COMISIÓN NACIONAL
DE COMUNICACIONES

NON-IONIZING RADIATION
THE SITUATION IN ARGENTINA

Ceferino Namuncurá
Speaker

COMISIÓN NACIONAL
DE COMUNICACIONES

REGULATORY BACKGROUND

Regulatory Background

Following 15 years of studies and research, the State Secretariats of Health, and Science and Technology, working with the State Secretariat of Communications and a number of scientific organizations, prepared the document

"Prospección radiación electromagnética ambiental no ionizante"

Regulatory Background

Volume I :

“Manual de estándares de seguridad para la exposición a radiofrecuencias y microondas comprendidas comprendidas entre 100 kHz y 300 GHz”

Volume II:

“Radiación de radiofrecuencias: consideraciones biofísicas y criterios para el establecimiento de estándares de exposición”

Regulatory Background

These standards are slightly stricter than the ANSI/IEEE standards for mobile telephony bands in areas where the general public are exposed to them

	ANSI/IEEE	Res. 202/95
850 MHz	0.57 mW/cm^2	0.45 mW/cm^2
1900 MHz	1.26 mW/cm^2	0.95 mW/cm^2

Regulatory Background

In 2000, the State Secretariat of Communications ruled that the standards contained in the manual are binding for all telecommunications systems

(Res. SC 530/2000)

Regulatory Background

In 2004, taking into account the experience amassed by international organizations such as the International Commission on Non-Ionizing Radiation Protection (ICNIRP), the ITU (Rec. ITU-T K.61), the International Electronic Committee, standard IEEE 95.3/2002, the National Communications Committee enhanced the procedures

(Res. CNC 3690/2004)

Regulatory Background

These procedures were reviewed as part of a policy that covers all aspects of radio spectrum management and control and related issues

Regulatory Background

In other words:

Standardization is necessary...

But effective compliance with regulations has to be enforced in the field, by measuring and checking

COMISIÓN NACIONAL
DE COMUNICACIONES

NATIONAL SYSTEM FOR THE TECHNICAL VERIFICATION OF EMISSIONS (SNTCE)

General Description of SNCTE

To carry out its duties, the CNC has a System for the Technical Verification of Emissions that monitors the radio spectrum nationwide. Its main program consists of detection and measurement systems, radiomonitoring using mobile and portable elements, technical inspections and controls, as well as satellite radiomonitoring.

Distribution of media

CNC
COMISIÓN NACIONAL
DE COMUNICACIONES

Tasks

- Scheduled tasks: Regular activities included in programs and schedules to meet country needs and achieve efficient radio spectrum management

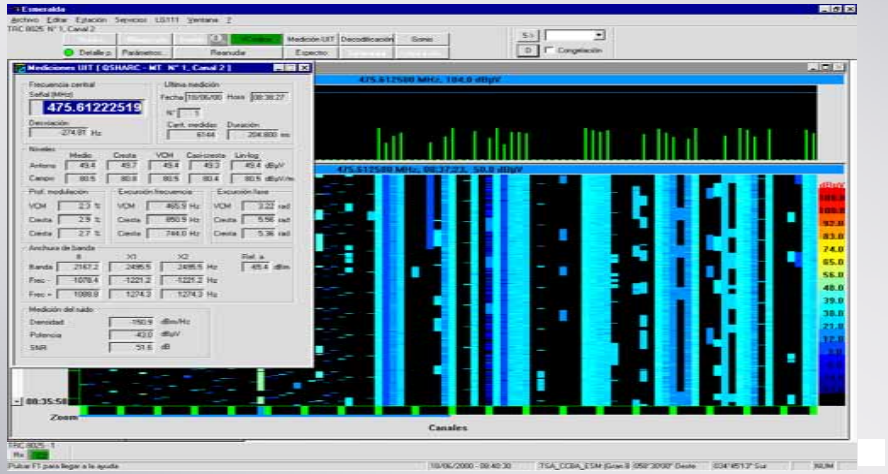
- Non-scheduled tasks: activities that were not foreseen, following complaints from users, other agencies or other areas of the CNC

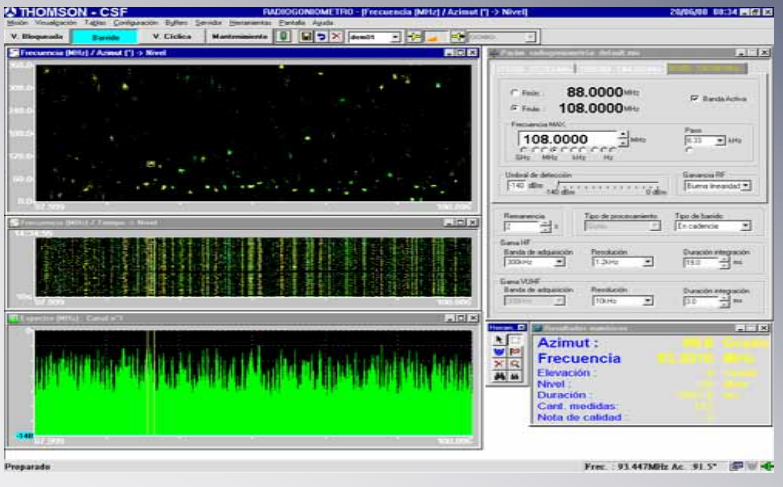
Tasks

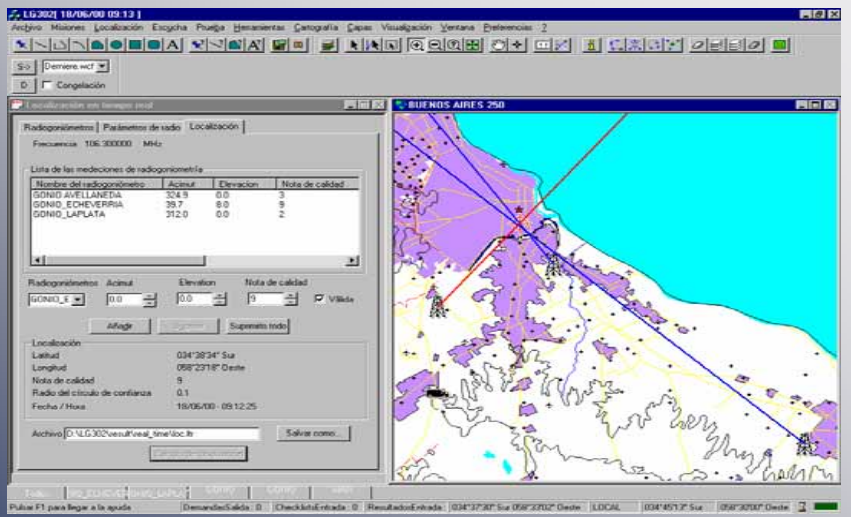
- Complementary tasks: specific technical verifications required by CNC areas to determine spectrum occupation, perform NIR measurements, etc.

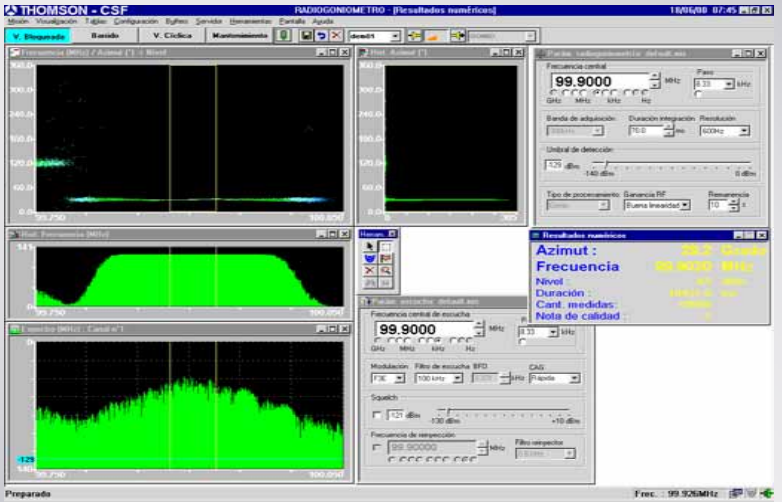
Control Centers – Remote Stations – Mobile Units

LG309 - LG111 - LG302 Software









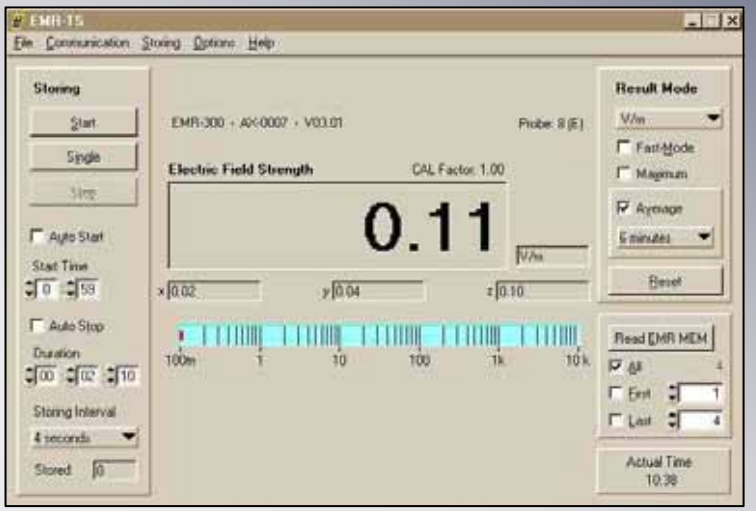
CNC
COMISIÓN NACIONAL DE COMUNICACIONES

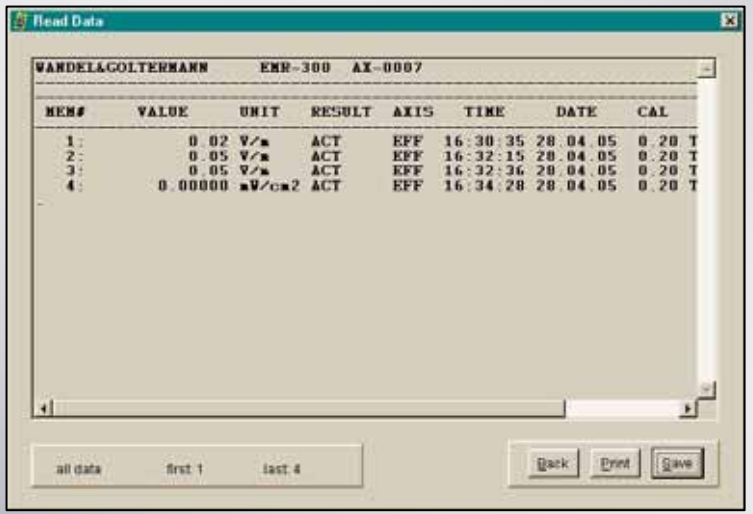
Equipment

- Icom (receivers)
- Anritsu (spectrum analyzers)
- R&S (antennae – spectrum analyzers - MIC)
- Narda (radiation detectors)
- Citefa (antennae)
- Thales (digital receivers - antennae - digital switches - multicouplers)
- Tascam (digital recorders)
- Others...

Radiation Detectors (EMR-300)

Related Software





CNC
COMISIÓN NACIONAL DE COMUNICACIONES

Analyses of results / Trials conducted

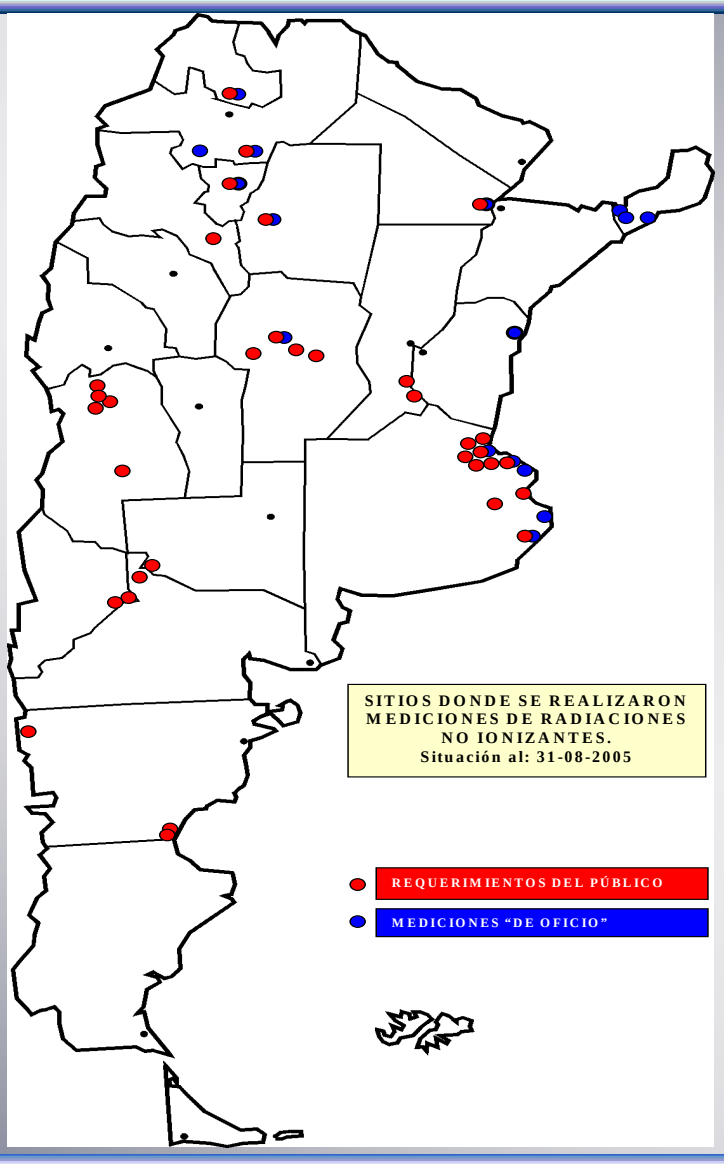
MEM	VALUE	UNIT	RESULT	AXIS	TIME	DATE	CAL	PROBE
1	0,01490	mW/cm2	MAX-ACT	EFF	11.07.31	26/9/05	7,08	TYPE;11; D-0022
2	0,01164	mW/cm2	MAX-ACT	EFF	11.11.26	26/9/05	7,08	TYPE;11; D-0022
3	0,02144	mW/cm2	MAX-ACT	EFF	11.14.58	26/9/05	7,08	TYPE;11; D-0022
4	0,03655	mW/cm2	MAX-ACT	EFF	11.18.19	26/9/05	7,08	TYPE;11; D-0022
5	0,02144	mW/cm2	MAX-ACT	EFF	11.22.07	26/9/05	7,08	TYPE;11; D-0022
6	0,01164	mW/cm2	MAX-ACT	EFF	11.26.54	26/9/05	7,08	TYPE;11; D-0022
7	0,01776	mW/cm2	MAX-ACT	EFF	11.29.48	26/9/05	7,08	TYPE;11; D-0022
8	0,05781	mW/cm2	MAX-ACT	EFF	11.33.38	26/9/05	7,08	TYPE;11; D-0022
9	0,01572	mW/cm2	MAX-ACT	EFF	11.37.14	26/9/05	7,08	TYPE;11; D-0022
10	0,01245	mW/cm2	MAX-ACT	EFF	11.42.17	26/9/05	7,08	TYPE;11; D-0022
11	0,02307	mW/cm2	MAX-ACT	EFF	11.46.45	26/9/05	7,08	TYPE;11; D-0022
12	0,01899	mW/cm2	MAX-ACT	EFF	11.53.17	26/9/05	7,08	TYPE;11; D-0022
13	0,01899	mW/cm2	MAX-ACT	EFF	11.56.18	26/9/05	7,08	TYPE;11; D-0022
14	0,01327	mW/cm2	MAX-ACT	EFF	12.00.34	26/9/05	7,08	TYPE;11; D-0022
15	0,03451	mW/cm2	MAX-ACT	EFF	12.04.36	26/9/05	7,08	TYPE;11; D-0022
16	0,02266	mW/cm2	MAX-ACT	EFF	12.07.43	26/9/05	7,08	TYPE;11; D-0022
17	0,01204	mW/cm2	MAX-ACT	EFF	12.11.50	26/9/05	7,08	TYPE;11; D-0022

Ningún valor supera el 50% del MEP.

MEM	VALUE	UNIT	RESULT	AXIS	TIME	DATE	CAL	PROBE
1	0,00237	mW/cm2	MAX-ACT	EFF	15.17.21	15/9/05	2,51	TYPE 8 AY-0066
2	0,00288	mW/cm2	MAX-ACT	EFF	15.19.33	15/9/05	2,51	TYPE 8 AY-0066
3	0,00392	mW/cm2	MAX-ACT	EFF	15.23.59	15/9/05	2,51	TYPE 8 AY-0066
4	0,00248	mW/cm2	MAX-ACT	EFF	15.26.30	15/9/05	2,51	TYPE 8 AY-0066
5	0,00392	mW/cm2	MAX-ACT	EFF	15.27.43	15/9/05	2,51	TYPE 8 AY-0066
6	0,00237	mW/cm2	MAX-ACT	EFF	15.30.02	15/9/05	2,51	TYPE 8 AY-0066
7	0,00326	mW/cm2	MAX-ACT	EFF	15.31.15	15/9/05	2,51	TYPE 8 AY-0066
8	0,00182	mW/cm2	MAX-ACT	EFF	15.33.10	15/9/05	2,51	TYPE 8 AY-0066
9	0,00242	mW/cm2	MAX-ACT	EFF	15.36.22	15/9/05	2,51	TYPE 8 AY-0066
10	0,00389	mW/cm2	MAX-ACT	EFF	15.38.51	15/9/05	2,51	TYPE 8 AY-0066
11	0,00228	mW/cm2	MAX-ACT	EFF	15.40.59	15/9/05	2,51	TYPE 8 AY-0066
12	0,00535	mW/cm2	MAX-ACT	EFF	15.42.15	15/9/05	2,51	TYPE 8 AY-0066
13	0,00208	mW/cm2	MAX-ACT	EFF	15.44.43	15/9/05	2,51	TYPE 8 AY-0066
14	0,00435	mW/cm2	MAX-ACT	EFF	15.46.58	15/9/05	2,51	TYPE 8 AY-0066
15	0,00194	mW/cm2	MAX-ACT	EFF	15.49.30	15/9/05	2,51	TYPE 8 AY-0066
16	0,00397	mW/cm2	MAX-ACT	EFF	15.51.16	15/9/05	2,51	TYPE 8 AY-0066
17	0,00297	mW/cm2	MAX-ACT	EFF	15.52.45	15/9/05	2,51	TYPE 8 AY-0066

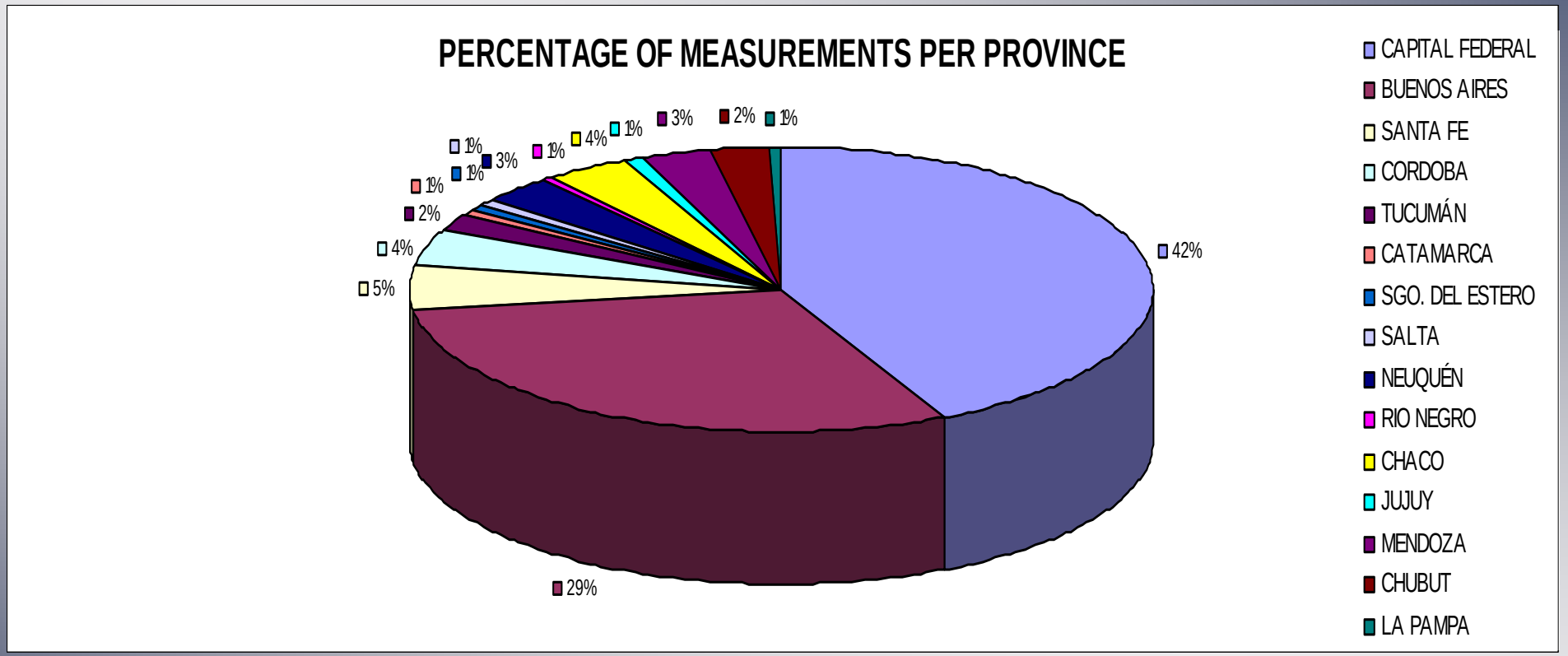
CNC
COMISIÓN NACIONAL DE COMUNICACIONES

Analyses of results / Trials conducted



CNC
COMISIÓN NACIONAL DE COMUNICACIONES

Analyses of results / Trials conducted



Sites under study / Conclusions