

# Ray A. Rayburn - FAES

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## Resume

### EMPLOYMENT:

Principal Consultant – Sound First, LLC. He was Principal Consultant with K2 Audio, LLC of Boulder, CO from 12/2005 to 10/2012. He was previously a Senior Consultant with Cirrus Logic, Peak Audio, and Sound Visions Consulting.

### STANDARDS DEVELOPMENT:

Chairman of the AES Standards Subcommittee on Interconnections, and the working group on Audio Connectors. He is a member and former Chairman of the AES Technical Committee on Signal Processing. He was a member of the American National Standards Institute (ANSI) Accredited Standards Committee (ASC) S4 on Audio Engineering. He is a member of the AES Standards working group on Microphone Measurement and Characteristics. He was one of the developers of the ANSI/InfoComm Standard on Audio Coverage Uniformity, and currently leads the InfoComm Standards task group on Spectral Balance.

### PROFESSIONAL SOCIETIES:

Life Fellow of the Audio Engineering Society. Member Emeritus of the Acoustical Society of America.

### EDUCATION:

ASET, New York Institute of Technology; Active Filters, Institute of Electrical and Electronic Engineers; Tape Recorders, Audio Engineering Society; 15 courses from Synergetic Audio Concepts including Sound System Design, TEF, Digital Signal Processing, Digital Audio Networks, Hums Buzzes, Conference Systems, Emergency Communication Systems & Speech Intelligibility, Making Wireless Work, & OptEQ.

### HONORS:

Fellowship Award of the Audio Engineering Society in 2009 “In recognition of your contributions to the art and science of sound system design, digital signal processing and routing, and electromagnetic compatibility.” Grand Prix International Du Disque Liszt - Budapest 1982. Grand Prix International Du Disque Liszt - Budapest 1981.

### PUBLICATIONS:

Mr. Rayburn authored the 3<sup>rd</sup> edition of “Eargle’s Microphone Book” a guide to microphone design and application, and three chapters in the 5th edition of the “Handbook for Sound Engineers” and two chapters in the 4<sup>th</sup> and 3<sup>rd</sup> editions, which is

considered to be the “bible” of audio design. He has over 100 published articles on sound, acoustics and related topics.

#### LECTURES:

Mr. Rayburn has taught audio systems and recording at Eastman School of Music and the Institute of Audio Research. He was also a panelist at the 2000 Digital Audio Networks seminar sponsored by Synergetic Audio Concepts and lectured at the 2001 and 2002 National Systems Contractors Association and INFOCOMM conventions.

#### PROFESSIONAL EXPERIENCE:

Mr. Rayburn has been an engineer in acoustics, audio systems, and telecommunications for 44 years. He has notable experience in the design of legislative sound systems, church sound and acoustics, and recording and broadcast studios. He has particular expertise in the creation of highly customized "project files" for configurable digital signal processing, digital audio networks, and has taught advanced training courses on these topics. He is responsible for the design of advanced digital audio systems, measurement of audio system performance, measurement and optimization of acoustic environments, and the optimization of audio systems for their acoustic environments. He also has expertise in the area of RFI interference elimination. With the recent proliferation of GSM cell phones and Blackberries, this knowledge has proven instrumental in assuring that his designs avoid the problems caused by these devices.

A holder of a license to use and teach Time Delay Spectrometry since 1978, Mr. Rayburn has extensive experience in the use of TDS, TEF, Smaart and other acoustic measurement systems, and the use of acoustic data in the design and re-design of acoustically critical facilities. His design and development of audio and telecommunications products include equipment marketed by AT&T, V-Band, ETC, Comcast and others ranging from microphones to teleconferencing equipment, and tape duplicators to modems.

Mr. Rayburn has recorded the Chicago Symphony, the Philadelphia Orchestra, and Frank Zappa for RCA Records; TV specials for HBO and Showtime; award winning albums for the Connoisseur Society; and an award winning syndicated radio program.

#### RELEVANT PROJECTS:

Arkansas Arena, AK  
Broadway Video, New York City, NY  
Calvary Temple, Winnipeg, Canada  
Comiskey Park, Chicago, IL  
Connecticut Legislative Office Building, Hartford, CT  
Cure d'Ars Catholic Church, Denver, CO  
db Studios, Chicago, IL  
EuroSound, New York City, NY  
Florida Sun Coast Dome, St. Petersburg, FL  
Georgia Dome, Atlanta, GA  
Immersive Sound & Vision Recording Studio, Boulder, CO  
Metropolitan Opera, New York City, NY

Mobberly Baptist Church, TX  
National Archives and Records Administration, Washington, DC  
New Testament Baptist Church  
Orioles Park at Camden Yards, Baltimore, MD  
Ottawa Palladium, Kanata, Ontario, Canada  
Photo-Mag Sound, New York City, NY  
Saturday Night Live, New York City, NY  
Tampa Convention Center, Tampa, FL  
Texas State House of Representatives, Austin, TX  
Texas State Senate, Austin, TX  
US House of Representatives Cannon Caucus Room, Washington, DC  
US House Committee on Education and the Workforce Hearing Room, Washington, DC  
US House Committee on Energy and Commerce Hearing Room, Washington, DC  
US House Committee on Financial Services Hearing Room, Washington, DC  
US House Committee on House Administration Hearing Room, Washington, DC  
US House International Relations Committee Hearing Room, Washington, DC  
US House Committee on Science and Technology Hearing Room, Washington, DC  
US House Committee on Ways and Means Hearing Room, Washington, DC  
US Senate Chamber (the world's first all digital sound system), Washington, DC  
US Senate Chamber, new system (2006), Washington, DC  
US Senate Committee on Rules and Administration Hearing Rooms, Washington, DC  
U.S. Senate Committee on Agriculture Hearing Room, Washington, DC  
U.S. Senate Committee on Finance Hearing Room, Washington DC  
USTA Arthur Ashe Stadium, New York City, NY  
University of Hawaii Special Events Arena, Manoa, HI

#### PROFESSIONAL AFFILIATIONS:

Audio Engineering Society, Acoustical Society of America, InfoComm, Synergetic  
Audio Concepts.

#### EMPLOYMENT:

K2 Audio LLC, Boulder, CO - consulting firm - 2005 - 2012  
Cirrus Logic, Boulder, CO - semiconductor manufacturer - bought Peak Audio - 2001 -  
2005  
Peak Audio, Boulder, CO - DSP development and consulting firm - 1997 - 2001  
Sound Visions Consulting, Arlington TX - (formerly Joiner Consulting, formerly Joiner  
Rose Group)  
Essential Telecommunications Corp, Glastonbury, CT - custom telecommunication  
equipment for the stock brokerage industry  
Comcast Sound, West Hartford, CT - professional audio design/build  
Broadcast Technology Group, NYC, NY - broadcast facility design, developed 5 channel  
FM SCA system and demo'd voice, data, and slow scan TV over SCA at an NAB  
Convention.  
Broadway Video, NYC, NY - TV Post Production, and field production, built the first  
LEDE certified TV Post Production room.  
Photo-Mag Sound, NYC, NY - design of new facility

Rayburn Electronics, NYC, NY - Design and maintenance of recording studios and film and video post production facilities.

Electric Lady Studios, NYC, NY - maintenance of studios and equipment

EuroSound Studios, NYC, NY - design and construction of facility

RCA Records, NYC, NY - maintenance of studios and equipment, remote recording

Connoisseur Society Records, NYC, NY - design of the first commercially successful real-time tape duplicating facility, recording of award winning albums

Nonesuch Records, NYC, NY - recording of album

A&R Recording, NYC, NY - maintenance of studios and equipment

db Studios, Chicago IL - design and construction of Chicago's largest recording studio complex - this later became Columbia College Chicago's Audio Training Center.

Telectro Systems, NYC, NY - design of telephone answering machine and high speed tape duplicator

Christian Broadcasting Network, Ithaca, NY - design and construction of radio studios, engineered award winning radio program

Point Sound Productions, NYC, NY - maintenance of studio and equipment

Chemical Instruments Corp. NYC, NY - design of polymer analyzer, design of hybrid analog/digital automation system for polymer analyzer.

Schober Organ Corp. NYC, NY - built demo organs for showroom

**PERSONAL:**

Mr. Rayburn is married, has 4 grown sons, and 6 grandchildren.

Additional information can be found here:

[www.linkedin.com/pub/ray-rayburn/11/9a3/b60/](http://www.linkedin.com/pub/ray-rayburn/11/9a3/b60/)