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VIII. COMMUNICATIONS CONTROL

CRC implements activities of control on the observation of the Telecommunications Act and the Postal Services Act, as well as on the development of a National system of monitoring of the radio frequency spectrum for civil needs. The administration of the Commission, besides the offices in Sofia, includes five regional stations in Bourgas, Varna, Veliko Turnovo, Vratsa and Plovdiv.

The control over the communications is exercised in three directions: stationary and mobile monitoring, control of the radio frequency spectrum and inspection.

1. Control and monitoring of radio frequency spectrum (RFS)

The control and monitoring activities of RFS in 2004 were directed mainly towards the performance of the following important tasks:

- Measuring and assessment of the trans-border interferences within the ranges of terrestrial VHF FM and TV broadcasting - in 47 urban settlements of the country;
- Control of the occupation of the RFS on the territory of the country with regard to the frequency planning for licensing of telecommunications operators of terrestrial VHF FM and TV broadcasting – in 47 settlements;
- Control of loading of the RFS on the territory of the country in connection with the planning of frequencies for licensing telecommunication operators of PMR networks – in 42 settlements;
- Control of loading of the RFS on the territory of the country in connection with the licensing of UMTS operators – in 42 settlements;
- Control of the quality of the connection and the zones of service of the licensed GSM operators in 60 settlements and along the republican road network as follows: Sofia-Svilengrad, Sofia – Kulata, Sofia – Bourgas and Varna – Bourgas – Rezovo;
- Examination and analysis of the electro-magnetic compatibility of the licensed telecommunication operators of terrestrial VHF FM radio-broadcasting with the radio-navigation complexes of the air traffic in the regions of Sofia, Blagoevgrad and Veliko Turnovo;
- Control for compliance of the constructed radio transmission stations with the approved working projects – Number of inspections performed - 67;
- Measurements and control as a result of complaints and signals made by individual users and administrations, with the purpose of finding out, localizing and identification of the sources of interference and of illegal users of the RFS – 89 inspections;
- 12-hour air control of the technical parameters of the VHF FM of the radio-transmitters in Sofia – 1130 inspections;
- 8-hour air control of the technical parameters of the VHF FM of the radio-transmitters in Varna – 480 inspections;
- 12-hour air control of RFS in Sofia.

2. Inspections of communications

In connection with the CRC functions, related to the control in the telecommunications in compliance with the Telecommunications Act and the provision of postal services in compliance with the Postal Services Act, the following activities were performed in 2004:

- The legislative requirements concerning the air broadcasting electronic media were applied in the termination of the work of 6 operators, which did not exercise their right pursuant to § 9a of the Transitional and Final Provisions of the Radio and Television Act (promulgated in SG, issue 99/2003)
- CRC adopted two resolutions to protect the air traffic from radio-interferences, by which it obliged the persons performing the telecommunication activity VHF FM radio broadcasting, to use obligatory filters or filter plexers between the output of the transmitter and the input of the antenna. 265 inspections were performed and 6 operators were sanctioned for not observing the resolutions of CRC. The operators demonstrated the necessary serious attitude. A confirmation of that is the small percent of those, which did not observe the resolutions.
- A total of 325 inspections were made of public telecommunication networks for the broadcasting of radio and TV signals, which, after the publication of General license No 201

from December 23, 2003 passed to eased register regime. The operators of these networks provide access to Internet as well but only in the big cities. By the end of the year "CABLETEL" AD and "EUROCOM CABLE" EAD obtained individual licenses for the provision of fixed voice service and thus started the so called service "triple play" – transmission of TV signals, access to Internet and voice. In 2004, 37 complaints were lodged by end users, concerning the quality of the provided services and their prices.

- A total of 224 inspections were made of public networks for radio broadcasting. The characteristic violations of the rules in this type of networks are changing the point of broadcasting and changing the allowed, by the license, outgoing capacity of the transmitter. The telecommunication operators use transmitters with higher rated power, which is a prerequisite for the increase of the maximum power at the output of the transmitters over the permitted value. The difficulties in measuring are connected with the access to the objects, where the transmitters were installed, especially if they are not attended, as well as the lack of installed directed diverters, allowing the measuring of the inter-modulation products at any time, without the necessary presence of operator's representatives, and without stopping the operation of the transmitters.

- A total of 50 inspections were made on the telecommunication networks for terrestrial TV broadcasting.

- A total of 492 inspections were made in connection with the observation of the provisions of the individual licenses of establishment, maintenance and operation of isolated mobile radio networks (PMR). The inspections were connected both with the execution of the license provisions and with the efficient use of the RFS by these operators. The results of these inspections were the started procedures of abolishing licenses and liberating of the so necessary frequency radio-channels. The violations in this type of networks are at present the transmissions with higher power and most often – the state of the radio equipment leading to interferences.

- A total of 25 inspections were made on telecommunication operators of networks from fixed satellite service. The violations of the individual licenses in this type of activity are connected with the changes in the operation frequencies of the terrestrial stations. The changes of the transponders of the satellite is made by the control centers of the global satellite operators, as at first, the parameters are being changed, then the Bulgarian operators are being informed, and finally, they submit an application for changing the frequency of the relevant terrestrial station.

- A total of 100 inspections were made of the set up telecommunication networks for data transmission. Administrative punitive measures were imposed on 18 persons for the violation of the Telecommunication Act and for setting up such networks without the legislative grounds for that. The issuance of General license No 217 dated December 23rd, 2003 and the introduction of a registration regime started the legalization of the LAN networks.

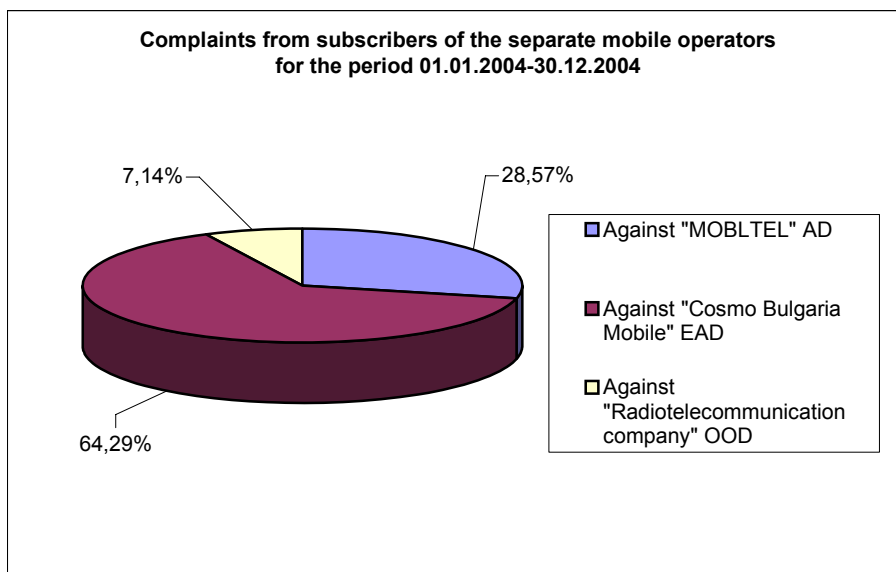
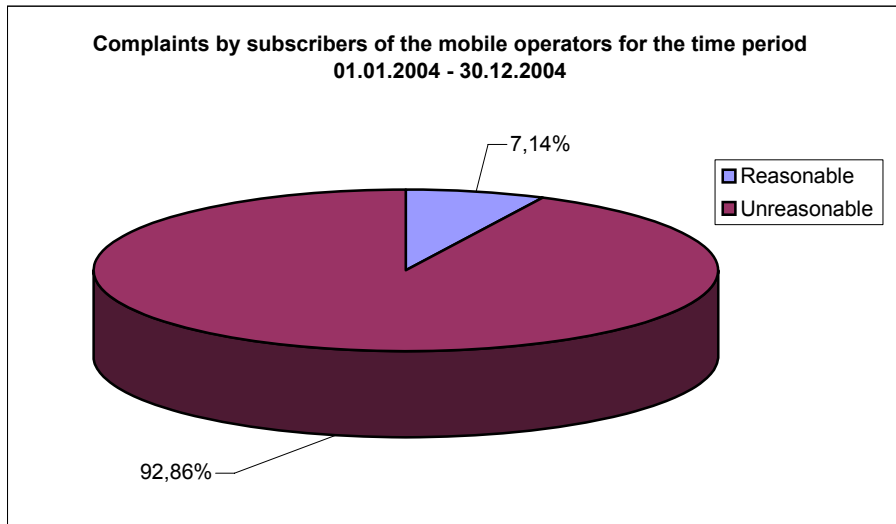
- The coming into force General License No 220 from October 1st, 2004, resulted in the introduction of a registration regime for the RLAN networks on the territory of the country. The initial inspections demonstrated that the inspected telecommunication networks, using the frequency range 2400 - 2483,5 MHz, operate as fixed of the type "Point to Point", as connected separate LAN networks, for which they have a registration in compliance with the General license No 217 from Dec.23rd, 2003. Violations have been established in connection with the permitted maximum equivalent isotropic transmitted power, which must not exceed 100 mW.

- Inspections were made on 12 networks of fixed radio service.

- Unfortunately in 2004 the violations, connected with failures in the telecommunication networks and cut of the communications continued. In the greatest part these are networks of BTC PLC, and 55 administrative violation fines have been made up on the occasion of established failures. In the regions of Plovdiv and Veliko Turnovo these violations are greatest in number. In emergency situations in the water supply pipelines and their elimination the breaking up of the cables is almost inevitable. In most of the municipalities there are no cadastre plans for the location of the ground communications. The broader use of the telecommunication equipment with the purpose of personal benefit and thus causing damages to the operator was also registered – this is characteristic mostly of the public telecommunication networks for radio and TV broadcasting.

- In the reviewed period 14 complaints from end users were submitted to CRC against the mobile operators MOBILTEL AD, COSMO BULGARIA MOBILE AD and

RADIOTELECOMMUNICATION COMPANY OOD. The complaints concern the correctness of the bills, the quality of the service and the installation of the radio-equipment on the roofs of residential buildings or near them. The population is especially sensitive to the hygiene-protective zone of the emitting equipment of these operators. No complaints were registered in the said period on the quality of the connections of the mobile operators except one unreasonable complain against **RADIOTELECOMMUNICATION COMPANY OOD**. In comparison with 2003 the number of the complaints was smaller.



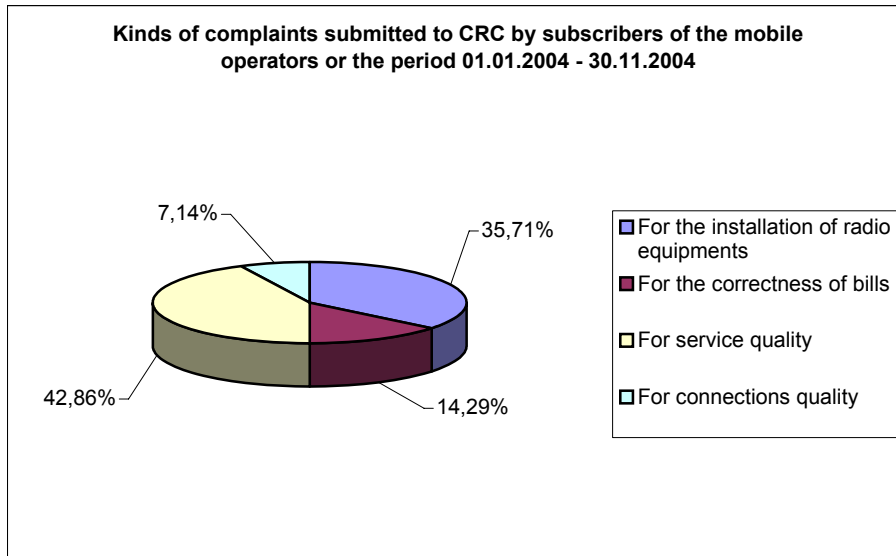


Fig. 86, 87, 88

- In 2004, 24 inspections were made, related to the observation of the license conditions by BTC PLC of protection of the users by creating an efficient administrative system for examining the complaints and the signals. 27 complaints were examined against incorrect telephone bills, the quality of the service and the joint use of equipment, and three of the cases resulted in establishing administrative violations and the relevant punitive records. A great number of the complaints were lodged as a result of refusals of BTC PLC for joint use of a channel of a town's channel network. The presence of a limited number of free channels and the lack of duplicating ways place BTC PLC as the owner at present of that main part of the communication infrastructure in extremely conflict situations with the other operators. The absence of approved "General conditions of the interrelations with the users" in providing the service "Joint use of a channel of a town's channel network" lead to a certain straining of the relations between the operators with significant market power and the other operators on the telecommunications market.

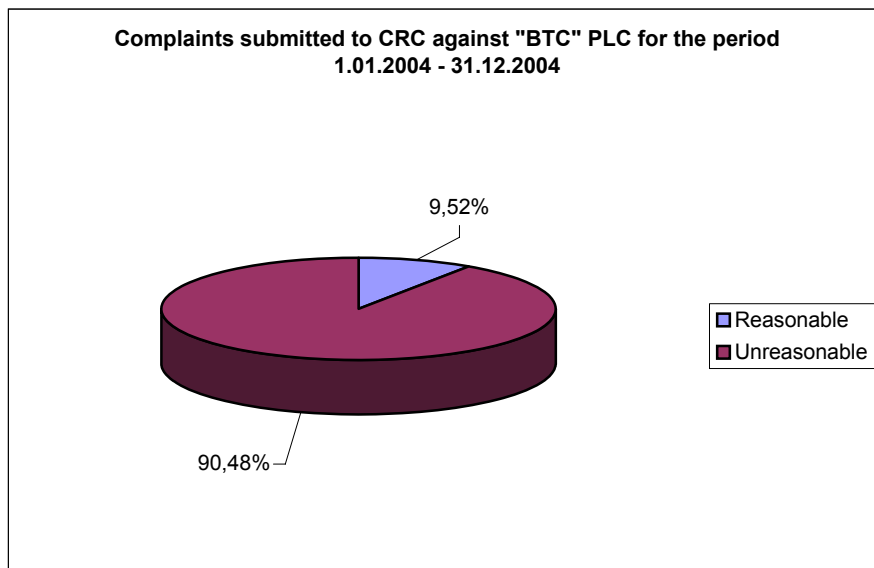


Fig.89

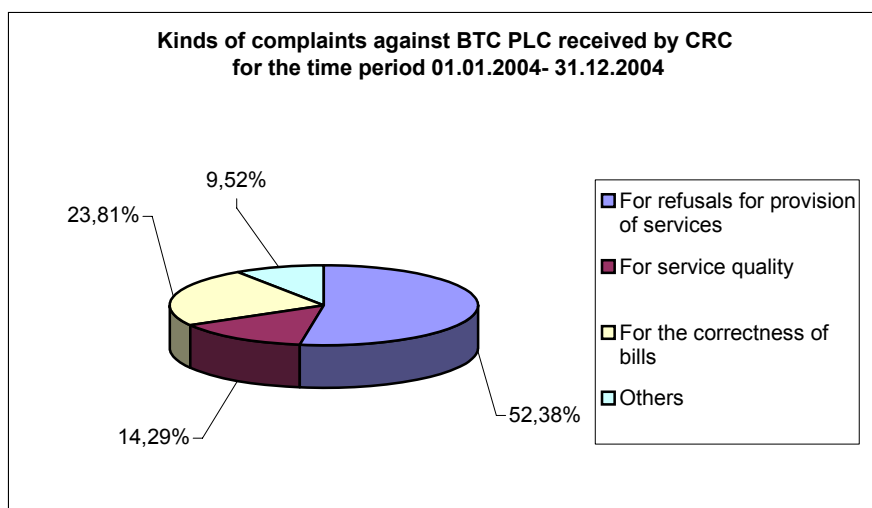


Fig. 90

- Concerning the provision of the universal postal service by the main postal operator BULGARIAN POSTS PLC, 12 inspections were made of its territorial offices and 41 reports were elaborated. It was established that in most of the inspected administrations the post consignments, included in the universal service, are not in compliance with the requirements of the Universal Postal Union in relation with the way of writing, the addresses of the sender and the receiver. As for observing the requirements concerning the postal security, BULGARIAN POSTS PLC has not developed the necessary inter-administrative documents. No lead seals with unique numbers are used for sealing the bags with the consignments for the intra-regional tracts.
- 25 operators, registered for the provision of the NPS, were inspected. In connection with the protection of the users, 13 deeds for the establishment of administrative violations were drawn out in reply to the violations of the rules by those operators. These violations include entering into the reserved sector of the universal postal service, for which 4 deeds for the establishment of administrative violations were drawn out.
- 10 complaints in connection with the application of the Postal Services Act were examined.
- In answer to the requirements of Chapter 13 of the Telecommunications Act, as a result of the inspections made 227 administrative violations were established and 227 punitive records were made.

3. Supplied technical equipment

In 2004 the gradual construction, further equipment and exploitation of the National Monitoring System of the RFS continued:

a. 4 contemporary mobile stations started operation, with a possibility of radio frequency monitoring in the range up to 3.0 GHz, as well as 2 transportable monitoring stations for operation in the frequency range up to 26.5 GHz.

b. An upgraded version of the specialized software for the radio monitoring of the stationary and mobile stations was installed for measuring the parameters of the signals in compliance with the recommendations of the International Telecommunication Union (ITU). Due to specialized software the monitoring stations are united in one integrated system.

c. Sets of antennas and direction finding systems were supplied for two fixed monitoring stations, which will start operating in 2005. The sets include a full range of antennas for the frequency range up to 3.0 GHz with possibilities of accepting signals with horizontal and vertical polarization. For the exact measurement of the tension of the electromagnetic field of the accepted signals, log-periodically guided antennas will be used. The coarse and bearing indicators are going to operate in the frequency range up to 3.0 GHz with accuracy of indicating the accepted signal up to 2°.

d. 9 mobile stations accomplish the mobile monitoring of the radio frequency spectrum.

e. Supplementary spectral analyzers were purchased for operation in the range up to 26.5 GHz.

f. The supplied measurement technique was distributed to the regional stations for control of the RFS and started work. The measuring equipment is used in compliance with its designation by the specialists in the regional administrations and when performing the inspections.

The exploitation of new stations stationary, for remote control and mobile is increasing significantly the efficiency of the control, performed for the regulation of the communications in our country.