fire – Police – Taxi – Paramedics

Industry (Warehouse) – Satellite

Radar and Military – Security Systems – Product Security (Retail)

Baby phones – Microwave Oven – Remote Control Toys

Quebec border strong radar signal
Walmart Home depot
Unknown exposure

ELECTRO MAGNETIC WAVES – BASICS

Mobile Communication - Radar – UMTS – Bluetooth – Personal and Office Equipment 200 MHz – 10 hz

Radiation or Field Strength increases or decreases

↓

- Power output of transmitter – make ,kind ,construction and direction of transmitter
- Reflection of surroundings (buildings)
- Environment – Landscape – Weather
- The way a building is constructed – what kind of building materials
- Additional technical shielding
- Distance to transmitter and antenna

ELECTRO MAGNETIC WAVES - BASICS

RF Sources – General

All Frequencies

Radio , TV , Digital
Military (HAARP)

↓

No personal influence
Distance only
Knowledge of sources
Power output and
frequencies
required

Mobile Communication - Radar

27 MHz – 3.3 GHz (6 GHz)

↓

We have influence in some way
by

↓

➔choosing were we live

➔ how we build

➔ technical shielding

➔ personal behavior

Personal Equipment

↓

We have control

↓

CB ,two way radio Bluetooth

Routers ,DECT ,cell phones

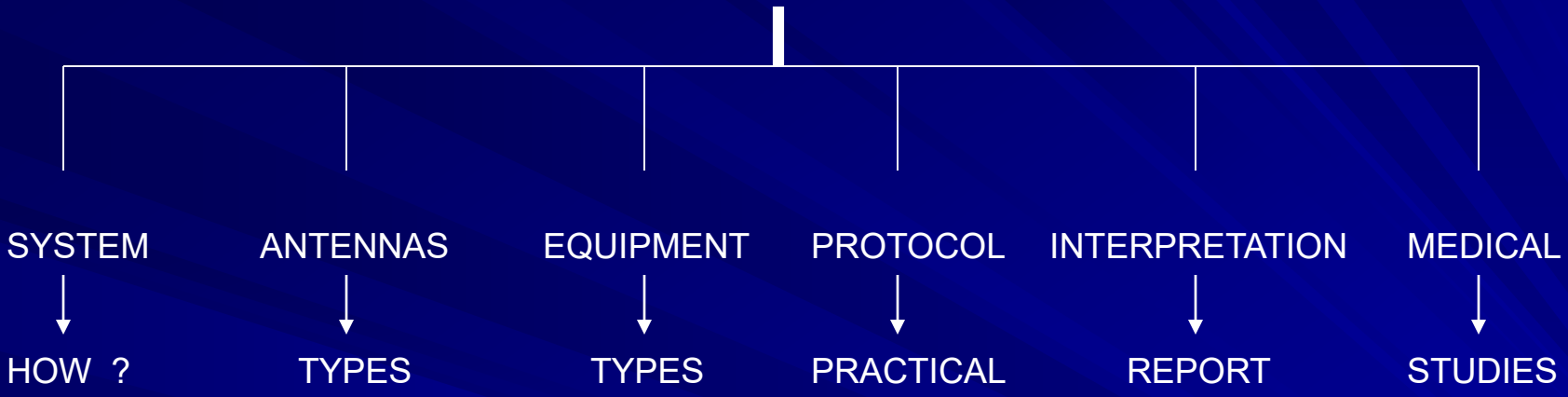
↓

➔ personal behavior

➔ personal habits

ELECTRO MAGNETIC WAVES - BASICS

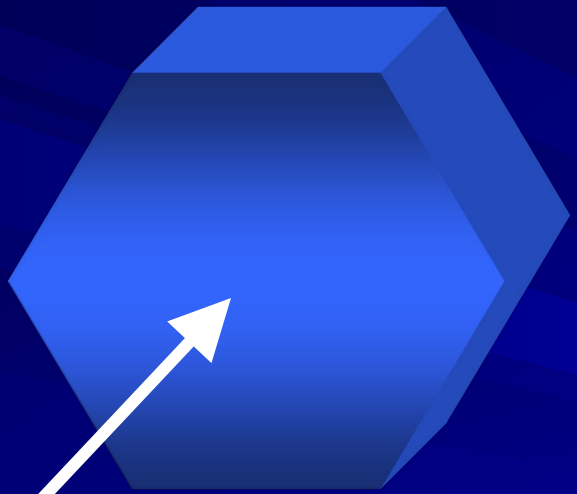
MOBILE COMMUNICATION



PART 1 – HOW DOES THE SYSTEM WORK

WHY THE NAME CELL PHONE ?

CELL PHONES OPERATE IN “CELLS”

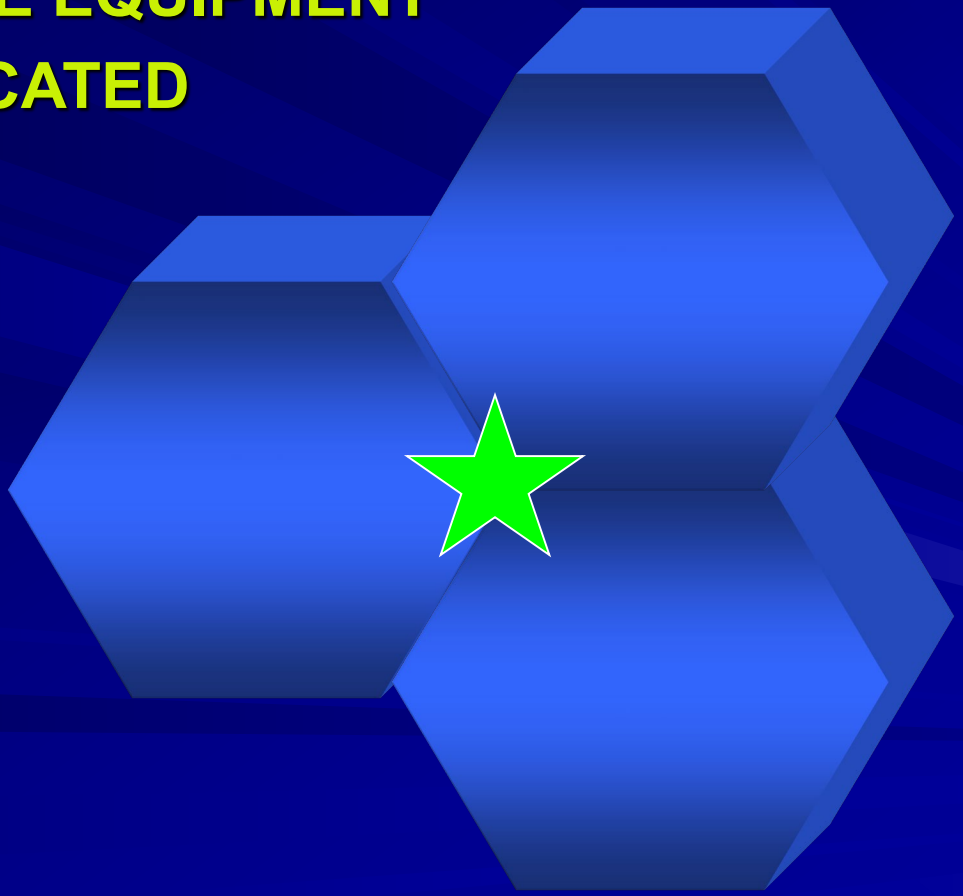


A CELL IS A GEOGRAPHICAL AREA

COVERED BY CELLULAR RADIO ANTENNAS

THERE IS ALSO A CELL SITE

A CELL SITE IS THE PLACE AT THE EDGE OF CELLS WHERE THE EQUIPMENT IS LOCATED



CELLULAR RADIO PROVIDES

MOBILE TELEPHONE SERVICE BY

EMPLOYING A NETWORK OF “CELL SITES”

WHICH COVER THE AREA OF SEVERAL CELLS

WHAT IS A CELL SITE AND
WHY DO WE NEED IT?

A CELL SITE WITH BASE STATION

Cell site

HOW DOES THE SYSTEM WORK ?

IF YOUR PHONE IS ON IT STAYS IN TOUCH WITH THE NEAREST BASE STATION

DOWNLINK

UPLINK

SIGNAL STRENTGH READINGS ARE ALSO A FACTOR IN THE PROCESS OF ASSIGNING YOUR PHONE TO A BASE STATION

CELL TOWER RADIATION CHARACTERISTICS

A FEW THINGS TO REMEMBER

- ANTENNAS ARE OFTEN DIRECTIONAL
- FIELD STRENTGHS IS A FACTOR
- POSITION OF THE MOBILE UNIT
- PULSED SIGNALS VERSUS NON PULSED
- REFLECTION ,ATTENUATION
- BUILDING MATERIALS
- DISTANCE FROM SOURCE

The properties and behavior of high frequency radiation

If high frequency radiation hits any material it

- → partially penetrates the material
- → is partially reflected
- → is partially absorbed
- → and all of the above

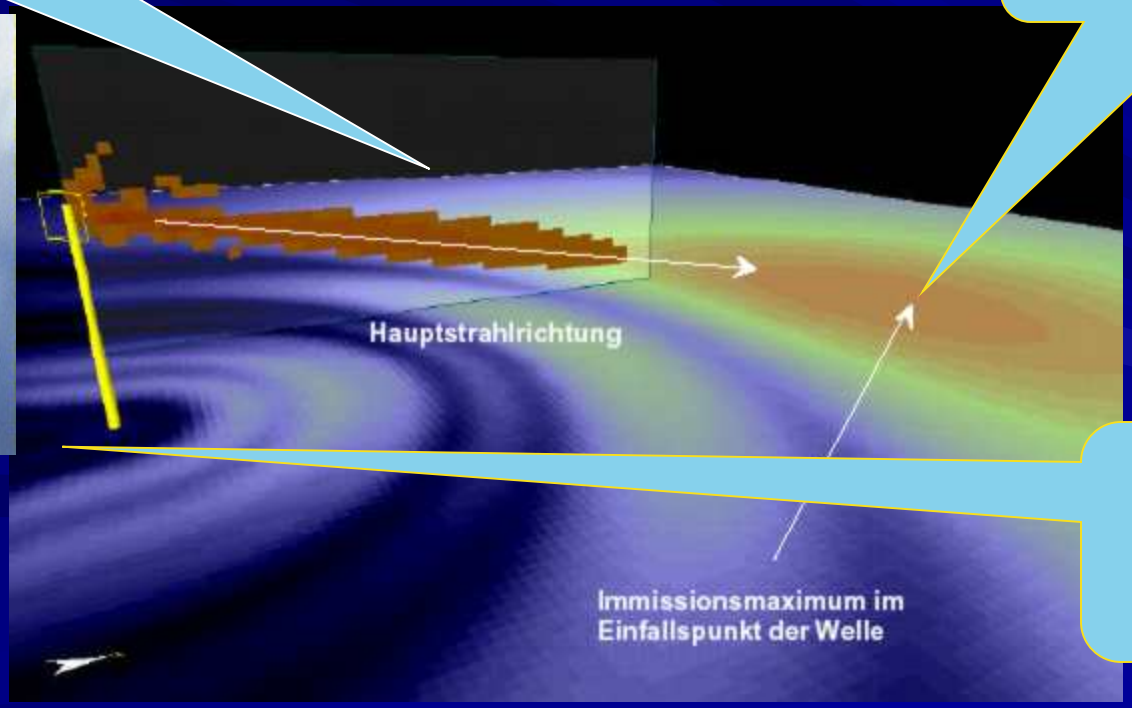
Roof has main HF leakage in this case

Main direction of radiation

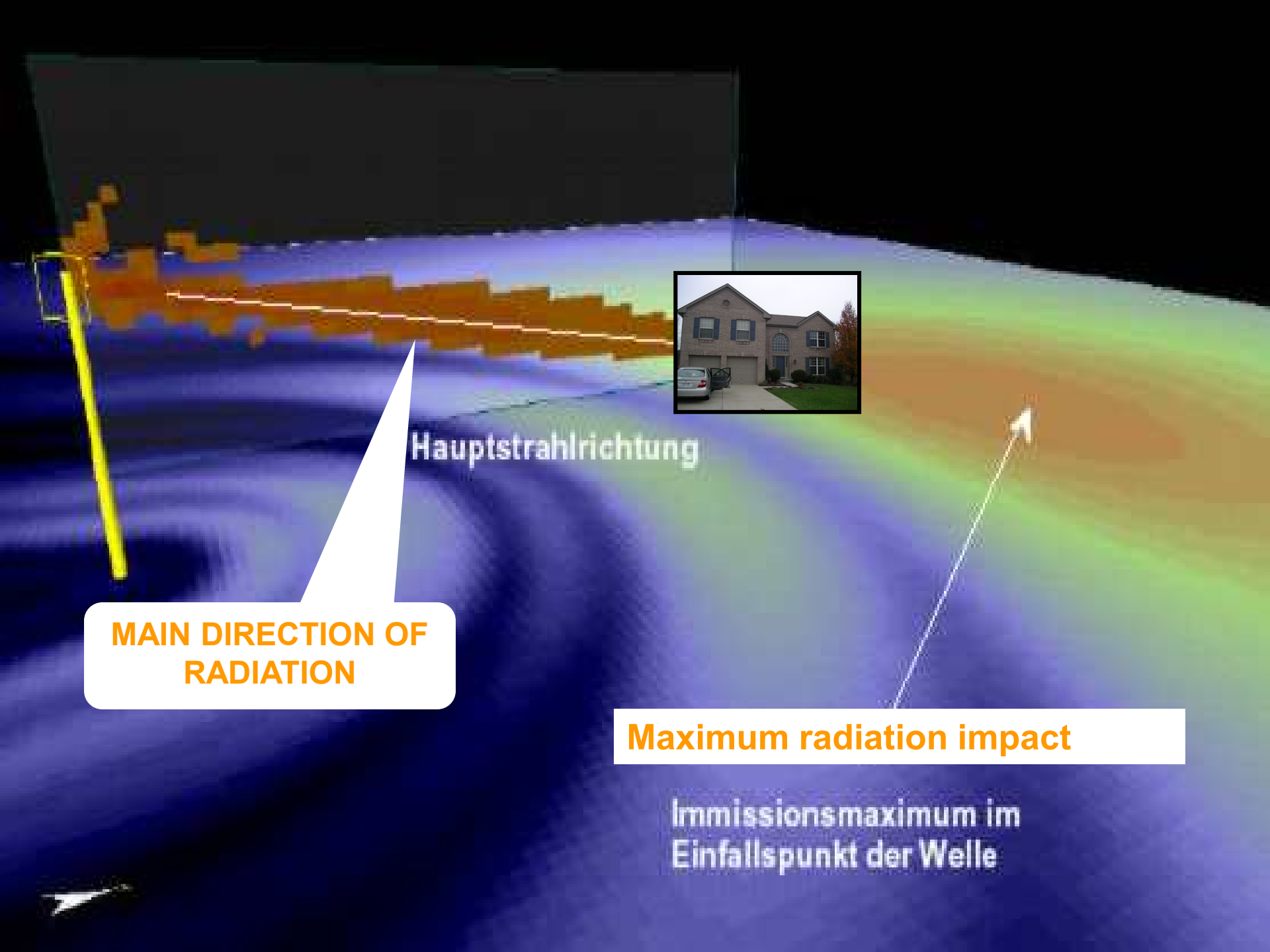
RADIATION CHARACTERISTICS OF CELL PHONE TOWERS

MAIN DIRECTION OF RADIATION

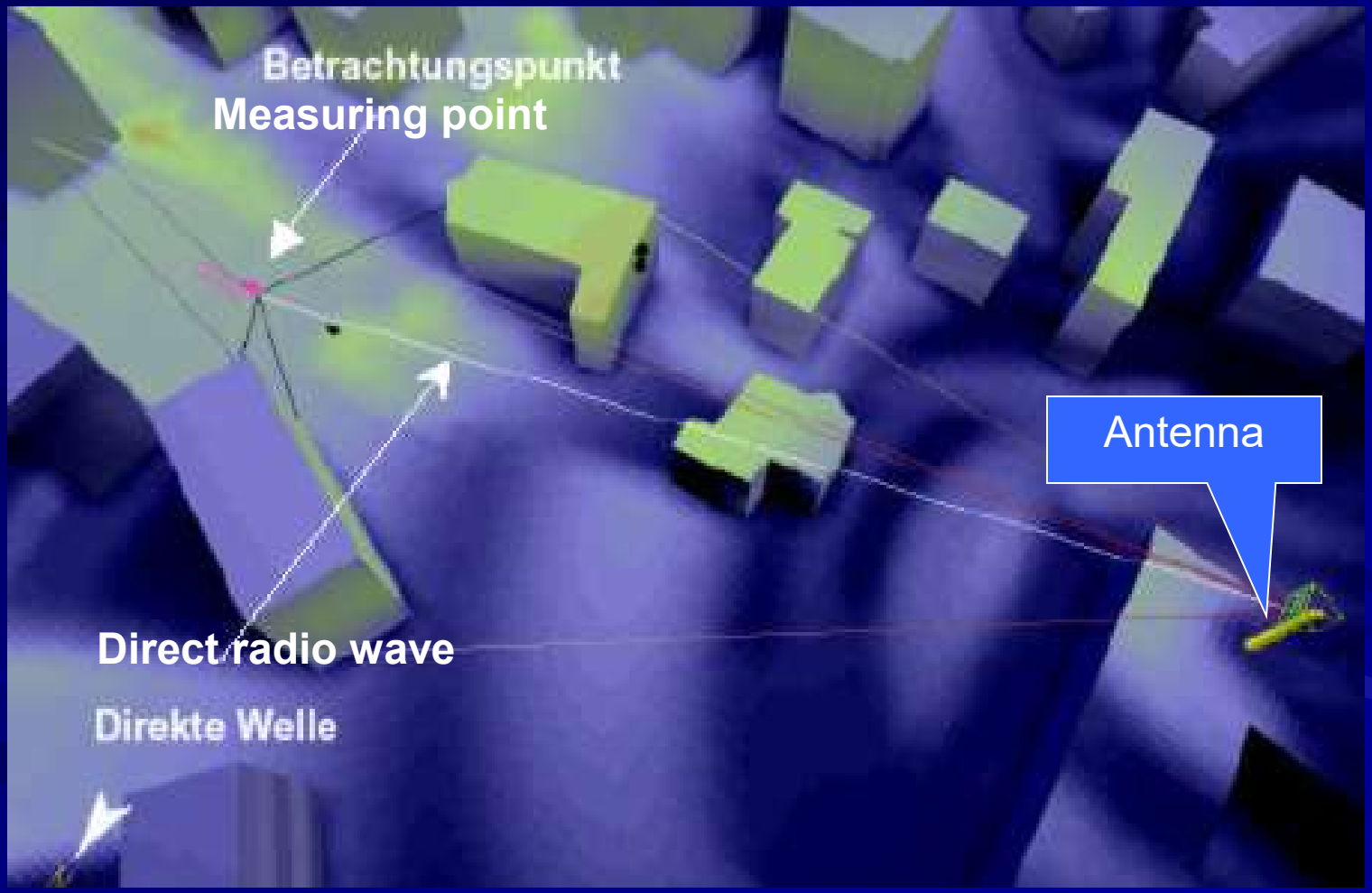
AREA OF HIGHEST RADIATION



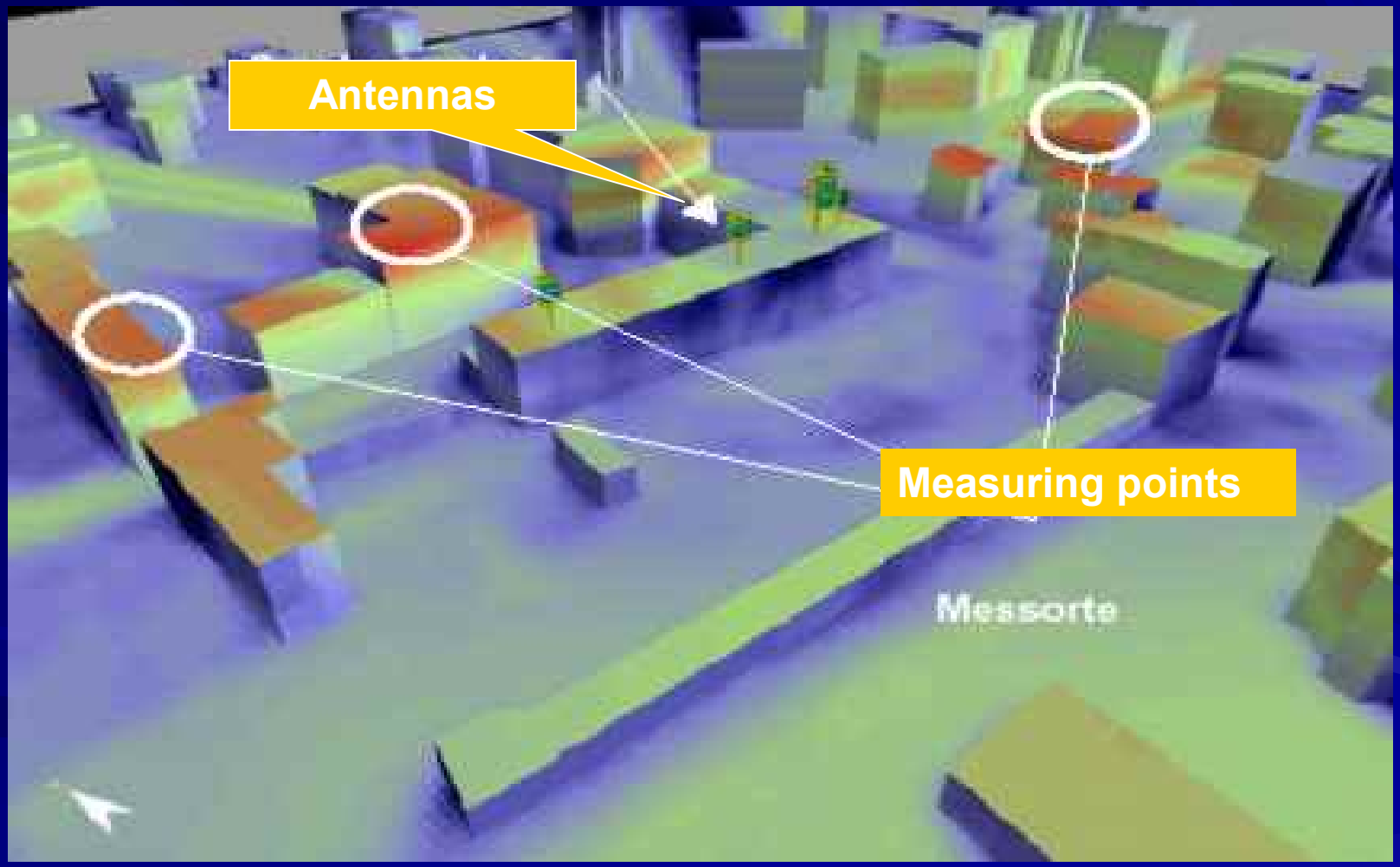
AREA OF LOWEST RADIATION


Hauptstrahlrichtung
MAIN DIRECTION OF RADIATION
Maximum radiation impact
Immissionsmaximum im Einfallspunkt der Welle

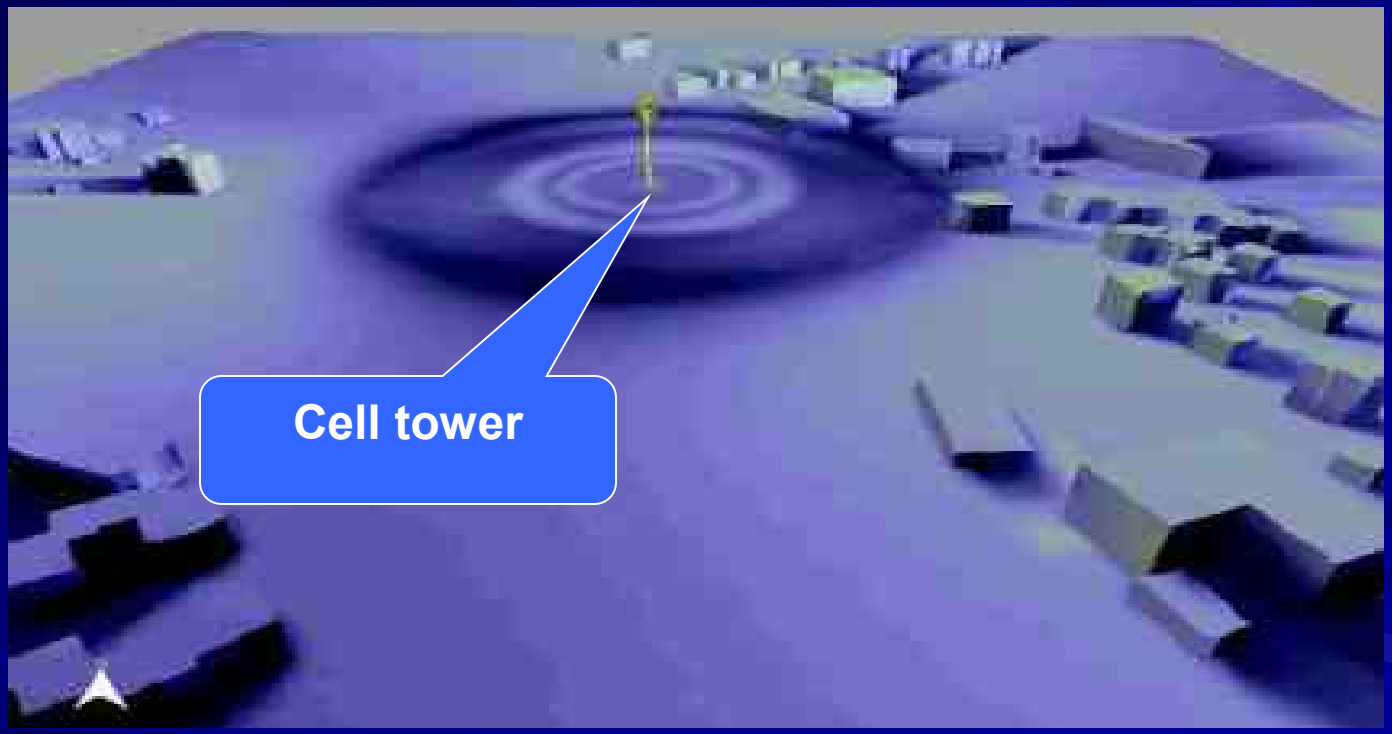
Radiation characteristic



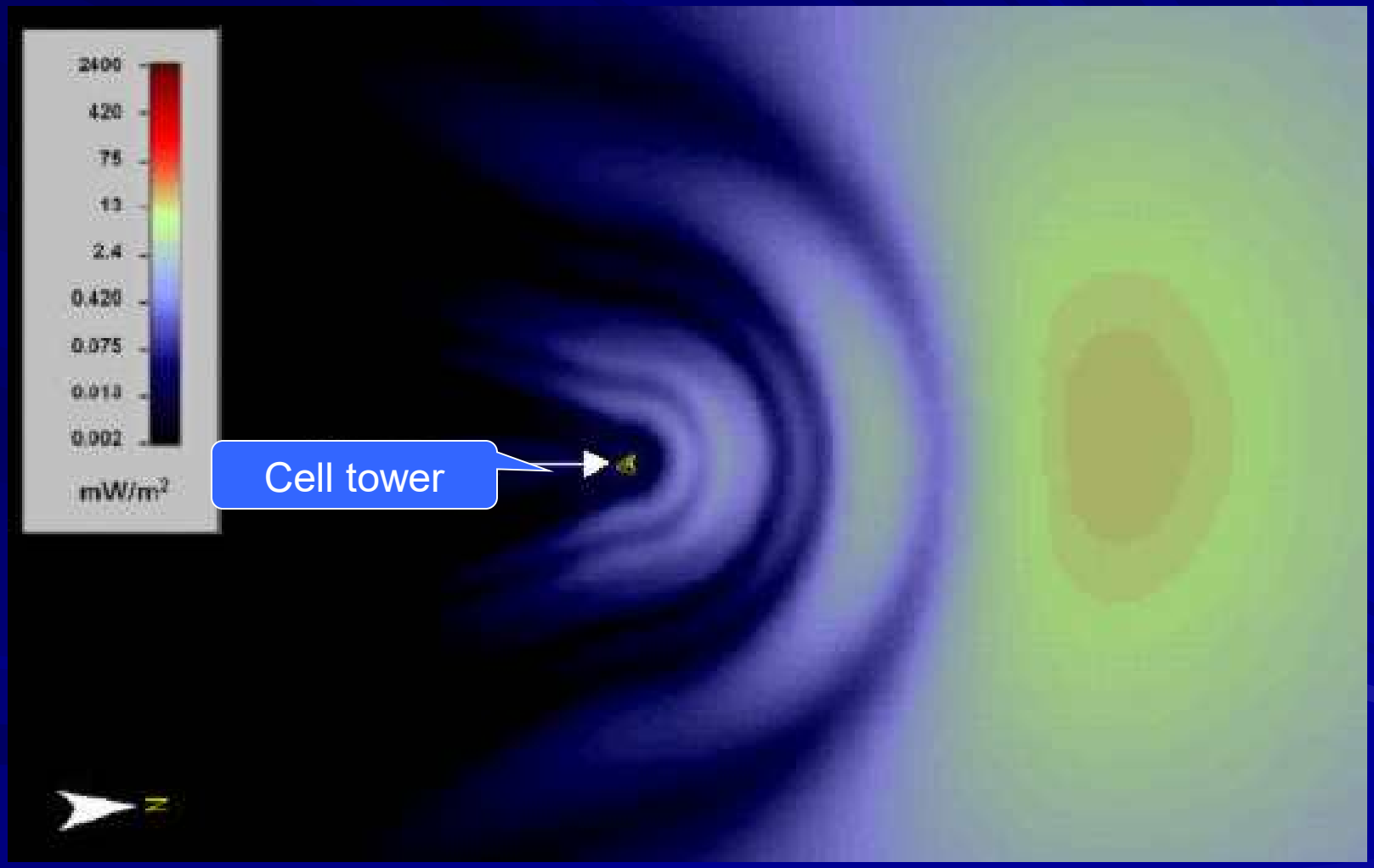
Radiation characteristic



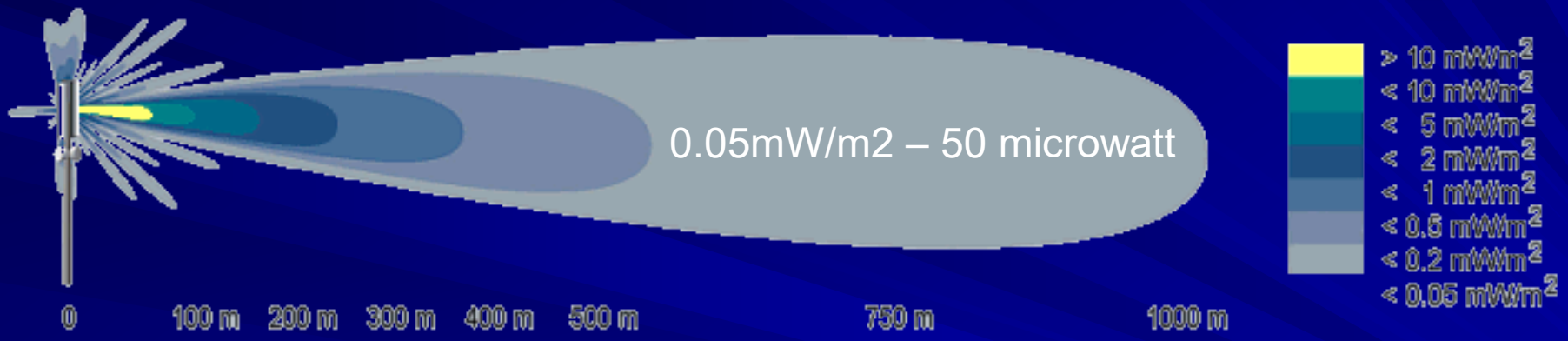
Radiation characteristic



Radiation characteristic

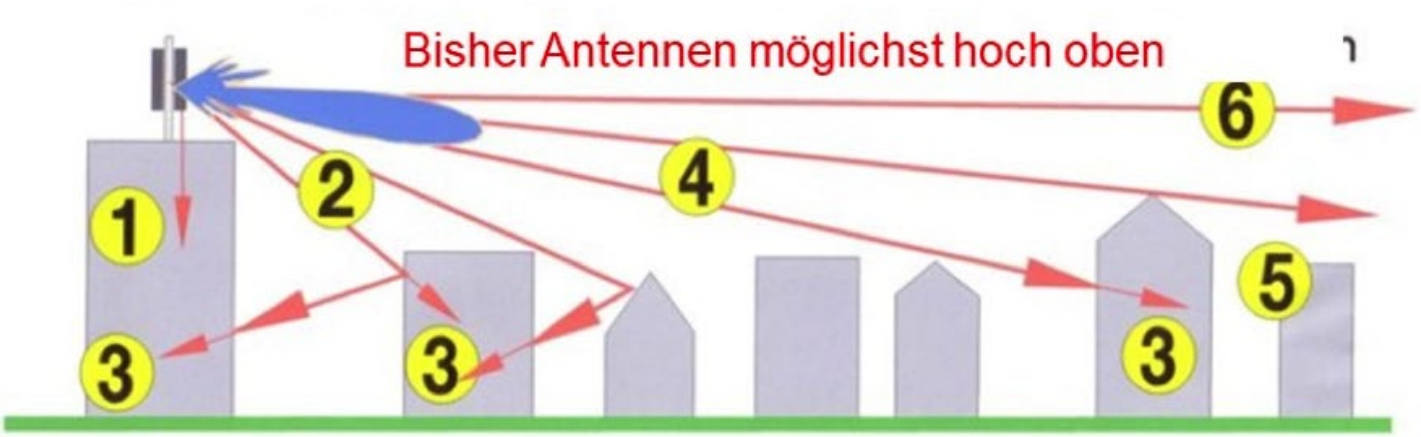


Das nachfolgende Bild dient zur Veranschaulichung des entfernungsabhängigen Verlaufs der Leistungsflussdichte sowie der vertikalen Richtwirkung der Antenne (inklusive beispielhafter, realitätsnaher "Nebenkeulen", siehe dazu die nächste Seite):



Schematischer Verlauf der Leistungsflußdichte der oben aufgeführten Antenne in Abhängigkeit von der Entfernung

Der Bereich oberhalb des Vorsorgewertes des Ecolog-Institutes von 10 mW/m² ist gelb hervorgehoben



Grundsätzlich verschiedene Ausbreitungsarten

Oben:
2G = GSM
3G = UMTS
4G = LTE

Rechts>>:
5G

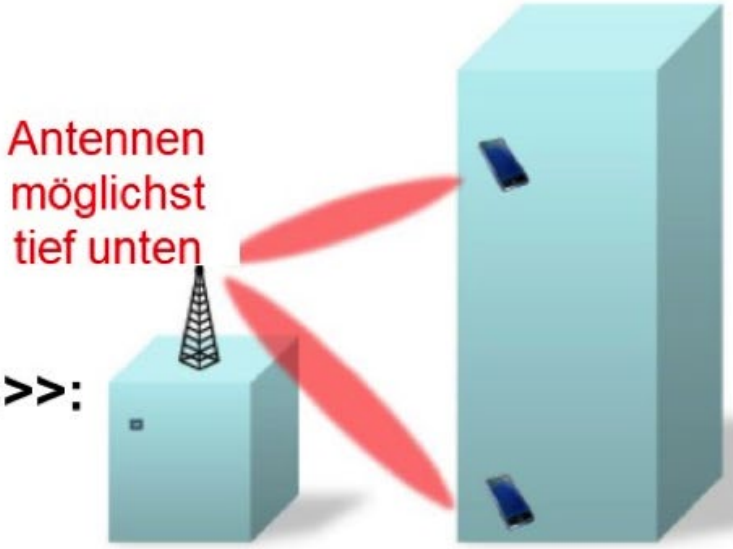
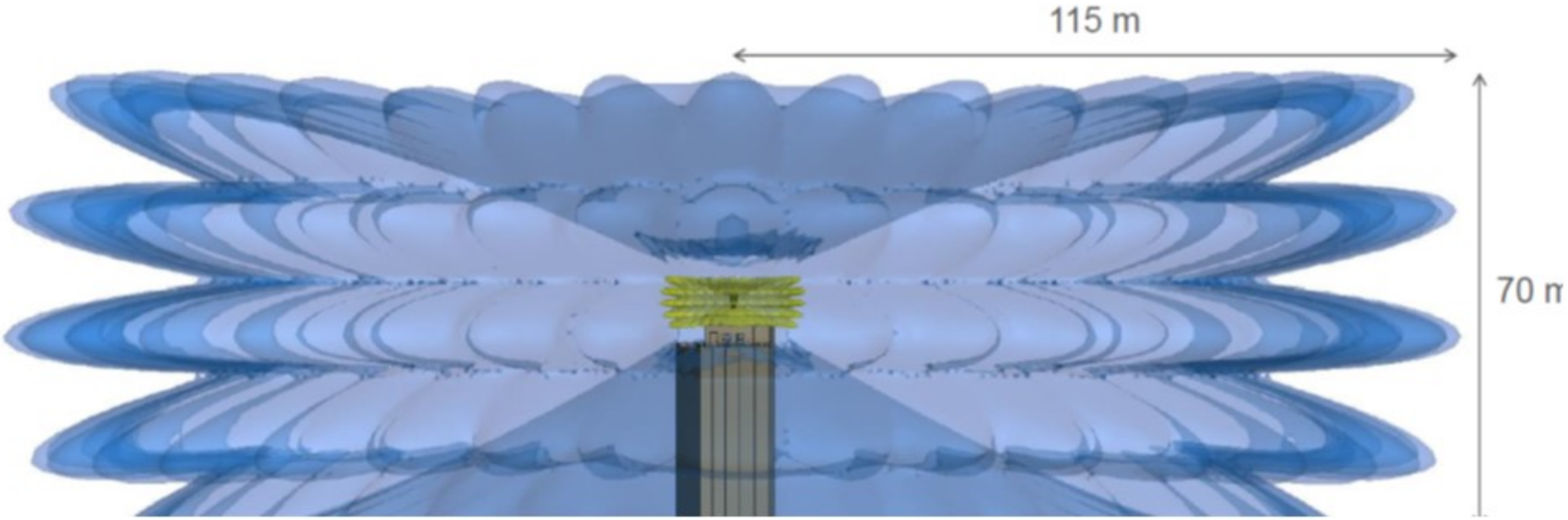


Bild 5G: Ericsson

28 GHZ Rundstrahler mit 250 Keulen



Blaue Zone abnehmend von 60 auf 6V/m

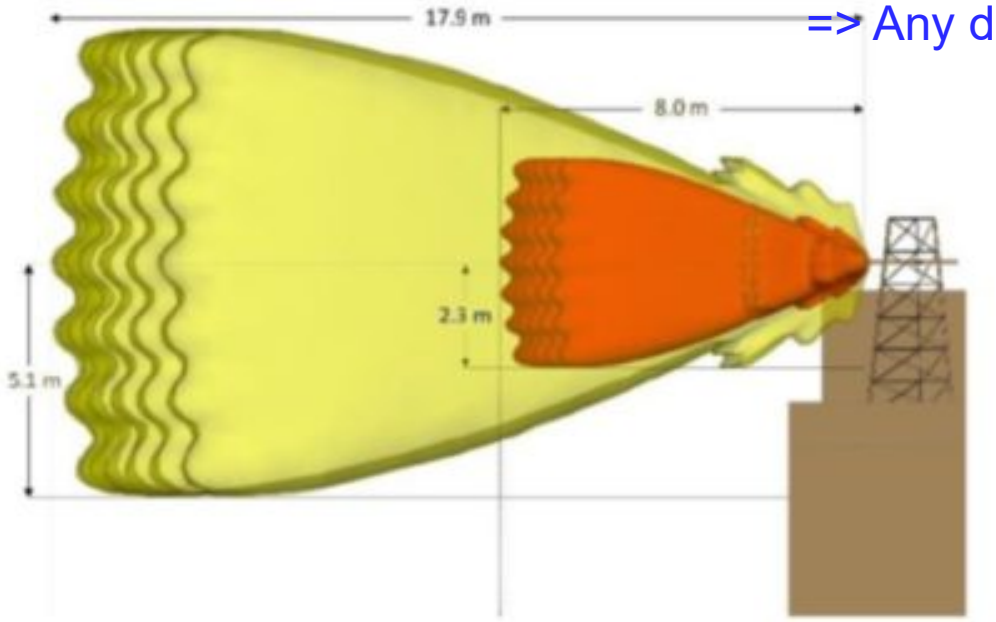
6V/m auf einem Radius von 115m
Höhe des Feldes = 70m

Grafik: Ericsson

Antennen AIR 6488.343xxx von ERICSSON

Basic 5G 8 x 8 lobes = 64

=> Any direction possible



Rote Zone: 50W/m2 = 140V/m

Gelbe Zone: 10W/m2 = 61V/m

Entspricht einer Sendeleistung von 25’000Watt ERP

In this case we have a partial penetration

In this case we have a - partial reflection

more information is in the brochure about shielding properties of building materials

This is a partial absorption

In order to determine proper remediation actions it is essential to know the frequencies ,field strength ,polarization ,internal versus external

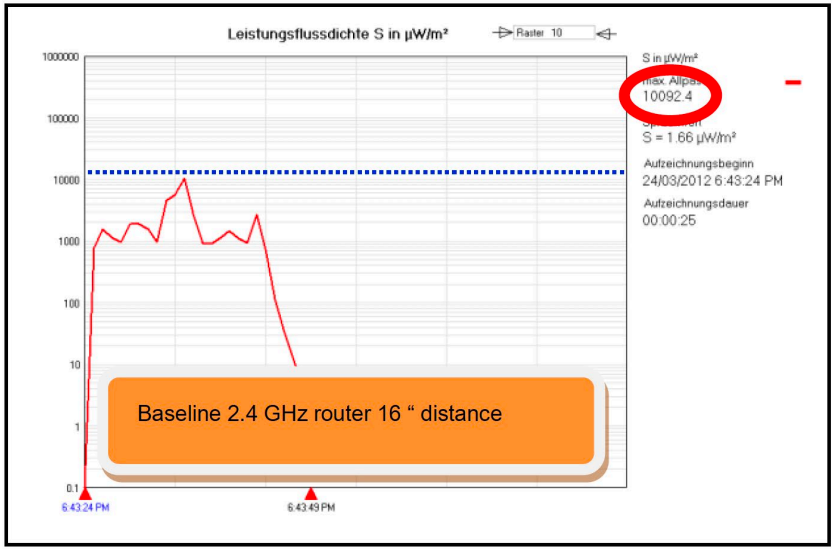
- For correct shielding actions we need to know what the **maximum field level** in a certain area or room is (see HF 4)
- We need to know the direction were the radiation enters a building
- It is of interest what kind of signal we are dealing with (audio analysis)
- **The use of different antennas for different frequencies**
- **Sensitivity is important which enables the user to detect very low but dangerous levels of radiation according to BB standards**

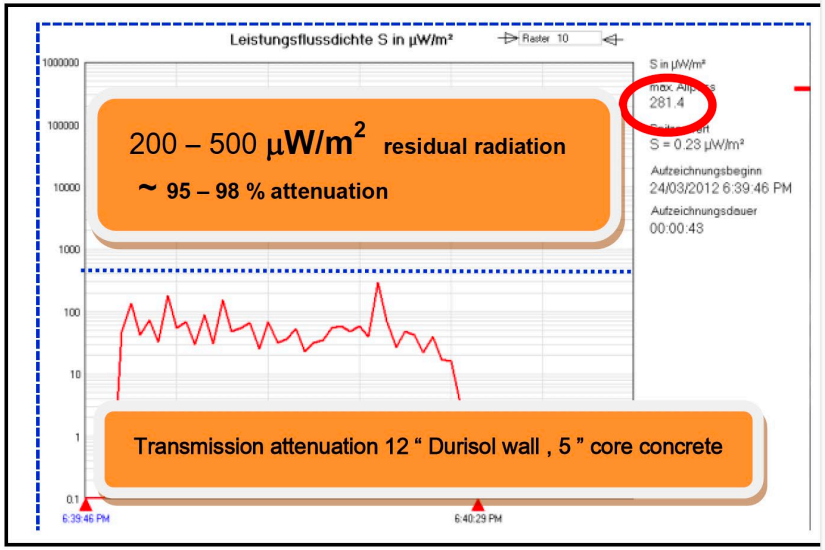
Building Material Attenuation - Experiment

Building Material Attenuation

Building Material Attenuation

Attenuation based on initial exposure

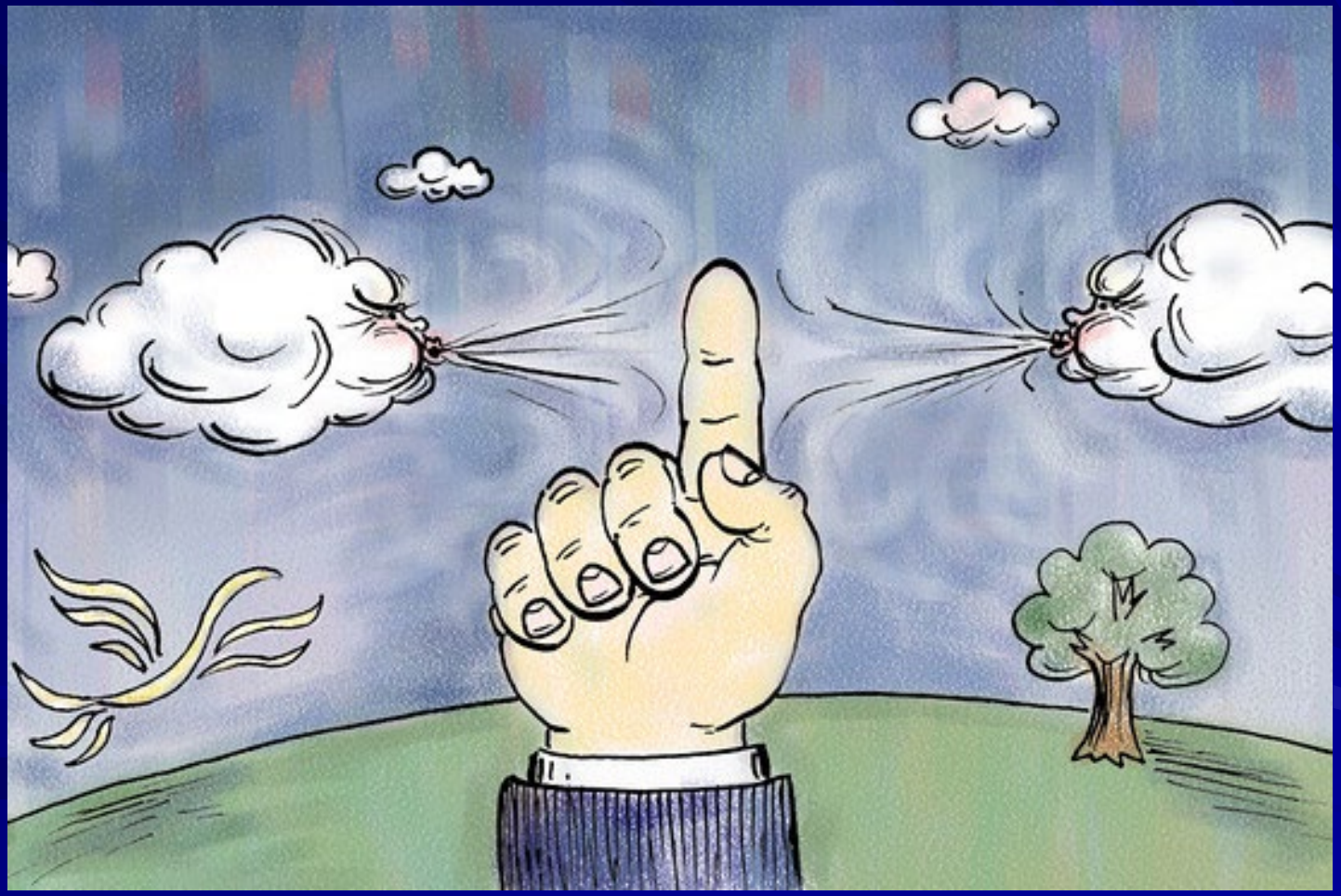




Building Material Attenuation

Room	Method	Source	Value	Antenna
Results are for < 2.4 GHz if not otherwise specified for individual areas. All measurements can vary in Field strength by +3dB or – 3dB				
Description	**Method**	**Radiation source**	**Field Strength**	**Attenuation in %**
Baseline	Broad Band	D Link router	9770 $\mu W/m^2$	
Hemp wall	Broad Band	D Link router	6180 $\mu W/m^2$ residual	~ 53 %
Baseline	Broad Band	D Link router	10092 $\mu W/m^2$	
Durisol 12 “	Broad Band	D Link router	200 – 500 $\mu W/m^2$ residual	~ 95 – 98 %
Baseline	Broad Band	D Link router	8430 $\mu W/m^2$	
Durisol 10 “	Broad Band	D Link router	1310 – 1430 $\mu W/m^2$ residual	~ 83 – 85 %

How to measure ?




• Expertise
• Experience
• Correct knowledge
• Laws of physics
• True versus pseudo science
• Proper high quality instrumentation

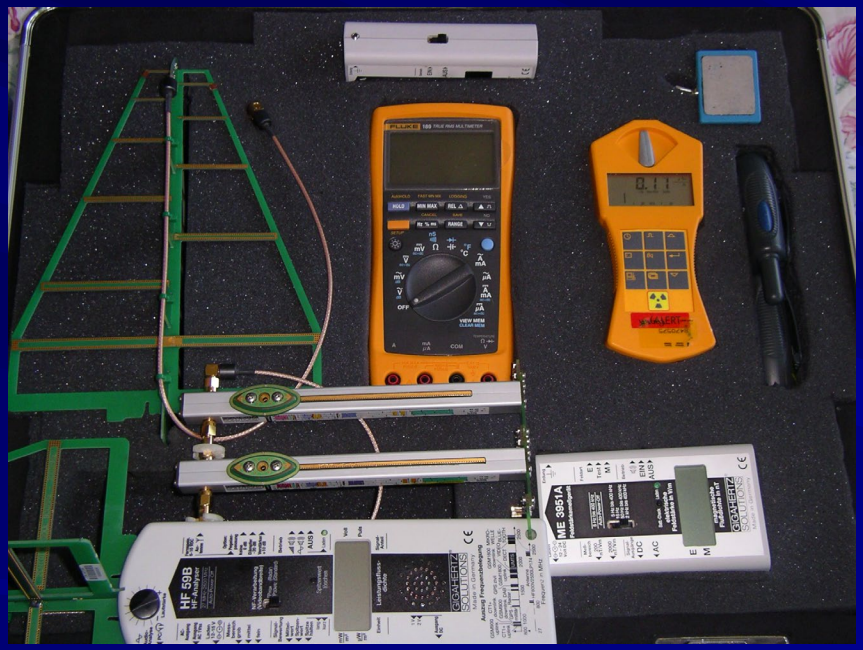
Officially high frequency signals must be measured in so called " open field " conditions without obstruction

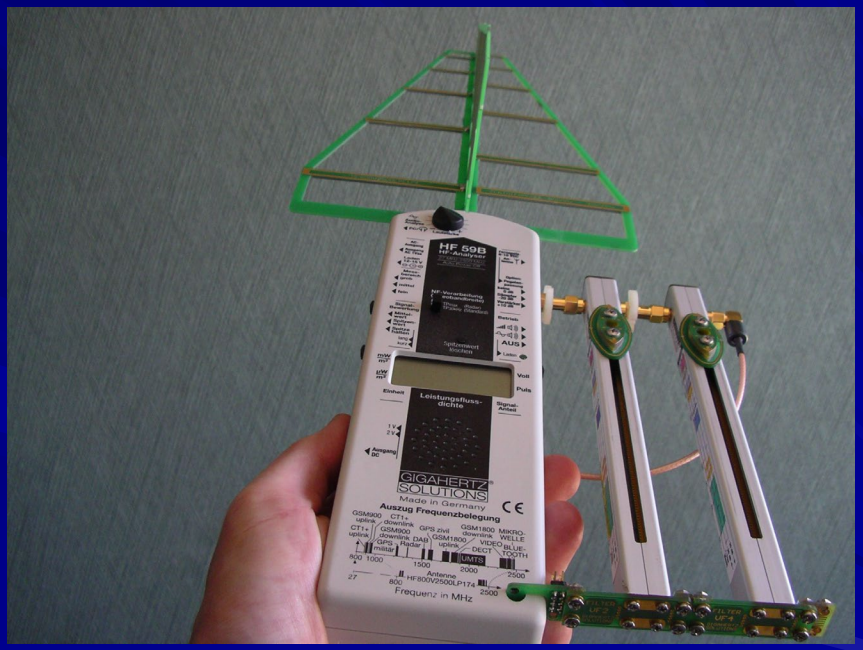
In Building Biology however we are interested in the protection of human health and therefore we have to measure inside building – mostly in sleeping and rest areas

The sum of signals respectively the strongest

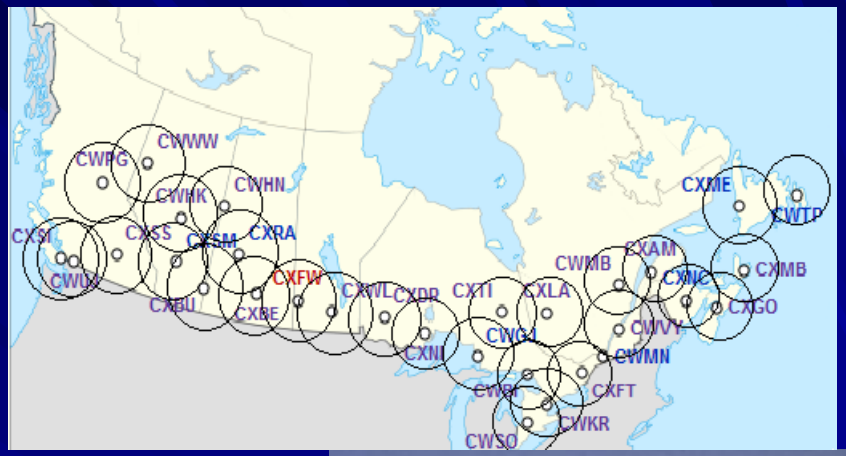
signal must be obtained

RF Instruments





Measurement examples

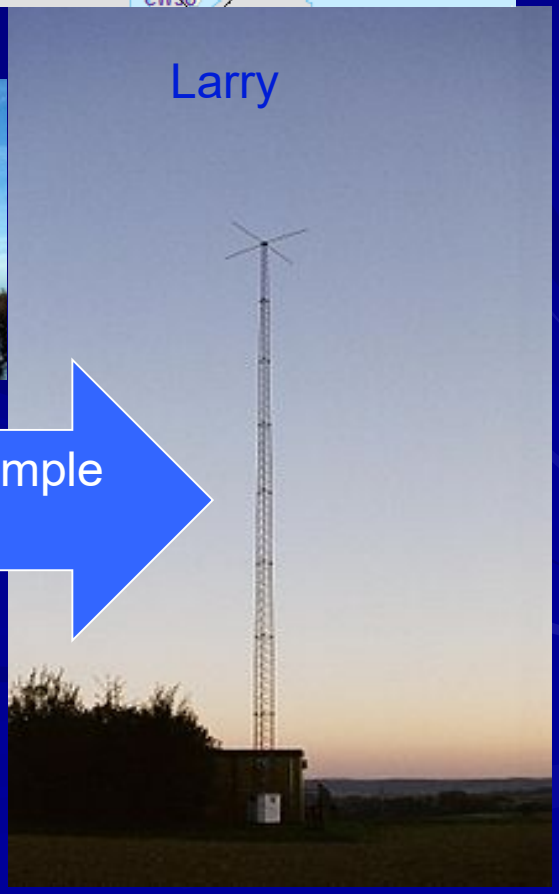


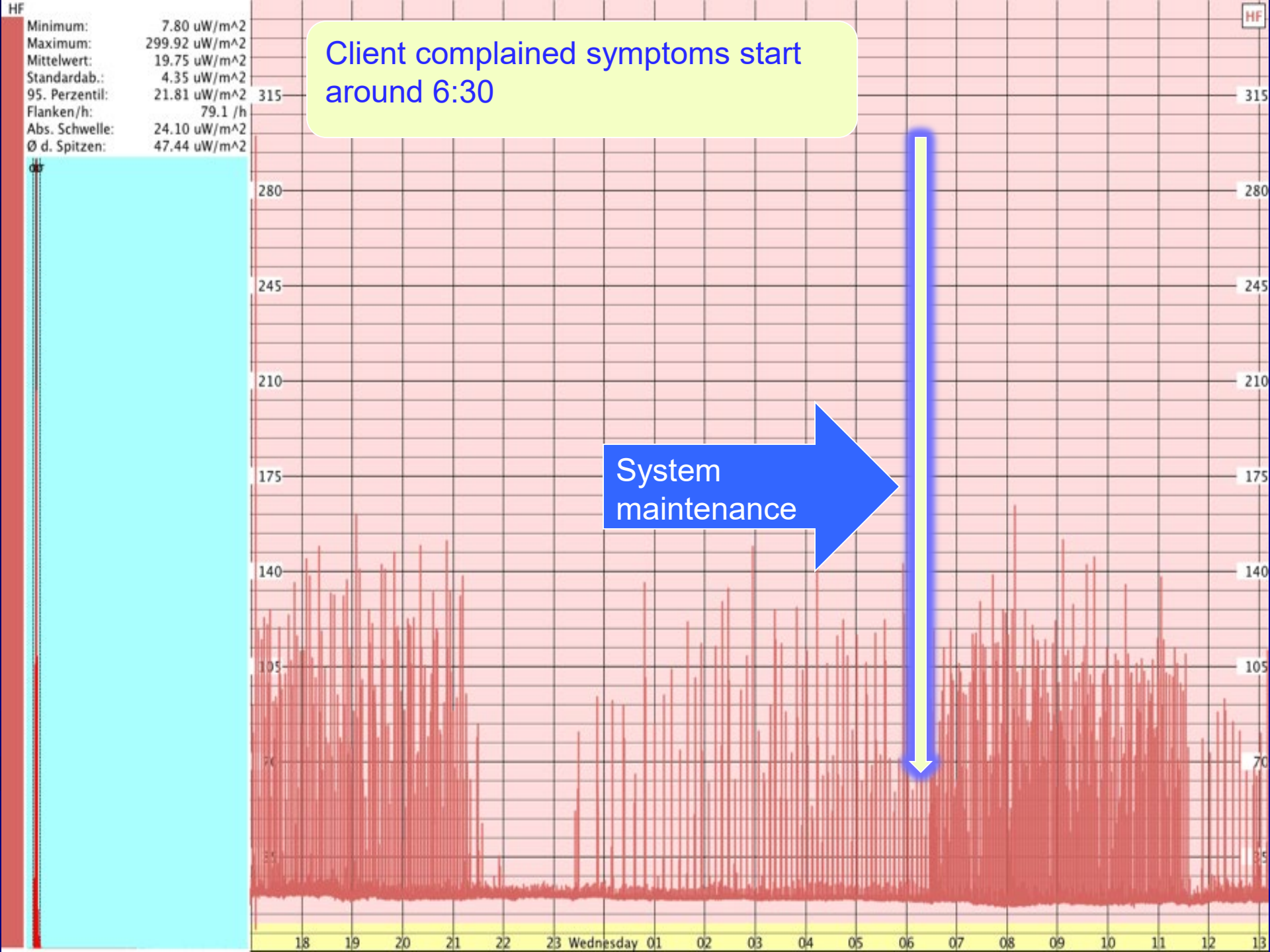
Weather Radar King City

Larry

Approach Beacons example
50 miles 100 miles

Aviation Radar
Radar




HF
Minimum: 7.80 uW/m^2
Maximum: 299.92 uW/m^2
Mittelwert: 19.75 uW/m^2
Standardab.: 4.35 uW/m^2
95. Perzentil: 21.81 uW/m^2
Flanken/h: 79.1 /h
Abs. Schwelle: 24.10 uW/m^2
Ø d. Spitzen: 47.44 uW/m^2
Client complained symptoms start around 6:30
System maintenance
315
280
245
210
175
140
105
70
35
18 19 20 21 22 23 Wednesday 01 02 03 04 05 06 07 08 09 10 11 12 13

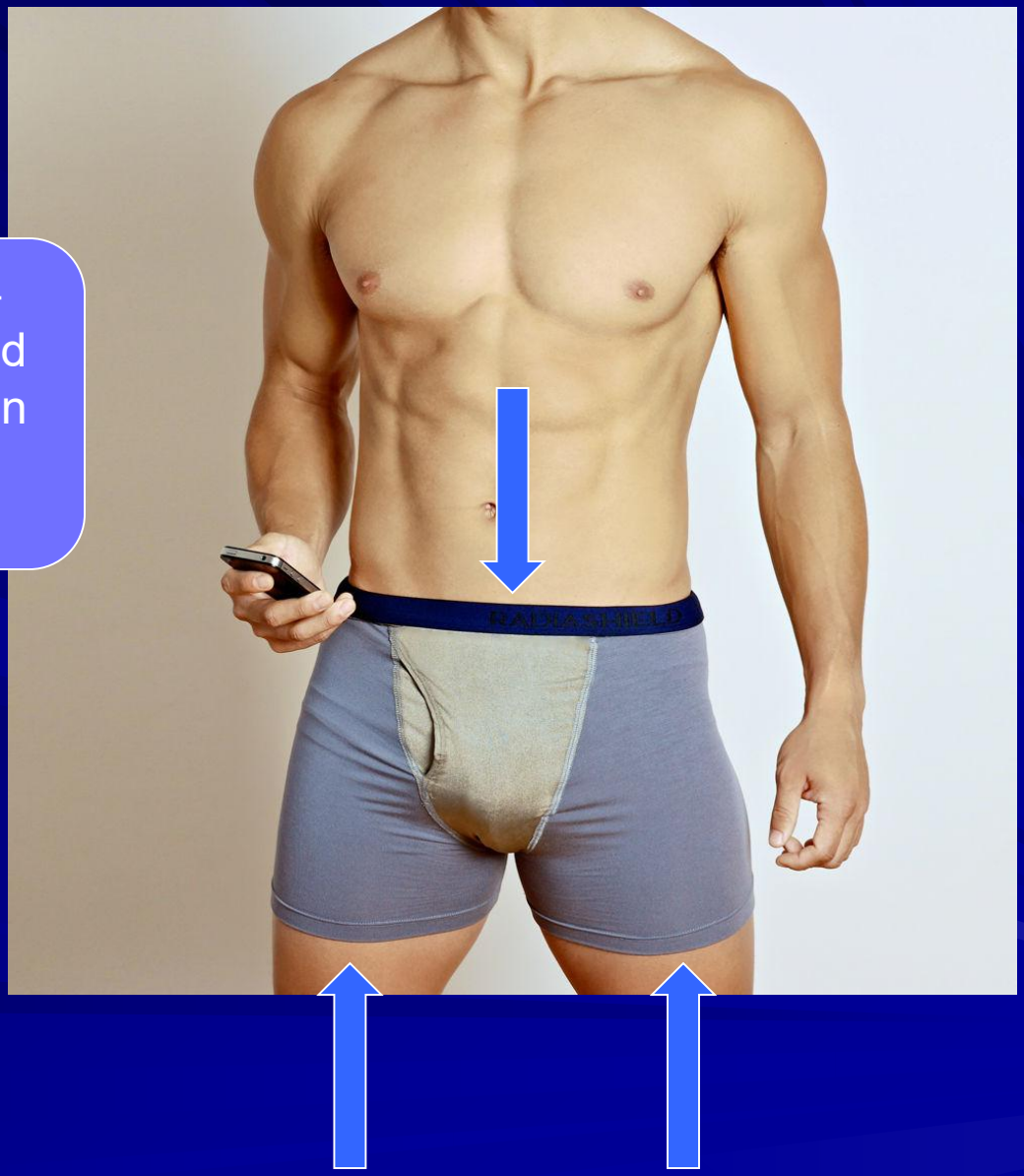
Shielding from Technical Exposure

Possibilities Limitations Hazards
Holistic Approach

Shielding clothing → capacitance and electric potential

Long term
effects unknown

Radiation **can** increase 10 – 100 times versus background depending on source location and body position



Shielding hats - Caution

Radiation can increase 10 – 100 times versus background depending on **source location and body position**

Beware of the material

Shielding paint can be used effectively but….

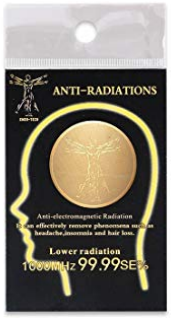
- Caution
- Requires precise knowledge about exposure
- Reflection and amplification of fields
- I used it in my office to block the neighbors WIFI

Shielding Canopy – good protection at night

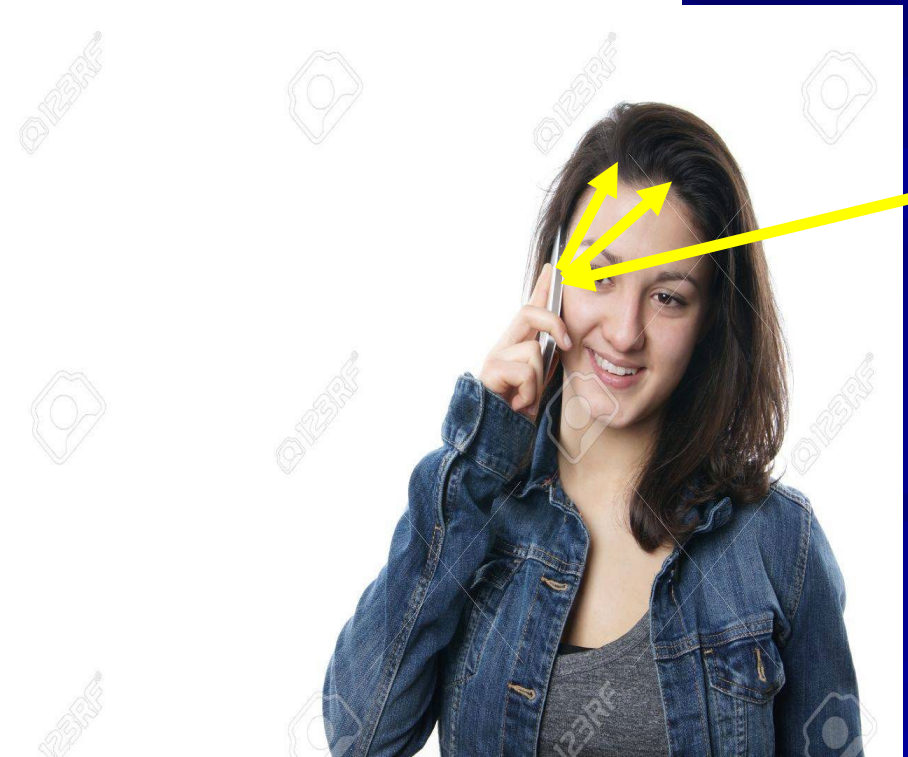
Smart meter shielding covers – limited effect – go analog

- Legal issues
- Amplification inside the house due to reflection and leakage
- Neighboring meter is often the problem

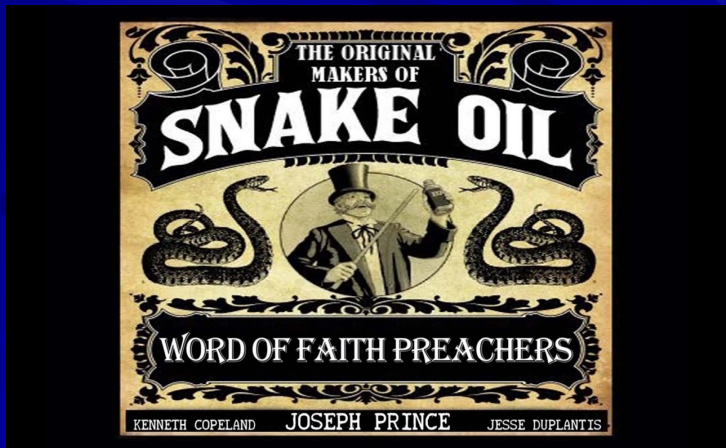
Stickers



If these gismos would work apple and other companies would buy the technology and market it but instead……



Beware of



is located near the back top edge of the iPhone. iPhone is designed and manufactured to comply with the limits for exposure to RF energy set by the Federal Communications Commission (FCC) of the United States, Industry Canada (IC) of Canada, and regulating entities of Japan, the European Union, and other countries. The exposure standard employs a unit of measurement known as the specific absorption rate, or SAR. The SAR limit applicable to iPhone set by the FCC is 1.6 watts per kilogram (W/kg), 1.6 W/kg by Industry Canada, and 2.0 W/kg by the Council of the Euro Union. Tests for SAR are conducted using standard operating positio t the ear and worn on the body) specified by these agencies, with if smitting at its highest certified power level in all tested freque though SAR is ncy band, t the n based i to a if e n tested f ioned for each frequency band is outlined below:

Apple (here) and other companies warn you

Frequency Band	Body	Ear	FC C 1g SAR Limit (W/kg)
GSM 850	1.030	0.521	1.6
GSM 1900	0.522	1.290	1.6
UMTS II 1900	0.402	1.388	1.6
UMTS V 850	0.733	0.516	1.6
Wi-Fi	0.088	0.779	1.6

Frequency Band	Body	Ear	EU 10g SARLimit (W/kg)
GSM 900	0.559	0.235	2.0
GSM 1800	0.369	0.780	2.0

[2] The device was tested by Compliance Certification Services, Fremont, CA according to measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C (Edition 01-01) and IEEE P1528.1, April 21 2003 and Canada RSS 102. iPhone adheres to the European Council Recommendation of 12 July 1999 on the Limitation of Exposure of the General Public to Electromagnetic Fields [1999/519/EC].

Frequency Band	Body	Ear	EU 10g SARLimit (W/kg)
UMTS I 2100	0.231	0.878	2.0
Wi-Fi	0.051	0.371	2.0

iPhone's SAR measurement may exceed the FCC exposure guidelines for body-worn operation if positioned less than 15 mm (5/8 inch) from the body (e.g. when carrying iPhone in your pocket). For optimal mobile device performance and to be sure that human exposure to RF energy does not exceed the FCC, IC, and European Union guidelines, always follow these instructions and precautions: When on a call using the built-in audio receiver in iPhone, hold iPhone with the dock connector pointed down toward your shoulder to increase separation from the antenna. When using iPhone near your body for voice calls or for wireless data transmission over a cellular network, keep iPhone at least 15 mm (5/8 inch) away from the body, and only use carrying cases, belt clips, or holders that do not have metal parts and that maintain at least 15 mm (5/8 inch) separation between iPhone and the body.

If you are still concerned about exposure to RF energy, you can further limit your exposure by limiting the amount of time using iPhone, since time is a factor in how much exposure a person receives, and by placing more distance between your body and iPhone, since exposure level drops off dramatically with distance.

Additional Information For more information from the FCC about exposure to RF energy, see: www.fcc.gov/oet/rfsafety

The FCC and the U.S. Food and Drug Administration (FDA) also maintain a consumer website at www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/default.htm to address inquiries about the safety of mobile phones. Please check the website periodically for updates.

For information about the scientific research related to RF energy exposure, see the EMF Research Database maintained by the World Health Organization at: www.who.int/emf

Radio Frequency Interference Radio-frequency emissions from electronic equipment can negatively affect the operation of other electronic equipment causing them to malfunction. Although iPhone is designed, tested, and manufactured to comply with regulations governing radio frequency emission in countries such as the United States, Canada, the European Union, and Japan, the wireless transmitters and electrical circuits in iPhone may cause interference in other electronic equipment. Therefore, please take the following precautions:

Aircraft Use of iPhone may be prohibited while traveling in aircraft. For more information about using Airplane Mode to turn off the iPhone wireless transmitters, see the *iPhone User Guide*.

Vehicles Radio frequency emissions from iPhone may affect electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle.

Last week, a couple of blogs noted that a recent commercial liability insurance renewal policy issued through a Lloyd's of London underwriter contained a liability exclusion clause about electromagnetic fields.

The clause excludes any compensation for claims:

"directly or indirectly arising out of, resulting from or contributed to by electromagnetic fields, electro-magnetic radiation, electromagnetism, radio waves or noise."

It is important that "radio waves" are explicitly included as they, specifically the microwave zone, are what enable wireless communications devices like cell phones, wi-fi, cordless phones etc.

After the policy holder made an inquiry seeking clarification about the exclusion language, CFC Underwriting LTD in London, the UK agent for Lloyd's, sent the following:

"The Electromagnetic Fields Exclusion (Exclusion 32) is a General Insurance Exclusion and is applied across the market as standard. The purpose of the exclusion is to exclude cover for illnesses caused by continuous long-term non-ionising radiation exposure i.e. through mobile phone usage."

Grounding pads and mats

Body current flow enabled

Everybody grounding themselves should be familiar with the concept of capacitive body coupling and electric potential

1. Grounding forces the body to earth potential
2. This **will** attract every electric field surrounding the body
3. The human body becomes a “magnet” for those fields
4. “backdraft” of dirty electricity from the outlet
5. Multi grounded system North America potential “backdraft” from Earth
6. Induces current flow on the body

Conclusion

Quodcumque facitis intuentes finem

Whatever you do think about the consequence

Unknow Roman Philosopher

Main Focus

- Develop effective small side effect shielding
- Correct diagnosis of patients
- Correct diagnosis of exposure
- Build a safe diagnostic center