



Afghanistan Telecom Regulatory Authority

ATRA

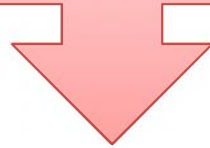
ATRA is a governmental organization for regulating the use of radio spectrum in Afghanistan in order to avoid harmful interference between the stations of many radio communication services and to ensure efficient use of radio spectrum .

Spectrum Management Department

Functions

- 1 • The allocation of radio frequency spectrum to broad categories of user groups;
- 2 • Orbit-Frequency Coordination with regional and International radio communication bodies.
- 3 • To promote competition in the provision of services using radio frequency spectrum;
- 4 • plan, allocate, control, and manage the use of radio frequency in conformity with applicable regional and international radio communication Plans

Broadband Wireless Access



Fixed

Mobile

Mobile Network Operators

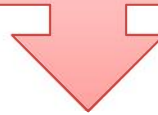
MS are provided by 6 MNOs` in Afghanistan :



Fixed Broadband Wireless Access



Wi-Max Frequency Bands

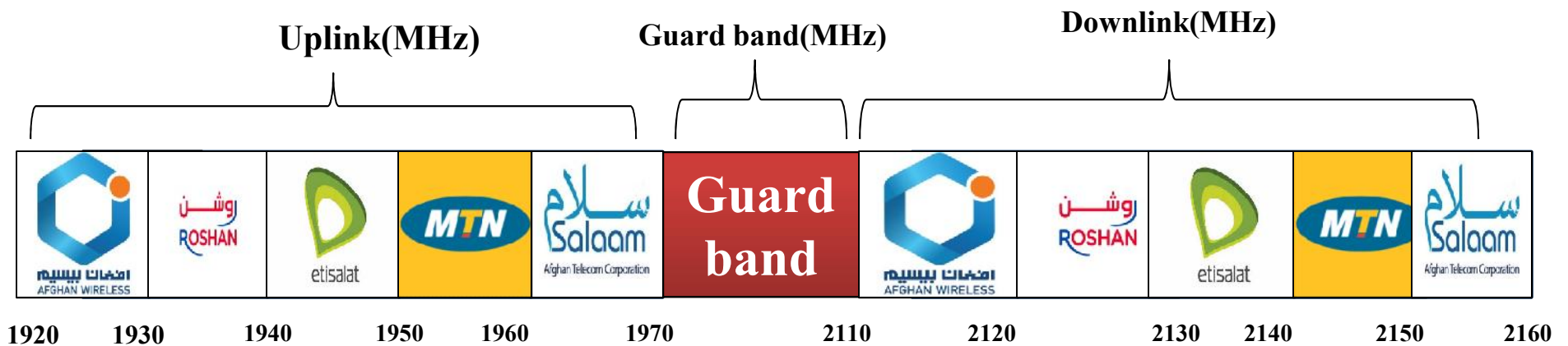


No	Frequency Band (MHz)	Total Spectrum (MHz)	Allocated(MHz)
1	2300 – 2400	100	Null
2	2500 – 2690	190	Null
3	3400 – 3600	200	20

Mobile Broadband Wireless Access



Frequency Bands for 3G Technology



Spectrum Management Achievements

1

- All the MNO,s , broadcasters and other service providers have equitable access to spectrum.

2

- There is no report of harmful interference in past 15 years in our territory, the potential of harmful interference have been decreased.

3

- The spectrum for 4G/LTE is available.

4

- Spectrum for DTTV broadcasting is available and the digital switchover process is in progress.

Spectrum Management Achievements

9

- For capacity building of SM department employees a foreign consultant has been hired and this process has been in progress since 2016.

10

- For spectrum automation, the software sms4dc has been purchased from ITU and the migration process has been started since 2 years.

11

- A new spectrum pricing model has been developed and will be adopted after a public consultation and the approval of ATRA board.

12

- The new regulation for unlicensed spectrum has been developed and will be adopted after publication and the approval of ATRA board.

Spectrum Management Achievements

13

- To increase economical efficiency of spectrum a new spectrum pricing model has been developed and will be adopted after public consultation and approval of ATRA board.

14

- Today we have 110 TV operators, and 303 TV transmitters
- 303 FM radio operators and 781 FM radio transmitters throughout Afghanistan.

15

- 35 Analog TV transmitters have been switched over to DTTV.

16

- The NFAT was modified and extended according to Radio Regulation 2016 in 2016.

Spectrum Management Challenges

1

- Spectrum Automation.
- Though, we have a foreign consultant but due to huge amount of work, we need more trainers to train ATRA spectrum Management employees in using SM software's.

14

- Orbit-Frequency Coordination.

15

- Regulating Internet of Things (IOT)

16

- Roadmap for 4G/LTE.

END OF PRESENTATION

THANK YOU FOR YOUR
ATTENTION