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# ITU Seminar on Advanced Spectrum management

## PROGRAMME

[www.itu.int/ITU-R/go/itu-adv-spect-management-seminar](http://www.itu.int/ITU-R/go/itu-adv-spect-management-seminar)

Almaty, Kazakhstan  
12-16 September 2011



## 12 SEPTEMBER 2011

**Session's Chairman: Rizat Nurshabekov, Ministry of Communications and Information, Kazakhstan**

Time	Title	Speaker
8.30-9.30	<b>Registration</b>	
9.30-10.00	<b>Opening</b>	
	Administration of Kazakhstan, International Telecommunication Union, RCC Secretariat	
	Radiocommunication and broadcasting development in Republic of Kazakhstan	Rizat Nurshabekov, Ministry of Communications and Information, Kazakhstan
10.00-10.30	<b>Coffee break</b>	
<b>International spectrum management</b>		
10.30-12.00	ITU and ITU-R	Francois Rancy, BR Director, ITU
	International Spectrum Management	Vadim Nozdrin, BR, ITU
	CPM-11 and WRC-12 preparation	Francois Rancy, BR Director, ITU
12.00-14.00	<b>Lunch</b>	
<b>International spectrum management system</b>		
14.00-15.30	Preparation to Radiocommunication Assembly 2012	Vladimir Minkin, NIIR, Russia
	Radio Regulation Board	Viktor Strelets, RRB Vice Chairman, Russia
	Role of Radio Advisory Group in ITU-R activities	Vladimir Minkin, NIIR, Russia
	ITU-R Study Group Activities	Vadim Nozdrin, BR, ITU
15.30-16.00	<b>Coffee break</b>	
<b>Regional spectrum management</b>		
16.00-17.30	Objectives and main activity Regional Commonwealth in the field of communications in spectrum management	Albert Nalbandian, Ministry of Communications, Armenia
	CEPT and ECC activity	Thomas Ewers, ECC Chairman, Germany
	European radio spectrum regulations and standards	Michael Sharpe, ETSI

## 13 SEPTEMBER 2011

**Session's Chairman: Francois Rancy, BR Director, ITU**

### Efficient use of satellite orbit/spectrum

9.00-10.30	Satellite International Regulatory Framework	Francois Rancy, BR, ITU
	Critical issues of spectrum/orbit resource management	Valery Butenko, NIIR, Russia
	ITU, the Radio Regulations and satellite networks	Per Hovstad, AsiaSat
10.30-11.00	<b>Coffee break</b>	
11.00-12.30	Evaluation of the orbital-frequency resource occupied by the geostationary satellite communication system	Lev Kantor, NIIR, Russia
	Improvement of regulatory procedures for satellite systems	Nikolai Varlamov, The General Radio Frequency Centre, Russia
	Problems of Spectrum/orbit use by satellite systems	Igor Geltonogov, Geyzer, Russia
12.30-14.00	<b>Lunch</b>	
14.00-15.30	Is satellite monitoring needed?	Jan Verduin, BDT Expert, Netherlands
	Development of national telecommunication and broadcasting satellite system KAZSAT	Ajanjan Buldybaev, Ministry of communication and information, Kazakhstan
	Experience of Belarus in application of Radio Regulation acting as notifying administration for satellite communication networks	Sergey Novikov, Ministry of communication, Nikolay Sitsko, Giprosviaz, Belarus
15.30-16.00	<b>Coffee break</b>	
16.00-17.30	Development of satellite communication system in Azerbaijan	Gulam Abdullaev, Ministry of communication, Azerbaijan
	Efficient use of orbit/spectrum resource by satellite systems	Vadim Nozdrin, BR, ITU
<b>Questions and discussions</b>		

## 14 SEPTEMBER 2011

**Session's Chairman: Almira Gataulina, Deputy Chairman, State Spectrum Management Commission, Uzbekistan**  
**National experience in spectrum management**

Time	Title	Speaker
9.00-10.30	ITU-R studies in national spectrum management	Vadim Nozdrin, BR, ITU
	National spectrum management - the French case	Eric Fournier, ANFR, France
	National spectrum management - the German case	Thomas Ewers, Federal Network Agency, Germany
10.30-11.00	<b>Coffee break</b>	
11.00-12.30	National spectrum management – the experience of Russian Federation	Sergey Pastukh, NIIR, Russia
	Spectrum management system in Uzbekistan	Almira Gataulina, State Spectrum Management Commission, Uzbekistan
	National spectrum management – the experience of Kirgizstan	Almaz Kadyrkulov, Baiysh Nurmatov, Communication state agency, Kirgizstan
12.30-14.00	<b>Lunch</b>	
14.00-15.30	Spectrum management activities of the BDT	Istvan Bozsoki, BDT, ITU
	National spectrum management- the experience of Belarus	Sergey Novikov, Ministry of communication, Belarus
	Spectrum management in Ukraine	Oleg Kokotov, State Spectrum management Center, Ukraine
15.30-16.00	<b>Coffee break</b>	
16.00-17.30	National spectrum management- the experience of Armenia	Samvel Arutunian, Republican telecommunication Center, Armenia
	National spectrum management- the experience of Indonesia	Heru Sutadi, Telecommunication Regulatory Authority, Indonesia
	The Republic of Moldova's Radio-spectrum management system	Maxim Cumpănichi, National Spectrum management Center, Moldova

## 15 SEPTEMBER 2011

**Session's Chairman: Arturas Medeisis, Technical University, Lithuania**

**Spectrum management solutions: case studies**

9.00-10.30	Role and tasks of monitoring'	Jan Verduin, BDT Expert, Netherlands
	Efficient use of radio spectrum promised by the Cognitive Radio/Software Defined Radio	Arturas Medeisis, Technical University, Lithuania
	Operational Views on Cognitive Radio	Wladimir Bocquet, Orange, France
10.30-11.00	<b>Coffee break</b>	
11.00-12.30	Principles of optimal distribution of frequencies for land mobile systems in border areas	Arturas Medeisis, Technical University, Lithuania
	Cross-border agreement in the band 790-862 MHz : the CEPT/RCC framework agreement	Eric Fournier, ANFR, France
	Methodology of border coordination in digital dividend range	Igor Geltonogov, Geyzer, Russia
	Direct assistance to countries: Spectrum management assessments and borderline frequency coordination	Istvan Bozsoki, BDT, ITU
12.30-14.00	<b>Lunch</b>	
14.00-15.30	Spectrum Refarming: Theoretical Considerations	Dirk-Oliver von der Emden , OFCOM, Switzerland
	Factors to be taken into account for spectrum refarming	Pavel Mamchenkov, Megafon, Russia
	E-spectrum management solutions	Aleksey Burlak, LS Telcom, Germany
15.30-16.00	<b>Coffee break</b>	
16.00-17.30	Spectrum Pricing / Administrative Incentive Pricing	Dirk-Oliver von der Emden, OFCOM, Switzerland
	Market based principles in frequency management: some perspectives	Andre Arts, Radiocommunication Agency, Netherlands
	Methodology of spectrum pricing in Russian Federation	Sergey Pastukh, Evgeny Deviatkin, NIIR, Russia

# 16 SEPTEMBER 2011

Session's Chairman: Vadim Nozdrin, BR, ITU

## Future of Mobile Broadband

Time	Title	Speaker
9.00-10.30	Perspectives on future Mobile Broadband: IMT for the next decade	Cengiz Evci, Alcatel-Lucent, France
	Mobile Broadband Communication - Traffic Forecast	Wladimir Bocquet, Orange, France
10.30-11.00	Coffee break	
11.00-12.30	Mobile broadband access: employment under limited spectrum conditions	Yuri Gromakov, Intellect Telecom, Russia
	Future of Mobile Broadband	Shao Xinhua, China Telecom, China
	Results of LTE network test operation in 2.5-2.7 GHz range in Belarus	Nikolay Sitsko, Giprosviaz, Belarus
12.30-14.00	Lunch	
14.00-15.00	Closure	

The increasing use of radio-based technologies in our societies and the tremendous opportunities for social development that these technologies provide, highlight the importance of radio-frequency spectrum and national spectrum management processes. Technological progress has continually opened doors to a variety of new spectrum applications and a growing number of services that have spurred greater interest in, and demand for, the limited spectrum resource. Increased demand requires that spectrum be used efficiently and that effective spectrum management processes be implemented.

If the spectrum is to be used efficiently, its use must be coordinated and regulated through both national regulations and the ITU Radio Regulations. The ability of each country to take full advantage of the spectrum resource depends heavily on spectrum management activities that facilitate the implementation of radio systems and ensure minimum interference.

By international spectrum regulations (the ITU «Radio Regulations»), each government has a certain degree of flexibility and autonomy in regulating its use of radio spectrum. Each administration is responsible for developing its laws and organizing itself to carry out the duties of spectrum management. Although no two administrations would manage the spectrum in exactly the same manner, the basic processes are common to all national approaches.

This ITU Seminar will give an overview of the ITU activities with respect to international and national spectrum management with a focus on the most recent developments, as well as a number of national experiences on effective and efficient management of the use of the radio spectrum. In particular the following items will be discussed:

- International and regional spectrum management systems;
- Efficient use of the spectrum/orbit resource;
- Spectrum management : main principles, legislation, structure and national experiences;
- Spectrum refarming and the digital dividend;
- Technical methods to improve spectrum efficiency, in particular cognitive radio and software defined radio;
- Optimizing spectrum use in border areas;
- Future of mobile broadband.