

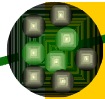


Government of India
Ministry of Communications & Information Technology



Department of Telecommunications

Wireless Planning & Coordination Wing



Welcome



Approval for Community Radio

- ✦ Initially the Screening Committee examines the proposals and recommends to the Interministerial Committee (IMC).
- ✦ IMC enables single window clearance of the proposals.



Planning for a community radio

Steps involved in obtaining various clearances

- ✦ Approach the Ministry of I&B and supply information in the desired format along with all documentary proof desired therein.
- ✦ Wait for the LOI from their side intimating that you need to apply for SACFA, frequency etc.,
- ✦ Apply for SACFA clearance as well as for frequency clearance simultaneously enclosing a copy of above LOI
- ✦ As soon as SACFA clearance is obtained sign the Grant of Permission Agreement (GOPA) with the MIB
- ✦ After the above is done, apply for the operating licence from WPC enclosing a copy of SACFA clearance, copy of GOPA, copy of Decision Letter obtained from MOC &IT, required amount of Spectrum charges and copy of equipment invoice.
- ✦ This WOL needs to be renewed every year (a maximum of two years at a stretch is permitted) and renewal slips obtained).

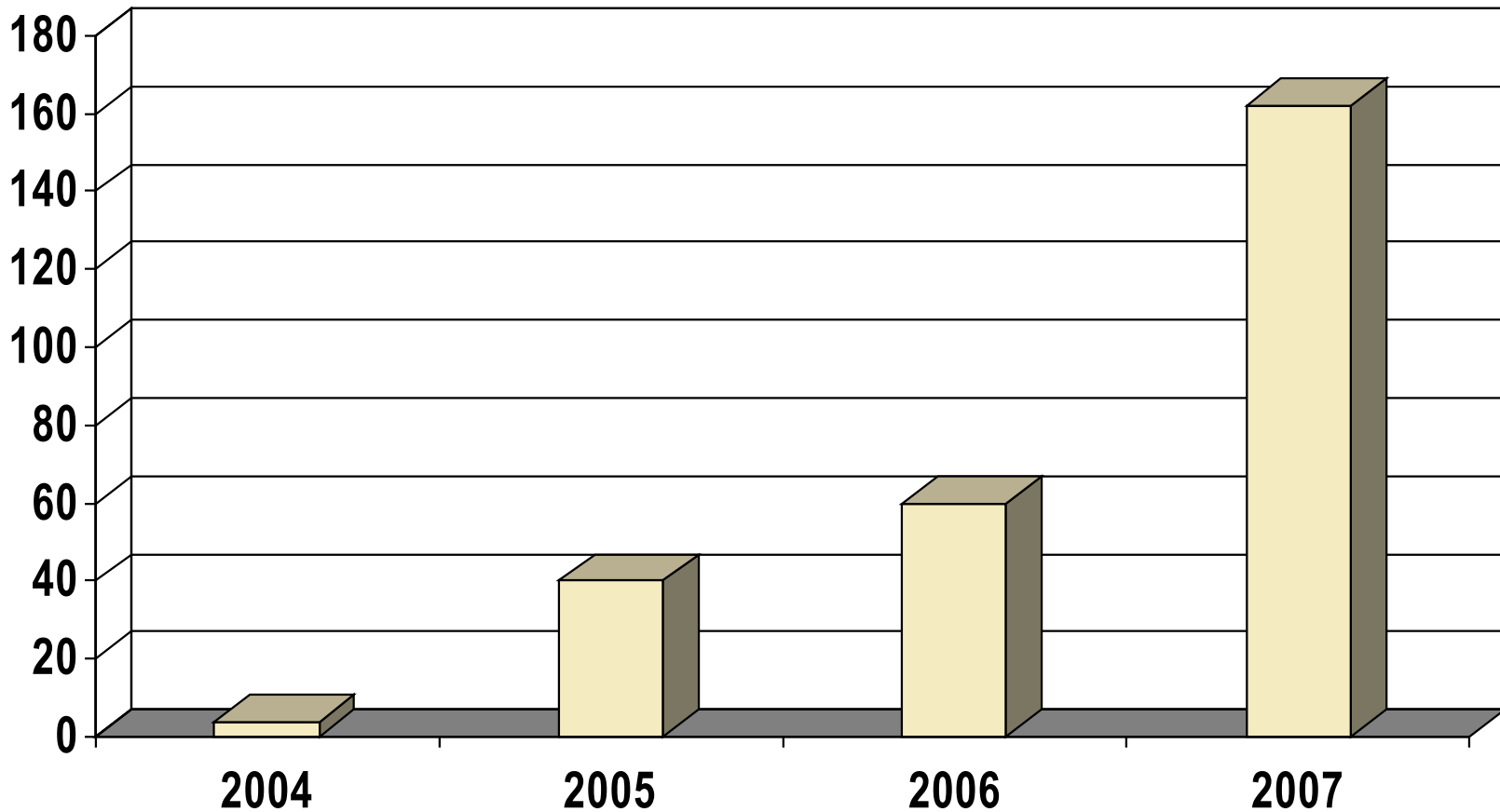


Planning for Community radio contd...

- ✦ Plan for the power supply arrangements and other infrastructure requirements such as airconditioning, hours of operation of the radio, content programming and development etc.,
- ✦ Plan for your own antenna or if there is any mast nearby that can also be shared and permitted.
- ✦ Important point to note is if your antenna is beyond 3 KMs from the nearest airport, SACFA clearance could be easier.

Growth of Community Radio

(only frequency earmarking)




Community Radio Stations in India (as on 1st January, 2008)

Number of community radio stations allotted frequency	162
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Number of stations brought into use	25
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Number of stations could not be cleared due to spectrum non-availability	15
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Limitations in spectrum management for community radio broadcasting

- ✂ Limited frequency spots earmarked due to non availability of spectrum
- ✂ Option for H-24 operation
- ✂ Poor selective quality of receivers which does not permit less adjacent channel spacing
- ✂ Many stations within the city/town

Engineering considerations for Community Radio broadcasting

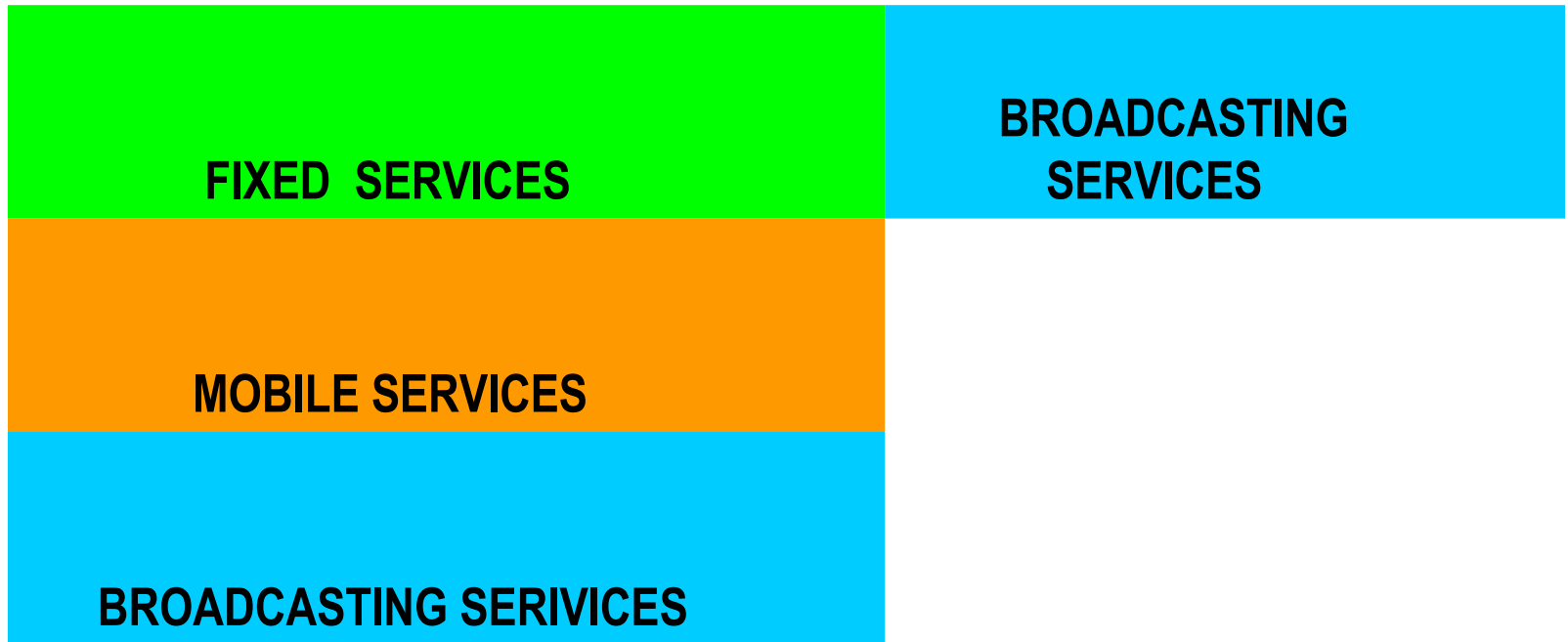
- ✦ **Assigned emission bandwidth** **180 KHz**
- ✦ **Max. Power assigned** **50Watts(100 W eirp)**
- ✦ **Max. antenna height** **30 metres**
- ✦ **Expected coverage** **4-6 KMs**
 (in urban environment)
 (in rural environment) **6-15 KMs**

Frequency Spectrum sharing in the band (87-108 MHz)

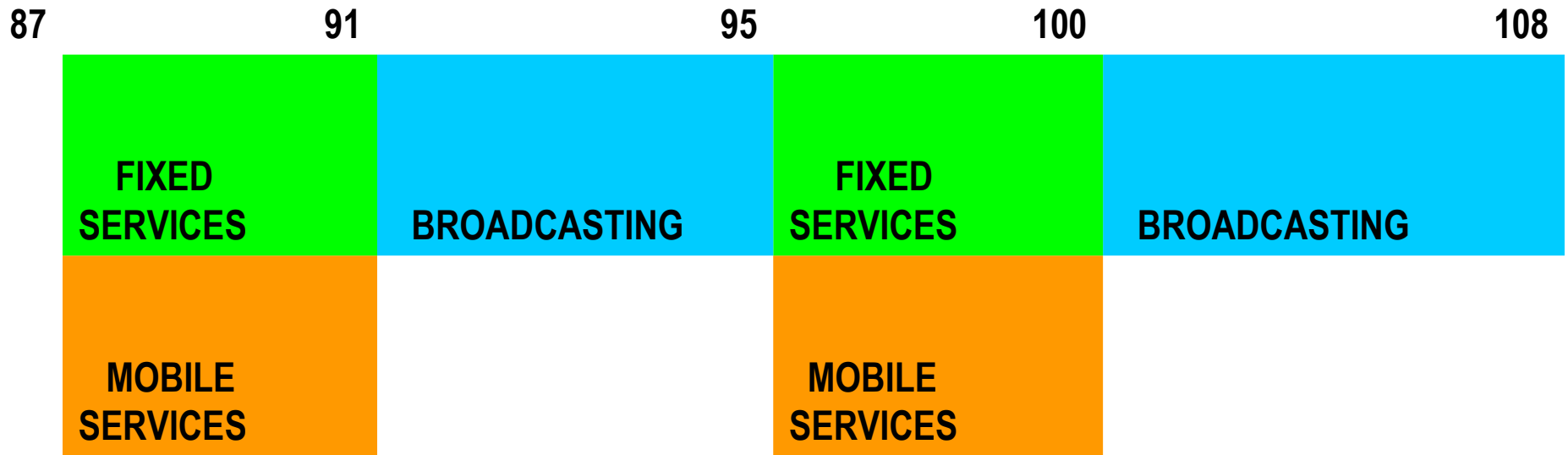
87.0

100.0

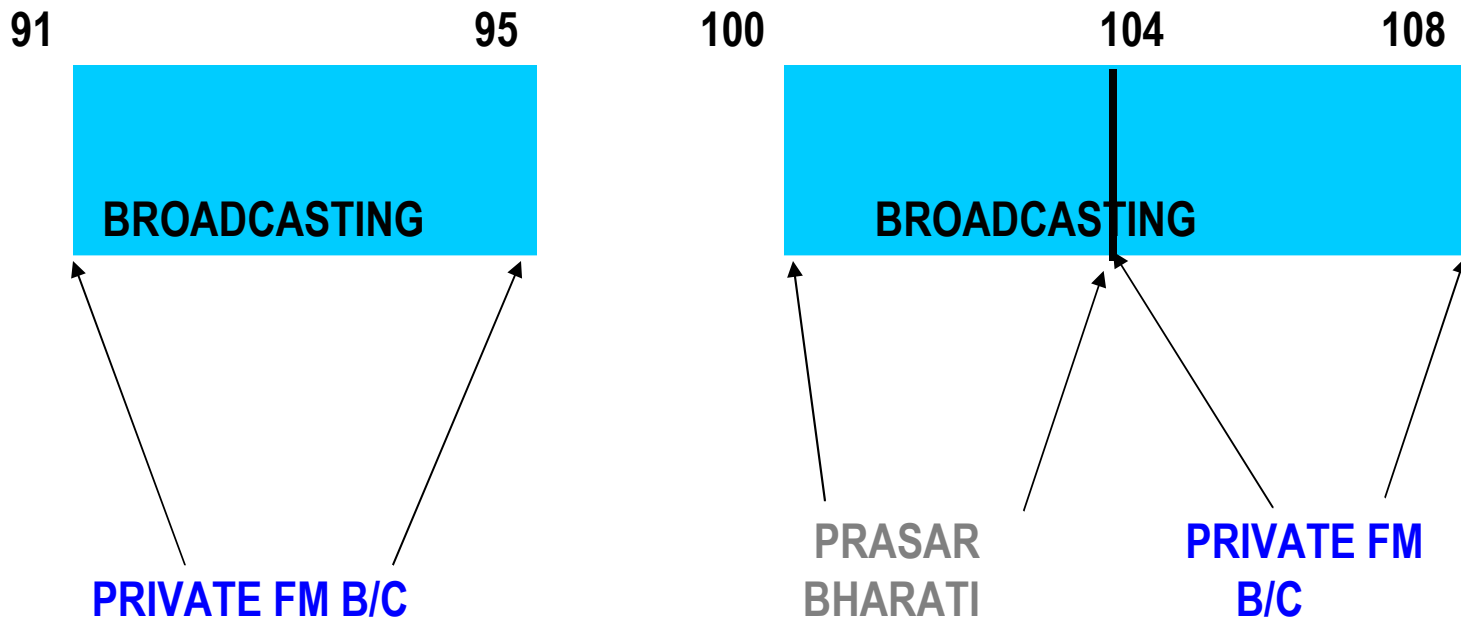
108.0



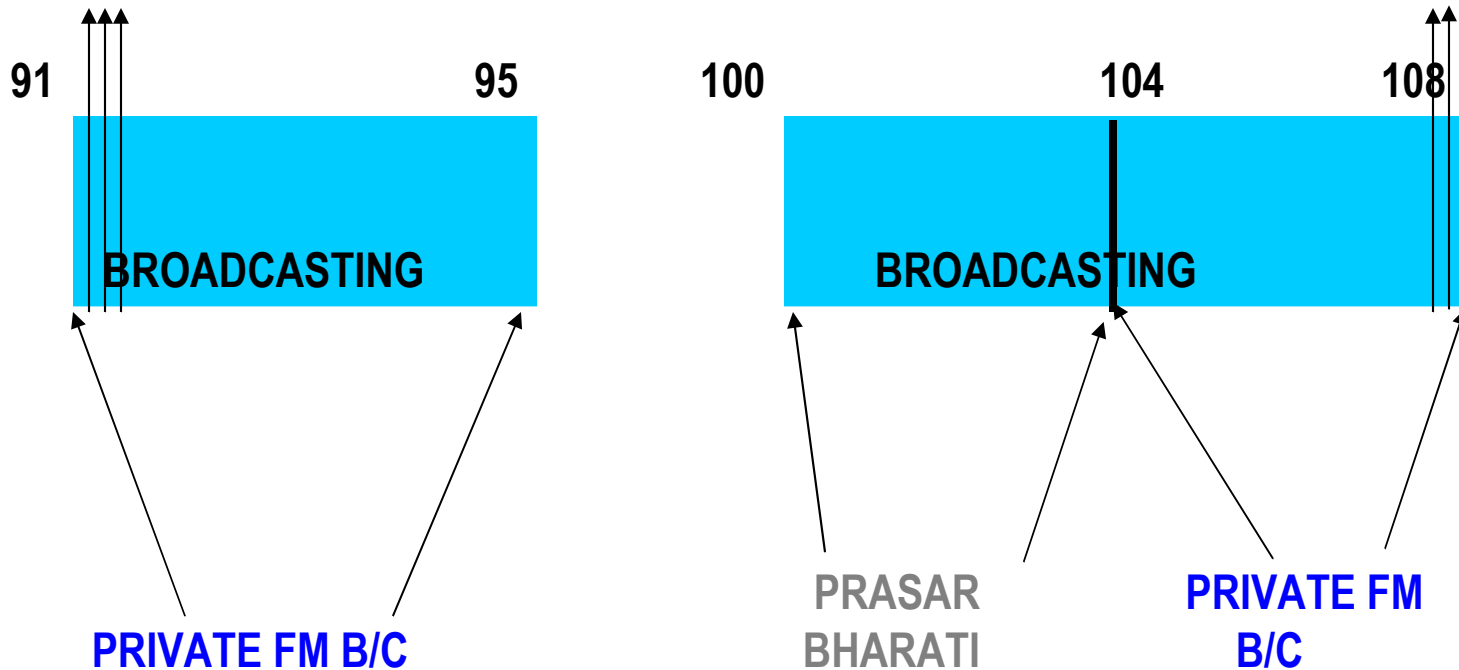
Spectrum available for Broadcasting services in the band 87-108 MHz



Utilisation of available spectrum for broadcasting



Utilisation of available spectrum for broadcasting





SACFA

- ✦ Standing Advisory Committee on radio Frequency Allocations (SACFA) is an interdepartmental committee chaired by the Secretary, Ministry of Communications & IT.
- ✦ Technical heads of fifteen major wireless user Ministries/ Departments are its members.
- ✦ Wireless Adviser is one of its members. WPC Wing provides the secretariat for SACFA.
- ✦ Joint Wireless Adviser is its member Secretary.



Procedure for Siting Clearance

- ✦ The technical evaluation is carried out primarily for
 - Aviation Hazard
 - Obstruction to line of sight of existing/planned networks.
 - Electro-Magnetic Interference (EMI)/ Electro-Magnetic Compatibility (EMC) to other existing and proposed networks.



Procedure for Siting Clearance

- ✦ Siting clearance is issued after getting 'No Objection (NOC)' from various SACFA members
- ✦ They have to carry out detailed technical evaluation including field surveys, etc
- ✦ Many times they have to obtain evaluation/information from their field units.



Categories of siting applications

- ✦ Full siting clearance
- ✦ Mast Height Clearance - up to 30m from ground
- ✦ Additional Antenna - on already cleared masts/towers
- ✦ Mast height exemption - examination by WPC Wing only.



Siting clearance procedure - details

- ✦ The applications for siting clearance, in the prescribed application format, are received (soft as well as hard copy) in the SACFA Secretariat for examination of correctness and issue of Identification (ID) Number.
- ✦ The applicant circulates the siting applications to SACFA members along with maps.

Siting clearance procedure – details

Contd..

- ✦ SACFA members provide their No Objection (NOC)/ comments to SACFA secretariat with a copy to the applicant.
- ✦ On receipt of NOCs from all SACFA members, site clearance is issued by SACFA Secretariat.
- ✦ SACFA Secretariat holds periodical meeting to expedite the cases. Some of the members' objections/ comments are resolved in the meetings itself.

Siting clearance procedure – details

Contd..



- ✦ Normally sites are cleared in 3-4 months. Due to very large number of sites from various service providers since 2001, more time is taken.
- ✦ Provisional siting clearance is issued after receipt of NOC from JCES, MOD and Airports Authority of India. It is valid for TEC testing as well as Commencing the service.

Siting clearance procedure – details

Contd..

- ✦ Additional antenna' cases are examined and approved by SACFA Sectt. with the condition that in case of any harmful interference to existing users, applicant will take immediate remedial action.
- ✦ In order to reduce multiple or infructuous sites, earnest money/ deposit, (Rs. 1000/- per ID) adjustable against spectrum fees, is payable by the applicant.

SACFA APPLICATIONS FILING PROCEDURE



HOME
ABOUT WPC
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MISCELLANEOUS
RULES AND REGULATIONS
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User Home

Check SACFA Appl Status

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View SACFA Application Details

Normal User Activities

Fill-in Applicant Details

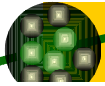
Fill-in License Application Online

Modify License Application

Fill-in SACFA Application On Line

Modify SACFA Application

SACFA APPLICATIONS FILING PROCEDURE CONTD.,



User ID

Password

Register

Change Password

Home Page



Protection ratios required for stereophonic service in relation to steady interference (Rec. BS 412-7)

Separation		Protection ratio
0 kHz	(co-channel)	45 dB
100 kHz	(adjacent channel)	33 dB
200 kHz	(2 nd adjacent channel)	7 dB
300 kHz		-7 dB
400 kHz		-20 dB



VHF FM propagation- salient factors

- ✦ Up to 70% of the LOS distance the signal level remains more or less constant
- ✦ Signal level beyond this distance varies depending on the conditions of troposphere at different times of the day, seasons, mode of propagation etc.,
- ✦ Irregularities on the ground, diffraction around obstacles etc., (terrain dependent)
- ✦ Increases as the square root of the transmitting antenna height

Details of occupancy of the available FM Broadcast band

📡 Number of operators	36 + 8
📡 Number of licences	280 +25
📡 Prasar Bharati assignments	520
📡 Gyanvani (broadcast by IGNOU)	37
📡 CRS frequencies earmarked	162
📡 CRS applications for consideration	72

Restrictions relating to frequency assignment as per Ministry of I&B Guidelines

- ✦ In the event of more than one applicant for a single frequency at a given place the successful applicant will be selected by a Committee based on the basis of standing in the community, commitment, etc.,
- ✦ An applicant/organisation shall not be granted more than one permission for community radio operations



THANK YOU

WPC Wing web-site
www.wpc.dot.gov.in