

Film-Tech

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A Chronology of Dolby Laboratories 1990 to Present

May 1999

- Singapore Airlines initiates cinema-quality surround sound on in-flight entertainment using Dolby Headphone technology.
- First film with Dolby Digital Surround EX soundtrack, *Star Wars: Episode I—The Phantom Menace*, opens in U.S.

April 1999

- DP571 and DP572 Dolby E codecs for use in DTV multichannel audio production and distribution debut at NAB Convention, Las Vegas.
- Number of cinemas equipped with Dolby Digital totals more than 20,000, surpassing all other formats both in North America and worldwide.

March 1999

- With 2,500 SA10 cinema processor adapters ordered, Dolby Digital Surround EX becomes most successful new format launch in cinema sound history.

February 1999

- David Gray, Vice President, Hollywood Film Division, awarded John A. Bonner Medal of Commendation by Academy of Motion Picture Arts and Sciences in appreciation of "outstanding service and dedication in upholding the high standards of the Academy."
- Version 1 of DVD-Audio specifications include two technologies licensed by Dolby Laboratories: Meridian Lossless Packing (MLP) for audio zone and Dolby Digital for optional video zone. Latter option enables DVD-Audio discs to play on all DVD-Video players.

December 1998

- Dolby Headphone signal processor announced, developed by Lake DSP of Sydney, Australia, for cinema-like surround sound over conventional headphones.

November 1998

- First Dolby Digital Interactive DVD Game, *Lander* from Psygnosis, launched at Comdex '98.

October 1998

- Dolby Digital - Surround EX, new 6.1-channel theatre surround sound format co-developed with Lusasfilm THX, announced and demonstrated at ShowEast in Atlantic City.
- Dolby Laboratories wins Emmy from National Academy of Television Arts and Sciences for "pioneering development of a multichannel digital audio bit-rate reduction system, standardized for the ATSC high-definition and standard-definition television systems, and for worldwide Digital Versatile Disc."

September 1998

- First live HDTV broadcast with 5.1-channel Dolby Digital audio: college football game aired by WBNS-TV, Columbus, Ohio.
- Dolby DP569 5.1-channel encoder selling for one-quarter the cost of predecessor introduced at IBC in Amsterdam and AES in San Francisco.
- Dolby Laboratories sponsors Great Expectations Program at Telluride Film Festival.

August 1998

- Australia chooses Dolby Digital as audio standard for DVB-format digital broadcast TV.

July 1998

- Number of screens worldwide equipped with Dolby Digital surpasses 15,000, leading closest competitor by over 1,000 screens.

June 1998

- Dolby Laboratories agrees to act as licensor of MLP, a lossless audio coding process developed by Meridian Audio for applications such as DVD-Audio.

May 1998

- Dolby Model 737 Soundtrack Loudness Meter introduced at Cannes Film Festival.
- DIRECTV announces first broadcasts ever with Dolby Digital 5.1-channel audio, DDS transmissions of Dolby Digital feature films commencing July 1st.
- Number of theatres equipped for Dolby Digital tops 14,000 worldwide.
- 1,380 feature films with Dolby Digital soundtracks, plus 1,700 foreign-language versions, released or announced to date.

March 1998

- More theatres worldwide (13,037) equipped for Dolby Digital than any other digital film sound format.

February 1998

- Dolby engineers Kirk Handley, Ray Meluch, Scott Robinson, Wilson Allen and John Neary presented with Scientific and Technical Awards by the Academy of Motion Pictures Arts and Sciences for the design, development and implementation of the Dolby CP500 Digital Cinema Processor.
- Ioan Allen receives B.J. Sturdivant Award given annually at ShoWest film exhibitors' convention to "an individual who throughout their career has demonstrated a dedication to the exhibition industry and its causes."

January 1998

- Number of Dolby cinema sound processors sold surpasses 50,000 worldwide.

December 1997

- Dolby Digital classified as mandatory audio coding for PAL/SECAM DVD-Video discs, same as NTSC discs, enabling worldwide release of discs with only Dolby Digital soundtracks.

November 1997

- Canada and South Korea adopt ATSC digital broadcast TV system with Dolby Digital audio.

September 1997

- Dolby DP567 two-channel Dolby Digital encoder introduced at AES Convention, New York.

August 1997

- Ray Dolby named recipient of American Electronics Association's Medal of Achievement.

September 1997

- Dolby DP567 two-channel Dolby Digital encoder introduced at AES Convention, New York.

August 1997

- Ray Dolby named recipient of the American Electronics Association's Medal of Achievement.

July 1997

- Sales of Dolby Digital cinema processors top 10,000; released and announced Dolby Digital film titles surpass 940 with more than 1,000 foreign-language versions.
- *DVD Spectacular*, first music-only DVD title, released by Delos International with 5.1-channel Dolby Digital audio.
- British Academy of Film and Television Arts (BAFTA) presents Special Technical Award to Dolby Laboratories "for outstanding achievement in film sound."

June 1997

- Dolby DP561B Dolby Digital encoder featuring lower cost and CE compliance introduced.

May 1997

- Ray Dolby named by President Clinton as recipient of National Medal of Technology.
- Dolby Digital is only digital format played at the Cannes Film Festival, including opening and closing films, *The Fifth Element* and *Absolute Power*.

April 1997

- Dolby DP562 reference decoder with 5.1-channel Dolby Digital and digitally implemented 4-channel Pro Logic decoding introduced at NAB Convention, Las Vegas.
- First DVD video disc titles go on sale in seven U.S. markets.

March 1997

- *The English Patient* (1996), released exclusively in Dolby Digital, wins Academy Award for Best Achievement in Sound.
- First PAL DVD video with 5.1-channel Dolby Digital soundtrack, German-language version of *12 Monkeys*, released in Europe.
- First software Dolby Digital decoder using MMX™ technology announced by Intel.
- First DVD-only video players delivered to U.S. retailers.

February 1997

- First combination laser disc/DVD video players delivered to U.S. retailers.

January 1997

- First automobile surround-sound system with Dolby Pro Logic introduced by Volvo at Detroit Motor Show.
- Virtual Dolby Surround and Virtual Dolby Digital, enabling surround-sound effect from PCs with just two speakers, introduced at CES, Las Vegas.

December 1996

- FCC adopts digital TV standard for U.S. with Dolby Digital as multichannel digital surround-sound coding of choice.

November 1996

- Dolby Surround Tools TDM Plug-Ins for Digidesign® Pro Tools® workstations demonstrated at AES Convention, Los Angeles.

- Dolby Net, low bit-rate version of Dolby Digital, introduced for low-bandwidth applications such as real-time streaming Internet audio.
- First DVD video players delivered to retailers in Japan.

October 1996

- Record 3,500 Dolby Digital processors sold in fiscal 1996 ending September 30.
- 500th Dolby Digital theatrical film, *Shine*, screened at ShowEast, Atlantic City.

September 1996

- 100th laser disc with 5.1-channel Dolby Digital audio, *Twister*, released.
- Fall TV season opens in U.S. with 13 new shows produced in Dolby Surround, bringing current total to more than 50.
- First European NTSC laser disc in Dolby Digital, French-language version of *Judge Dredd*, released.

June 1996

- First cinema multiplex in Latin America with Dolby Digital on all screens, Cinemex Loreto, opens in Mexico City.
- NBC broadcasts opening and closing ceremonies of 1996 Olympic Games in Dolby Surround.

May 1996

- Dolby Drive, all-digital, disk-based replacement for classic 35 mm magnetic film soundtrack dubber, previewed at AES Convention, Copenhagen.
- New DP503 encoder featuring Dolby AC-2, Dolby AC-3 and MPEG Layer II coding also previewed at AES Convention.

April 1996

- Dolby and Microsoft sign letter of intent to jointly develop PC surround sound technologies and specifications supporting use of Dolby Digital AC-3 and Dolby Surround Pro Logic.
- Dolby and Digidesign announce joint effort to ensure interface between upcoming Dolby Drive and ProTools and AudioVision workstations; Dolby also to develop Dolby Surround encoder/decoder plug-in.

March 1996

- Dolby Laboratories receives Scientific and Technical Award from Academy of Motion Picture Arts and Sciences for Dolby Digital film sound system.

February 1996

- Theatres worldwide equipped for Dolby Digital playback top 4,000, while released and announced Dolby Digital film titles surpass 400.

January 1996

- Lower-cost CP45 analog cinema processor introduced at 2nd annual CineAsia convention in Singapore.
- 21 consumer products with Dolby Digital decoding shown at CES, Las Vegas; 11 manufacturers display DVD products.

December 1995

- Dolby Digital prints struck worldwide in 1995 estimated at 400,000; more than 40,000 in circulation globally at any given time.
- Dolby Digital AC-3 audio mandatory for NTSC countries, optional elsewhere, in final DVD specifications.

November 1995

- FCC's ATSC unanimously recommends adoption of ATSC digital TV system with Dolby AC-3 audio as US digital TV standard.
- Introduction of licensing program for Dolby Surround Multimedia.
- First MGM/UA Dolby Digital release, Goldeneye.

October 1995

- 2,100 digital and more than 3,500 analog cinema processors sold in fiscal 1995.
- New program enables purchasing, as well as leasing, SEU4 Dolby Surround encoders.
- CP500 digital cinema processor introduced at ShowEast in Atlantic City, combining playback electronics for both analog and digital Dolby encoded soundtracks.

September 1995

- Warner Bros. announces that all future titles will be in Dolby Digital.

July 1995

- Paramount chooses Dolby Digital as primary release format.

June 1995

- Dolby World Wide Web site opens on Internet at <http://www/dolby.com>

May 1995

- Dolby Laboratories observes thirtieth anniversary.

Spring 1995

- 20th Century Fox announces all future releases to be in Dolby Digital.
- DP524 two-channel digital decoder supporting both AC-2 and AC-3 introduced; offers bit rates from 56 to 384 kb/s.

March 1995

- West Coast Live becomes first live US radio show regularly broadcast in Dolby Surround.
- New manufacturing facility in Brisbane, CA opens.
- Speed first film with Dolby Digital soundtrack and 18th consecutive film in a Dolby format to win Academy Award for Best Achievement.
- Total of facilities in Europe equipped to mix in Dolby Surround tops 120.

February 1995

- Ray Dolby awarded Technical Grammy for 1994.
- BBC broadcasts first radio production in Dolby Surround (Bomber, BBC Radio 4).
- Technicolor London records its 100th Dolby Digital soundtrack, Nell.

January 1995

- First Dolby Digital consumer products and laser discs utilizing Dolby AC-3 announced at CES.
- Toshiba and Time Warner demonstrate prototype DVD with Dolby Digital AC-3 audio.
- First all-Asia film exhibitor convention, CineAsia, held in Singapore.
- German broadcaster Sudwestfunk begins producing programs in Dolby Surround.

November 1994

- AES Convention in San Francisco co-chaired by David Robinson and Marina Bosi; Louis Fielder becomes AES President.
- DP523 two-channel digital decoder introduced.
- Screening room completed at European headquarters in Wotton Bassett.

October 1994

- Model DP523, two-channel digital audio encoder supporting AC-2 and AC-3 at as many as four data rates, introduced.

August 1994

- Fox Network begins broadcasting entire NFL season in Dolby Surround.
- Hollywood Film Division relocates to expanded facilities at 3375 Barham Boulevard, Los Angeles.
- Ioan Allen becomes President of International Theatre Equipment Association (ITEA).

May 1994

- First Direct Broadcast Satellite service with Dolby AC-3 digital audio, DMX for Business, begins.

March 1994

- Dolby Fax for linking worldwide facilities with digital audio begins U.S. sales.
- DP521 and DP522 AC-3 digital encoders and decoders introduced. *Jurassic Park* is seventeenth consecutive Dolby Stereo analog release to win Academy Award for Best Achievement in Sound.

January 1994

- First shipments of DA20 adapter and Cat. No. 700 soundhead, streamlined second-generation hardware for playback of Dolby Stereo Digital films.
- Dolby DSTL digital studio-transmitter link with twice the power of the original model introduced.

November 1993

- First ISDN transmission utilizing Dolby AC-2 coding (Burbank, CA to London).

October 1993

- Digital HDTV Grand Alliance selects Dolby AC-3 to provide digital surround sound for U.S. HDTV system.
- First rock recording mixed in Dolby Surround, "Pictures at an Exhibition," released on Emerson, Lake & Palmer CD *The Return of the Manticore*.

September 1993

- First single-chip processor (ZR38000) capable of Dolby AC-3 coding/decoding made available by Zoran. Application-specific AC-3 ICs announced for second quarter of 1994.

August 1993

- First 35 mm projector soundhead capable of reading both analog and Dolby Stereo Digital optical sound-tracks introduced by Cinemeccanica.

May 1993

- First French Dolby Stereo Digital productions, *Ma Saison Préférée* and *Toxic Affair*, screened at Cannes Festival.

April 1993

- HRH The Princess Royal (Princess Anne) officially opens Dolby Laboratories' new European headquarters at Wootton Bassett.

March 1993

- *The Last of the Mohicans* (1992) is sixteenth consecutive Dolby Stereo release to win Academy Award for Best Achievement in Sound. All nominated films released in Dolby Stereo.

February 1993

- WEA announces all new prerecorded audio cassettes to utilize Dolby S-type beginning in summer.

January 1993

- Dolby European headquarters relocated from London to new facility in Wootton Bassett, Wiltshire.
- *Stalingrad*, first non-U.S. Dolby Stereo Digital production, opens in ten theatres equipped for Dolby Stereo Digital playback in Germany, Austria, and Switzerland.

August 1992

- Zoran Corp. announces program to develop Dolby AC-3 ICs for implementing Dolby Surround Digital, multi-channel consumer format based on Dolby Stereo Digital film format.

July 1992

- BMG Classics announces all new prerecorded audio cassettes to utilize Dolby S-type beginning in October.
- NBC uses Model 430 background noise suppressor for location broadcasts of Summer Olympic Games in Barcelona.

June 1992

- First film released in Dolby Stereo Digital, *Batman Returns*, premieres in ten U.S. theatres equipped with new Dolby DA10 Digital Film Sound Processor.
- Dolby Model 740 Spectral Processor, new type of dynamic equalizer, introduced at APRS in London.

May 1992

- First Dolby DSTL system installed at WWKX FM, Providence, RI.

March 1992

- *Terminator 2: Judgment Day* (1991) is fifteenth consecutive Dolby Stereo release to win Academy Award for Best Achievement in Sound. All nominated films released in Dolby Stereo.

January 1992

- Lower-cost A-type/SR multi-track unit, Dolby SRP Series, announced.

October 1991

- Dolby 430 Series background noise suppressor, based on modified version of Dolby SR, introduced.

September 1991

- Dolby DP5500 Series DSTL system, world's first all-digital studio-to-transmitter link, demonstrated at NAB Radio '91 in San Francisco.
- First STACE Award, in memory of Dolby Laboratories' long-time National Sales Administrator Stacey Rehm, presented by Theater Equipment Association to Sam Feldman of National Amusements, honoring "commitment to advancement of technology in film exhibition."

August 1991

- Introduction of Dolby CP65 Cinema Processor for playback of all 35mm analog optical formats and interface with new Dolby Stereo Digital format.

April 1991

- First demonstrations of Dolby Stereo Digital for film industry held in San Francisco. Further demonstrations in Los Angeles, New York, London, Paris, Madrid, Munich and Milan during summer and autumn.
- Skywalker Sound begins using Dolby AC-2 digital coding to transmit high-quality audio over T1 link between facilities in Marin County and Los Angeles.

March 1991

- *Dances With Wolves* (1990) is fourteenth consecutive Dolby Stereo release to win Academy Award for Best Achievement in Sound. All nominated films released in Dolby Stereo.

February 1991

- Development of Dolby Stereo Digital, with compatible SRoD 35 mm prints providing both digital and analog optical soundtracks, announced at ShoWest in Las Vegas. New format is first application of Dolby AC-3 multi-channel digital audio coding.

January 1991

- HBO announces expanded use of Dolby Surround on original programming, including all music specials.

December 1990

- First production cassette decks with Dolby S-type shipped, Harman-Kardon TD4600 and TD4800.
- *Dolby Technologies: How They Work*, consumer information Laser Disc, released. Videocassette version follows in 1991.

November 1990

- First 1" 24-track recorders with Dolby S-type, Tascam MSR-24S and Fostex G24S, introduced.

September 1990

- Dolby Model 422 B/C/S encoder introduced at AES.

August 1990

- Demonstration in San Francisco of advanced NTSC television system combining Dolby AC-2 stereo digital audio and Faroudja Research Enterprises' SuperNTSC video.
- Sanyo releases LV1000, first IC incorporating Dolby Time Link digital delay.

June 1990

- Release of 100th Dolby Stereo SR film, *RoboCop 2*.

May 1990

- Dolby Laboratories' 25th anniversary. Celebrations held at Exploratorium in San Francisco, and at Steam Museum in London in July.

April 1990

- Dolby 3 Stereo for stereo televisions introduced.

March 1990

- *Glory* (1989) is thirteenth consecutive Dolby Stereo release to win Academy Award for Best Achievement in Sound. All nominated films released in Dolby Stereo.

January 1990

- Dolby S-type demonstrated to U. S. press at CES in Las Vegas. Five licensees exhibit prototype consumer products incorporating new system.

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