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THE RADIO STATION

Have you ever visited a radio station? If you haven't, let us find out how it is. You may be familiar with conducted tours if you have visited some place of tourist importance like the Taj Mahal in Agra or Qutab Minar in Delhi. There are guides who take you around and explain. So let's go on a conducted tour of a radio station.

The building of a radio station as such may look like any other public building. The offices are also like any other office. In this lesson, you will learn all about a radio station and how it works.

OBJECTIVES

After studying this lesson, you will be able to do the following:

- describe the working of a radio station;
- explain the role played by different functionaries of a radio station;
- describe the functioning of All India Radio;
- classify the different types of radio stations.

10.1 RADIO STATION

In a radio station, there are basically three different wings. They are (i) Programme Wing (ii) Engineering Wing and (iii) Administration Wing. While the first two wings are responsible for running a radio station's broadcasts, the administrative wing provides all the support that is required for the functioning of the station.

Let us learn about the working of a radio station.

Radio studio

The moment one mentions the words 'radio studio' you may think of good sound. You may also think of the photo studio with which most of you are familiar or a film studio, which you imagine to be a special area for shooting. A photo studio is a room which is made exclusively for taking pictures. It has certain conditions suitable

for taking photographs. The room generally is dark; has plenty of artificial lights, which are powerful. It is suitable for the purpose of taking photographs. There may be curtains and pictures or scenery as background. If you want to take a photograph for a passport or for any formal purpose, you go to a photo studio. In a studio, the visual scenery is appropriate.

But how does a radio studio look like? Let us see. There is a table and a microphone. The room has just one door, which is not very easy to open, as it is very heavy. Before one enters this room, there is a small enclosed place, which has another heavy door. This empty space is called a sound lock, which prevents unnecessary outside sounds from entering the studio. Note that we have used the term 'unnecessary outside sounds'. Suppose we record sound in an ordinary classroom, office room or in a drawing room. What would be the result? You would hear the traffic noise from outside or the sounds of the old fans on the ceiling. You would also hear birds chirping or dogs barking. Suppose you tune into your favourite radio programme and you listen to all that noise. That will be terrible. You would expect what you listen to on radio to be clear.

A studio is so designed without any interference to ensure that outside noises are not recorded and you hear the voice of the speakers clearly. For this, besides the sound lock and heavy doors, you will find the ceiling and walls with perforated woollen panels. Of course the studio is nice and cool with proper air-conditioning.

Fig. 10.1: Radio studio

There will at least be two studios in a station. You have just learnt about one of them. Now you will learn about the second one. This may be smaller in size with the same type of doors, walls and ceilings. Here you will find the announcer or the anchor person sitting on a revolving chair with a microphone in front of the table.

There will be a computer, CD players, tape decks and a mixer .This is the actual broadcast studio from where presenters make announcements. This may be called an ***announcer's booth or a transmission studio.***

INTEXT QUESTIONS 10.1

1. Name the three different wings in a radio station.
2. What prevents outside unnecessary outside sounds from entering the studio ?
3. What is the name of the studio from where announcements are made ?

Control Room (CR)

Now let us move to the main technical area of the radio station which is often called a control room. Whatever is spoken in the studio or played from a CD player or computer is sent to this control room. All the programmes are sent from here to the transmitter.

- The control room occupies an important place in the radio broadcast. It is the place, connected with all the other segments of broadcast.
- Whatever the speaker/announcer speaks from the studio, it reaches the control room. From here they are sent to the transmitter for its onward transmission to the listeners. A lot of changes take place when one speaks through a microphone. You may have noticed that your voice sounds different when it is recorded.
- In the control room, technical people control the whole process and immediately send these waves to the t**ransmitter.**
- The transmitter sends these sound waves to the listeners' radio sets which convert them into sounds. There is no time gap in the whole process.

Studio ⟶ Control Room (CR) ⟶ Transmitter (XTR) ⟶ Listener

- Transmitters are generally located outside the city boundaries.
- The transmitters are of different capacities such as 1 KW to 100 KW, 200 KW or 250 KW or above.
- Their locations are decided according to their capacity.
- A 1 KW transmitter is normally installed in the vicinity of the studio/control room whereas the high power transmitters are installed outside the city.

Transmitter

You have learnt about the studio and the control room. It is essential to know about the transmitter also.

– A transmitter is the equipment through which we receive the radio broadcast on our sets.

– This is big equipment in comparison to other equipment installed in the studio or control room.

– The strength and type of the transmitter determines the coverage area of broadcast.

– There are two types of transmitters.
  - Low Power Transmitter (LPT) and
  - High Power Transmitter (HPT)

– Likewise, there are:
  - Medium Wave (MW) radio broadcast transmitters and
  - Short Wave (SW) radio broadcast transmitters

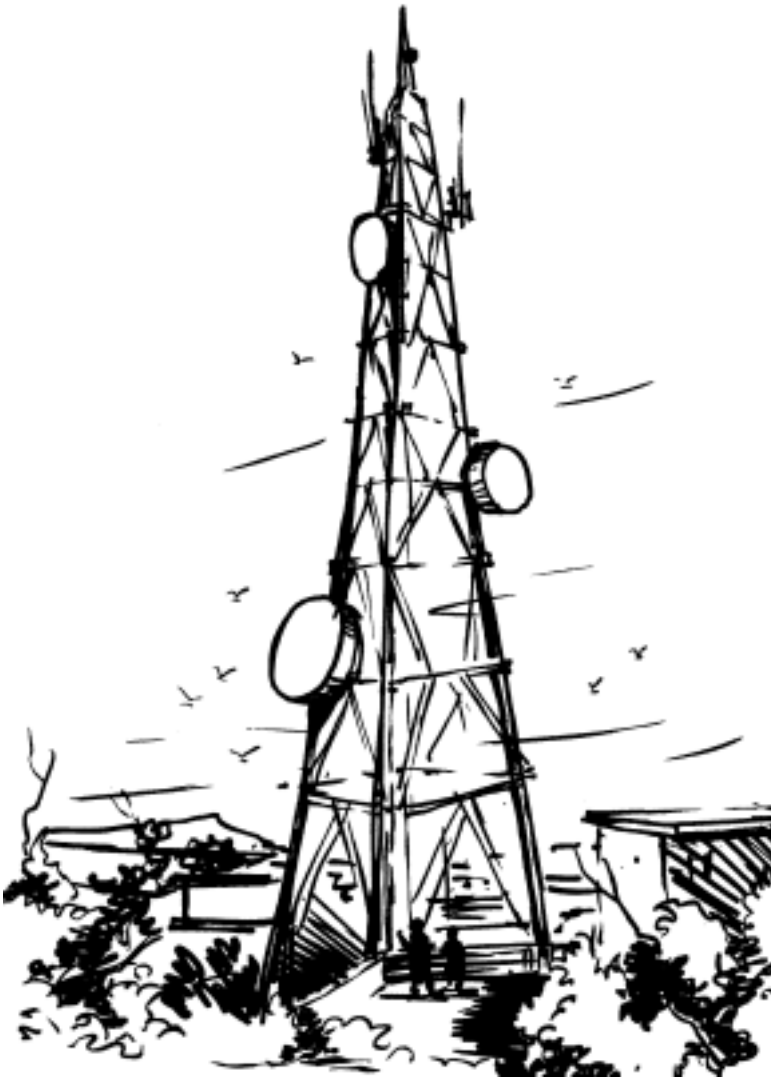

Fig. 10.2: Transmitter

Notes

INTEXT QUESTIONS 10.2

1. State whether the following statements are true or false:

   i) Programmes are sent from the transmitter to the control room.

   ii) Engineers are responsible for the technical quality of radio broadcasts.

   iii) Radio broadcasts are received on our radio sets through transmitters.

2. Name three important equipment found in the announcer's booth.

3 Expand the following terms-

   i) LPT

   ii) HPT

   iii) FM

   iv) MW

   v) SW

10.2 FUNCTIONARIES OF A RADIO STATION

Station Director

The Station Director is in charge of the radio station and also the head of the programme wing. In some stations they are called managers.

Station Engineer

The Station Engineer heads the engineering wing and is responsible for all the technical work at the radio station.

In addition there is a group of technicians and engineers, working quietly behind the scene. They operate and maintain broadcast equipment and oversee the control room. They are responsible for the technical quality of the broadcasts.

Programme personnel

These are persons who are engaged in planning, production , preparation and presentation of radio programmes. They are known as progamme executives or producers. They are part of the pogramme broadcast process.

Transmission staff

Persons who are responsible for a smooth and trouble free transmission process are known as transmission executives.

Radio Announcer

The radio announcer presents the programmes and is responsible for making them

interesting. The announcer has to convey feelings through his voice only. If the announcer is dull, his description will also be dull.

DID YOU KNOW ?

There was a time when listeners used to wait for the familiar voice presenting the 'Binaca Geet mala programme of film songs on radio. The voice was that of Amin Sayani.

Artists

In addition to the above staff, there are also music artists such as vocalists and instrumentalists who form part of the programme staff. They are all eminent performers in their own fields and graded according to their experience.

10.3 RADIO BROADCASTING SYSTEM IN INDIA

Even before we discuss about the radio broadcasting system in India, you must know about All India Radio commonly referred to as AIR , which is the main radio broadcaster of India.

Officially known as Akashwani, AIR is a division of Prasar Bharati or the Broadcasting Corporation of India, an autonomous corporation of the Ministry of Information and Broadcasting , Government of India.

Fig. 10.3

Notes

DID YOU KNOW?

AIR is the one of the largest radio networks in the world.

The headquarters of AIR is at Akashwani Bhawan, New Delhi.

AIR has different services each catering to different regions/ languages across India.

One of the most famous services is Vividh Bharati (All India Variety Programme) which offers programmes such as news, film music, comedy shows etc. in several cities of India.

Now, let us find out how AIR operates.

AIR has a three-tier system of broadcasting, namely, **national**,**regional** and **local**.

The National channel of All India Radio started functioning on May 18, 1988.

It caters to the information, education and entertainment needs of the people, through its transmitters at Nagpur, Mogra and Delhi beaming from dusk to dawn.

It transmits centrally originated news bulletins in Hindi and English, plays, sports, music, newsreel, spoken word and other topical programmes, to nearly 76% of the country's population fully reflecting the broad spectrum of national life.

The languages of broadcast are Hindi, English and Urdu apart from some music from other Indian languages.

The **Regional** Stations in different States form the middle tier of broadcasting.

This also includes the North-eastern service at Shillong which disseminates the vibrant and radiant cultural heritage of the north-eastern region of the country.

Local Radio is comparatively a new concept of broadcasting in India.

Each of these local radio stations serving a small area provides utility services and reaches right into the heart of the community,

What distinguishes local radio from the regional network is its down to earth, intimate and uninhibited approach.

The programmes of the local radio are area specific.

They are flexible and spontaneous enough to enable the station to function as the mouth piece of the local community.

FM Channels

What do you understand by FM?

FM stands for Frequency Modulation which is a broadcasting technology or method in radio.

You may have all listened to one or more FM channels.

The FM service of AIR has two channels .

FM Rainbow and FM Gold.

There are 12 FM Rainbow channels and 4 FM Gold Channels.

The programme content of these channels is mainly popular Indian and Western music, presented in a style which is highly popular with the urban youth.

News bulletins and current affairs programmes are also broadcast from these channels.

There are also other AIR stations on the F.M. mode. There are several private FM channels which can be heard all over the country.

Let us learn about them.

Private radio stations (FM channels)

Radio Mirchi, Radio Mango, Big FM, Times FM ……The list is becoming longer.

You must have heard about one or more of them. But have you wondered what they are ?

These are private or commercial radio stations which have been given a license to broadcast programmes on radio.

Most of them cater to the younger generation by providing a mix of music and fun.

Activity 10.1

Which is your favourite FM channel? Make a list of the programmes that you listen to on this channel.

Community Radio is a type of radio service that caters to the interests of a limited area or a community which is homogenous.

It broadcasts programmes that are popular and relevant to the local audience.

A community radio license is required to operate a community radio station.

These stations are expected to produce programmes as far as possible in the local language or dialect.

Although the stress is on developmental programmes, entertainment is not banned on these radio stations.

Anna FM is India's first campus community radio operating from Anna University in Chennai, Tamilnadu. This was launched on 1 February 2004.

Activity 10.2

Find out the other community radio stations in India and the cities in which they are located.

Notes

INTEXT QUESTIONS 10.3

1. Match the following :

i)	Station Director	a)	presents programmes
ii)	Station Engineer	b)	three-tier broadcasting
iii)	Radio Announcer	c)	FM Gold
iv)	All India Radio	d)	Head of Programme wing
v)	FM Channel	e)	Head of engineering wing

2. Write three sentences about community radio.

10.4 WHAT YOU HAVE LEARNT

The Radio Station

→ Working of a radio station –

- programme, engineering and administration wings
- radio studio
- control room
- transmitter

→ functionaries of a radio station

- station director
- station engineer
- progamme personnel
- transmission staff
- radio announcer
- artist

→ All India Radio

three tier broadcasting system

national | regional | local

→ types of radio stations
- private radio stations
- community radio stations

10.5 TERMINAL EXERCISE

1. Explain in detail the working of a radio station.
2. Describe the role played by different functionaries of a radio station.
3. Write short notes on the following :
   i) Three tier broadcasting sysem of All India Radio
   ii) Private radio stations
   iii) Community radio

10.6 ANSWERS TO INTEXT QUESTIONS

10.1 1. (i) Programme
(ii) Enginering
(iii) Administration
2. Sound lock
3. Announcer's booth or Transmission studio

10.2 1. (i) False (ii) True (iii) True
2. Please refer to section 10.1
3. (i) Low Power Transmitter
(ii) High Power Transmitter
(iii) Frequency Modulation
(iv) Medium wave
(v) Short wave

10.3 1. i) (d) ii) (e) iii) (a) iv) (b) v) (c)
2. Please refer to section 10.3