

KEY DATES IN SOUND AND MUSIC TECHNOLOGY

- 1860** – The first human voice recording made using Édouard-Léon Scott de Martinville’s “Phonautograph” (it was not recovered and reconstructed until digital technology made it possible in 2008).
- 1876** – First use of a telephone to transmit voice (Alexander Graham Bell: “Watson, come here, I need you!”)
- 1877** – Thomas A. Edison records and plays back “Mary Had a Little Lamb” on the phonograph made from his sketches by John Kruesi. (This recording does not survive, though Edison made later versions).
- 1885** – Chichester Bell and Charles Tainter patent their “Graphophone,” a notable improvement on Edison’s design which makes mass-produced, constant-pitch cylinder practical.
- 1887** – Emile Berliner patents a lateral groove recording system; his system will eventually replace Edison’s, as his flat discs will overtake Edison’s cylinders. He will go on to found both the Victor Recording Company (later RCA/HMV) as well as Deutsche Grammophon.
- 1888** – Edison’s foreign sales agent, Colonel George Gouraud, makes a cylinder recording at the Crystal Palace, London of a 4,000-strong choir performing Handel’s Israel in Egypt at a distance of more than 100 yards from the phonograph. This is the earliest surviving recording of music.
- 1893** – Nikola Tesla demonstrates the principle of sending radio waves from one tuned coil to another, using them to operate a robotic submarine. This was the earliest use of radio as we know it.
- 1906** – The aptly-named Indestructible Cylinder Company makes the first cylinders out of celluloid, a durable, unbreakable medium. Their patents are eventually acquired by the Columbia Phonograph Company.
- 1906** – Lee de Forest patents the first diode vacuum tube, the essential element for amplifying an electrical signal.
- 1917** – The Original Dixieland Jazz Band makes the earliest known Jazz recording, “Livery Stable Blues.”
- 1919** – The earliest uses of amplified electronic voice and music transmissions using radio. In 1920, the first licensed radio station in the United States, KDKA in Pittsburgh, goes on the air.
- 1920** – On August 10th, Mamie Smith records “Crazy Blues” (Okeh 4169), first blues recording and first commercially successful recording of an African-American musical tradition, selling over one million copies.
- 1923** – The début of the “Browning King Orchestra” is the first known instance of a regularly aired, commercially “sponsored” radio broadcast. This will soon become the business model for all radio in the United States.
- 1926** – RCA Victor releases the first “Electrically Recorded” disc, using the process developed by Orlando R. Marsh for cutting a record using an amplified electrical signal from a microphone. The technology enables commercial recordings of instruments and styles of music, such as country blues, previously poorly suited for recording, as well as the creation of “mobile” traveling studios in vans.
- 1948** – Columbia Records successfully launches the first LP (Long-Playing) records, recorded at 33½ instead of 78 rpm, and containing up to 45 minutes of music.
- 1948** – The first consumer-priced home recording decks using magnetic tape (reel-to-reel) are sold.

- 1964** – The “compact cassette” tape format is introduced in the United States by Norelco. In 1966, Mercury Records releases the first commercial music recordings on cassette, although the medium doesn’t produce significant sales until the late 1970’s.
- 1975** – South Shore Commission’s “Free Man” is the first commercially released 12-inch single. The format allows greater distance between grooves, and therefore wider dynamic range, with much more bass.
- 1979** – The Digital Compact Disc format is developed by the Phillips company in the Netherlands. The earliest commercial releases on this format are classical recordings issued in 1981.
- 1988** – This year, music CD sales exceed those for vinyl records.
- 1999** – Jeff Robbin and Bill Kincaid develop *SoundJam*, a system for downloading, organizing, and burning discs from digital music sources. Their system is purchased, further developed, and rebranded by Apple as “iTunes,” launching in January of 2001.
- 2000** – The peak year for music CD sales.
- 2001** – XM Satellite Radio launches, with 100 largely advertising-free channels; Sirius Satellite Radio launches the next year. The two merge in 2008, but as of July, 2010, did not make a profit until February of 2010, despite having nearly 19 million combined subscribers. News of the profit swung the stock in the merged company over \$1 a share, making it something more than “junk” but still not much of an attractive investment.
- 2004** – Apple’s iTunes store sells its 100 millionth song.
- 2005** – The first iteration of Pandora Radio was launched by Tim Westergren. The system streams music according to listener parameters, and has nearly 50 million users as of March of 2010. Due to US Court rulings on royalty rates, the service is now limited to the US.
- 2006** – In large part because of digital downloading (both paid and free/illegal), Tower Records, founded in 1960 and once the largest retailer of music on tape and disc in the world, closes its last store.
- 2008** – Spotify launches in the UK and EU; like Pandora, it offers streaming music with both ad-supported and ad-free paid versions, but it also has a virtual library of potentially infinite size.
- 2010** – Apple announces that the iTunes store has just sold its *ten billionth* download.