

**SUMMARY OF THE 2nd MEETING OF THE BLACK SEA, CASPIAN SEA AND
CENTRAL ASIA GROUP ON FREQUENCY COORDINATION MATTERS IN THE
UHF BAND (470-862 MHz)
30-31 March 2017, Geneva, Switzerland**

- 1) Mr F. Rancy, Director of the Radiocommunication Bureau opened the meeting and welcomed all participants. The agenda for the meeting is in Annex 1.
- 2) Participating administrations included Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Russian Federation, Turkey and Uzbekistan. A list of participants is in Annex 2.
- 3) Participants decided to continue the work of the Black Sea, Caspian Sea and Central Asia group on frequency coordination matters in the UHF band (470-862 MHz), initiated on year 2013.
- 4) The current situation and expected developments in each country with respect to transition to digital television and the utilization of UHF band in the participating countries are summarised in Annex 3.
- 5) The Terms of Reference of the Black Sea, Caspian Sea and Central Asia group on frequency coordination matters in the UHF band (470-862 MHz) was adopted and is in Annex 4.
- 6) Preliminary draft recommendations and criteria, prepared by the BR, for seeking additional channels for DTT in the frequency band 470-694 MHz is in Annex 5. Participating administrations agreed to consider these proposals and submit their comments to the BR.
- 7) Proposals on coordination approaches between mobile, broadcasting and other services in the band 694 – 790 MHz may be considered at the next meeting.
- 8) The next meeting should be held before the end of 2017.

ANNEX 1

Agenda

**Multilateral frequency coordination meeting on the band 470 – 862 MHz between the administrations of the Caspian Sea and Central Asia sub-region
Geneva, 30 – 31 March 2017**

1. Opening of the meeting
2. Introductory remarks by the Director, Radiocommunication Bureau
3. Overview on the activities relating to digital switchover and implementation of the digital dividend in Region 1 (BR's presentation)
4. ITU assistance in multilateral frequency coordination meetings on the use of the UHF Band (BR's presentation)
5. Review of the current situation and plans of each administration related to the transition to digital television, the use of other primary services and the allocation of the digital dividend (s)
6. Resumption of the activities of the Regional Frequency Coordination Group established in 2013
7. Update of the terms of reference and working methods of the Group
8. Discussion of the basic principles and technical aspects of frequency coordination in the UHF band
9. Date and place of the next meeting
10. Other business

ANNEX 2

List of participants

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BR	Mr E. Sestacov	evghenii.sestacov@itu.int	+41 22 730 5079

ANNEX 3

Utilization of UHF band in countries of the Black Sea, Caspian Sea and Central Asia region

Adm.	Transition to Digital TV	Utilization of 470 – 694 MHz	Utilization of 694 - 790 MHz	Utilization of 790 - 862 MHz
ARM	Completed	Used only for TV	No plans to use the band for TV; in future allocated for mobile	Used for mobile, deployment of LTE started
AZE	Completed in 2016	Used only for DTV	Allocated for mobile	Allocated for mobile
KAZ	Ongoing	Used for TV and other primary services	Used for analogue TV, for digital TV (up to 730 MHz) and for other primary services. In future the band is for mobile, moving DTV below 694 MHz would be needed	Allocated for mobile and ARNS
KGZ	Ongoing, planed switch off date is 15 May 2017	Used only for TV	Currently used for analogue TV and for digital TV. After switch off analogue TV moving DTV below 694 MHz would be needed. In future the band is for mobile service	Allocated for mobile
RUS	Ongoing	Used for TV and other primary services	Used for TV and other primary services	Allocated for mobile and other primary services
TUR	Switchover date is not established. National Frequency Plans (Assignments) prepared. To give licence for DVB-T2, an auction was done in 2013. But the Court cancelled it. Now the studies to carry out to give DVB-T2 licences are continuing. The VHF-III and UHF TV Bands are used for Analog Television. (5.-12. And 21.-60. TV Channels)	Currently used for Analogue. After Digital Switchover the channels in frequency band 470 – 694 MHz will be used for DVB-T2	Currently used for Analogue TV. The 700 MHz band will be given to IMT Services (LTE) at the end of 2018.	The 800 MHz Band was allocated to IMT services in 2015
UZB	Ongoing	Used only for analogue and digital TV. 4 MUX are in deployment, totally more than 100 transmitters	Allocated for mobile	Allocated for mobile

ANNEX 4

TERMS OF REFERENCE OF THE BLACK SEA, CASPIAN SEA AND CENTRAL ASIA GROUP ON FREQUENCY COORDINATION MATTERS IN THE UHF BAND (470-862MHz)

(as of 31 March 2017)

The Group carries out the following tasks:

- a) Adopt technical criteria and methodologies to facilitate the bi-lateral/ multilateral frequency coordination taking into account of results of studies performed by relevant ITU-R study groups, including Recommendations, Reports, and WRC Resolutions;
- b) Carry out compatibility analysis with a view to efficiently using spectrum allocated to the services in the UHF band (470-862 MHz);
- c) Facilitate application of Article 4 of the GE-06 Agreement;
- d) Develop additional technical measures to reduce excessive interference cases, if any;
- e) Continue to endeavour achieving, to the extent practicable, equitable access to spectrum resources within the spirit and principles of GE06,

The Group will work on the basis of consensus.

The Group will meet at least once a year.

The Group may request the BR to facilitate their tasks and/or provide assistance to the Group.

The Group is open for participation of the countries of the Black Sea, Caspian Sea and Central Asia areas.

Recommendations and criteria for seeking additional channels for digital terrestrial television in the band 470-694 MHz

In order to facilitate frequency coordination of all radio services operating in the frequency range of 470 - 862 MHz, in the event of the bands 694 – 790 MHz and 790 – 862 MHz considered or planned for the mobile service systems, it is important to search for additional DTT channels in the frequency band below 694 MHz to satisfy TV requirements for necessary coverage and ensure the continuity of operation of television networks.

The proposed approaches for coordination among the participating countries are as follows:

1. Invite the countries that did not start the introduction of digital television broadcasting service to use:
 - a. Modern techniques, such as: DVB-T2/MPEG-4 or later.
 - b. Frequencies below 694 MHz.
2. Additional/new TV requirements should be based only on single assignments or SFNs (assignment codes 1S or 2L).
3. Acceptable margin (excess of aggregated interference field strength at the edge of a coverage area over the wanted FS) is **4dB**. This margin can be used in the coordination between the countries.
4. A number of layers is fixed to 4 layers per country in difficult border areas for this coordination period, knowing that this number can be increased in the future, individually, and according to their needs, following the GE06 Article 4 Procedures.
5. Iterations (compatibility calculations) by the BR will take place on a regular basis, e.g. once per 2 weeks. The countries should send their entire notice files, containing digital requirements, to the BR to BRBCD@itu.int.
6. Deadline for submission of the notice files for the 1st iteration is to be decided by the participating countries. The BR will publish the notice files and results of each iteration on its web site <http://www.itu.int/en/ITU-R/terrestrial/broadcast/Pages/Caspian.aspx>.
7. Invite all GE06 countries that will be affected by these activities to participate in the Group work.