

# Recordings and The Music Industry

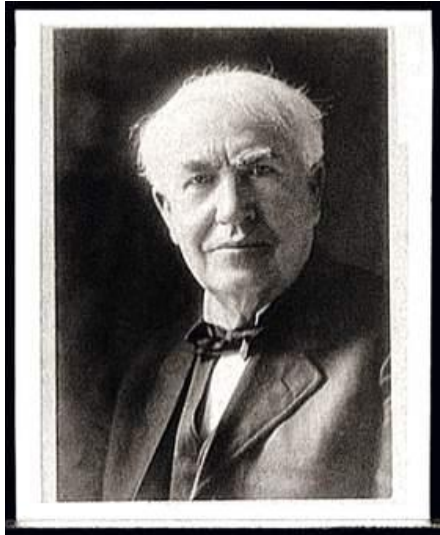


## 1877 - Thomas Edison Invents the Phonograph

-Records sound on a cylinder

-Sound Writer

phono (sound) graph (write)



## 1887 Emile Berliner develops the Gramophone

-records on a flat disc

-inspiration for The Grammy Awards



**Peter Goldmark** invented the LP or long-playing record format. **William Paley**, the owner of CBS Radio and CBS Records wanted to introduce this format which would play for 23 minutes and had better sound quality. He met with RCA executive **David Sarnoff**. Sarnoff refused, then later agreed to manufacture an LP record player.



Tape Recorders came out of German recording experiments during WWII

Ampex Corp. built a high-quality tape recorder

Minnesota Mining and Manufacturing - 3M - perfected plastic tape for recording

PETER HAMMAR and DON OSOSKE

## The Birth of the German Magnetophon Tape Recorder 1928-1945

*The following article is based on research done in the past year in Germany. Author Hammar talked to sources at BASF, Agfa, AEG-Telefunken, the German radio stations, the Deutsches Museum and various retired engineers.*



Research was this recording setup at Berlin's Deutsches Museum in 1941. Recording setup with the Magnetophon in the Deutsches Museum, Berlin, Germany.

**T**he development of magnetic recording had its roots in the early 1900s. From its invention in 1898 as the Graphophone, which recorded on the wax surface of a cylinder, the technology, magnetic recording has gone through several stages.

Valdemar Poulsen, the father of magnetic recording, invented the first magnetic tape recorder. His first idea, in 1919, was a magnetic cylinder of a wire cylinder. Poulsen's first design was a wire cylinder, with a helical recording magnetic pickup head placed along its length. Poulsen's first recording was a recording of a voice through a microphone.

A year later the Danes had developed magnetic recording that could record a voice into a wire cylinder and a recording of a voice into a wire cylinder.

Don Ososke is author, "The Birth of the German Magnetophon Tape Recorder 1928-1945".

### INSTRUMENTATION/DIGITAL RECORDERS **AMPEX**

## instrumentation recorders/reproducers PR-500 series

#### GENERAL DESCRIPTION

The Ampex PR-500 is a new low priced portable or rack mounted instrumentation recorder that can bring the advantages of magnetic recording to industry, medicine, education, and science.

#### FEATURES

- Full seven channel record and reproduce system in a compact package.
- FM Recording technique with frequency response to 10 kHz.
- Direct recording technique with frequency response to 150 kHz.
- ES-100 modules plug-in interchangeable with eight other Ampex models.
- Separate record and reproduce modules allow you to tailor make a system to meet your own requirements.
- Sense system provides six electrically switched speeds, assures speed accuracy even under varying line frequencies.
- 32 to 1 speed range from 15/16 to 30 ips brings 10 x the data within reach of pen recorders, speeds up low frequency data to take full advantage of high speed data processing.
- 12 1/2 hours of playing time captures long experiments in physics monitoring or similar applications.
- Relay-operated switch prevents chattering of short recorder pens when no data is present.
- Special edge track for voice annotation (5 inch version) in addition to seven data channels.
- 1/4 inch compatible track spacing and head geometry assure compatibility with other 1/4 inch tapes and data processing requirements.
- Field convertible from 5-inch seven channel to 3-inch two, four, or seven channel.



# 3M





## 8-track tape

Popular from the mid 60's to mid 70's

Developed by Ampex, Ford, General Motors, Motorola and RCA Records



## Cassette Tape

Developed in Hasselt, Belgium

Released by Phillips in 1962

Recordable



## 1979 SONY introduces the Walkman personal stereo

*sonus* is latin for sound





## CD

The compact disc was co-developed by Phillips and Sony and released in 1982



## MP3

Technology was developed in 1999 by Michael Robertson

Apple introduces iPod in 2001 then iTunes in 2003, which would be the beginning of the death of record stores



**File Sharing** - The peer-to-peer distribution of copyrighted material on the internet without the copyright owner's permission.

**Napster** was a software-sharing program that skyrocketed into popularity in 1999 allowing computer users to download music on the internet for free

**Metallica vs. Napster** - In April 2000, Metallica sues napster for copyright infringement. Napster is eventually ordered to shut down



<https://www.youtube.com/watch?v=sIFeNVKcHcU>

<https://www.youtube.com/watch?v=degzMx9eYN8>



## **Podcasts**

Launched in 2005 by *Slate* editor Michael Kinsley

S - Town

<https://stownpodcast.org/chapter/1>