1 Audio Production Tools
   • Microphones, Playback and Recording Devices, Audio Control Devices

2 Microphones
   • first tool of radio broadcasting
   • primary piece of equipment of announcer
   • Transducer
     • converts sound energy into electronic signal

3 Microphone Characteristics
   • Operating principles
   • Pick-up patterns
   • Frequency response

4 Operating principles
   • type of element
     • Dynamic – moving coil
     • Ribbon
     • Capacitor

5 Pick-Up Patterns
   • Omni-directional
   • Unidirectional
     • cardioid, super-cardiod, hyper-cardiod
   • Bidirectional
   • Multidirectional (changeable)

6 Frequency Response
   • mics interpretation of frequencies

7 Traditional On-Air Audio Sources
   • Microphones
   • Turntables
   • Cart Machine
   • Reel to Reel Tape Recorder
     • compatibility, recording length
   • Phone Patch
• Network feed
• RPU—Remote Pick-up (Marti Unit)

8 Newer On-Air Audio Sources
• Computer
• Automated system
• Telephone editor (voxpro)
• MP3 player
• Flash recorder
• Mini-Disc
• other????

9 The Audio Console
• Mixer, control board, board
• way to select audio source
• vary volume level of audio sources
• manipulate audio signals
• way to start transport of audio sources
• way to preview audio sources (audition, monitor, cue)

10 Console
• Routing signal
• Mixing signals
• Amplifying signals

11 Routing
• assigns incoming signal to controls
• send the audio signal to various monitoring options.
  • Audition, cue, program
  • transmitter
• Mutes microphone to prevent feedback (ducking)

12 Mixing
• console allows you to mix more one source at a time

13 Amplification
• mic and line level sources – match
• amplifies weak source signal for transmitter

14  **Patching**
• routing of audio signals
• patch bay

15  **Potentiometer**
• pot
• fader
• rotary
• sliders

16  **VU Meter**
• way to visually see the level of each audio source
• meter pointer, needle
• LED lights (light emitting diodes)
• Measured in Volume Units
• Zero VU is considered the standard operating level