APRIL 1981

THE RECORDING INDUSTRY DIRECTORY

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Producer's Desk Focus: Northeast Recording

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APRIL 1981

FEATURES

TODD RUNDGREN'S

WOMEN IN AUDIO

HISTORY OF THE

LISTINGS

STUDIOS OF THE NORTHEAST

TWENTY-FOUR

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STUDIO SERVICES

Gale Rosenberg

OFFICE ASSISTANTS

Rose Cox

Frank Grygus

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ADVENTURES IN VIDEO

TAPE RECORDER-PT. II



When we started Mix Magazine a little over four years ago, our goal was to spread the word about the excitement, creativity, job satisfaction and opportunities in the recording industry. We were turned on by it and we enjoyed seeing others discover the unique experiences and challenge: of the art and science of recording.

As we all know only too well the last couple of years have tested the committment level of those in our industry. The fast and easy money stories of not too long ago have ;oined the ranks of mythology and, more than ever before, we face the challenge of making what we do work as a business. Rising costs and decreasing record sales have brought out the survival instincts in many of us and have taught us that, although what we do is very special, we are still part of the real world.

Our original goal of four years ago hasn't changed, though. Excitement, creativity, job satisfaction and opportunities still abound in the recording industry, as does talent, skill and a booming technology. The challenges, however, are greater than ever. Getting the best out of the industry today requires putting your best into it.

. . .

This month we feature the Northeast recording scene and some of its most notable people and places. For instance, Todd Rundgren seems to have touched every form of creative musical endeavor. We sent Bruce Pilato up to Woodstock to interview Todd about his exploits into video recording, his latest adventure.

Long overdue in our pages has been tribute to the contribution women have made in our industry Wendy Germaine has provided us with a retrospective view of a few female pioneers in audio, to be followed next month by some present day women who are contributing greatly to the art.

We'd also like to introduce you to our newest column "Producer's Desk", written by James Riordan (who you may remember from last month's feature, "The Job of Producer") Each month "Producer's Desk" will profile a leading record producer. This month... New York's Tony Bongiovi



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DEPARTMENTS



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3M PRESENTS

"Scotty" Awards

A new awards will honor the team of artists, producers, engineers and studios involved in creating outstanding recordings. Professional excellence and cooperation in the search for the highest levels of recording quality will be now recognized by 3M's "Scotty" awards, says Dennis Farmer, Broadcast/Recording market development manager of 3M's magnetic Audio/Video Products Division.

In order to qualify for a "Scotty," a recording must achieve gold or platinum status according to the Record Industries Association of America guidelines. Additionally, it must have been completely mastered and mixed on Scotch professional audio recording tape.

A panel of six judges, consisting of representatives from the musical, audio engineering and record producing communities, as well as from 3M, will select the winning creative teams. Each winning team will receive "Scotties."

The award itself is an original sheet music style painting of the winning artist, personalized

to highlight the gold/platinum recording. In each case, the recording artist will get the original painting. Other team members will receive framed, high-quality reproductions of the original.

Further, 3M will contribute \$1,000 to the Muscular Dystrophy Association in the name of the winning team. An additional \$100 will be given to the MDA in the name of each studio submitting a gualified nomination.

As an additional tribute to the best of the best recordings by "Scotty" winners, one recording will be selected each year. The winning artistmay then name an aspiring musician, who will receive a \$5,000 scholarship from 3M.

"Scotty" nominations should be submitted by the recording studio to the 3M sales representative serving the studio, Farmer says. Recordings from all music categories—pop, jazz, rock and roll, gospel, country and western, classical—are eligible for nominations.

Dr. Luce Named Moog President

Norlin Industries, Inc. has announced that Dr. David A. Luce has been named as the President of its Moog Music, Division. Dr. Luce replaces David Bueschel who has left Moog for a position with The Austin Company of Chicago.

Dr. Luce has been Vice President of Engineering at Moog for the past eighteen months. Prior to that, he was Director of Design and Development. He came to Moog eight years ago and has been one of the major innovators in synthesizer design during that period, having designed the famous Polymoog and the recently released Opus 3 Synthesizer.

Prior to joining Moog Music, Dr. Luce resided in the Boston area where he completed his doctoral studies in electronic musical synthesis at the Massachusetts Institute of Technology.

Wilson Granted MANA Membership

Wilson Audio Sales of Franklin, TN, with Wally Wilson, principle officer, has been named to membership in the prestigious Manufacturers' Agents National Association, it was announced today by MANA President, James J. Gibbons.

MANA is a thirty-four year old organization of both manufacturing and marketing agencies representing 35,000 professionals working together for better understanding of the manufacturer/agency relationship. The Association's headquarters are located at 2021 Business Center Dr., Irvine, CA 92715.

Wilson Audio Sales is a manufacturers' agency specializing in the marketing of technically advanced professional audio products for the recording, broadcast and sound reinforcement industries.

Soundcraft Relocates

Soundcraft Electronics Ltd., U.K. based manufacturer of mixing consoles and tape machines, announces a move of its U.S. based sales and service facility from Kalamazoo, MI to Torrance, CA.

Heading the California operation are Ms. Betty Bennett, who previously managed the Kalamazoo operation, and Wayne D. Freeman, former marketing manager of BGW Systems and more recently vice-president of New West Audio Marketing. Shane Morris of the London operation will assume the position of technical director. The new location is 20610 Manhattan Place Suite 120, Torrance, CA 90501. Telephone is 213-328-2595.

Audiotechniques Opens Center In Manhattan

Audiotechniques, New York City and Stamford, Ct., professional audio dealer, has inaugurated a used equipment sales showroom in New York City called the Audiotechniques Equipment Exchange.

The new facility, according to manager, Matt Brosious, is a unique concept in used equipment merchandising. For the first time in the eastern U.S. prospective purchasers of used professional audio equipment will be able to choose from a large selection of products in one centrally located showroom. The Equipment Exchange, in Manhattan's famous Brill Building, accepts used recording equipment in good condition for sale on a consignment basis. Sale price of the equipment is determined by the owner, usually after consultation with Exchange personnel.

Both purchasers and consignors are advised to call the Audiotechniques Equipment Exchange at 1-800-223-2486 or 212-586-5989 to set up an appointment. All visits are by appointment only.

Hausman Elected Ampex Chairman

Arthur H. Hausman, a director, president and chief executive officer of Ampex Corporation, has been elected to the additional post of chairman of the board of directors. He succeeds Richard J. Elkus, who retired January 31 as a director and chairman of the board.

The board of directors also amended the company's by-laws to increase the board's size from 10 to 14 members, and elected five new members. They are: Forrest N. Shumway, chairman of the board and chief executive officer of The Signal Companies, Inc.; Daniel W. Derbes, president of Signal; Charles S. Arledge, group vice president of Signal; John A. Teske, president and chief operating officer of The Garrett Corporation, a Signal subsidiary; Charles A. Steinberg, executive vice president of Ampex.

AVR Update

Audio-Video Rents, in San Francisco, has incorporated and changed its name to Audio Video Resources, Inc. AVR is increasing their emphasis on high quality video production with

the addition of Richard Poggioli as director of video services.

Poggioli comes from New York where he has worked with CBS Sports and WNEW-TV.

Australian Audio Show

The first professional sound exhibition in Australia will be held in Sydney between Oct 10-13, 1981 at the CentrePoint Exhibition Complex. Equipment on exibition will include professional audio, semi-professional audio and sound reinforcement equipment.

The show is sponsored by Australian Sound Recording Magazine and is open to the public (limited hours only). For further information and details contact: ASR on (02) 6997931.

New TEAC Personnel

Three new managerial positions have been added at TEAC Corporation of America, according to Barry Goldman, Vice President of Sales and Marketing.

"In order to serve our dealers better, we now have a full time Sales Manager for both accessory lines, audio and pro, plus two Regional Sales Managers for audio products," Goldman explained.

Shoji Sato is the Sales Manager tor TEAC Accessories; Tom Whitehead is the Eastern Regional Sales Manager and Rod Haden is the Western Regional Sales Manager. Sato and Haden will work out of the company's U.S. corp.

orate offices in Montebello, CA; Whitehead will reside in Atlanta, GA.

AKG/Doobies Pact

The Doobie Brothers, major Grammy-Award winners, have signed an endorsement pact with AKG Acoustics, Inc. AKG, a respected manufacturer of microphones and accessories is "very proud of the association between the Doobie Brothers and AKG," according to Dick Ravich, National Marketing Manager.

The marketing promotion of the Doobie Brothers endorsement will include: in-store posters and T-shirts featuring the campaign "The Doobie Brothers/On Tour With AKG."

JBL Donates Equipment

James B. Lansing Sound, Inc. has donated professional loudspeaker equipment to two Los Angeles cultural facilities, the Griffith Park Observatory and the L.A. Bicentennial's main Information and Exhibit Center.

Sixteen 4311 control monitor loudspeakers have been donated to the City of Los Angeles, Department of Parks and Recreation, for use in the Griffith Planetarium's Laserium presentations. The speakers are computer-controlled by a 16-channel programming device which creates spectacular audio/visual effects for the show's guests.

JBL has also donated eight 4311's to the Los Angeles 200 Committee for installation in the

city's official Bicentennial Information and Exhibit Center, a Buckminster Fuller-designed "fly's eye" dome. Located in Pershing Square in downtown Los Angeles, the Center features a dramatic timeline exhibit with audio/visuals documenting key episodes in Los Angeles' two hundred year history. The 4311's comprise the main playback system for the audio portion of the program.

Ludutsky Named Vice President For EECO

EECO Incorporated announces the appointment of John M. Ludutsky to Vice President, Electronic Products Division.

In this position, reporting directly to Dr. Patrick F. Cadigan, EECO president and CEO, Ludutsky is responsible for the overall management of the Electronic Products Division. The division includes the marketing, engineering, manufacturing and quality assurance for EECO's Paper Tape Reader and Broadcast Products groups.

Pettersen Promoted By Shure

Shure Brothers Inc., Evanston, Ill., has announced promotion of Michael Pettersen to assistant marketing product manager of circuitry products. His responsibilities include development of marketing strategy and coordination of new circuitry product planning.

Pettersen joined Shure in 1976 and his previous position was regional sales manager. His educational background includes a Bachelor of Arts from the University of Illinois.

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Recent activity at Kingdom Sound, Syosset, Long Island includes Joan Jett and the Blackhearts mixing their latest single, "You Don't Own Me", produced by Kenny Laguna and Richie Cordell, Glen Kolotkin engineering. Roger Glover producing himself on an upcoming solo LP, Clay Hutchinson engineering.

Spectrum Recorders in Lanesborough, Mass, has been working with country swing band Swing Shift, the Mark Cushing Band, and most recently Shenandoah (Arlo Guthrie's road band), who have been working on some of their own original material, with an album project in mind for the future. All were engineered by Peter Seplow.

Roxy Recorders, in NYC, recently completed recording a new album for Muse— the Kenny Burrell Trio w/ Rufus Reid and Ben Riley as well as several national jingles (Garanimals, Sominex, WNAC-TV). In the future lies an album—the Lloyd McNeill/Kenny Barron duo, produced by the former, and pre-production for another album for Miami producer Mike Siegel.

News from Sigma Sound Studios Philadelphia, PA, includes PIR's **Teddy Pendergrass** working on an album project with PIR co-founders **Gamble & Huff** producing Studio head **Joe Tarsia** is doing the engineering.

SOUTHEAST

The Marshall Tucker Band was at Sound Emporium in Nashville, to complete an album they began there in November. The album is being produced for Warner Bros. by Tom Dowd, whose credits include Rod Stewart and Eric Clapton. Engineering the album is New Yorker Kevin Herron, with Gary Laney assisting.

Barry Mraz (Styx, Benny Mardones) has returned to Quadradial in Maimi Fla., to produce and engineer artist David Johansen (former member of the group New York Dolls). David is working on his current album project for Blue Sky Records/CBS with a release date in the spring. Assisting on the LP are Jerry Thichava and Paul Speck.

Songwriter Paul Williams was at Woodland Sound in Nashville, for Nashville's first album to be recorded on 3'M's digital 4 track equipment. Charles Underwood produced the live sessions, with Rick McCollister engineering and Mike Porter and Kerry Kopp assisting. Activity at Quadrafonic Studios, Nashville: Kris Kristofferson, in the studio with producer Norbert Putnam, adding finishing mixes to a few tracks on his Monument LP, "To the Bone".

NORTHCENTRAL

"The Sirens" are recording their first album titled "Much Too Young", at Charisma Studios, Dearborn, Michigan. Jim Randolph producing, Jon Jarvis engineering, for Razor Cut records. The Sirens are a Detroit based rock/wave group. Recording activity at Atom Smashers Unlimited Studio, Ferndale, Michigan includes the Earthmen getting ready for their first release with Silver Stone-Arrow Productions, with Atom Smashers Unlimited Studio owner John Annesser engineering. Self-produced musicians are: Bill Standley of Birmingham, MI: Chris Harwood of Ferndale, MI; Dan Kuchar (Kooch) of Plymouth, MI; Bill Kapenicus of Tupelo, Mississippi; John Annesser, the leader of the Earthmen; also Barb Rohr, director and manager of Silver Stone-Arrow Productions.

SOUTHWEST

ACA Recording Studios, Houston, Texas has just finished an album titled, 'Sweetwater', for the world famous Church of the Redeemer. It was recorded on location and mixed down at the studios. ACA's engineers Bill Holford and Andy Bradley spearheaded the recording with consulting engineer from England, Ray Prickett (who worked for Pye Records for many years.) Issac Payton Sweat, three time gold record country star is recording at ACA with Roy Ames producing and Holford/Bradley engineering.

In at Indian Creek Studio in Uvalde, Texas, D-Day with Dave Stewart of London, England, formerly with Bill Bruford, on keyboards and producing. CHAD produced by Greg Williams of the group "Switch". Rex Ludwick, formerly with Willie Nelson and his band "Texas" finishing up an album project. John Rollo engineering and co-producing.

At Infinity Recording Studios in Tulsa, OK, projects are under way for Colorado rock group The Works, Dick Loftin re-mixing selected cuts for his album 'Writer' and electronic neo-classical rock group 'Talisman', with Al Cahen at the board.

Rainbow Sound, Inc. Dallas, Texas has started production on a new lp release for John Hall. Brass and back vocals were cut for a new album by Tim Pedigo produced by Lanny Wolfe. Also just completed, a new country album for David Russell, produced by Jess Hudson.

SOUTHERN CALIFORNIA

Those outrageous outlaws of rock and roll The Tubes are currently overdubbing their latest album at Monterey Sound Studios in Glendale. Ca. Producing the as yet untitled album is David Foster with Humberto Gatica at the controls. Les Brockmann and Paul Lani assisting. Bill Champlin is also on hand doing vocal overdubs. The following projects are in progress at Heritage Studio in Hollywood, Jim Ed Norman producing Albert Hammond and Johnny Lee with Erik Prestige engineering.

At Clover Recorders in Hollywood, Michael James Jackson is producing Robben Ford tracks for Elektra/Asylum, Jim Nipar engineering. Jackson also doing final production on Red Ryder album for Capitol Records with Toby Scott at the console.

The Statler Brothers & Delbert McClinton just finished laying tracks at Gold Star Studios in Hollywood for an upcoming "Solid Gold... Country Countdown" TV show with Larry Levine engineering. Crystal Gayle also videotaped a "Solid Gold" segment at Gold Star recently.

NORTHWEST

At Mobius Music Recording, in San Francisco, Romeo Void's LP on 415 records, David Kahne producing and engineering. Chrome's LP and the new Dead Kennedy single with Oliver DiCicco engineering.

In Studio A at the Music Annex in Menlo Park, CA, Tom Anderson producing and engineering a new album for Bandanna, longtime South Bay favorites; Lester Abrams (Minute by Minute) is producing four new tunes, with engineer David Porter; Indelible Inc. is working on a new project with producer/engineer Richard Bosworth; The Cornell Hurd Band, with producer Abram Richman, is recording a new crazed single, Dave Porter engineering.

Stephen Stills & Graham Nash are at Sea-West Studios/Hawaii on the North Shore of Oahu recording their new lp for Atlantic Records. Engineering the sessions are: Stanley Johnston and Steve Gersky. . .assisting is Gaylord Holomalia. Also at Sea-West/Hawaii, producer Rick Keefer just completed an lp for RCA Records in Europe for singer. "Sonya".

Action at The Automatt in San Francisco, includes Santana recording with Bill Graham producing in association with Devadip Carlos Santana and Fred Catero, and Wayne Lewis assisting. Stacy Lattisaw recording an LP, entitled "With You," for Cotillion Records with Narada Michael Walden producing, Kenn Kessie engineering, and Maureen Droney assisting. In the works at Lion Tracks in Cotati, CA is an E.P. containing five cuts, produced by Howard **Bass** for Innervoices Inc., a New York based company. The E.P., which is part of a multi-media project was re-mixed at Lion Tracks by Mario Lewin who also engineered the final tracks and shared co-production duties. Mario also played guitar on one cut.



Patrick DeVosgelovis, owner of Rocket Studios in New York City is pleased to announce the recent re-build of his performing/showcase studio. The acoustic and electrical design was done by Analogic of Paris and New York and features 4 monitor systems and acoustical treatment to simulate indoor or outdoor sound.

The Angel Voice Recording Company of San Jose California, has its new 24 track recording studio now under construction and will be equipped with a new Sphere 32 in x 32 out mixing console, a new Ampex MM 1200 recorder/ reproducer, the latest outboard equipment and a new Prophet 10 keyboard. Construction of the studio is being sponsored by the Light of the World Apostolic Cathedral Inc. (PA of W) of San Jose California Pastor and Founder Dr. T.A. Price. The studio will be open to the public in late April, for demos, record production, album projects, jingles, radio spots, and video tape overdub master production. Audiocraft Recording Company of Cincinnati, Ohio announces the installation of their new 28 channel mixing console. The console is the first of the new SYNCON B series by Allen & Heath Ltd. of England to be installed in this country. Bud Herzog, President of Audiocraft Recording made the purchase decision as a result of the continuing rapid expansion of the company's "Sound Images" division. Sound Images composes and records lyrics and musical scores for commercials and film work. Their clients list includes Proctor & Gamble, Sears, Kroger, Zenith, G.E., and Bell Telephone amongst many others.

M & I Recording in New York City announces the addition of a new room. The equipment in the new studio B is: Tangent Series 4 console (8 x 4), TEAC 3340S 4 track machine, Otari 5050B 2 track machine. Outboard equipment includes: dbx Compressor, Tapco Reverb, Technics cassette deck, Dual turntable, JBL & Auratone monitors, dbx & Dolby noise reduction

From Ft. Lauderdale, Florida, Sound Cutting, Inc., mastering lab headed by Al Brown, is continuing to expand and upgrade its facilities for disk cutting with the addition of new outboard equipment for its Neumann system. Recently added were Inovonics 376 electronics, Orban parametric equalizer, Orban compressor/limiter and Orban stereo synthesizer. Sound Cutting recently did the mastering on sides by Dizzy Gillespie, Thelonius Monk and Art Blakey for Gemcom, a new Freddy Cole LP for Demand Records and 38 classical sides for the Euphoria label.

Eastern Artists Recording Studio in East Orange, New Jersey, is proud to announce the addition to its staff of independent producer David Miles as studio manager. Miles comes to the studio after seven years on the road and a year at Sear Sound, N.Y. as manager. His productions include new wave vocalist China Davis and funk-fock group "Atom."

Harbour Sound, a new 24 track studio in Sausalito, Ca will be opening on April 1st at 301 Harbor Drive. The staff includes: Nancy Evans, Paul Stubblebine, Dana Chappelle, Craig Talmy, Fernando Kral and Marnie Moore. For further information, contact Marnie Moore at (415) 332-0983.

Infinity Recording Studios In Tulsa, OK, has reopened upon completion of its live-end, dead-end style control room. New equipment includes an Allen and Heath Modular Series console, JBL 4313 monitor, Mini Moog, Fender Rhodes, a modified Carvin 16 x 8 x 2 console for stage submixing, and 7 re-built Ampex and Stromberg-Carlson power amps for back-up and stage amplification.

Spectrum Recorders in Lanesborough, Massachusetts has officially opened their new 24 track studio. The studio is 25 x 30 x 15 with a control room of 16 x 20. Equipment includes an APSI Model 3000 32 x 24 console and MCI JH-100-24 recorders, complimented by UREI monitors. Outboard equipment include Delta Lab DL-2, Loft delay flanger/doubler, MICMIX CSR EQ23, UREI and dbx limiters.



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But these select few will not be the only ones who win. A \$5000 music scholarship will be awarded by 3M to a promising new artist chosen by the Best of Show winner. An additional \$1000 will be awarded by 3M to the Muscular Dystrophy Foundation in the name of each winning artist. And \$100 will be awarded to Muscular Dystrophy for each qualified nomination.

Who will the first Scotty Award winners be? That's up to you. We're now accepting nominations for recordings that reached gold or platinum status during 1980.

So contact your 3M Field Representative for details and nomination forms. Help the fortunate, and the less fortunate, win a Scotty Award.

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3M Hears You



COMMITTEE REPORT

Society of Professional Audio Recording Studios 112 S. 16th St., Suite 906, Philadelphia, PA 19102

Philadelphia, PA (February 4, 1981)—The Society of Professional Audio Recording Studios (**SPARS**) recently held a board of directors meeting under the leadership of newly elected President Murray R. Allen, of Universal Recording Corporation, in Chicago.

During the meeting five new members were approved: Advisory Associate Members—Ampex Corporation/Magnetic Tape Division, Richard Antonio; and MCI, G.C. "Jeep" Harned; Affiliate Member— Strawberry Jamm Recording Studio, Bob Curlee, West Columbia, South Carolina; and Associate Members—Hamilton H. Brosious of Audiotechnigues, Stamford, CT.; and Vipin Sahgal of V. Sahgal & Associates, Beverly Hills, CA.

Plans were also formalized for a major SPARS Convention slated for Nashville, TN., from Thursday, August 27, through Saturday, August 29. Titled "Partners For Profit & Progress," the event will be held at the Opryland Hotel and will feature exhibits of video and audio manufacturers, record companies and recording studios.

Timely, valuable and unique seminars will be presented by some of the most respected figures in the audio and video industries. A significant keynote speaker will kick off activities with an overview of "What The Record Company Looks For From The Recording Studio." Succeeding seminars will address a myriad of subjects including video sweetening computers, production, engineering, microphone techniques, equipment financing, legal aspects, remotes, marketing and merchandising concepts. A concluding dinner Saturday evening (29th) will spotlight a show of exciting Nashville entertainment. Additional details will be forthcoming.

National Association of Record Merchandisers 1060 Kings Hwy. North, Cherry Hill, NJ 08034

The largest and most intensive campaign ever in behalf of black music will take place over the next six months as both the Black Music Association and National Association of Recording Merchandisers host meetings to expand sales and influence of black music and black artists. The campaign, to be called "Black Music Is Green," will receive its initial presentation at the **NARM** Convention in Florida on Monday, April 13, and at the BMA Conference in Los Angeles this spring. It will also be seen at future NARM and BMA local meetings to educate record merchandisers of the importance and profitability of black music.

National Association of Broadcasters

1771 N Street, N.W., Washington, DC 20036

Washington, December 23.—Wallace "Wally" E. Johnson, executive director, Association for Broadcast Engineering Standards (ABES), Washington, D.C., will receive the National Association of Broadcasters' 1981 Engineering Achievement Award.

The award will be presented at the **NAB** engineering conference luncheon on Tuesday, April 14. The conference will be held in conjunction with NAB's 59th annual convention April 12-15 at the Las Vegas Convention Center.

Johnson previously was chief of the Federal Communications Commission's Broadcast Bureau. He joined the Commission in 1942 as a radio inspector in Seattle, WA., and moved to Washington, D.C., in 1943 as a radio engineer, he subsequently served as chief of the Existing Qualities Branch, the New and Changed Facilities Branch, the Broadcast Facilities Division and assistant chief of the Broadcast Bureau. He was Broadcast Bureau chief from 1971 until he joined ABES in November, 1979.

National Academy of Recording Arts and Sciences 4444 Riverside Dr., Burbank, CA 91505

An enthusiastic group of 110 attended the San Francisco **NARAS** chapter's Valentines Day seminar entitled "Session Work for Musicians and Singers—How to get it/How to use it," held at the Great American Music Hall. During the seven hour event the experience hungry crowd was treated to an invaluable volume of first hand information passed along by many of the Bay Area's most accomplished studio engineers, producers, musical contractors and musicians.

The seminar underscored the San Francisco chapter's commitment to support the evolution of San Francisco into a major music industry center. It also set the stage for future specific seminars and activities to generate a professional talent pool of studio musicians.

The Atlanta chapter roasted one of its most illustrious members, Bill Lowery, at the Century Center Hotel in Atlanta on March 26. Lowery, President of The Lowery Group of Music Publishing Companies, served as founding President of the Atlanta chapter of the Academy in 1969 as well as National President of the Recording Academy in 1973 and 1974. The roast was held as a fund raiser for the local chapter.

Association of Professional Recording Studios

23 Chestnut Ave., Charleywood, Herts WD3 4HA, England

Following a well-attended inaugral meeting of the Digital Harmonisation Working Party, held during the recent International Broadcasting Convention in Brighton, The Association of Professional Recording Studios will continue to act as a coordinating body for the Working Party's activities.

The **APRS** has now organized and financed two such meetings, intended to explore the possibility of multitrack recording studios adopting an International Digital Standard, should one be feasible, and will be acting as a distribution centre for the exchange of documents between Working Party members.

Muscle Shoals Music Association

P.O. Box 2009, Muscle Shoals, AL 35660

The Muscle Shoals Music Association is already getting a good response for attendance for the fourth annual records and producers seminar at Joe Wheeler resort in Alabama during May 20th through May 22nd.

President of **MSMA.** Jimmy Johnson of Muscle Shoals Sound Studios, says the general theme for this year's three-day event will be, "Who Gets What In The Recording Business—Slicing The Recording Pie." The 1981 program will involve panel discussions on such topics as, "Record Companies/Publishers—Do they have anything at all in common?" "Artists, Writers and Producers—Who gets what?" and "Promotions— Indies or what?"

Advance registration for the seminar and association activities is \$100 per person and \$75 for MSMA members. Inquiries about registration and lodging should be directed to Draper at telephone: (205)381-1442.

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ROGRESSIONS

SOME OTHER FACTORS...

by Larry Blakely

For the past three issues this column has been devoted to looking into various aspects of digital tape recording. At the completion of this month's column all of the areas that we set out to discuss will have been covered. We will also have set the stage for next month's special forum on digital recording, where we will have the manufacturers of digital systems describe them to you.

One aspect of digital that has been discussed very little is that of editing. The sophisticated nature of digital recording opposes the idea of tape cutting with scissors or razor blades as is done when editing a conventional analog tape. There *are* some digital tape machine manufacturers who propose editing via actual tape cutting, however, many engineers experienced with digital recording equipment feel that this approach is extremely hazardous. A new procedure called electronic editing has been incorporated into the systems of a few manufacturers, although in some cases these editing systems are quite sophisticated, somewhat cumbersome and time consuming to use.

This type of electronic editing typically requires locating and identifying the various parts of the selection to be pieced together, playing them through the editor on one digital tape machine and copying them on another. This can be a very tedious process, especially if there are a large number of difficult edits. This is certainly not as easy as fast forwarding or rewinding to locate two editing points, marking them with a grease pencil, cutting the tape with a blade and splicing the two pieces together.

Many in our industry feel that digital audio technology has not yet evolved enough to warrant its use or the spending of such a great deal of money on the equipment. Any type of technology has limits. Can the audible quality of digital get better? And if so, when, and how much will it cost? It is also important to point out that it takes time for technology to evolve and digital recording will evolve in its own sweet time. If you want digital today, you must get on the band wagon and use what is currently available. If not, you will just have to wait until the next band wagon comes along.

It is also important to point out that any new type of technology, when first introduced, is expensive. Digital tape recording equipment is no exception. Will this equipment become less expensive? Most likely! One must also keep in mind that digital equipment is complex; more features and higher quality usually require more computing power, and the amount of computing power has a direct relationship to cost. As always, the less expensive equipment will have less features and maybe less quality. I think that we will have to resign ourselves, though, to the fact that top quality professional digital audio recording will more than likely continue to be an expensive process.

Can the quality of analog tape recording get any better? I have had this discussion with a few design engineers and it is their feeling that it is possible for analog to become significantly better. They also feel that maybe the interest in digital technology will be the "kick in the pants" that is needed to bring this about. On the other hand, there is also the possibility that analog design engineers will throw up their hands and climb onto the digital bandwagon. One thing you can count on though, if analog soon becomes significantly better it will be the pressure from digital that did it.

At any point we choose there is still a lot of controversy regarding digital. Many think it is great, and some say they hate it. As I pointed out in a previous column, the only valid audible test

for any recording format is to compare it to the live signal over the monitors before it reaches the tape recorder. It does no good to compare tapes of one format (analog) to another (digital) because you would only be deciding which sound you prefer. This test has no tie to the real test, which is, "how accurately did it reproduce the original signal?" Some have talked of assembling a "golden eared" listening panel of industry experts to make a comparison between an analog tape recorded signal, a digital tape recorded signal and the sound of the live performance over the monitors. My guess is that it will just have to be up to us to make our own *valid* listening tests and make up our own minds. And the sooner we do, the sooner we'll know.

One of the largest obstacles in the path of digital tape recording is the lack of standardization of recording formats. Our industry has always operated with an interchange of tapes from one studio to another throughout the world. The existence of a number of incompatible digital recording formats would place a serious cramp in the style and methods in which recording is done in our industry. Some studio owners say they will refuse to purchase digital tape recording equipment until it is obvious which format will be the standard.

The cost of these machines and related equipment is also very high. Many of the larger studio owners feel that the addition of a digital tape recorder would add some \$50.00 per hour to the rate card. It would be difficult in most cases to support such an investment while the recording business is in its current depressed state.

Where does all of this lead? We will all just have to wait and see. One thing I feel is certain. We will live in a world of digital audio. It just looks like it might get real messy before all is said and done.



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by Winn Schwartau

Some people have tended to think through the mid to latter part of 1980 that the economy has been hitting the recording studio business harder than other segments of the business world. This, however, is simply not the case. The entertainment industry in past recessions, has seemed to thrive a little better than other industries; but the 1980 slow down affected all segments of the business world more severely. Still, the recording industry was not as hard hit as we thought.

What happened then? Why were and are the studios crying poverty for lack of business? It's difficult to pinpoint the exact cause, even after interviewing several of the major studios in the NY, Boston and Philadelphia areas. No one studio would admit that it was truly hurting from the recession, but a few did say that a lack of record company spending on high budget projects did cause some slowdown in studio bookings. Some studios admitted an occasional layoff, but more often, staff depletion to compensate for less studio time was permitted to occur through attrition.

With rates in the NY area averaging in the \$200 per hour range, (although most studios give bulk time discounts), many owners feel that the rates alone and the amount of time and money spent in the studio to complete a record project contributes to the lack of spending, or willingness to invest on new groups, by record labels. (Only 5% of recorded music ever reaches the airwaves.)

Cashflow is one of the factors that also contributes to studios' problems. Some of the smaller studios often require all bills to be paid right on the spot, as do the majors with clients

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who are new to their facility. But, with the larger labels and advertising agencies, accounts must be arranged and here is often where' payment problems begin. Several studios maintain that all of their billings are generally paid within the normal 30 day period; but others complain of payments schedules exceeding 90 days. The average collection time for studios, in the Northeast is 53.75 days, from date of billing.

We are obviously in the midst of the weeding-out period of the studios and personnel within the studios. This has happened in the past, but perhaps this time there are somewhat different reasons. In the last recession, of 1973-1974, several studios went under, as have in the last year. By the time this issue has reached press, NY will have seen one of the largest auctions in many years. Many studio owners, who did not get into the studio business, other than perhaps to have a facility to aid their publishing company, or songwriting, have found that carrying a studio may not be for them and they are thus disposing of their gear.

Optimism, though seems to be the key thoughts from most of the studios in the northeast. It stems from the fact that NY area studios do not rely on only one type of recording business for their day to day income. Some studios do perhaps 95% agency work, while only 5% record business; others may do the exact opposite. The apparent return of a lot of film and TV audio recording as well as record production to the Northeast from the West has helped many studios. According to Bob Walters of Power Station Recording Studios, "... the energy and vitality has always been here. The creativity is here. NY has everything California has, except more."

The "average" studio balances its recording work in three basic areas; Advertising, Jingles: 37%; Record Production: 49%; Film and TV: 14%. More often than not, a studio gets a reputation for a certain 'sound' that's good for one wave of music only. The need for diversification in studio operation and clientelle is a must for any of the major overhead studios to wade through the past and future business quagmires. A studio must be able to not only make a record, but lock to video for a commercial to offer production services, (ala voice overs, SFX, etc.) and handle a classical date rather than only the overdubbed rhythm section album.

While optimism was present at the studios we surveyed, there was also a substantial amount ot criticism and opinions as to how the studio will operate in the 1980's. ". . . it used to be if the song was good, you could make a hit on any equipment. Now you need the newest gadget, or nobody will record at your studio. That attitude has to go. We need a new 'wave' of music which will let the record companies start spending again. Without a plethora of musical creativity, we'll all stay slow."

This opinion was echoed by many studios. Susan Planar of Mediasound, in NY, feels that a lack of professionalism and technical creativity has overcome many studio staffs and a higher standard personnel will be required in the 1980's. Don Frey of A&R in NY said that acquiring "... .good, high quality help, especially in the maintenance departments, is one of our hardest tasks." Another studio manager said, "Our engineers cry 'help' every time a switch breaks or there's a dirty patchcord. Mixers should be able to do more than just twiddle the knobs."

One severe area of critical focus was upon manufacturers. Ben Rizzi, of Mastersound Productions in Long Island, feels that "... the industry is pushing too hard. Manufacturers are leading the pack in technical developments, rather than reaching to the studios for their real and immediate needs. Look at Quad. What a fiasco. Now there's digital. There we are again, like Quad, with too many different noncompatable systems, a lack of reliability and I don't think digital sounds right. Not yet, Maybe in five years."

Digital was a sore point also for many studios. The consensus agrees with Rizzi, in that digital isn't really right yet and the price certainly can't justify every major studio buying a multitrack digital machine; especially when the studio down the block might have a completely different format. At least with multitrack analogue, we had the NAB, IEC and AES standards to work with; track widths were a natural. Bob Schaffner, of Sound Ideas, has the only digitally equipped studio in New York, at present. He feels that having digital makes Sound Ideas a little different than all the others and has helped them and will continue to help them through the rough times.

Rob Cavicchio, owner of Sound Track in Boston, put it succinctly for many studio owners. "I'm not a technical wizard. I just write music and mix. But, I do know that we are in a technological crap game. The planned obsolescence of the auto and appliance industry has hit the audio industry. I'm almost scared to buy anything, because next week, it'll be an antique.

So where does that leave the state of the studios? Cautiously approaching optimism; some more so than others. The one lesson to be learned, is a simple one and perhaps may be able not only to help studios throught the rough times, but to deal effectively with the technical, musical and economic developments of the 1980's. The age of specialization is over. As Buckminster Fuller wrote, "... the coming technical years will require the use of ephemeralization; doing more with less..." That was written in the 1920's.

We should all realize that we can no longer consider ourselves an isolated group of talented people who make hit records because we enjoy it. The industry has evolved rapidly in the last decade and we must now accept the fact that "... we are no longer in the record industry. We are in the recording industry and that means recording anything, anywhere, on any media, in the best way we can."

Winn Schwartau is a frequent contributor to Mix, as well as other professional audio magazines. He is also the president of Empirical Audio, in Ossining, New York; coowner of Sleepy Hollow Manufacturing; and owner of Nashville North Recording Studio in New York City.

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PRODUCERS DESK



by James Riordan

Tony Bongiovi has engineered and produced a wide range of artists and established a reputation as not only a master technician, but on∈ with probing insight. His work with artists such as Marvin Gaye, Gloria Gaynor, The Grateful Dead, Jimi Hendrix, Freda Payne, The Ramones, Diana Ross, The Talking Heads, The Temptations, Traffic, Stevie Wonder and Frank Zapipa illustrates the variety and depth of his production talent.

Bongiovi began his career early in life and describes his first efforts at breaking in. "When I was in high school I became interested in making records, so I took the train from my hometown in New Jersey to New York and visited Capitol Records. They told me I should prepare to be an engineer so I began taking high school courses in pre-engineering and electronics (which I really didn't need, but now I'm glad I did.) There were no schools or accredited courses in sound engineering then, so you just had to learn anyway that you could. I used to take the train to New York whenever I could to watch the recording sessions, hoping to learn."

Getting hands on equipment experience did not come easy. "There was nothing that you could buy at that level, so to study you had to build your own mixers and things. I put some stuff together and began recording local bands. One day I called the chief engineer at Motown Records and told him how I thought they got the sound on some of their records. They offered to fly me out to Detroit and show me arcund and I wound up doing a lot of work for Motown Then in 67 I worked at Apostolic which was the first twelve track, one-inch tape installation. The console I helped install was the first one manufactured by Automated Processes."

Bongiovi has done a good deal of his producing with Lance Quinn and Meco Monardo. "I don't make records all by myself. Most of the rock n' roll records I've been doing have been wi'h Lance and the pop or orchestrated records with Meco and Lance together. I first met Lance in Washington D.C.. When I was working in New York I would often fly rry little airplane down there and look for artists. I met Al Downing there, who I still do records with today, and his guitar player at the time was Lance Quinn. After I worked at the Record Plant I went to Media Sound and there I met Meco Monardo, who was a trombone player in the studio. I told him I would like to make some records of my own on the weekends; but in those days you had to have an arrangement for the musicians, so we got together. After we'd worked together for a year we found Gloria Gaynor and did "Never Can Say Goodbye"."

Bongiovi is part owner of one of the most successful studios in New York, The Power Station, which he built himself. The studio has been used by top acts in the business including Blondie, David Bowie, The Cars, Chic, The Clash, Dire Straits, Meatloaf, Stevie Nicks, Graham Parker. The Holling Stones, Carly Simon, Bruce Springsteen and The Talking Heads. "The Power Station really came about when Meco called and wanted me to see Star Wars because he had an idea about making a condensed version of the movie on a record. He got together with Harold Wheeler to figure out what music they could do from the movie and I made the record with them. I did the stuff like the half speed horns, turning the tape upside down in the middle, and all that other nonsense. I took the money I made from that record and went to Bob Walters, who was one of the owners of Media Sound and asked him to start a studio with me. I knew I could build the studio and then I would make the records and he'd run the business. So I mortgaged everything I owned and we raised enough money to do it. While I was building the studio I got together with Tommy Ramone and later did the first album with the Ramones. Through them I got involved with The Talking Heads (first album) and through them I did the Tuff Darts, The Rezellos, and later Cindy Bullens. Everytime I made one of those records, they

seemed to sell. This is Power Station's fourth year and things have gone very well. I just finished a record with a group called Balance which I think is a real strong rock n' roll band and I'm doing another group with Lance called The Electrics."

With a track record as extensive as Bongiovi's it's interesting to note what aspects of producing he considers to be his strongpoints. "My strength as producer comes from having the ability to hear the total record the way it will sound when finished. I learned a lot from Motown. The producers there would edit and move things around a lot and I would take what I learned from them back to New York. Later, when I started working with psychadelic effects and things with Hendrix. I would pass that knowledge on in Detroit. When I mix, I just go by the way I hear it. I don't have any trouble cutting out an intricate arrangement because, not being a musician. I really don't know what it took to write it anyway. It might be great, but I may not think it belongs in the record. I guess there are good and bad points to that, but it does make it a bit easier to edit.

Needless to say Bongiovi has had some interesting projects and I asked him to elaborate on his favorites. "This Balance record that I just completed is one of my all time favorite projects. The "Crash Landing" record I did with the Hendrix tapes was one of the hardest. Al Douglas came to me with all these tapes after Hendrix died and wanted to make a record out of them. It was very sketchy. When Hendrix recorded, he would often play a lot of parts himself and add other musicians after the band had done their parts. He might do the same song five or six nights in a row with all kinds of different combinations. I had to find the different takes and splice them all together. I'd find one with a really good guitar solo and I'd lift that out and put it in another take. Sometimes the drums would play three-guarters of the way through and then the guy would just get up and walk away, so I'd bring in a drummer to match the track. I had to match the sound and make the guitar solo work in time, so it involved a lot of editing. It was a lot of work, but the record came out all right and sold real well

What is Bongiovi's advice to someone starting out in producing? "At this time, considering the state of the business, it would be wise to seriously consider doing something else, but if you're going to be a producer you have to get out there and do it no matter what level you have to do it on. There are a lot of ways to produce Some producers dictate the entire record and some work with bands as more of a referee between the various factions of the band. A producer might contribute a whole lot of musical ideas or he may contribute a whole lot in other areas A producer can be different things to different artists."



by Bruce C. Pilato

entrance to Utopia Video Studios in Bearsville, N.Y., my friend and I could hear the yelping of what seemed to be a small and very excited dog. As the door opened we were greeted by a tall and lanky Todd Rundgren and his pet mutt, Furburger, a dead ringer for Toto.

It was a Saturday during the coldest part of Winter and the town (just a stone's throw from Woodstock) seemed deserted. For Todd, today would be yet another interruption from his relaxing lifestyle at home to talk again about his newest project and foremost concern: Utopia Video.

Having been an accomplished solo artist and group member since 1967, as well as one of rock & roll's most successful producers, Todd Rundgren is now focusing on the marriage of audio and video by building and maintaining one of the foremost studios of its kind.

Located about 2½ hours north of New York City, Utopia Video occupies a new 2500 sq. ft. building, employs never less than 10 people and sometimes as many as 30, houses some of the finest state-of-the-art video equipment, and thus far has cost nearly \$2 million. And according to Rundgren, it cost a staggering \$40,000 to \$50,000 per month just to keep open!

Dressed in a Utopia warm-up jacket and pants and a pair of space sneakers, Rundgren stretched out in front of the control board and talked for several hours about Utopia Video and the present state of the video and music industries, as well as his career as a musician and record producer.

"I don't think that I crystalized on the fact that video was the next big thing; initially it was just something I was interested in," Todd said matter-of-factly. "I didn't know it was going to become as popular a medium as it is now. I mean, it was always a popular medium but not as attractive to musicians as it is now. I just got into it because I was personally interested in it. That was about six years ago."

Utopia Video began about two years ago

in Todd's audio studio located in his Bearsville home. Soon afterwards, he moved it into one of the big vacant rooms in the Bearsville Records studio. Rundgren's former manager, Albert Grossman, built the current studio to Todd's specifications and presently leases it to him. Grossman is president of Rundgren's label, Bearsville Records, and is a former manager of Bob Dylan and Janis Joplin.

For Todd, getting the studio going didn't require an immense amount of initial planning. "I just started ordering equipment," he said as though it almost required no decision at all. "It's still not completed, though. We're always trying to keep up with the state of the art."

Rundgren purchased some of the finest video equipment available, among them: the Squeeze Zoom, the Rutt/Etra video synthesizer, the EMS spectre synthesizer, the BJA Chromaton, a massive computerized lighting system, the Ultimatte keying device and a row of Sony 1" broadcast quality video recorders.

Of the Squeeze Zoom, Rundgren said: "It's the new generation of popular video manipulation devices that you see on commercials constantly. The networks use them a lot, too. They're just used for shrinking pictures and rotating them. It's a reposition and rescaling device. It gives you a lot of control in the end, but it only remembers one frame. You can only freeze one frame."

The RUTT/ETRA is the original video synthesizer. It is black and white and the picture has to be colorized later on. The machine is generally used for graphics and, like the Squeeze Zoom, the image is also repositional. "It works on a different principle," said Rundgren. "You can change the characteristics of pictures. You can take a square picture and make it spherical."

Rundgren's first piece of video equipment was the EMS Spectre. "That's the most like a video synthesizer in the sense that it actually provides you with raw material to mess with. The other synthesizers are all processing devices; they don't create images, they just process them. But that synthesizer actually has a catalog of patterns and images that you can combine and homogenize and just generally mush together. It can also process some material, to an extent."

The B'A Chromaton is a similar synthesizer to the EMS Spectre, the main difference being that the BJA is somewhat analog while the EMS is digital. The studio's control board was purchased as a standard board and then customized by Rundgren's engineers after it arrived and was installed. Rundgren bought the board and the Squeeze Zoom as a package; both are made by Vital Industries.

Although the building seems filled entirely with Utopia Video, I wondered if Rundgren was considering combining his video and audio studios in the future. "Well, we have audio here, already. We've got 16 tracks in case someone wanted to use it for something. It's a Stevens machine. In fact, I did all my old records on it before I moved up to 24 tracks. It was first used on *Wizard: A True Star.*"

In 1979, Rundgren did his first major production in the new Studio. It was a video adaption of Tomita's interpretation of Gustav Holst's *The Planets*. The sci-fi story centers around a young boy who escapes cut his bedroom window into a waiting spaceship and journeys through the galaxy. I guess you could say it's kind of a cross between *Peter Pan* and *Star Wars*.

While trying to get the uncooperative TV monitor to work so we could see *The Planets*, Rundgren spoke bitterly of the project which, after being half completed, is presently in a state of limbo.

Rungren's reason for choosing **The Planets** in the first place was because of RCA. Not only did RCA own Tomita's record, but they also owned the patent on the Selecta-Vision, a model of the video disk RCA had told Rundgren to go ahead with the project, which they thought they could use as a demonstration piece for their video disk machine.

The production took months and





\$150,000 to complete the first half of Tomita's recording. When Rundgren showed what he had accomplished to RCA executives they said, in Todd's words, "thanks, but no thanks." It wasn't the production they were guestioning, out its cost. RCA said they were not willing to invest that kind of money for the development of softwear until they were assured of a stronger market. They paid Rundgren \$30,000 for the promotion rights. He was out \$120,000 and had no funding to complete it.

Rundgren left the meeting with RCA furious. In November 1979, he spoke at a major music/video conference in Los Angeles. After showing the half-completed production, Rundgren mounted the podium to a standing ovation. His 30 minute presentation, however, was mostly an attack on RCA and its Selecta-Vision system. "RCA has spent \$100 million developing the machine," he told his audience angrily, "and has not spent 1% of that to develop new softwear."

"I was doing this thing for RCA in the hopes that along with this mercenary attitude they have, they might develop some artistic responsibility . . .but, of course, I was wroneg."

ver a year has past since Rundgren's meeting with RCA, yet his disgust over the whole affair hasn't decreased one bit. "RCA was never interested in it from a realistic standpoint. Not from the point that they'd have to pay for original softwear. They're only interested in things that have already been released «Isewhere. And then they only pay a minimal licensing fee. It's set on a royalty basis. It's not like the music industry."

"They don't want to finance the softwear," continued Rundgren, "because they don't have the confidence in the sales potential of their machine, essentially. In other words, to get a return on something that cost \$100, \$200 or \$300,000 to produce, you gotta be able to sell 300,000 copies of it. And when you've only got 10,000 machines in the market, you're not gonna sell that many."

Rundgren has more problems surrounding the release of *The Planets*, besides RCA. When the Holst Estate heard about the viaeo production made to Tomita's album, they brought action against Rungdren, telling him he couldn't use the music. Rundgren's lawyers tried getting them to change their mind, but to no avail. "Well, the bad news from the Holst Estate is that under no circumstances will they issue us a license for the use of the music," said Rundgren, sounding even further disgusted. "They've got this 'ass-holier-than thou' attitude and won't let us do anything with the music at all. So we're investigating other possibilities."

Rundgren stressed the point that the Holst Estate was not upset with Rundgren's video interpretation of the music, but rather his use of Tomita's record. "Well, they didn't let him do it; he just did it. Then they brought litigation against him saying 'you can't release that album', for some ridiculous pompous reason. I'm sure they're more pompous than the orginal composer ever was, which is a problem."

"Yeah," said Todd shaking his head in disbelief, "it's still only half completed; it's still in limbo." Rundgren says he may either finish it with a straight classical interpretation of the music, or he may write and record an entirely different musical soundtrack.

Todd's experience with *The Planets* left him with a sour taste in his mouth for the video disk. I asked Rundgren if he thought the video disk would go the way of quadrophonic sound systems, in the sense that the industry would hype the hell out of them only to discover that there's really no market for them. "I think the video disk is sort of a quadrophonic, myself. It has turned out to have a lot of disadvantages. The main disadvantage is that you can't erase what's already on the disk. A lot of technology is overtaking it as well. There's two way cable at this point, where you can order up anything

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According to Rundgren, today's economy can't really stand to create a market for anything except for the video tape players which are presently available to consumers. "I don't think there's anything else necessary. Subscription is probably the broadest media in terms of video softwear available. Although it's not available to everyone yet, eventually it will be. I'mean, they're hooking up a million homes at a time and it's always going, whereas video disk is hoping to sell 50,000 machines in a year. There is no way that video disk marketing can keep up with cable. And then there's going to be direct to home satellite TV as well."

ccording to Todd, the reason he built Utopia Video is to produce artistic video (and audio) showcases for cable or network TV. "Essentially, it's the same reason I built the audio studio. If you want to get totally immersed in the artistic process and not worry about a clock or budget or things like that, you have to have a facility that's independent of those considerations. And video is an even more expensive medium than audio to work in, in terms of personnel and hardware and things like that. So I didn't have any alternative. If I wanted to get seriously involved I had to have a facility like this one. I needed something that wasn't going to represent or resemble a ratrace situation."

Two other projects that Rundgren is working with are a TV show featuring his group, Utopia, entitled *Adventures In Utopia*, which promises to be a 1980's version of *The Monkees*, and a more serious TV series entitled *How to Run For President*. Although they will happen eventually, Rundgren says it will be some time before he gets to complete them.

"All those things have taken longer than first proposed, mainly because of the state of the economy. They've slowed it down. The problem is the day to day finances of the studio; the financial burden of keeping the studio open is so great that I can't even work in it!" said Todd, laughing slightly. "I have to spend all my time producing records and things like that in order to get enough financial support to keep the studio going. It's a personal liability since I own the studio. Subsequently, we may have to take some financial steps to put the studio on another level and relieve some of the burden so we can get on with other porjects."

Will that mean giving up a piece of the ownership? "It may mean that," Todd told me as though that was something he could deal with, "though it may mean something else. I may give up part of the ownership, but I would never give up the control. Not in terms of percentage, but in terms of direction."

Although Rundgren doesn't want Utopia Video to be exclusively a music oriented video center, he realizes that a majority of the productions that come out of there will be based around music and/or musicians. In the Sixties and Seventies, if a rock musician wanted visual exposure on the screen it was either in the form of live television (*Ed Sullivan*, *Shindig, American Bandstand*) or in films *Help!, Woodstock, Mad Dogs & Englishmen*, etc.). In recent years however, it seems as though every group has a video presentation to go along with their new release. And it also appears that the rock oriented *film*, such as *A Hard Day's Night*, is now obsolete, or at least impractical.

"Rock music is the music of our generation," Rundgren told me, "just the way BeBop and Swing music was the music of the last generation. And all through the 1930's there wasn't any television but there were a whole lot of movies based on the contemporary music of the time. It's just that lately, the movies have been really bad and drawn upon the worst music for their basis-disco music and things like that. Because of the mercenary attitude of people in the music industry, it's been recognized as transient in nature. It's a real discredited music form and they make movies like Can't Stop The Music and Xanadu. They become novelties and they become dated. People are no longer interested in that kind of music and they don't go to those movies. Aside from that, the music is not that spectacular. I mean, it's all right, but nothing remarkable."

One alternative, especially for Rundgren, would be to produce video films. In 1971, Frank Zappa produced and released 200 Motels, the first film ever made entirely on video. "I haven't seen that or Baby Snakes (Zappa's second video film.) I think we've thought about it, but in our particular case, which is Utopia, we're not a giant enough commercial entity to be able to justify that type of thing. The reason is that we're always going for something artistic rather than something commercial. That's why we never became large enough commercially to engage in the grandiose artistic consciousness. If we ever did, it wouldn't be a Can't Stop The Music or Xanadu; it would be something where the music was much more important."

he music industry of late has taken to video. As the video industry and market continues to expand, record companies see their most visual artists as naturals for the 19" screen. In the last five years, it has become a common practice to release a video accompaniment to an artist's hit single. More recently, some groups have done video presentations of entire albums, among them, Blondie. Inside the jacket of the recent double live Kinks album, **One For The Road**, there is an order form to buy a Kinks Video featuring four selections from the album. The cost: \$30.00

Aside from hard core Kinks fans, it doesn't seem as though many music fans would shell out 30 bucks to watch them play four songs, especially when they can catch the group on Midnight Special, Fridays, Solid Gold or several other national or syndicated TV shows. "That's exactly what I'm saying!" said Rundgren enthusiastically. "That's why I'm not oriented towards the so-called 'rock video market'. I do them occasionally, but you know they were originally done for promotion. They weren't intended to be sold anywhere. They were originally done so groups could get exposure on national television, or more importantly, on international television. So you get exposure on European television, without having to go over there. They were just a promotional device; big commercials. A commercial the length of the song, to sell the song. That's why we're oriented towards more or less show pieces that are designed for the cable or broadcast market, cause that's where the exposure is."

Rundgren also doesn't beieve that video will completely replace the art of live performance. However, with the growing cost of touring and the ever increasing competition on the road, he does feel that video could offset a substantial portion of live tours, and relatively soon. I mentioned the recent Grateful Dead Halloween Concert from Radio City Music Hall that was shown in theaters all across the country. Both the video and audio quality was far less than desirable, yet tickets cost nearly as

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much as the actual concert.

"The big problem is you don't have a lot of control, or as much control with the live performance," Todd continues. "You can't go to one hundred cities and make sure everything is going smooth. When things like that happen it only hurts the concept. I don't really think it's such a bad concept. The difference is that you're not at home sitting there watching it on TV—you're there with all the other Dead Heads



and it's a real party. It depends on how high you are as to whether or not you notice the shitty quality," he says laughingly.

Rundgren thinks that in the near future, some artists (especially major ones) will videotape one of their shows, seli it to cable or network TV for scmething like \$100,000 and get it shown to millions of people in one shot, instead of touring for three months.

Some artists, David Bowie in particular, have not been available to tour and therefore have done very artistic video presentations. "I haven't seen that much yet. I've seen David Bowie's stuff, which obviously has a lot more work and thought invested in it than most other videos. It's personal and goes beyond just being a promotional thing. I like the fact that it's a versatile statement."

For the 33 year old Rundgren, Utopia Video is just another step in an already successful and challenging career. In the late Sixties, he led the Nazz, one of the better pop bands to emerge out of the psychedelic era. Following the band's break-up in 1970, Todd pursued a solo career in which he released several albums, including 1972's Scmething/Anything, a double LP in which he wrote all the songs, performed all of the vocal and instrumental parts, and engineered and produced as well. Since 1974, while occasionally releasing solo albums, he has led the increasingly popular Utopia, a band which now includes keyboardist Roger Powell, drummer Willie Wilcox, and bassist Kasim Sultan

Last summer Utopia performed in a live three hour concert that was broadcast on Warner-Amex's QUBE closed circuit TV system in Columbus, Ohio. The system should have allowed the audience to communicate their opinions and preferences directly to the performers. The system refused to function until the show was nearly over; however, the band gave their audience a tour of Utopia Video after the show and used the system to answer questions asked by viewers in Columbus. It was one of the most popular shows in QUBE's history.

Because of Rundgren's financial responsibility to Utopia Video, extravagant Utopia tours seem highly unlikely in the near future. "At this point we can't afford it," says Todd. " The last tour we did we took a certain projector with us and it required certain kinds of towers in order to have room for the projection. We needed extra equipment and, in the long run, we lost money again. We lose money on all our tours! So at this point we can't afford to go out and do anything special this time. Ticket sales at concerts have been off, as you know, so far that promoters all over the country are going out of business. We can't afford to not break even, at least."

undgren was quick to admit that he only tours now out of necessity. "Yeah, when necessity arises, you have to tour. I mean nobody tours out of the pleasure of it anymore. It's not a pleasure. I like playing, but touring is a different thing. There's the advantage of performing, which is an exhilarating experience, but there's also all the down things. There are all the events that lead up to the performance which are less than enjoyable: constant travel, crappy food, sound checks."

Since the formation of Utopia, Rundgren has also maintained an active and equally successful solo career. He has use his solo albums to cover certain musical areas that are not suited for Utopia, especially the more pop oriented directions.

When he's not busy at Utopia Video and not recording or touring himself, Todd is usually buried in a recording studio producing someone's next hit record. Some of the artists he's produced in the past include: Tom Robinson, Rick Derringer, Patti Smith, Grand Funk Railroad, the Tubes, Badfinger, the New York Dolls, Hall & Oates, Shaun Cassidy, and Meatloaf, whose debut album has sold seven million units worldwide.

Rundgren recently said, "Grand Funk paid for my audio studio and Meatloaf paid for my video studio." His production style had yielded what is known as "the distincitve Rundgren sound," which features crisp, upfront vocals, lots of background vocals, plenty of synthesizers and a very heavy rhythm section.

"I never go after producing people. You really don't want to say 'Let me produce your record.' It's like saying 'Let me run your life!' Someone has to come to you. I get a lot of offers and I turn a lot of offers down. The single major reason why I won't produce a band is because of the material. It's not their execution. A lot of people have good execution nowadays because that's what they think they need to succeed. It's not that, it's the material."

One of Rundgren's earliest successes as a

producer came when he was asked to finish the third (and eventually the most popular) Badfinger album. As Todd recalls, "This guy that was directing Apple Records in New York just called me up and asked me if I was interested. Apple Records was really a mess; that's the reason they didn't do anything else. At the time, they'd been working on the album for a year, and when I got involved it took. like, a week and a half. A lot of the problem was with Apple Records, which was a problem for the Beatles. I had a real sleazy time with George Harrison. He didn't finish any of those songs, yet when they became hits, he took credit for them. He's got a reputation as being less than the spiritual guy he professes to be all the time."

Rundgren's 24 track audio studio is adjacent to his house, within a couple of miles of the video studio. Todd says he has no plans or desire to convert his audio studio to digital. "I don't think most people can tell the difference. It has to do with the sounds you get. I don't usually go most of the time for a reality kind of sound; I'm going for surreality. Subsequently, it's hard to tell the difference. If you're recording horns or other acoustic instruments, say drums, in an acoustic sort of way, rather than a super acoustic way, which is the way they used to record horns, then digital might make a difference. But in most of the things I hear everything is suped up beyond reality, anyway. And there's no way I can make it sound like a band playing in your living room... it's always going to have jet engines or something like that."

Our conversation gradually drifted back toward video and Todd began talking about the difference most artists experience between making records and making videos. "It's the working situation. The artist has liberated the audio recording medium, more or less. When you make a record you outline what you want to do and then you work on it until you reach that objective. Bruce Springsteen still takes a year or two to make an album, because that's how long he wants to take to make it. But if someone is doing video it takes days by comparison. They spend so little time on it and plan so little on it, and so the quality is naturally second rate by comparison."

Finally I asked Todd if people who watch and tape these video presentations won't eventually get tired of the visuals and simply just listen to the audio like they do now with records. "It's possible," he says. "People get tired of music, as well. A lot of people don't listen to records anymore, they just buy them as background music for other activities. I won't buy a record that I won't 'listen' to. I have to sit down and listen to the whole record. The reason why people would get tired of watching the video portion is because you can't do other activities while the visual is on, so it all gets down to the same thing. When you put on Sgt. Pepper you may still listen to some part but you won't listen to it the way you did when you first bought it, because it's so familiar. You don't feel it requires that concentration, so you do other things while it's on. I mean, once in a while you might get really nostalgic and drop some acid and really listen to Sgt. Pepper."

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ince its inception the studio control room has been somewhat like a football locker room, i.e. males only! But times are a changun'. More and more names of definite female persuasion are appearing on album credits and in Mix's Sessions column. While few, if any, male engineers, producers or owner/managers think that the sex of a mixer will make a big difference in the industry, it is nonetheless important.

This change, welcomed by some, resisted by others, is a true indication of social and economic growth. There are a few questions that should be considered and a few myths that can be put to rest.

Women, many people will tell you, have better hearing than men. This has been considered fact for many years but is it really true? Early studies on human hearing did in fact indicate that, on average, females tested did hear better. Subjects tested were between the ages 18 and 30 years old and were tested over a frequency range of 120 Hz to 8 KHz. Attempts to explain this phenomena biologically have come up empty handed.

More recent studies have shown little or no difference at all in the test groups by sexes. The conclusion is that any hearing difference between

by Dennis Buss & Chris Haseleu

the sexes is the result of environmental causes. In earlier years, women, being more sheltered, were not exposed to as much noise pollution. Now as women take up careers in all areas they are becoming just as subject to hearing loss as men.

Another factor concerning women in the role of engineer is their ability or inability to handle stress. It has previously been suggested that women are not as able to put up with stress as men. More recent studies indicate that reactions to stress are learned responses. Therefore, as women have become more subject to stress, they have become better able to deal with it. It has also been suggested that emotional expression may be a natural stress releasing mechanism. Because of cultural values that tend to make emotional expression more acceptable for women, they may be less subject to the results of stress such as heart disease and ulcers.

One of the reasons for a lack of women in engineering may have surfaced in a recent controversial study which concluded that women are less able to learn and use mathematics. The controversy is whether this is a social or biological study. Whichever it is, it does suggest why fewer women than men apply to engineering-oriented schools', however, even this number is increasing.

The hearing or stress points of the average female may make interesting conversation but how many studio owners/managers consider them when hiring a new engineer? Whatever their prejudices most seem to look at the individual applying. That the number of women in engineering positions is increasing indicates that the industry is opening to them. The studio industry, unlike so many others, is not under federal or state regulations that force the hiring of women. Being for the most part small businesses they are not easy targets for labor discrimination litigation. The progress being made is the result of the ambitious women who are pursuing careers in their highly competitive field and the openminded owners and managers who are giving them a chance.

There are those who are apparently not willing. While most major studios in New York and on the West Coast have one or more females on their engineering staffs, there are no females on staff at any major Nashville studio. There seems to be two reasons, both having to do with more conservative cultural values of the South. One is that fewer women apply for the jobs than apply in New York and on the West Coast. The other is a feeling among some male musicians, producers, and owners/managers that women should not be exposed to the "off color language" or "late hours" or "type of people" that are typically found in studios. This is changing. In a recent survey most Nashville studio managers (many of whom are women) and chief engineers said they would hire a woman if qualified. It only remains for female applicants to gain the experience necessary to be qualified.

Once a women breaks into audio engineering, what can she expect from the people she works with? In talking with several female engineers who prefaced their job hunting with education in the audio field, a couple of things seemed common. Most clients and co-workers initially expressed surprise and some doubts about working with a woman, but this quickly faded away. None of the women interviewed had experienced any sexual harrassment and they were respected as engineers. The only problem mentioned was the occasional need for help in moving heavy equipment. This definitely has more to do with size than sex.

At the risk of sounding sexist, it is certainly a pleasant change to hear a female voice over the talk back and see a woman's face behind the board. Announcing a new service for buyers and sellers of used audio recording equipment...

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A RETROSPECTIVE PART ONE

by Wendy Germain

There is a saying, "life like music must be composed by ear, feeling, and instinct, not by rule."

Although the audio recording business has been male dominated since its early days; women have played an important role in the development and personality of this dynamic industry.

The women who were interviewed for this article possessed special attributes: empirical reasoning, good dexterity, well trained ears, etc. They all learned to be engineers by working, observing, and having a genuine desire for quality. They grew up with the audio industry, and perhaps contributed far more than many of us realized.

An aspiring radio actress from the Midwest, Mary Bell, like hundreds of others, came to New York City to seek "fame and fortune." It was 1942, and after making the studio-casting rounds, which turned up virtually nothing, she decided that the army might offer her radio experience. On the night before she was due at the recruiting office, Mary was introduced to a woman who ran a recording studio. Not certain of what she would actually be doing, she accepted the woman's offer of a job. "What I discovered was that I would be taught to cut records, what a patch cord was and how to sweep floors!" Mary recalls, Almost immediately, she was put to work in front of two disk-cutting lathes to record a speech that Wendell Willkie was doing for the Office of War Information. It seemed that Mary's career as an engineer was to be cut short; General Sound closed their operation a year after she started. But as luck would have it, NBC was looking for engineers, and she was hired. In the recording division at NBC studios she was assigned to the editing and dubbing room.

"Working several lathes at one time was tricky business, since the disk was held manually while the turntable was spinning. I came up with a solution to the problem. I took the cardboard, which separated the masters when they were shipped, and a desk blotter and laid them on the turntable. This made it much easier for me to cue up a disk and have it ready to spin."

"We were doing so many different things at NBC that not one day was the same. Sometimes I worked on the Bell Telephone Hour inserting musical cues while simultaneously recording the entire presentation. We were recording 16" disks at 33 ½, but some of the musical inserts were recorded at 78. On the Old Scallys, in order to do pitch change, we changed the gears manually."

"I felt like a ballet dancer when we set up the room to do 1 minute spots. I would have 4 machines set up, lock the groove on one, disengage the second, respot the third while the fourth was spinning. Obviously there had to be space between the spots, and if you were really good you could get 12 spots or, a disk."

At this point the war had ended, but because the industry was growing, Mary had the opportunity to stay on at NBC. Although tape machines were now being used, she was still working with disks. Bell had a proclivity for wanting to learn new things, so she taught herself how to edit tape by going into the editing room and playing with the discarded tapes.

"One day an engineer became sick during a session, and I volunteered to run the tape machine. Of course they were hesitant, not knowing that I had already worked with tape, but I did well and proved myself. They never kept me out of the tape editing room after that."

Following that experience, Mary was transferred to the NBC news room, working the 4pm to 1 am shift. In between the news broadcasts she would work on obituary files, taking taped speeches and news items on famous people for future broadcasts. Like the recording division, the news room was hardly Right: When a news correspondent over in Korea ran out of reels, he sent back his tape rolled on a beer can! Mary Bell is shown trying to untangle the mystery and wind the tape into the RCA machines.

boring."One night I remember having set up my two RCA machines (we always made safeties since the tape was made of acetate and could snap) and signaled that I was ready to go on air. I was on the telephone when I realized that I didn't hear anything. I dropped the 'phone and switched on the second machine, still no audio. I called the transmission room, seems they had forgotten that I was on air and had pulled my feed. Although it seemed like an eternity, there had only been two minutes of silence on NBC."

In 1952 Mary Bell (Schwartau) was written up in Mademoiselle Magazine in an article titled "Editing By Ear". They described her as having the ability to cut and splice tape judiciously to edit out "and, uh's"... "Relative to that article, if they only knew what I had to dc to edit a John L. Lewis speech. He was a very dramatic speaker but his pauses between sentences seemed interminable. I set to work to try and squeeze the speech into a ½ hour program. I must have spliced that tape in at least 100 places!" related Mary.

Shortly after that article appeared, Mary left NBC to start a family. Her husband was also an engineer and occasionally they worked on freelance projects, writing scripts, doing remote recordings and editing.

Several years later she started her own audio business, working out of her living room. She even tried to teach her eight year old son how to do tape duplication on her specially designed Ampex 960's. When asked how she learned her trade as an audio engineer, she responded "empirically!", which sounded suspiciously like a plug for her son Winn's company-Empirical Audio. Left: Judith Leigner editing on portable Ampex machines while the studio was waiting for their permanent equipment. (Mid 1950's)

> After a hiatus from the business, Mary's son and daughter-in-law (Sherra Posten Schwartau) are re-acquainting her with the machinery of today's recording industry.

Louise Malcclm's career began with a baptism by fire. NBC, losing male engineers to the drait during World War II, tried an experiment. They would take non technical

personnel and train them to record and edit disks. Within a brief three month:, the company propelled her from a \$100-a-month secretaria! position to recording engineer. Louise Malcolm became the first female engineer at NBC. She vividly remembers the pressure that she felt from the executives who viewed her as a guinea pig, as well as being aware that if she was successful it would open up opportunities for other women.

The equipment in those days was primitive. "In 1942 editing was a process far removed from today's technology," says Malcolm. "It required ultra precision, split second timing and as many arms as an octopus. Editing on tape nowadays is simple by comparison. We did our editing off of disks, and sometimes it would take as many as 15 to put together 1 good master," Louise went on to say. One of the first projects Louise Malcolm was assigned to was for the South American market. "Imagine editing a speech in Spanish without understanding one word of the language," laughed Louise. Since the network was on air 24 hours a day 7 days a week, there were both live broadcasts and recorded programs; however, even the live presentations were put on disk for distribution to the Armed Forces Radio. Often she worked with a bank of

Above: 1947, the NBC Recording Division, an engineer at the turntables reads a script and cues up the disks. (notice the antiskating provisions?!)

three lathe machines. One would be accepting live feeds from overseas; at the other two machines Malcolm would have one cued up ready to go while the third was running on air. Each disk had a recording time of 15 minutes or less so there was alot of movement back and forth between machines. During a 30 second station break, using a microscope, she would check the depth or brightness of the groove made by the sapphire stylus and respot the machine. As if that did not demand enough dexterity. Louise stood over the machines as they were running and with a brush removed the vinyl chips as the disk was being cut. The Scully lathes, unlike the Prestos, had a suction device to collect the chips. (Oh progress!) "Delayed broadcasts were a piece of cake. We would be on air in New York at 6 pm, record on disk and playback at 7 pm for the Chicago station." Louise recalled.

After her initial three month training program, not only was she officially hired as an engineer, but NBC gave its blessing to hiring ten mare women to be trained. The pay was terrific compared to her secretarial job, but the hours were grueling. For the first 13 years Louise worked the night shift and weekends (holidays did not exist). "We did not work normal hours, and this shaped my personal life," Malcolm said. "I married another NEC engineer because we shared the same rigorous work schedule. I am now nuarried to a radio director and we often work together on a program," Louise went on. "In contrast to those early days, editing on tape is a dream. I remember when the first Ampex machine was

brough: into the studio, it gave us capabilities we never had with disks. Instead of moving from one lathe to another, we just kept the tape machine rolling. But looking back on it, other than cartridges, not much has changed in tape technology for us at NBC. We even still have some of the old RCA's. Louise said.

After 39 years as an engineer at NBC, Louise Malcolm is retiring. Although she has a deep appreciation for the audio industry, there will now be time for her other love - he: greenhouse.

'udith Liegner had no idea that when she moved to Europe she would become an audio engineer. As a musician in France during the early 1950's, she remembers carrying around her tape recorder to record all of her performances. Judith wanted to stay in France, but performing just did not bring in enough money. She was able to get an interview with the owner of a recording studio, since it was not uncommon for women in Europe to be engineers. At that interview, Monsieur Charlin asked Judith what recording experience she had. "Naively, I produced my American-made portable tape recorder," she said. Charlin realized though, that as a performer-musician, Judith had a well-trained ear. He was willing to hire and train her to edit and dub his classical music projects. "It was a very busy studio, and often I would have to edit a tape from masters without a musical score," Judith recalls "I learned everything from the other engineers (mostly by watching) and Charlin. Because I was stutsy as well as curious, it was not long before I was allowed to sit in on sessions. I found that if I took notes during those studio sessions, it was a big help later on in the editing room." Judith was becoming a skilled editor, but she was enthralled watching the studio engineers as they would ride the gain if a cello was not loud enough. "I was intrigued with the



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idea that you could move a fader instead of stopping the entire orchestra and redoing that particular section."

In the two years that Liegner spent working for Charlin, she learned every aspect of recording, from micing a room to masters.

In 1954 she returned to the States to work for Concert Hall. They had specifically hired her to edit tapes done in Europe and sent over here. "There was often a problem with tapes from overseas. The speed just did not seem to line up. We would take the splicing tape and wind it around the capstan motor to vary the speed."

She was also responsible for mix down and supervision of cutting the master disks.

In the latter part of 1956 she worked with Al Grundy installing the first Ampex stereo cutter in the Concert Hall studios in New York City. "I recall having to read alot to keep up with the technology when that machine was installed. The Ampex was a far cry from Charlin's hand built equipment in France." Judith recalls.

Concert Hall was moving their operation to Switzerland, and Judith was sent to set up the new studio and supervise. With this assignment she was also getting additional experience in record production since she was told to go to their new pressing facilities. "When I walked in everyone was very polite, they must have thought that I was a tourist who had strayed from the bus! When I sat down and spoke with the chief engineer, he realized that I also was an engineer, and from that point on we never had any problems communicating." By the time Judith left Concert Hall, she was doing more than engineering, she was participating in the top-level management decisions such as what pieces of music were going to be recorded.

Shortly thereafter Judith moved back to France to work for CBS Records. There had been a take-over of an established French record company by CBS. The French company had a tremendous catalogue, but antiquated facilities, and Judith was sent to reorganize the operation. Although her function was administrative, having such a strong engineering background, gained her enormous respect ("speaking fluent French did not hurt either," she added), "Even as an administrator I got a kick out of sitting in on live sessions, mix downs and checking out equipment. I never stayed too far from the recording studios."

Discussing philosophy of recording, Judith expressed her view that when she was engineering it involved subjective interpretation of a particular piece of music. "So much is done by ear and a feeling for the music you are recording. I was not opposed to adding things to the mix if it enhanced the quality, but multi track did begin to deprive the musician/ performer of a direct means of expression (something they get out of performing live)."

With that philosophy, it is not unusual that she now runs Liegner Management handling performing artists like Marion Williams, Jessy Dixon and many solo classical musicians.

Next month we will talk with a few more contemporary women in our industry and discuss present day careers and opportunities for women in audio.



by Ben Harris

It seems as though engineers and mixers grumble more about drum sounds than anything else in the studio today. All of us have had those miserable sessions when it seemed the very best sound you could obtain was still slightly worse than a cardboard box and a Q-tip. The opinions of engineers on "how to", "what with", and "where at", are as numerous as the engineers themselves. How many times can you remember the drummer coming in for the second session, only to find that your real neat sound from the day before had somehow vanished? That long, hard stare you received from the drum booth was not respect. He probably thought you were fresh out of the trees.

A friend and I were discussing the vast differences we had heard from one day to the next, with the same drummer, kit and microphone selection. The sound one day was great, and the next, the cardboard box. There does not appear to be a logical explanation, but I assure you there is.

I do not have any incantations or special herbs, nor do I suggest burning incense to make your drums sound good. However, I may have an answer as to why they sometimes sound bad for no apparent reason. As we all know, when the drum sound is loose and muddy, the entire track will be little better.

In most cases, we are dealing with an average of ten to twelve microphones on a kit. The phase-time relationship between these microphones can be extremely critical. If phasing errors are present in substantial magnitude, the low end response will be loose, muddy and undefined. The center image will be cloudy, with random nodes across the stereo spread. Not a happy state of affairs.

Each mike, whether it be designated for tom, snare, kick or cymbal, will receive signal not only from its intended sound source, but the leakage from all the other drum instruments as well. This leakage will sum at random with the number of mikes used on the kit. The more mikes, the more leakage to be heard in the mix. This leakage, if not phase aligned, will cause the hollow, muddy sound described above.

A brute force method for eliminating the negative effects of what we shall term "bad leakage" is to electronically gate the tom and overhead mikes when not in use. When the drummer strikes a drum that has its microphone muted via a gate, the mute threshhold level is exceeded, which opens the channel, allowing the microphone to be heard. This electronic band-aid for leakage can and does tighten the overall drum sound, but not without a price. The band-aid is only concealing a lack of knowledge in microphone placement and technique, a dying art this day and time.

This "bad leakage" can be transformed into good leakage, making the drum kit sound rich and fat, without reducing the apparent size of the kit. I have a method for nulling the phase errors in a drum kit. I feel so strongly about this method, I am convinced it can help you obtain a tighter rhythm sound.

First, let us assume the kit to be well tuned and well played. The type microphones you prefer are not nearly as important as how you implement them. For example, these are my favorites: AKG D12E for kick, C451E with 20 dB pad on snare, C451E's with 10 dB pads on high hat and overheads, and Shure SM-57's on toms. This is not to say these are the best, just my preference.

With all the console faders down, bring only one fader up at a time, adjusting the level and equalization for that particular drum channel as well as possible. Now, with all fader levels, and equalization settings obtained, mute all the drum channels except the snare and floor tom mikes. Have the drummer hit the snare in a steady, repeatable fashion. Lower the snare fader level and increase the floor tom fader until the level of each of the two channels is approximately the same. (The snare leakage through the floor tom mike being the same apparent loudness as the snare mike itself.) While listening in a mono mode, instruct the drummer to continue the steady beat and have an assistant move the floor tom mike over the head of the tom in a circular manner. being sure to cover the entire surface of the head. until you hear the phasing between the two microphones "lock in". That is to say, the loose, hollow sound at some point across the head will be at a low ebb. You are effectively nulling the bad phase response out.

After having determined the mike placement to obtain the best snare sound through the floor tom leakage, lower the floor tom fader to about the same relative level as the snare channel in the text above. Now, proceed to raise the next highest tom fader and repeat the phase adjustment process. Each tom, cymbal and overhead microphone thereafter is adjusted, utilizing the same method. When all the microphones have been adjusted for phase response, return the faders to their proper and respective levels. The leakage remaining will add richness and fullness to the overall sound. Any "bad leakage" left will, for all practical purposes, be masked by the inphase relationship of the kit.

Some trouble spots are the smaller toms of 8" or less in: diameter. The head is so small, the placement becomes harder to determine. At times it may be necessary to reposition one of these small toms slightly to compensate for the phase lag between its microphone and that of the snares. Most usually this can be done without affecting the drummer's playing ease to any great extent.

The kick drum can be phase aligned as well, although it may be necessary to reverse the polarity of the microphone itself, due to the usual technique of miking the kick from the inside of the shell, which is 180 degrees out of polarity with the front.

Slight and conservative equalization changes can be made after the drum kit has been phase adjusted with little affect on the phase response overall. However, bear in mind the equalization on each channel was adjusted before the phase alignment had been performed. Therefore, the phase shift inherent in each particular equalization setting was compensated for, to a certain extent, by the mike placement and phase alignment procedure. Equalization changes after the fact will slightly alter the response to some degree.

In summation, all too often pet microphones and techniques are implemented with no regard to phase or time lag differences between adjacent microphones. Hence, consistency is lost between setups. On drums, this phase difference can be a tremendous disadvantage or it can be an asset if properly done. The same procedures can be used on pianos and even microphones placed across the room from each other, with similar results.

Give my technique a try. The drummer will love you, and you will be extremely satisfied with yourself when you realize how much better it sounds and how much easier the mix becomes later on down the road. I am sure you will agree, it's worth the time spent.



by John T. Mullins

EDITORS NOTE: In our last issue (Vol. 5, No. 3) Mr. Mullin told the story of discovering the German Magnetophon, during the course of his service in World War II, and bringing this revolutionary technology back to America. As we reached the end of the first installment, Mullin had just successfully auditioned his machine for Bing Crosby's producers to inaugurate the first network radio tape recorded productions.

That night Col. Ranger and I had a long talk. He was convinced he had carried the development of his machine to a point of acceptability and that in any event he must now sell these two machines as they stood. He had put a lot of money into them and was anxious to realize some return. It was obvious to me that they were not acceptable to the Crosby people and I tried to convince him of this. Fortunately for him, he was able to sell both machines in Hollywood within a few days, with the assurance that he would at some time later update them to provide better quality performance. We still needed backup machines if we were to take on the Crosby show, and even more important, we were going to need tape. We were not confident that we would get either from Col. Ranger and so we terminated our relationship.

We immediately contacted Ampex and I can remember my excited enthusiasm as I called long distance to Harold Lindsey and Alex Poniatoff to convince them of the great opportunity that seemed to lay at their doorstep. They had already accomplished a great deal, but there was yet a lot of work ahead of them before they would have a completed recorder. They had no intention of trying to make tape.

A conference was held and the decision was made to let us take on the radio show if we were quite certain that Ampex would produce a machine within reasonable time. We would then have backup protection and the operation might ultimately be expanded to the use of tape playback directly to the network. The plan meanwhile was to record on tape, edit the tape into a show and then transfer it to a disk, playing the single generation disk to the air. My limited number of reels of tape could then be reused over and over until, of course, they would be consumed in splices. But we hoped for relief before this would happen.

Murdo McKenzie procured a small studio for our exclusive use in the NBC building and I installed the two Magnetophons and set about recording an average of one show a week. The rest of the time we were involved in assembling the tinal version, transferring the show to disk and in giving demonstrations to countless visitors.

Good news travels fast. 3M very shortly got wind of our operation and we were promptly visited by President William McKnight, Vice President George Halpern, Robert Westbee, Dr. Wilfred Wetzel, Roy Gavin, Bob Herr and Tom Gibbons—among others. It was our first meeting with gentlemen from 3M and they made it clear that they were most anxious to cooperate in any way possible to further the use of magnetic recording tape. Frank Healey, Murdo McKenzie and I were most impressed with the fact that they were willing to try to fabricate whatever formulation would work best on my machines.

I tried many different samples, finding that there seemed to be considerable variation in their performance. Oddly enough, the types of tape that Dr. Wetzel and Bob Herr thought should perform in a superior manner created a variable background noise Only when they formulated what they considered to be a lower grade oxide was the excellent performance of the German tape duplicated.

I often took short trips to Ampex to help them with their design and to give them practical tips on the human engineering aspects gleaned from my constant work with the German machines.

As the design came to its final fruition, we had a conference at Ampex on the type of tape to be used. Dr. Wetzel was at the factory and we compared the performance of various tape samples and some of the German tape. Again we drew the same conclusions that I had reached—the oxide 3M considered inferior was the one that worked best! Dr. Wetzel made it

World Radio History

clear that 3M would gladly make this material available if we really wanted it. The decision was made then and there to use it. This became known as Type 112 or RR (for Raven Red), a material which we naive tape machine users and developers did not know at the time was a form of iron oxide used in red barn paint! Later we were to find out that a peculiarity of performance both in my machines and in the first Ampex models was responsible for our observations. Machines were later modified slightly to accommodate 3M's better tape, Type 111.

Ampex was built around six men at the time, all very capable and dedicated to one objective—to design and manufacture a professional tape recorder based on the original Magnetophon, but not necessarily a Chinese copy of it. Alex Poniatoff, Harold Lindsey, Myron Stolaroff and Forrest Smith were responsible for engineering, styling and manufacturing methods. Both Bill Palmer and I had great faith in what they were accomplishing—but they needed money

The name of Bing Crosby carried a lot of weight in the executive offices of ABC and as the grand plan for getting the Crosby show from tape directly onto the network took shape, it appeared that it would be desirable for ABC to have a total of twelve machines, four in New York, four in Chicago and four in Hollywood. An order would be placed with Ampex for twelve machines if a successful demonstration was given of one machine in Hollywood. A date was set as a goal.

Ampex worked night and day, and Harold Lindsey carried the machine to Hollywood in his station wagon. It was a beautiful thing to see. It handled tape well at normal speed, rewind and fast forward. It could play a tape beautifully (tapes made on my Magnetophon being used for demonstration). But it could not record! Time had not permitted the completion of this part of the machine. Jim Middleprook, the chief audio facilities engineer of ABC had come cut from New York for the demonstration. He got me aside and said, "I want to ask you one thing."

"Yes sir." I wondered what was coming.

"Will these guys get this thing to record as well as yours does?"

What a spot I was in. But I plunged head-



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long into the answer. "They certainly will. There's no reason they can't."

"That's all I want to know," he said. "I'll recommend we give them the order for twelve."

I really said a prayer every night for their success after that, until I witnessed a successful recording demonstration.

With a firm order for twelve, handled through Bing Crosby Enterprises as worldwide sales organization for Ampex, the company was able to get a bank loan that vaporized their money problems. They went ahead full steam, not only to solve their remaining technical problems, but to get set up to manufacture their first machine known as Ampex Model 200. I was made a present of the first two to leave the factory, serial numbers 1 and 2, which I received in April 1948.

I had by now recorded 26 half-hour Crosby shows on the two Magnetophons. They were showing visible signs of fatigue and my original 50 rolls of German tape were badly battle scarred with innumerable "bandaids."

What a relief it was to start fresh with brand new beautiful machines capable of running continuously for 35 minutes instead of only 22 and an inexhaustible supply of 3M tape.

Serial numbers 3 to 12 went to ABC, and I later turned over serial numbers 1 and 2 to them to complete the original order. This was done because these were cabinet machines—quite large and difficult to transport. It was clear that if the machines were more readily portable, Bing could go where he liked, recording right on the spot. Thus Ampex designed and made for me two portable units in which the original cabinets were each split into two beautifully finished oak cases. Thus I was presented with serial numbers 13 and 14, and I used these for the duration of my association with the Bing Crosby Show.

It was clear as the Crosby season drew to a close in June of 1948 that a great change had taken place in the world of professional sound recording. One major network had converted to tape. A new name, Ampex, had come into the world of sound recording tape. A whole new approach to radio programming was commencing the pre-recorded, edited and assembled radio show was now to be easily accomplished.

As head of the sales organization for Ampex products in Bing Crosby Enterprises, Frank Healey kept me busy with demonstrations to myriad prospects for this new medium. Between such activity, my continuing involvement with recording and editing the Crosby show and even providing recording and editing services to the Louella Parsons show on Sunday and a weekly guarter hour show featuring Burl Ives, I was now a full time resident of Southern California. I could not devote any time to the San Francisco activities of W.A. Palmer Co., and I thus joined Bing Crosby Enterprises as chief engineer of its Electronics Division. Frank guickly sold a block of machines to NBC, then the Don Lee radio network and CBS. Independent radio stations such as KSL in Salt Lake were early customers.

I am sure I set up the first successful demonstration in the use of tape for phonograph record work in mid-1948 when we were in New York. By telephone line, I fed two or three of Bing's songs from the ABC studios in Rockefeller Center to Decca Records' cutting room, where they took them on 78 RPM disks, processed them and marvelled at the results. Capitol Records and Decca were the first record companies to install tape; Ampex, of course, for mastering. Others guickly followed!

As I look back on it now, it seems curious that a number of vital factors, each essential to the success of the whole, came into "conjunction" almost simultaneously. First the Magnetophons' superiority to any other machines in this entire country; second, the need for such apparatus by such a prominent person as Bing Crosby; third, a small but capable group of people, Ampex, with determination to make the world's finest tape recorder; and fourth, the 3M Company with faith in magnetic tape and anxious to see the market for it come to fruition.

I continued to record the Crosby shows until June 18, 1951. During this period, Bing often recorded in San Francisco and New York. We even did some shows in Vancouver and Spokane, his old home town. As certain new techniques in editing developed, I was able to add a third machine to my apparatus. This time I was again honored to have the first machine of a new series, Model 300, Ampex' most famous line. It was made up in two portable cases and seemed a featherweight beside the Model 200's.

Shortly after Ampex started making the Model 300, I was visited by a man from the Naval Station at Point Mugu, California. He told us that when they launched an experimental vehicle, a great deal of information on its performance was sent to home base by radio, where it was instantly analyzed and caused to operate pen recorders, among other devices, so that complete records of the flight could be available for later study. This entailed a lot of people and a great deal of apparatus, all of it hopefully in good operating condition. He felt it would make better sense to record the signals that came out of the radio receiver onto tape and then analyze them individually at a later time

We provided him with one of our Model 300 audio machines for test and he was delighted with its performance. He ordered several and thus was born Instrumentation Recording, a business that bloomed in a short time into something much greater for Ampex and Bing Crosby Enterprises than audio had ever become.

Ampex undertook development of special machines to best fit various requirements of this business. Early machines had a peculiarity which introduced an undesirable irregularity in the final analyzed records. This was known as flutter. While still working on the radio show, I undertook development of a flutter compensator, using the kitchen of my apartment in Los Angeles as a laboratory. I soon outgrew the kitchen. I had also discussed the possibilities of recording television on tape with a highly respected engineer, Wayne R. Johnson, and we found we both believed in pursuing the same method. Frank Healey and I approached Crosby Enterprises, and arrangements were made to hire Johnson and one or two assistants and move into a small shop. This was the start of Bing Crosby Enterprises Electronic's Division. We opened our laboratory in June 1951

We continued the development of the flutter compensator and started tackling the problem of video recording. I had prepared a patent application on the video recording method we were to follow, which had been filed on November 14, 1950. Our first demonstration was pretty crude. We had "recorded," if it could be called that, some TV pictures of airplanes landing and taking off.

Whenever we gave a demonstration, Frank would stand by the monitor and say, "Now watch this plane come in for a landing," or "There goes a guy on take off." It is doubtful the viewer would have known what he was seeing without his running commentary.

Things got better at a rapid pace, however, and by January of 1952, one reporter stated, "The picture seen is on a par with live TV quality known in television's earlier days." Through all this development period, the special characteristics which the tape itself would require became even more evident, and in its usual comparative manner 3M was constantly furnishing us with samples of experimental oxides and base materials.

Whenever we had an improvement to show, we invited people from Ampex and 3M to come and see it. We didn't know for some time that in between demonstrations, a lone but persistent researcher was working on a different method of recording TV on tape in a converted ladies wash room at Ampex. Each time after we had duly impressed the officials with a demonstration, they returned to Ampex and promptly turned him off. After a time, they would tire of his pleadings and let him again pick up the project.

On February 23, 1955, we had a press showing of a color TV playback. Reaction was good, although there was still room for improvement and, of course, our development efforts continued.

Parallel with our development of video tape recording, which incidentally we named "VTR" at our first demonstration in 1950, we undertook to develop specialized instrumentation recorders for applications where there would be a conflict with the Ampex market. By now Bing Crosby Enterprises was no longer exclusive distributor of Ampex products. Audio had been given up entirely and we had the southwest area of the United States for instrumentation. This was, however, the best territory, since there was so much government activity in this district.

We made several machines, under special contract, designed to record frequencies as high as two or three megacycles, capitalizing on what we had been learning on TV recording. Some of these were spectacular jobs. The first, for West-inghouse, a single set of equipment, sold for \$125,000.

I was suddenly surprised one day in 1955 to be invited to the Ampex factory in Redwood City to witness a demonstration. It was a video recorder that clearly outperformed anything we had achieved. A month or two later it was shown to the public and it created a sensation. Charles Ginsburg, with assistance from a young high school graduate, Ray Dolby, had fought the vicissitudes of cramped quarters and an "off again on again" policy and in the face of it all had come up with a marvelous development. Of their NAB showing, Ginsburg has said:

"At first they just couldn't believe what they say; there must have been two or three minutes of excruciating silence. Then all hell broke loose They were hollering and screaming and jumping out of their seats".

We soon concluded that it would be unprofitable to continue development of our video recorder. Ampex informed Bing Crosby Enterprises that they wished to handle the instrumentation territory we had been selling and servicing, and so the Electronic Division of Bing Crosby Enterprises was left with only a few good contracts for specialized wide-band recorders and some capable personnel.

Freedom from the restrictions of activity that were formerly imposed on us by our relations with Ampex now permitted us to engage in the design and manufacture of any type of tape recorder we might choose to make. We knew the area and the customers. Bing felt that he did not want to be in the electronics business anymore. The turn of events had been followed closely by our friends in 3M Company. They felt we had good potential for growth and an agreement was signed on August 30, 1956, wherein we became the Mincom Division of 3M Company.

Frank Healey's experience as director of the old Electronics Division naturally assured him the Directorship of Mincom, and I remained as head of engineering.

We immediately set to the task of designing a standard instrumentation machine, our Model C. Thanks to 3M's interest and faith in our future, we expanded into new quarters in West Los Angeles and immediately grew at a remarkable pace. Soon Mincom occupied several buildings in the area and it became desirable to consolidate. In 1962, the division was moved to its own new building in Camarillo.

I became detached from the operation, taking up residence in Geneva, Switzerland, in 1962 on a special assignment. Before leaving California, it occurred to some of us that our "first love," the field of professional audio recording, had been surely neglected for a long time. Thus it was that Ken Clunis, Don Kahn and I undertook development of a new professional audio recorder. I left it in their hands when I went to Switzerland. They moved to St. Paul, Minnesota, in 1962 and I rejoined them there in 1963, where we continued its development. In 1966, Don Kahn and I moved back to Mincom in Camarillo and our first machine was delivered from the Mincom plant in January 1967. It is considered by enthusiastic users to be the finest in its field.

Today's professional audio recorder is a far cry from the Magnetophon. It may have several speeds and provides as many as 24 separate tracks on 2 inch tape. The Magnetophon ran at one speed, and recorded a track on $\frac{1}{4}$ inch tape. Tape is finally finding its way into the home. Today's cassette machines run at 1 7/8 inches per second and provide four tracks on tape only 0 . 1 5 0

inches wides.

The hesitancy of the professional recordist to trust his expensive recording session to a tape machine was understandable in 1947. He had confidence in the performance of disk cutters and photographic systems, even though these had many variables and were difficult to keep in top notch performance. He soon learned that the tape recorder was simpler to use, had fewer variables and remained in adjustment for long periods of hard usage.

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by Ken Fay 🖛

Two inch, one inch, three-quarter inch, quadruplex, helical, longitudinal, vertically oriented, dithering heads, digital positional memories. Video tape recording has more formats, tape formulations and buzzwords than NASA.

Two inch quadraplex is a format as well as a method of recording. Four video heads rotate in a vertical orientation impacting the tape at 86 mph, each making four passes to obtain one full frame of picture.

One inch helical scan is a method of recording. SMPTE Type C is a format. Bosch/Fernseh Type B is a 1" helical scan format. Sony, Ampex, NEC, RCA and Hitachi presently manufacture one inch helical scan Type C recorders. A horizontally aligned spinning head with video tape wrapped around a drum at an angle

described as a helix impacts the tape at a speed of 58.4 mph.

Three-quarter inch recorders are not six track audio recorders, but commonly used video cassette recorders of the U-matic[®] persuasion. Sony orginally developed this format for the home market only to find that consumers were not ready to pay \$2000 for a home VCR ten years ago. The recorder developed into an industrial machine and, after further engineering, into a broadcast quality recorder utilizing a time base corrector. These recorders again use the helical wrap technique and spinning heads, impacting the tape at approximately 20 mph, to apply a video signal to tape.

Impacting the tape is a commonly used term in the video industry when describing head to tape contact. Those heads are 10 to 20 mils



thick, approximately the width of the edge of a butter knife. That knife couldn't pose a threat until you start moving it at 58.4 mph. Now we place a piece of magnetic tape against those spinning heads and you have the most hostile environment magnetic tape could be placed in (or, an Edgar Allen Poe fantasy.)

As a result, video tape is a breed apart from audio tape. Audio tape (Ampex 456, 3M 250) is thick, 2.2 mils thick, whereas video tape is 1.14 mils (for one inch Type C.) Audio tape has a comparatively rough surface, while video tape has a polished surface. Audio tape can get away with a relatively soft binder. Videotape must withstand those flailing heads, thus a totally different binder.

If you were to place audio tape on a video recorder, the tape would immediately shed its oxide, gum up its heads, and generally expire on the spot.

Place video tape on an audio recorder and you lose the low end. Video tape, being thin, does not allow the depth of recording necessary for anything below 250Hz. And what's that noise? Modulation noise, which is not a factor in video recording because the video signal is an FM signal when applied to the tape, and noise modulation is an AM component.

Audio performance of video tape recorders has been tape limited for quite a few years. The audio signal to noise ratio of the Type C machines is 56db. Only noise reduction can make it better.

Some attempts have been made to improve the audio performance of video tape in the past. 3M marketed a tape that was bias compatable and gave a 3 db improvement in S/N over existing tapes. This tape was dropped when broadcasters found they had to ride gain between existing tapes and this new 8250. The advent of Type C also moved audio conscious facilities away from quad and into one inch.

To complicate matters further, everybody wanted slow motion, freeze frame, stop motion, slow motion reverse (cheap thrill), as well as portability, low tape costs and low initial machine costs. The one inch Type C format promised these features at its introduction, although achieving them was a formidable task.

When a video signal is applied to tape the helix angle is achieved because the VTR is traveling at precisely 9.6 ips. Change the speed and the angle the head scribes is totally different.

Solution: Move the head! Not as easy as it sounds. This head is moving 56.4 miles per hour and covering 17 inches of tape per pass. Ampex mounts their head on a very complicated piezo electric crystal and dithers it back and forth to achieve maximum amplitude for a given speed. 3M/NEC move their head back and forth and store these positional changes in a digital memory to predict head position.

Complex technology? Yes, but this industry is used to solutions that cost as much as an audio recorder. A time base corrector costs \$35,000 to \$55,000 and just stabilizes a picture to a reference. . .but without it you wouldn't be able to do a professional edit.

Next month we will discuss electronic editing (what, no razor blades?)

ENVELOPE CONTROLLED FILTER

DON'T FORK FORK AROUND WITH YOUR SOUND

> THEE STUDIO P. O. DRAWER 549

SLIDELL, LA 70459 (504) 643-5952:



by Mr. Bonzai

By now, most of you who have been following the chronicles of the studio I manage, Ryan Recording, are familiar with our tech man, the indispensable Smilin' Deaf Eddie. Those of you who live in constant dread, in superstitious fear, that the electronic goblins are waiting around every corner of recording, know how invaluable a real expert is. Find a man who can keep the studio running and the gold record will be waiting at the end of the revolving rainbow. Even if he is a little weird, it is a small price to pay for the joys of having a professional on your team.

Eddie has kept our console flying in the battle zones. He has patched up our monitor cones when lesser men would have succumbed to the terrible tapping of a producer's fingertips in a silent control room. Eddie has re-wired ancient tube limiters, modified the circuits in discontinued synthesizers, protected our AC from power surges, and calmed down our idiosyncratic burglar alarm.

What a comfort it is to look across our reception area and see him snoozing on the sofa. Like an experienced fireman, he can move from deep sleep to Mach IV in a matter of seconds.

There he lies, dreaming up some new relay switch or a design for a microprocessor chip. The smile of a cherub is on his face, his arms are folded in the luxurious yardage of his solder-stained bathrobe. His foot twitches like a contented dog's.

He murmurs: "Buck up, Winnie. . . let's give it a go." The "Winnie" of his dreams is, of course, Winston Churchill. Not many of our clients realize our tech man began his career in the secret bunkers of Chiggerwit Hall, the control center of British Intelligence in WWII. Upon graduation from M.I.T. with a degree in Sound Philosophy, Eddie was "lent" to Winston Churchill in 1944. Thus commenced the story of how a mere boy of 13 cracked the iron cross of Der Fuhrer's backbone.

Since the first days of the Third Reich, the British had been picking up nocturnal transmissions from Berlin. Their hands clasped over uncomfortable bakelite headphones, they had tried in vain to decipher the German goulash. Eleven years had passed and it was still Greek. Eddie arrived, and in three weeks the secret orders of the German high command would make the headlines of *The Guardian*.

After deshipping in Southhampton, Eddie was whisked by train to Salisbury, where the monstrous sentinels of Stonehenge stood watch over Chiggerwit Hall. Following a brief lunch of ersatz smelts and chips, young Eddie was taken into the bowels of espionage in the dungeons

Other Side of the Tracks



below. The Prime Minister himself handed the headphones to Eddie and blubbered weakly about blood and sweat, in tears.

"Buck up, Winnie," encouraged Eddie. He determinedly clapped the phones over his ears and sat down to meditate.

The Prime Minister, his technicians, and his secretaries stood silent and apprehensive. They waited, they drank gallons of gunpowder tea, and the cold perspiration dripped from the ancient stones. Three hours later, Eddie came out of his trance, and announced:

"It's simply high speed backward recording. Record the transmissions and slow them down to approximately 1/6th of the recorded speed, reverse the tape, and get somebody who speaks Sudeutsch, I would guess."

The British did as Eddie advised and, sure enough, they soon became privy to the chit-chat of the Third Reich. They learned about Peenemunde and the heavy water, they learned about the V-2 guidance system, they learned who was playing at Der Weinermeister, Berlin's most decadent cabaret, but most important of all, they learned that Hitler read the astrology column in **Der Spiegel.** A couple of guineas in the columnist's pocket, and Der Fuhrer was in the pocket of British Intelligence. The rest is history.

Following the war, Eddie was hired by the late Howard Hughes. He was paid fantastic sums of money to develop extrasensory hearing for Hughes' corporate espionage network. He designed and built the prototype for deep dish reception, pioneered the new science of radio telescopy, loaded the first shotgun microphones, and then quit in disgust when Howard suggested that humans receive canine ear transplants. When the "dogs of war" threatened to become a gruesome reality, he rejected the tempting megabucks, and accidentally fell into what would become a legendary career in music and recording.

It happened in Memphis where Eddie was re-wiring a church for a big revival rally. He met an unknown singer named Elvis and sensed his incredible potential. Elvis had a dry little tune written by Hoyt Axton's mom called "Heartbreak Hotel." Eddie suggested heavy echo and showed him how to make it wet.

A live echo chamber is the best, but a rubber room had never been tried. Eddie and Elvis hauled an old Ampex over to the Tennessee State Hospital and recorded a classic in their unique environment.

As a result of this overnight engineer success, Eddie was thrust into the wild life of rock 'n' roll. He gave sound reinforcement to The Apollo, he consulted with Napoleon the XIVth on "They're Coming to Take Me Away," he rode the rafters at Woodstock, and he showed Led Zeppelin how to play really loud.

It was during the legendary performance by Led Zeppelin at The Roundhouse in London that Eddie blew out his inner lobes. By amplifying the sound of the world's largest pipe organ, he reached the supernormal level of 200 dB. In a flash, the organ and speakers disintegrated into piles of dust, and Eddie was left with chronic silence. He was immediately sacked.

Eddie ended up on skid row in downtown L.A. We found him panhandling outside the Bilton during the EAS convention in 1975. He was a wasted shadow of his former genius. Cart Ryan, our chief engineer and owner, happened to mention something about dB's as we passed the dishevelled bum who was destined to become our tech man.

"dB... DB! Did somebody say dB? Eddie must have read Cart's lips. "Why I could tell you about dB! The Zepp thought they knew dB... but I showed them dB!"

We didn't really believe this derelict was speaking the truth, but when he brushed away the shock of greasy hair, we instantly recognized that bulbous nose, those bushy eyebrows, that unmistakeable wart on his eyelid. (Check out "Led Zepplin Live at The Prado" and you'll see Eddie ninth from the left.)

We took a chance and hired Eddie. We cleaned up his act, funded his hearing aids, and put him to work. Today, our little studio is the envy of the technical community.

I was knocked out of my reverie when the intercom to our control room rudely squawked, "Mr. Bonzai! Disaster... the Teletronix is smoking... no spare parts within a hundred miles... help! They'll cancel the session if we can't keep rolling." It was Cart Ryan, engineer on a big session with The Licentious Brothers.

I rushed over to Eddie and shook his snoozing frame. "Eddie," I whispered, "the Teletronix is on the fritz. No parts available... can you vampirize from some tube amps?"

He opened his eyes and I could see the cobwebs of dreamland instantly blow away. He smiled, saluted, and said, "Buck up, Winnie... let's give it a go."

I knew we would be rolling in minutes.

The situations and charaterizations in this column are purely fictional and do not reflect anything relating even vaguely to reality, living or dead.
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Track



•• A.D.R. STUDIOS INC. 1780 Broadway, New York, NY 10019 (212) 582-4142, 582-4141 Owner: A.D.R. Studios, Inc.

Studio Manager: Paul Walker

Extran: Expert engineering staff, qualified in all phases of recording, from mono to 48 tracks, from recording to pressing. Chief Engineer S J Allyn

Direction: At A.D.R. Studios we feel that whether you are cutting an album or just starting out with your first demo, you should have a fully professional sounding tape. We take great pride in being able to provide you with an excellent product at a reasonable price. Additionally we feel that it is our responsibility to create an enjoyable and relaxed atmoshpere for the artist to perform in, by so doing we find that everyone performs better

ALIENATED NORTH AUDIO PRODUCTIONS also REMOTE RECORDING 12 Pleasant Avenue, South Burlington, VT 05401 (802) 826-8810 Owner: Peter D. Smith

Studio Manager: Peter D. Smith.

angelsea

Angelsea Hartford, Connecticut

•• ANGELSEA

REMOTE RECORDING: Video only

55 Russ St., Hartford, CT 06106 (offices/studio III) (203) 241-8111

Owner: Angelsea Productions

Studio Manager: Douglas Munford.

Engineers: David H. Gillon, Douglas Munford - Producer/Engineers, leff Ubran - 2nd Engineer, Barbara Rossgnol - Production Coordinator, Debbie Cushman - Production Secretary.

Dimensions of Studios: Studio I: 20' x 36' x 13', Studio III: 12' x 24' x 8'

Dimensions of Control Rooms: Studio I: 15' x 22' x 7', Studio III-12' x 14' x 8'

Tope Recorders: Otari MX 50508 8 track, Otari MX 5050B 2 track, Technics RS-1520 2 track, (2) Revox A-77 w/vanpitch 2 track, Sony 755 2 track, Technics cassettes, Spotmaster (Broadcast Electronics) Broadcast carts

Mixing Consoles: Cetec Series 10, 20 in x 2 out, Soundcraft Series 16 in x 16 out

Monitor Amplifiers: McIntosh and Yamaha

Monitor Speakers: McIntosh ML-4C, (4) Bose 901, Advent. Echo, Reverb, and Delay Systems: MXR ddl, Soundworkshop

Other Outboard Equipment: Dolby A noise reduction; Spectra Sonics 610's, dbx & Fairchild compressor/limiters, UREI & Southwest Technologies graphic and Fairchild 664 parametric equalizers, McIntosh oscilloscope; Sony MX-12 mixer

Microphones: AKG C-414E, CK-9 shotgun, D-12, Beyer M-160 & M-500's, Sennheiser MD-421's 441's & MKH-416P-48; Shure SM-58's; Sony ECM-22P's

Instruments Available: Baldwin Acrosonic Piano Rotes: 8-track: \$25/hr \$20/hr mixdown; 2-track \$15/hr Call for EFP and EPP Video rates

•• ARABELLUM STUDIOS 654 Sand Creek Road, Albany, NY 12205

(518) 869-5935

Owner: Art Snav Studio Manager: Yvonne Bautochka

Engineers: Art Snay

Dimensions of Studios: 18' x 24'

Dimensions of Control Rooms: 12'D x 20'W LEDE style Tape Recorders: Otari MX5050-8SHD 8 track; Otari MX5050 2 track; Sony 850 2 track; Sony 854 4 track; Sony TC-158, TC-K35 and TC-K45 cassettes

Mixing Consoles: Modified Tascam 10B

Monitor Amplifiers: Dynaco QSA-300-M and Pioneer QA-800A

Monitor Speakers: Advent, Genesis, Dynaco

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb, Lexicon Prime Time DDL, custom plate, misc springs, Echoplex tape echo.

Other Outboard Equipment: dbx noise reduction, dbx and Symetrix limiters, Soundcraftsmen 1/3 octave equalizers, Furman parametric equalizers

Microphones: AKG, Beyer, Shure

Instruments Available: EML synthesizers and sequencers, Others available on a rental basis Rates: \$30/hr flat rate, \$25/hr block rate (minimum 8 hrs), tape

extra, no charge for set-up

Extras: Country setting minutes from metro, private lake, kitchen, 50' x 30' lounge with shuffle board and video games. Quality disc production. Quad mix available Fine accommodations located nearby

Direction: An exceptionally comfortable and friendly atmosphere highly conductive to creativity It's not easy to find more value for your recording dollars.

 AUDIO-TECH LABORATORIES 2819 Newkirk Avenue, Brooklyn, NY 11226 (212)489-7134 Owner: Joseph Giovanelh Studio Manager: Joseph Giovanelli

•• AUDIO WORKS also REMOTE RECORDING 144 Wolf Hill Road, Huntington, New York 11747 (516) 421-4841 Owner: Shelton Leigh Palmer. Studio Manager: Phil Winters

•• BATTERY SOUND

also REMOTE RECORDING 90 West St., New York, NY 10006 (212) 227-3896 Owner: Mark Freedman Studio Manager: L. Schwartz. Extras: Live Echo Chamber, Steinway B, In house Composer, ar-

ranger, producer

Direction: Run by muscians for musicians. Battery Sound loves all music, past, present and future. This love goes on every tape we produce The Battery Advantage: A personal "one to one" approach in a relaxed, creative atmosphere where the music is what matters

**** BOUD FARKWAD RECORDING & REHEARSAL** STUDIOS 1811 Newbridge Rd., Bellmore, NY 11710 (516) 785-5844 Owner: Robert A Capparelli Studio Manager: Glen Osmond

· CINEMA SOUND LTD. also REMOTE RECORDING 311 West 75th St., NY, NY 10023 (212) 799-4800 Owner: Joan S. Franklin Studio Manager: David Weinstein

•• CLACK INC.

also REMOTE RECORDING 56 West 45th St., New York, NY 10036 (212) 245-6770 Owner: Tom Clack, V P David Picken Studio Manager: Valerie Loscalzo

· COLLEGIUM SOUND, INC.

also REMOTE RECORDING 35-41 72nd St. Jackson Heights, NY 11372 (212) 426-8555 Owner: Don Wade, Jerry Epstein. Studio Manager: Don Wade

•• CP SOUND

also REMOTE RECORDING 200 Madison Ave., NY. NY 10016 (212) 532-5528 Owner: Steve Dwork Studio Manager: Peter Bengtson. Engineers: Gary Roth, Steve Dwork, Peter Bengtson. Dimensions of Studios: 10' x 14' Dimensions of Control Rooms: Control A. 12' x 17', Control B-11' x 18' Tape Recorders: Ampex MM1000 8 track (3) Ampex 440's 2,4 track & mono, Nagra Portable Mixing Consoles: Quad-Eight Custom, 12 in x 4 out; API Custom, 24 in x 8 out. Monitor Amplifiers: Crown Amps Monitor Speakers: JBL 4313; Auratones.

Echo, Reverb, and Delay Systems: Quad-Eight.

Other Outboard Equipment: URIE ¹⁴ octave eq; UREI "Little Dipper"; UREI 1178; API eq, API compressor Pullec, etc. Microphones: Neumann U87's; AKG 414's; Shure; EV; Sony; RCA

Rates: Mono thru eight track- Record & mix: \$55/hr, A-V Programing \$55/hr.

Extras: Film transfer facilites, 16 mm & 35 mm, American & European Sync standards, Complete Audio Visual slide pulsing & computer programing. Full A-V road show capability. Music and effects librarys

Direction: Our basic objectives are to provide excellent mixing & narration facilities with as much flexibility as possible, while maintaining a reasonable rate structure

•• DANCING BEAR STUDIOS

also REMOTE RECORDING 1815 Riverside Dr., #6E, New York, NY 10034 (212) 569-0249, West Coast: (213) 827-3748 & (213) 855-1010 Owner: Bill Ohash: Studio Manager: Bill Ohashi.

.. DEMO-VOX SOUND STUDIO, INC. also REMOTE RECORDING 1038 Bay Ridge Avenue, Brooklyn, NY 11219 (212) 680-7234 Owner: Frank J. Grassi Studio Manager: Laura Grassi

. FAR & AWAY STUDIOS, INC. also REMOTE RECORDING Box 63, R.D. 1, Chester, NY 10918 (914) 294-7763 Owner: Geoff Gray and Rick Greenwald Studio Manager: Lars Grance

• G.F.K. STUDIO 378 Somerville Avenue, Somerville, MA 02143 (817) 668-9495

Owner: REK Recording & Sound Reinforcement. Studio Manager: Robert E. Kelly, Frank Azzolino. Direction: Demos and pre-production, audio-visual production, radio spots, instructional material. Credits include: Center for Ward Method Studies, New England Telephone, Polariod Skills Training, Boston Archdiocesan Choir School, Cambridge Council-Boy Scouts of America. We also consult on reinforcement and monitor systems and contract for such. Balance mixes are available for location work.

•• GRC STUDIOS also REMOTE RECORDING 1137 Fillmore St., Baltimore, MD 21218 (301) 889-4228 Owner: The Gun Recording Co. Inc. Studio Manager: Robert Friedman.

•• GOLDEN EAST RECORDING also REMOTE RECORDING 70 Turner Hill Rd., New Canaan. CT 06840 (203) 966-0785 Owner: Lisa Null. Studio Manager: Don Wade.

•• GOLDEN HORN RECORDING STUDIO 97 W. Second St., Freeport. Long Island, NY 11520 (516) 623-7588 Owner: M. Sami Uckan. Studio Manager: M. Sami Uckan.

• HILL RECORDING also REMOTE RECORDING 23 Amesbury Rd., Rochester, NY 14623 (716)359-1991 Owner: Frank Hill. Studio Manager: Frank Hill.

•• HOUSE OF THE RISING SUN 14 Luppatatong Ave., Keyport. NJ 07735 (201) 264-8868 Owner: Norman Currie Studio Manager: Norman Curne.

• IDH RECORDING also REMOTE RECORDING 200 Cape Cod Way, Rochester, NY 14623 (716) 334-4798 Owner: Israel Hill. Studio Manager: Israel Hill.

• INNER LANDSCAPES RECORDING STUDIOS also REMOTE RECORDING 34 Hillsdale Lane, Coram. Long Island, NY 11727 (516) 698-2528 Owner: Michael Adam Pollack Studio Manager: Michael Adam Pollack.

 KEWALL PRODUCTIONS RECORDING STUDIO also REMOTE RECORDING 77 Bayshore Rd., Bayshore, NY 11706 (516) 588-6436 & 586-2486 Owner: Keith A. Gutschwage Studio Manager: Walter K. Gutschwager.

•• **EING HENRY PRODUCTIONS** also REMOTE RECORDING 1855 Fairview Ave., Easton, PA 18042 (215) 258-4461 Owner: Henry Casella. Studio Manager: Henry Casella.

 CHARLES LANE STUDIOS 7 Charles Lane. New York, NY 10014 (212) 242-1479 Owner: Michael F.J. Lynch Studio Manager: Cliff K. Petroll

• LE STUDIO INC. also REMOTE RECORDING 715 Boylston St. Boston, MA 02116 (617) 267-2825 Owner: Samuel Boroda. Studio Manager: Claire V. MacDonald.



- LOST IN MUSIC STUDIOS Dormont Square, Pittsburgh, PA 15216 (412) 343-5222 & (412) 343-0830 Owner: Henry Yoder, Barney Lee, Justin Brown Studio Manager: Barney Lee.

•• MCE RECORDING STUDIOS also REMOTE RECORDING 463 State St., Schenectady, NY 12305 (518) 382-1762 Owner: Mark C Ernst Studio Manager: Charles Norling.

•• JON MILLER SOUND STUDIOS also REMOTE RECORDING 2524 E. Scenic Drive, Bath. PA 18014 (215) 837-7550 Owner: Jon Miller Studio Manager: Jon Miller.

•• MOUNTAIN SOUND also REMOTE RECORDING 314 North First St., Strougsburg, PA 18360 (717) 424-1702 Owner: Chris Fichera, Marty Druckman, Ric Carhart & Tiany Merlo Studio Manager: Chris Fichera Extras: 1926 Steinway 7: grand (B senes). A relaxed setting in Pocono mountains. Total recording production services Direction: The environment is jazz oriented. Credits include: Bill Goodwin, the Phil Woods Quartet, Bob Dorough, Al Cohen, Gary King, Mike Mehillo, Scott Jarrett, Omnisound Record: Our

sound reflects the atmoshpere, comfortable clean & relaxed.

• MUSERAT PRODUCTIONS, INC. also REMOTE RECORDING 44 North Central Ave., Elmsford, NY 10523 (914) 592-3144 Owner: Smith Street Society Jazz Band. Studio Manager: Bruce McNichols.

•• NEW AGE SOUND RECORDING also REMOTE RECORDING 309 Main St., Port Washington, NY 11050 (516) 883-8913 Owner: William Bloom Studio Manager: William Bloom

• NORTHERN LITES AND SOUND STUDIO also REMOTE RECORDING RFD #3. Georgia. VT. 05468 (802) 893-1220 Owner: Tracy L Lord Studio Manager:Tracy L. Lord/Paul R. Appleget.

•• OAK GROVE RECORDING STUDIO also REMOTE RECORDING 65 Clinton St., Malden, Mass. 02148 (617) 321-1017 & 324-9421 Owner: Emenee Productions Studio Manager: Mark Hanrahan Engineers:Emir Galevi Mark Hanrahan, Kelly Biron Dimensions of Studios: 30' x 20' Isolation booth: 12' x 10' Dimensions of Control Rooms: 18' x 14' x 91/2' Tape Recorders: Tascam 80-8, 8 track; Tascam A73(D, 2 track; AIWA 6450 cassette Mixing Consoles: (2) Tascam Model 5, 16 in x 8 out Monitor Amplifiers: HGW, Dynaco. Monitor Speakers: JBL; Auratone; Advent; Thundersound Floor Echo, Reverb, and Delay Systems: SoundWorkshop Stereo

reverb, Advanced Aucito Design digital delay. Other Outboard Equipment: compressors/limiters 2 dbx 165 Over Easy, (2) Ashly 3C-50, 4 channels Omnicraft roise gates. EQ. (2) UREI 529 ^{1/3} incluve, Orban Stereo Parametric, (2) Furman Parametric, Soundcraftsman Stereo, 10 Band Graphic. Microphones: Neumann; Sennheiser; AKG; Shure. Instruments Available: Telecaster, Les Paul, EBO, Beuscher Alto, Baldwin grand, ARP 2600, Hammond M-3 and Leslie, Fender Rhodes Rates: \$24/hr; \$15/hr copying & editing

 PHANTASMAGORIA PROD., INC. 630 9th Ave., New York, NY 10036 (212) 586-4890 Owner: J. Keith Robinson. Studio Manager: Russell C. Fager.

-- PLUM STUDIO 2# Washington Street. Haverhill, MA 01830 (617) 372-4236 **Owner:** Richard Tiegen Studio Manager: Richard Tiegen.

 POSTHORN RECORDINGS also REMOTE RECORDING 142 West 26th St., 10th floor, New York, NY 10001 (212) 242-3737 Owner: Jerry Block Studio Manager: Frank Stettner.

•• RECORDED PUBLICATIONS LABORATORIES also REMOTE RECORDING 1100 State St., Camden, NJ 08105 (609) 963-3000 Owner: Recorded Publications Manuf. Co Inc. Studio Manager: Howard Solomon.

 REVONAH RECORDS also REMOTE RECORDING Box 217, Old Rte 17, Ferndale, New York 12734 (914) 292-5965 **Owner:** Paul Gerry Studio Manager: Patricia James. Engineers: 2 Dimensions of Studios: 18' x 20' Dimensions of Control Rooms: 12' x 18' Tape Recorders: (2) Ampex 351-2, 2 track; Ampex 351, 1 track; Sony TC 850, 2 track. Nagra 4.2 L 1 track Mixing Consoles: Custom Built 16 in x 2 out. Monitor Amplifiers: Marantz and Altec. Monitor Speakers: JBL 4311, Altec, Auratone SC. Echo, Reverb, and Delay Systems: Fisher K10, Pioneer

Other Outboard Equipment: Scully-Westrex Stereo Disc Mastering Lathe, Ashly SC-66 Parametric EQ, TEAC SC-20 graphic EQ, Fairchild 670 Stereo compressor/limiter, URIE 1176N compressor/limiter Dolby B and dbx 124 & 155, Pultec. EPOTA EO

Microphones: Sony ECM-22P, Sony ECM-165, Neumann U-67, Sony 17-P Electro-Voice 535, Western Electric 639A, Electro-Voice UZA, Eelctro-Voice 644.

Instruments Available: Hardman bady grand piano, King Acoustic Base, Martin D-28 guitar, Gibson RB-250 Banjo, Epiphone Mandolin, any other instruments are available on a rental basis with advance notice Rates: 1st hour \$50.00, each additional hour \$30.00.

**** ROAR PRODUCTIONS**

also REMOTE RECORDING Oakland Center, 8980 Route 108, Columbia. MD 21045 (301) 596-0600

Owner: D.H. Arthur, Steven M. Rosch-Joint Managing Direc-

Studio Manager: Steven M. Rosch

Direction: We are a production company featuring an in-house recording facility, Camilton/Magician Music (publishing), promotional services, and a jingle/advertising department. With a complete staff of experienced composers, lyricists, vocalists, instrumentalists, arrangers, and copyists to complement our awardwinning production team, it is our intent to offer our clients uncompromised personal attention and a unique variety of musical ser-vices at reasonable rates. We believe any project that warrants our involvement deserves our commitment to excellence

**ROSEMARY MELODY LINE RECORDING CO. also REMOTE RECORDING 633 Almond St., Vineland, NJ 08360 (609) 696-0943

Owner: WindRose Productions. Studio Manager: Dennis Link

**** ROXY RECORDERS** also REMOTE RECORDING

648 Broadway, 3rd floor (at Bleecker St.) New York, NY 10012

(212) 475-6571, 246-3254 Owner: Roxy Recorders, Inc.

Studio Manager: Steve Manes Engineers:Mike Frees, Todd Anderson, Various Independents Dimensions of Studios:25' x 20' x 12' h with vocal and

amplifier isolation rooms

Dimensions of Control Rooms: 19' x 16' with sloped ceiling. Tope Recorders: Otari MX7800 (w/remote, locate) 8 track; Otari MX5050 QXHD 4 track; Otari MX5050B 2 track; Scully 280, mono

Mixing Cor soles: Sound Workshop 1280B-8EQ (Modified 12 in x 8 out; plus 2 outboard transformerless Mic Preamps w/mixer (14 inputs total)

Monitor Amplifiers: Crown DC-300, D-150, D60. Monitor Speakers: UREI 811 (Time Aligned); Auratone Echo, Reverb, and Delay Systems: MICMIX XL-305, AKG

BX-10 Lexicon Prime-Time digital delay, tape delay

Other Outboard Equipment:UREI LA3A, dbx 158 & dbx 155 noise reduction, dbx 161; Auditronics PEQ-82 and Pultec EQH-2 program EQ; ADM 667, SCI digital sequencer, Ashly SC-40; Accessit noise gates (4 channels), transformerless Mic-Preamps (outboard).

Mlcroph ex:Neumann U-87. 47 (tube); AKG 414EB, 451's; Shure SM-81's, 57's, 545; Beyer M-160, M-500; Electo-Voice RE-20, RE-16, RE-11, 666; Sennheiser 421; Sony 270; TMF direct boxes

Instruments Available: Steinway grand, ARP 2500 (modified), Prophet 5, Fender Rhodes (stereo), Fender, Roland and Ampeg amps, Ludwig/Milestone 7 piece drums, many pedal effects. Rates: \$35/hr. Call for block and package rates

Extran: Video Production (through an associated studio); Full decorator bath; instrument rental account.

Direction: Though we're a very well-equipped studio with an excellent engineering staff, we also have an attractive and creative working environment designed for maximum comfort. We have hosted a number of in-and out-of-town producers and musicians for master, demo and pre-production work of every description. Current nationally-aired product includes Garanimals, Sominex, Captain Kangaroo and others as well as an album on Muse Records, The Kenny Burrell Trio w/Rufus Reid and Ben Riley.

.. SANITY SOUND

also REMOTE RECORDING 102 Hudson Rd., P.O. Box 452, Sudbury, MA 01778

(817) 443-9857

Owner: David Donald, Gordon Hookailo

Studio Manager: Gordon Hookailo. Engineers: Gordon Hookailo, David Donald, John Turner, Gigi

Meenan.

Dimensions of Studios: 20' x 12'. Dimensions of Control Rooms: 10' x 12'; vocal booth with view of both control room and studio

Tape Recorders: Scully 1" 280-8, 8 track; Tascam 40-4 w/dbx 4 track; (2) Scully 280-2 2 track mastering decks; TEAC 3300 ¼ track; TEAC 3605 cassette deck

Mixing Consoles: Sound Workshop 1280, 12 in x 8 out; Tascam model 3, 8 in x 4 out; Total combined 20 in & 8 out. Monitor Amplifiers: McIntosh 2100, 2300, BGW 100 (Head-

phones)

Monitor Speakers: Altec 6048G's, IBL 4311's ADS 200's. Echo, Reverb, and Delay Systems: Lexicon Prime Time digital delay line, MXR Digital Delay, Sound Concepts Analog Delay, custom reverb system (Stereo).

Other Outboard Equipment: SAE Graphic EQ, Bi-amp Graphic EQ, Bi amp Quad limiter, Teletronix leveling amps; dbx Type 1 on all channels, custom built patch bay, 2 channel headphone cue system w/AKG K141 headset; (2) Ampex AM-10's Universal Audiofilter set 550-A

Microphones: Neumann U87; E-V RE-20's; E-V DS-35's; Sony ECM 22p's; AKG D-202E's, D-190E's, D200E, D1000E's; Shure SM-57's and 58.

 $\label{eq:linear} \begin{array}{l} \mbox{Instruments Available: Steinway acoustic piano, Yamaha CS-50 \\ \mbox{Synthesizer, ARP Odyssey, Guitar Amps: Lab L-5, Acoustic 450 \\ \end{array}$ w/SVT cab, Sound City 100. Other instruments available on request. Rates: \$20/hr: all studio time, 10 hour block rate-\$175.00, Dubbing and editing-\$10/hr. Tape rental available. Call for further information

• SESSION RECORDING 355 Lexington Ave., New York, NY 10017 (212) 661-9040 r: John Lotas

Studio Manager: Ned Rosinus.

•• SHUSTER SOUND STUDIOS 29 Burt Court, Valley Stream, New York 11581 (516) 791-2985 Owner: Bob Shuster Studio Manager: Bob Shuster Engineers: Bob Shuster

Dimensions of Studios: 12' x 28' Dimensions of Control Rooms: 91/2' x 15'

Tape Recorders: Scully 280 2 & 4 track (¼"-½"); TEAC/Tascam Series 70M8, 8 track; TEAC 3340S 4 track (¼"); TEAC 3300S ¼ track stereo; AKAI GX220 1/4 track Stereo; JVC KD-75, JVC KD-10 & Sony TC 140 cassette decks.

Mixing Consoles: Custom Built Sontec I 20 in x 4,8 out; Graphic EQ on each channel, 2 cues, 2 Echo sends returns, Phantom Powering for condensor m

Monitor Amplifiers: Sansui AU6600, Dynaco Mark III. Monitor Speakers: Altec 9865-8A, BSR SS70 Book Shelf type, Lafayette PIP model 1's.

Echo. Reverb. and Delay Systems: British Spring Reverb, Gram-pian Spring Reverb 636, Echoplex tape delay (tube type). Other Outboard Equipment: dbx 160 compressor/limiter; Delta Graph EQ, Dolby Noise Reduction - TEAC AN80, AN180, AN300;



ACCSET parametric EQ, Technics SL-1500 MKII Turntable, Jensen transformer direct boxe

Microphones: AKG 451E; Neumann - M49, U67, U87, KM84; Senr 421, 431, 441; Shure SM 57, SM81; Sony ECM 22, ECM nhei 33P; TEAC ME180, Crown PZM.

Instruments Available: Baby grand piano, amps, drums Rates 8 track \$25/hr, 4 track and 2 track \$20/hr. Dubbing of reel to reel and cassettes: price upon request.

•• SOUNDWAVE RECORDING STUDIOS, INC. also REMOTE RECORDING 50 W. 57th St., New York, NY 10019 (212) 582-6320 Studio Manager: Carol Baker

STAFFORD SOUND

RECORDING & MUSIC PRODUCTION also REMOTE RECORDING 11 West 17th Street. New York, NY 10011 (212) 929-1441 Engineer: Lee Stafford

-- STILLWATER SOUND STUDIO

also REMOTE RECORDING 11 Turn of River Road, Stamford, CT 06905 (203) 322-0440

Owner: Dominick Costanzo Studio Manager: Dominick Costanzo Engineers: Dominick Costanzo Dimensions of Studios: 24' x 14'

Dimensions of Control Rooms: 10' x 9'

Tape Recorders: 3M M-56 8 track; Ampex 351-2 2 track; TEAC 3340 4 track; Advent 201 cassette

Mixing Consoles: Allen & Heath 12x2 modified, 12 in x 12 out. Allen

& Heath 142, 6 in x 2 out. Monitor Amplifiers: McIntosh MC 2100, CM Labs 911

Monitor Speakers: IBL L-100, Altec 604-D, Altec 755-C, others on Echo, Reverb, and Delay Systems: Roland 201 Fisher K-10

others on reques

Other Outboard Equipment: Orban 622B parametric EQ, MXR limiters, others on request

Microphones: Neumann U-67; Sony C-37A; Sennheiser MD-421, Beyer M-100; Shure SM-56; Electro-Voice RE-15; others on request Instruments Available: Yamaha CP-80 electric grand piano, Rhodes. Wurlitzer electric plano, Fender and Ampeg amplifiers, com plete drum kit. Rates: On request

• THE LITTLE STUDIO

also REMOTE RECORDING Box 416, Rockland, Maine 04841 (207) 594-2497 r: Helmut Vle Studio Manager: Helmut Vies.

.. THE OUTLOOK Star Route Box 180, Bethel, ME 04217 (207) 824-3246 Owner: Electro-Acoustic Systems, Inc

Studio Manager: Connie St. Pierre

TIESTUDIOS RECORDING 1694 East 22 St., Brooklyn, NY 11229

(212) 377-3218 Owner: Glenn Rosenstein Studio Manager: Warren Rosenstein.

•• TURTLE BEACH RECORDINGS 1912 Alcott Rd., York, PA 17402 (717) 757-8344 Owner: Roy Smith Studio Manager: Lauren Hale

•• TWANG RECORDING STUDIO also REMOTE RECORDING 1116 W. 29th, Erie, PA 18508 (814) 864-2308 Owner: John Mazza, Keith Veshecco.

· ZARR SOUND STUDIO also REMOTE RECORDING 1819 Avenue, "N", Brooklyn, NY 11230 (212) 339-1599 Owner: Fred Zarr Studio Manager: Don Feinberg & Fred Zarr.

•• ZBS MEDIA R.D. #1, Fort Edward, NY 12828 (518) 895-8408 Owner: ZBS Media, Inc Studio Manager: Gergory Shifrin

•• ZEAMI STUDIO

also REMOTE RECORDING 102 Greene Street, New York, NY 10012 (212) 228-3685 Owner: Zeami Studio, Inc.

Studio Manager: Takashi Tsuruta, George Martin. Engineers: Naka Suzuki, Jeff Goldenkranz. Dimensions of Studios: 20' x 19' & 13' x 6' vocal booth. Dimensions of Control Rooms: 21' x 12' LEDE style studio design.

Tope Recordens: Ampex ATR100, 2 track; Otari MX 7800, 8 track; Luxman cassette

Mixing Consoles: AHB Syncon 16 in x 16 out

Monitor Amplifiers: BGW 250D, BGW 100B, Luxman L 3's. Monitor Speakers: Big Reds; Little Reds; JBL 4311; ROR's Echo. Reverb. and Delay Systems: AKG BX-10, Lexicon Prime Time, Live echo chamber

Other Outboard Equipment: UA LA-175 limiter; UREI LA-4 compressor/limiters; UREI 530 graphic EQ; Roger Mayer Noise gates. Microphones: Neumann U-87; AKG 414; Sennheiser 421; PZM 130; Shure 54, 54SD & 57; AIWA DM68N; Sanken MU2 & CV32; Shoeps SKM5-U; Fostex M55, 77 & 88; Sony C-55 & 48; Ramsa WM-8150. Instruments Available: Steinway grand plano, Fender Rhodes, Korg BX-3, Korg Lambda, Gretch drums, Zildjian K's, Music Man guitar & bass amp, Ampeg B-15, Fender Twin reverb & custom modified pre-CBS champ

Rates: Available upon request

Extron: Total audio/video production with studio/remote facilities featuring Panasonic recorder/players, editing controllers and SEG; Sony 1800 cameras with CCU.

Direction: Credits: numberous New York radio commercials, recordings by the dB's ("Soul Kiss"), Fleshtones, Dick James music, Dave Liebman, Mel Louis, Mike Nock, Charles Rouse, Mike Shrieve, Our experienced staff of engineers enjoy working with both seasoned musicians as well as newly emerging groups in a comfortable, creative environment that fosters the utmost professional results. We consider ourselves to be the finest 8 track studio in New York and strive to provide the same high quality audio/video production at affordable r

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Microphones

Audio-Technica AKG Beyer Countryman Edcor Electro-Voice Nady-Nasty Systems Neumann Sennheiser Sescom Shure Sony

Jound Reinforcement Mixer

Audioarts Engineering Audy Biamp Bose Shure Soundcraft Tangent Tapco Yamaha

Signal Processing

Audioarts Engineering Biamp DBX Delta-Lab Research Eventide EXR Furman Klark-Teknik Lexicon Mic Mix-Master Room MXR **Orange County Electronics** Sound Workshop Tapco Teac/Tascam URE1 White Yamaha

*I*peaker*i*

Altec-Lansing Auratone Bose Calibration Standard Instruments Cerwin-Vega Cetec-Gauss Eastern Acoustic Works Electro-Voice Emilar ESS Pro Harbinger Audio Heppner JBL Northwest Sound Renkus-Heinz Shure UREI Yamaha

Headphone

AKG Audio-Technica Beyer Edcor Koss Sennheiser Sony

Recording & Production Conzoles

Sony Soundcraft Sound Workshop Tangent Tapco Teac/Tascam UREI Yamaha

Amplifiers

AB Systems BGW Biamp Bose Cerwin-Vega Crest Audio Tapco Yamaha

Turntables & Cartridges

AKG Audio-Technica QRK Shure SME Stanton Technics/Panasonic

Cable, Carer

E Hordwore Anvil Cases Atlas Sound Cases, Inc. Lifelines Monster Cable Neumann Neutrik Sescom Switchcraft

Test Equipment

DBX Gotham Audio IVIE Sennheiser Sound Technology UREI White

Recording & Broadcart

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AKG Ampex Audio-Technica Edit-All Maxell Scotch TDK Teac/Tascam

Tope Machines

Sony Soundcraft Teac/Tascam Technics/Panasonic

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••• AAA RECORDING STUDIO 130 West 42nd (Room 552) New York, NY 10036 (212) 221-6625 Owner: Fred Vargas Studio Manager: Fred Vargas

***** ATLANTIC CITY RECORDING STUDIOS** also REMOTE RECORDING P.O. Box 1249, Coles Hill Industrial Park, Coles Rd., Blackwood, NJ 08012 (609) 227-5683

Owner: Courtney Mutschler and Harold Sheets

Studio Manager: Dave Philbin, Mark Moceri, Asst. Manager Chris Masiciol

Extras: John Storyk of Sugarloaf, New York designed most of our studio, which was built by musicians for musicians. We have 15 keyboards, from the Prophet 5 Polyphonic synthesizer to Yamaha electric grand. Video packages as well as a very fine stable of studio musicians are available. Our philosophy is the engineers job is to place on tape the client's interpretation of the music with-out hampering in any way the client's creative energy flow. The studio features a rec room with bar and meals are available, even strict vegetarian. Lodging is near as well as Philadelphia (15 minutes) and Atlantic City (40 minutes) away. We aim to please and are blessed with the talent to satisfy

--- AUDIO-TRACK SPECIALISTS

Business Office: 924 Fronheiser St., Johnstown, PA 15902 Studio location: Rear 1751 Lyter Dr., Westmont Shopping Plaza, Johnstown, PA 15905 (814) 266-9292, 266-9250

Owner: Mark G. Oyler, Frank J. McCloskey Studio Manager: Mark G. Oyler Engineers: Chuef Engineer & Technician Frank J. McCloskey,

First Assistant: Mark G. Oyler Dimensions of Studios: 21' x 16'

Dimensions of Control Rooms: 12' x 18'

Tape Recorders: TEAC/Tascam 85-16 w/dbx, 16 track; Revox A-700, ½ & ¼ track; JVC cassette deck, BIC T-2, 2 speed cassette deck

Mixing Consoles: Tangent 4A series, 16 in x 16 x 2 out. Monitor Amplifiers: Phillips High-Fidelity Labs Monitor Speakers: JBL, Auratone, Koss

Echo, Reverb, and Delay Systems: LT Sound, Thompson TAD-4, 2-chnls studio reverb, 2-chnls Analog Delay

Other Outboard Equipment: Whirlwind Direct Boxes, dbx compressor/limiter, MXR Noise Gate/Line Drivers, custom 64 Point Patchbay

Microphones: Dynamics & Condensers By: Beyer Dynamic, EV, Shure: Sony; TEAC/Tascam.

Instruments Available: Baldwin upright piano (excellent tone), Ludwig drum kit, synthesizers by appointment only. Rates: 16 tk recording & mixing \$45/hr Album production packages & block rates available

••• BRS RECORDING STUDIO also REMOTE RECORDING 1521 Seventh Ave., Beaver Falls, PA 15010 (412) 846-1174 r: Soundex, Inc Studio Manager: Ralph Robb.

***** BAYSIDE SOUND RECORDING STUDIO** also REMOTE RECORDING 200-70 Ave., Bayside, NY 11361 (212) 225-4292 Owner: Bayside Sound Recording Studios, Inc Studio Manager: David Eng.

*** THE BARGE SOUND STUDIO 92 Lionshead Drive West, Wayne, NJ 07470 (201) 835-2538 Owner: Jim Barg Studio Manager: Jim Barg

***** BAKER ST. STUDIOS** 1072 Belmont Street. Watertown, MA 02172 (617) 484-9812 Owner: Baker, Baker, & Baker Studio Manager: Tiffiny Newport

••• C & C SOUND STUDIO

also REMOTE RECORDING R.D. #1. Box 581-A. East New Street. Glassboro. NJ 08028 (609) 881-7645 Owner: Ed Candelora, Jr., Owner/Operator Studio Manager: Ed Candelora, Jr Engineers: Ed Candelora, Jr. Tape Recorders: Tascam Modified 85-16, 16 track; TEAC Modufied 25-2, 2 track; Technics & Optonica cassette decks Mixing Consoles: Tascam modified 15, 18 in x 8 out. Monitor Amplifiers: Crown, SAE, Phase Linear Monitor Speakers: JBL (Bi-amped) L-100/Modified cross-overs; Auraton Echo. Reverb. and Delay Systems: MICMIX Master Room, Reverb, TEAC tape echo, Delta Lab digital delay (2). Other Outboard Equipment: dbx noise reduction all channels (modified); Symetrix noise gates, Orban D'Esser, Phase Linear Auto Correlator Microphones: AKG; Neumann; Audio-technica; Electro Voice. Instruments Available: Yamaha grand piano, Tama drums full Rates: Monday-Friday special 7 hour block rate of \$200.00. Weekends special 7 hour block \$250.00. Tape costs over & above rates

*** CARUSO SOUND/EDEN GARDEN STUDIO, INC. 27 Garrett Rd., Upper Darby, PA 19082 (215) 352-8080/352-8081/352-2730

Owner: Operator & chief Engineer & President: Dennis Caruso

Studio Manager: Joan Scanlon Engineers: Dennis A. Caruso & George Cooley Dimensions of Studios: (2) Studio: 15' x 41' (Cutting Rooms) Room #2 15' x 52 Dimensions of Control Rooms: 13' x 15'

Tape Recorders: 3M Series 79-M 79-16, 16 track; Scully 280B Reels) 2 track; Revox A-77, 2 track. Mixing Consoles: Gately C16-24, 24 in x 24 out. Monitor Amplifiers: (5) Crown D60, (2) D150, (2) DC300,

(Room EQ UREI 27 band 1/3 octive EQ.) Monitor Speakers: JBL Custom 4320 & 4311; (Tri Amp set up)

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with Crown VFX-2 stereo crossover

Echo, Reverb, and Delay Systems: (2) MICMIX Master Room III, MXR digital delay, MXR pitch transposer, MXR flanger doubler, MXR analog delay, MXR stereo chorus, Delta T digital, Eventide delay, Eventide Harmonizer, EMT plate echo, tape delav

Other Outboard Equipment: (2) Natural room echos; dbx compressor/limiters; Kepex & Gain Brains; URIE limiters; MXR

Imiters; Gately limiters; Vari-speed oscilator; drive motors. Microphones: Neumann U47, U67, U87, KM64; Electro Voice RE-15, RE-16, RE-20, RE-50, PL-5 PL-6, PL-9 PL-11, PL-95, PL-77A, PL-80, PL91A, PL-95; Shure SM-53,7,57,58,61; Sony C-37,500, ECM-22P; Beyer M-500, M-260; AKG-451E. Instruments Available: Studio drum, Sonar & Milestone,

Fender Rhodes, Yamaha grand piano, Hammond B-3, Bass amps, Fender (Pre-CBS), Marshall, Crate, Ampeg B-15, Crate bass, Synthesizer

Rates: 16 track recording & mixing: \$40/hr; 8 track recording & mixing: \$35/hr; 4 track recording & mixing: \$30/hr; 2 track recording & mixing \$25/hr; 2 track editing \$25/hr; 2" editing \$40/hr

••• CENTURY III STUDIOS 545 Boylston St., Boston, MA 02116 (617) 267-9800 **Owner:** Ross Cibella Studio Manager: James Dean

••• CRAMER AUDIO/VIDEO 120 Hampton Ave., Needham, MA 02194

(617) 449-2100 Owner: Tom Martin & Don Mulhearn Studio Manager: Mark Parsons.

••• DB SOUND STUDIOS

also REMOTE RECORDING 8037 13th St., Silver Spring, MD 20910 (301) 585-2775 Owner: Howard Henderson, Jules Damain Studio Manager: Howard Henderson.

••• DOWNTOWN RECORDERS 537 Tremont St., Boston, MA 02116

(617) 426-3455 Owner: Ben Kay, Mitch Benoff

Studio Manager: Mitch Benoff Engineers: Phil Adler, Ben Kay

Tope Recorders: MCI JH 114 w/varspeed 16 track; Tascam 80-8 w/dbx 8 track; Revox A-77HS 2 track; Otari 50-50 2 track. Mixing Consoles: APSI 2000 (modified), 16 in x 16 out. Monitor Amplifiers: Crown DC-300A, DC-150; BGW; Dynaco

Monitor Speakers: Altec 604, JBL 4311B, Auratone

Echo. Reverb, and Delay Systems: 110 ft. natural reverb dome; 5 "live" isolation booths w/varying decay times; Lexicon 224, Lexicon Prime Time; Echoplex; Clover Systems spring reverb.

Other Outboard Equipment: dbx noise reduction; UREI LA-4, 1176, 175 comp/lumiters, Ashly SC-50 limiter, Ashly parametrics, Roger Mayer noise gates, Mutron stereo bi-phase, Klark-Teknik 27-band EO's

Microphones: RCA 77-DX; Norelco C-60, Sennheiser 421, 441, Neumann U-87, KM-84; AKG 451, D12E, SE-5; E-V RE-20, 664: Shure SM-57 53

Instruments Available: 1920 Steinway grand piano, Hammond B3 organ w/Leslie, Pre-CBS Fender Twin Reverb and Bandmaster amps, Wurlitzer electric piano; Minimoog. Ratee: \$35/hr; \$500/20hrs; \$2000/100hrs.

•• DSR

also REMOTE RECORDING 1790 Black Horse Pike, McKee City, NJ 08232 (609) 625-1188 Owner: Dennis and Marti McCorkle.

Studio Manager: Dennis McCorkle

Engineers: Dennis McCorkle. Dimensions of Studios: 19' x 19' w/8' x 8' drum booth.

Dimensions of Control Rooms: 9' x 14'

Tope Recorders: Tascam 80-8 8 track; Tascam 40-4 4 track; TEAC A-3300 SX 2 track; TEAC 860 cassette, Sony TC-153 D

cassette; Tascam 85-16, 16 track. Mixing Consoles: Tascam Model 15, 24 in x 8 out; Tascam

Model 3, 8 in x 8 out. Monitor Amplifiers: Sony 130, Crown DC-150, Kenwood KA-3700, headphones

Monitor Speakers: JBL CL100, Realistic Minimus II.

Echo. Reverb. and Delay Systems: MXR Digital Delay, Furman reverb

Other Outboard Equipment: dbx noise reduction all channels, dbx 165 limiter/compressor, Ashly parametric stereo EQ, MXR Phase 100, Morley PWB Pedal, Nova Systems, Aphex Aural Excitor MXR stereo chorus. Microphones: Electro-Voice, Shure, Sony, Sennheiser. Instruments Available: Yamaha CT-70 electric grand piano,

Oberheim OB-X, polyfonic synthesizer 8-voice, bass, Martin 6-string guitar, Ovation stereo classical guitar. Guild Mark VII classical guitar, Ibanez customized guitar, Peavey and Fender amps, Ludwig drum set, assorted hand percussion instruments. Rates: Studio recording, mixing, \$60/hr 16 track; \$40/hr 8 track;

Remote recording \$60 1st hour, \$40/each additional hour. Extras: Caesar's Boardwalk Regency Hotel & Casino; Neil Sedaka; "Music, Music Music"-Bob Parkinson producer; Pizazz-Lenord Landau producer; Miss America Pageant 1980 USO Tour; New Jersey Bell Telephone; Harrah's Marina Hotel & Casino; The Brighton Hotel & Casino. We are Atlantic City's first & finest 16 track recording studio, 7 miles outside of the city

••• DYNAMIC RECORDING also REMOTE RECORDING 2846 Dewey Avenue, Rochester, NY 14616 (716) 621-6270 Owner: David R. Casperson. Engineers; Dave Casperson, Assistant: Clayton Turner. Dimensions of Studios: 20' x 40'. Tape Recorders: Scully 100, 16 track; TEAC 80-8, 8 track, TEAC 33-40S, 4 track; TEAC 35-2, 2 track Mixing Consoles: Tangent 3216 16 in x 16 out. Monitor Amplifiers: (2) Crown D-150. Monitor Speakers: (4) JBL 4311; (2) Klipsch-La Scala; (2)

Acutex

Echo, Reverb, and Delay Systems: Lexicon-Prime Time, MXR, Tapco

Other Outboard Equipment: MXR-Phaser/MXR-Flanger, dbx (2) limiter/compressor; Ashley (2) limiter/compressor; Technics-Parametric equalizer; RCA-Color camera; Panasonic ¾" u-matic;

RCA 1/2" VHS; Sony 1/2" Beta; High speed duplicator. **Microphones:** Sennheiser 421-U; Audio-Technica; Electro Voice; Beyer; Shure; Sennheiser; AKG; TEAC. Instruments Available: Fender Telecaster, Grand piano, tama

drums Guild Maderia Acoustic. Rates: 8-track: \$25/hr; 16-track: \$50/hr. Block rates available on

albums

***** EAB RECORDING STUDIOS** 223 Lisbon St., P.O. Box 958. Lewiston, ME 04240 (207) 786-3476 Owner: Edward A. Boucher

Studio Manager: Edward A Boucher

••• EARTH AUDIO TECHNIQUES, INC. also REMOTE RECORDING The Barn, North Ferrisburg, Vermont 05473 (802) 425-2111

Owner: Michael Couture, William Schubart Studio Manager: Charles Eller.

Engineers: Michael Couture, Charles Eller, James Swift Dimensions of Studios: 30' x 45' x 26'. Dimensions of Control Rooms: 30' x 20'

Tape Recorders: MCI JH-16 16 track; MCI JH-16 8 track; MCI JH-110 2 track; Scully 280 2 track (2). Mixing Consoles: MCI JH-416, 16 in x 16 out; Electrodyne, 8 in

x 2 out

Monitor Amplifiers: Crown DC-300, Crown DC-150 (3), BGW 500.

Monitor Speakers: Altec 6048G in 620 cabinets; ADS 710; Auratones; Altec 887; Marantz #7; Koss ESP.9 Echo, Reverb, and Delay Systems: AKG BX-20, Eventide

DDL; tape delay. DDL, tape delay. Other Outboard Equipment: Dolby A all channels, Eventide Phaser, UREI 1176, Lang EQ, VSO all transports, UREI LA3A (2); Audioarts parametric EQ; API 550A EQ; dbx 160 (3). Microphones: Neumann U-87s, U-47, KM-84's; AKG 414, C-451E's; Sennheiser 421; Beyer 160, E-V RE-20, RE-11, RE-14, PL-95; Sony ECM 33F, ECM 99A, ECM 150, Shure SM-57s, SM-58's, 330 ribbons, 16EQ; AKG CK-9 shotgun, RCA 77dx, Instruments Available: Steinway grand piano, Yamaha studio upright w/tack; Fender Rhodes, ARP 2600 synthesizer, Hammond B-3, assoried percussion.

••• DON ELLIOTT PRODUCTIONS 15 Bridge Rd., Weston, CT 06883 (203) 228-4200 Owner: Don Elliott Studio Manager: Liz Gallagher.

••• G & T HARRIS, INC. 215 Lexington Avenue, New York, NY 10016 (212) 481-6500 Owner: Gary Harris Studio Manager: Mr. Bill Taylor. Engineers: John W. Kryda, Chief Engineer; Gretchen Lockner Zoeckler, Joe DePersia.

Dimensions of Studios: 23' x 24'; 6' x 10'.

Dimensions of Control Rooms: 18' x 20'; 23' x 18'; 21' x 18' Tope Recorders: Ampex MM-1200 8 and 16 track; Ampex 440 Tape Recorders: Ampex MM-1200 B and 16 track; Ampex 440 4 track; (2) Scully 280 4 track; Ampex 300 & 351 2 track & mono; Otari MX 5050 QXHD 4 ¼" track. Mixing Consoles: Custom, 24 in x 24 out; Strand/Century, 8 in x 4 out; Tascam 10, 8 in x 8 out. Monitor Amplifiers: Crown DC-300A, D-150. Monitor Speakers: Big Reds (Altec 604E). Echo Reset and Data Strategy 440

Echo, Reverb, and Delay Systems: AKG BX-20.

Other Outboard Equipment: Pultec, UREI equalizers and limiters, Cinema equalizers, UREI Clic-Trac, 14KHZ and 60HZ SYNC.

Microphones: Neumann U-47, U-67, U-87; AKG C12, C-60; Electro-Voice RE-20, RE-15, RE-16; Shure; RCA. Instruments Available: Yamaha grand piano 7'4". Retes: Call.



••• HALLMARK STUDIOS also REMOTE RECORDING 51-53 New Plant Ct., Owings Mills MD 21117 (301) 363-4500 Owner: Hallmark Films & Recordings, Inc Studio Manager: Philip Brecher

******* JIMMY KRONDES RECORDING STUDIO also REMOTE RECORDING 2 Musket Lane, Darien, CT 06820 (203) 655-3660

Owner: Jimmy Krondes Enterprises Studio Manager: Jimmy Krandes

******* M&I RECORDING ENTERPRISES, LTD. 630 Ninth Avenue, New York, NY 10036

(212) 582-0210 Owner: Mitch Yuspeh, Ira Yuspeh Studio Manager: Steve Hasday

••• MASON HALL STUDIO, SUNY also REMOTE RECORDING Mason Hall, State University at Fredonia, Fredonia, NY 14063

(716) 673-3151 Owner: State University of New York College at Fredonia Studio Manager: David Moulton, Director of Tonmeister Studie

••• MOUNTAINSIDE RECORDING STUDIO also REMOTE RECORDING Garvey Hill, Northfield, VT 05663 (802) 485-8594 Owner: Richard Longfellow Studio Manager: Richard Longfellow

••• NICKEL RECORDING also REMOTE RECORDING 168 Buckingham St., Hartford, CT 06106 (203) 524-5656 Owner: lack Stand Studio Manager: Jack Stang Engineers: Chuef: Jack Stang, Asst Eng. Charles Russo Dimensions of Studios: 2400 sq ft Dimensions of Control Rooms: 40' x 30' Tape Recorders: Tascarn 85-16, 16 track; Tascarn 80-8, 8 track; Otari 5050B ½ track, TEAC 3340, 4 track Mixing Consoles: Tascam 15, 24 in x 8-16 out Monitor Amplifiers: Nikko & Crown Monitor Speakers: JBL & Auratone Echo, Reverb, and Delay Systems: Plate reverb Lexicon Prime Time digital delay & Orban. Other Outboard Equipment: dbx limitors, D'Es.er, com pressors, noise gate, Aural Excitor, UREI graphic EQ Microphones: AKG 10-12A, 414's, 451's, Sennheiter 421's; Sonys; Shure SM 81; Electro Voice Instruments Available: Acoustic piano & guitar, guitar amps. Rates: 8 track. \$29/hr; 16 track: \$38/hr Call for block rates

••• P & P STUDIOS, INC. also REMOTE RECORDING 17 Viaduct Road, Stamford, CT 06907 (203) 327-9204 Owner: John Fishback, Terry Puffer Studio Manager: Ted Blechta. Engineers: John Fishback Ted Blechta, Matt Murry. Dimensions of Studios: A: 1000 sq. ft. B: 100 sq. ft Dimensions of Control Rooms: A: 350 sq. ft B: 125 sq. ft Tape Recorders: MCI JH100-16, MCI JH11C-2, Ampex 440C-4, Ampex 440B-4, Ampex 440C-2, Amper 440B-Full, Tandberg 6000-14, TEAC 2340-4, Nakamichi 480 rassette. Mixing Consoles: A: Syncon, 18 x 16, B: Allen & Heath, 8 in x 1 out

Monitor Amplifiers: PSE, McIntosh, HH, Dyna. Monitor Speakers: Big Red's; Auratones; DAC 710's Echo, Reverb. and Delay Systems: MICMIX CSREQ-23 and MR III Loft Delay

Other Outboard Equipment: dbx 160's, LA3A's, Orban Parametric EQ, Multi-track Parametric EQ, Tapco Graphic EQ's, Eventide Omnipressor, CBS Audimax, CBS Volumax, Orban De-Gates, Dolby A & B, Phase Linear Auto Correlator. Microphones: Neumann; AKG, Sennheiser, Beyer; Shure; EV;

Sony; etc Instruments Available: Yamaha grand, Rhodes 88, Gretsh drums w/various small percussion Fender Twin Reverb and

Bassman amps (tube) Rates: 16/8 Track: \$50/hr, 4/2/1 Track. \$40/hr. Video, Film and

Multi-media rates available upon request

Extras: High-speed custom cassette and reel-to-reel duplication. Multi-media programming center w/AVL Eagle, Film/Video inset stage, Tape/Video lock-up for sweetening, 6 projector multiplexing to Film and Video, lingles and Custom scoring for Video, Film and Multi-media presentations

Direction: Our studio, designed by John Storyk, offers a warm environment that doesn't intrude on the mood of the user. We are service oriented and understand that helping our clients achieve their goals is our job. We have a facility that enables our clients to work in a variety of media under one roof.

***** PARIS RECORDING** 466-A Hawkins Avenue, Lake Ronkonkoma, NY 11779 (516) 981-7502 Owner: Brian M Unger Studio Manager: Rudy Perrone

••• RBY RECORDING STUDIO Main St. North, Southbury, CT 06488 (203) 264-3666 Owner: Jack Jones

Studio Manager: Marjorie Jones Engineers: Jack Jones, Evan Jones, Staff photographer: Moira

Dimensions of Studios: 32' x 26' x 18' Dimensions of Control Rooms: 18' x 16'

Tape Recorders: Ampex 16, 4, 2, 1, Otan MX 50, Sanyo PCM

digital recorder, cassette duplication Mixing Consoles: Tangent, 32 in x 32 out

Monitor Amplifiers: Phase 400, Yamaha. Monitor Speakers: JBL 4315, JBL 4311 Electro-Voice Sentry III. Auraton

Echo, Reverb. and Delay Systems: MXR DL, AKG BX-20. Master Roo

Other Outboard Equipment: LA3 hmiters, Electrodyne compressors, Roger Mayer noise gates, MXR flangers and phasers, Fventide Harmonizer

Microphones: Sennheiser MK 105's, 421; AKG 414; RCA 77-DX; Electro-Voice RF:16's, 15's, Shure SM:53, 58, 57, Sony ECM 22, 37; AKG 451E's; Neumann Instruments Available: Yamaha UD2 upright studio piano.

Moog and ARP synthesizers, Martin and Gibson guitars, Fender Rhodes, percussion kit (other instruments are available on a rental basis)

Rates: \$42/hr 16 track; \$32/hr 4 and 2 track

••• THE RECORDING CENTER INC. 25 Van Zant. East Norwalk, CT 06855 (203) 853-3433

Owner: Ethan Winer, Chief Engineer Studio Manager: Ilene Brunstein

******* ROSE HILL STUDIOS

also REMOTE RECORDING 3929 New Seneca Tp., Syracuse, NY 13108 (315) 673-1117 Owner: Rose Hill Group Studio Manager: Vincent Taft Engineers: Cliff Kent, Chief Engineer Dimensions of Studios: 25' x 25'. Dimensions of Control Rooms: 15' x 14' Tape Recorders: Scully 100, 16 track; Studer 2 (½ track); Crown SX822, 2 (½ track); Tandberg 300, 2 (¼ track), Technics M-85_2 (cassette)

Mixing Consoles: Custom RHS 15 frequency EQ, 20 in x 20

Monitor Amplifiers: QEI-2, QEI-CP1, QEI-DM4 Monitor Speakers: Altec 604E Big Reds with Kent Time-Sync Crossovers, M&K; Auratones; KEF's.

Echo. Reverb, and Delay Systems: EMT 140S, live chamber, various springs, Eventide Delay, Ursa Major Space Station, tape Other Outboard Equipment: dbx noise reduction; Eventide Harmonizer; many dbx compressors, limiters, expanders; EXR Exciter; Quad/Eight noise gates; UREI 529 EQ; Technics parametric EQ; IVC QLS0 quariz locked turntable; autolocater; parametric EQ; IVC QLSO quartz locked turnitable; autolocater; Mini-Mag audio/video synchronizer; VSO, Kent Tube Spiker; Kent stereo phaser; click; many one-of-a-kind magical devices. **Microphones:** AKG C-12A; Beyer 160, Electro-Voice RE-20; Neumann U-47's, U-87's, KM-84's, U-64, SM-2; RCA 44's, 77-DX's; Sony C-37's, C-57's, ECM-50; PZM's. **Instruments Avcflable**: Mason & Hamlim 7' concert grand piano, Hammond, ARP Odyssey II, Hohner D-6 clavinet, Muritiwa electric piano. Sonzrificitian associated persustan

Wurlitzer electric piano, Sonar/Zildjian, assorted persussion, Ampeg B-15.

Rates: Please call for rates.



••• A-1 SOUND STUDIOS. INC. 2130 Broadway, New York, NY 10023 (212) 362-2603 **Owner:** Herb Abramson

Studio Manager: Barbara Abramson Engineers: Herb Abramson, Robby Norns, James Nichols

Dimensions of Studios: 23' x 34' Dimensions of Control Rooms: 17' x 23'

Tape Recorders: Ampex MM1100, 8, 16, & 24 track, (4) 351 2, 2 track, Studer B67, 2 track

Mixing Consoles: MCI Custom 20 in x 24 out Monitor Amplifiers: McIntosh, Kenwood

Monitor Speakers: Altec 604B, JBL 110

Echo, Reverb, and Delay Systems: Acoustic chamber

Other Outboard Equipment: Pulter EQ's, Neumann FQ's,

Microphones: Neumann U-47, U-49 Sennheiser 403 Electro-

Instruments Available: Steinway grand plano, Fender Bhodes electric piano, Hammond B-3 organ, tack piano, guitar & bass amps drums

Rates: 2 track \$35/hr. 8 track \$45/hr. 16 track \$60/hr. 24 ack \$75/hr

Direction: Stemming from owner Herb Abramson's long association with Atlantic Becords, which he co-founded and where he provided Bay Charles, Huth Brown, Clyde McPhatter and many R & B giants. A 1 Sound has a strong following in the R & B and 'soul' fields. Irene Cara, Brook Benton, Otis Blackwell, and the Drifters have recorded successful singles and albums here. In ad dition. Herb and his staff have provided guidance for many fledgling labels for which the studio offers one stop disk mastering pressing, album design and production services as well as con sultation on distribution and promotion. New Wave groups also like the strong Hock & Roll sound the studio produces

···· A&R RECORDING 322 W. 48th., New York, NY 10036 799 7th Ave., New York, NY 10019 (212) 397-0300

Studio Manager: Wayne Philippo

Engineers: John Curcio, Tom Greto, freelancers Dimensions of Studios: A-1 50' x 40' x 40' ceiling, A 2 8 1m 9m, B-1 C-shaped 12m x 9m, B-2 9m x 6m

Dimensions of Control Rooms: All approx 400 sq Tape Recorders: MCI JH114 24 track, Studer A-80, Studer A-67 B-67 2 track, MCI 2 track, Ampex

Mixing Consoles: (2) MCI JH528 auto, 32 in x 32 out, (2)Neve cam), 32 in x 24 out

Monitor Amplifiers: McIntosh 2200, Yamaha Monitor Speakers: UREI 813

Echo, Reverb, and Delay Systems: EMT 140 stereo (17), Lex-

ventide Other Outboard Equipment: Scamprack Orban D'Esse LA3 LA2A (Universal) Universal 1176 Fairchild stereo 280

Kepex and Roger Mayer gates, Pultec, dbx 160 limiters Microphones: Neumann U-87, KM-84, U-47 (tube and FET) AKG 414 C 60 452 stereo; Beyer 88, Sennheiser 421, Sony

C 37 C 38 C-22, ECM 251, ECM 33F, ECM 50, E-V RE-20; Calrec Telefunken Instruments Available: 2 new Yamaha C 7 pianos, 2 Steinway

Ludwig, Pearl and Yamaha drums, vibes, tack piano. Ampeg B-15's, Fender Super Reverb Rates: On request

**** MALCOLM ADDEY RECORDERS A Division of Kaleb Sounds Inc. also REMOTE RECORDING 210 Riverside Drive, New York, NY 10025 (212) 865-3108 Owner: Malcolm Addey

Studio Manager: Malcolm Addev Direction: Essentially a remote recording & re-mix facility. Our

concept is to only provide the technology appropriate to the prolect, so as well as being able to provide full 24 track recording we are very attractive to the budget conscious client. We have extensive experience in all forms of music & the different techniques involved Recent credits include The Bill Evans Trio/Warner Brothers Records & Red Rodney & Ira Sullivan/Muse Records-both live at the Village Vangard in New York and Yun Egorov at Carnegie Hall. In addition we are equipped for multiple machine mixing for radio & t.v. spots, audio-visual production etc -tape multiple cassette copying real time duplication transfer & restoration of old disks & tapes for archives or re release etc. etc. We even have a 3 track 12" playback machine for those old 50's masters. But even if we don't have the outboard equipment needed we'll do our best to get it

···· ASSOCIATED RECORDING 723 7th Ave., New York, NY 10019 (212) 245-7640

Owner: Nathan Schnapf Paul Friedberger Studio Manager: Bob Fava

**** ATLANTIC STUDIOS 1841 Broadway, New York, NY 10023 (212) 484-6093

216 Boulevard of the Allies, Pittsburgh, PA 15222

Direction: Pittsburgh is a growing production & entertainment market & we're here to provide major-market services for the music & production industries. We're remodeling our current facility to provide state-of the art music mastering & remixing to artists residing in or travelling through Pittsburgh Studio A will in-clude the AMEK M200A/2500 36 x 24 console, dbx & Dolby noise reduction, audio post production to video & electronic editing using the BTX 4600 system, extensive outboard processing & multitrack interlock for up to 32 track recording. B will include a Spectra Sonics 32/32 console with the same extensive outboard interlock & post production capabilities. A also has a 9-foot Baldwin concert grand piano, B a 7 toot Baldwin grand

******** AURA RECORDING INC. 136 West 52nd St. New York, NY 10019 (212) 582-8105

Owner: Allan Mirchin, Ben Stern

Studio Manager: Eleanor Torosian Engineers: Frank Tomaino, Ed Rice, Larry Collen, Mitch Baboy, Brian Tarner, Cyde Kaplan, Tony Stanislawski, Rick Ast, Tony May Haydn Harris Tom Ciuelle

Dimension of Studios: D: 50' x 40'; A: 25' x 35'; B: 20' x 30'; C. 10' x 12

Dimensions of Control Rooms: D: 20' x 18', A: 15' x 14', B: 15' x 10', C: 15' x 14'

Tape Recorders: MCI JH114-2 track & 4 track, Amper MM1200, 24 track; MCI JH-114 24 & 16 track; Ampex 440C, 2 & 4 track

Mixing Consoles: AMEK (automated) 3000, 36 in x 24 out, Audio Design ADM 32/16 32 in x 16 out. Audio Designs ADM 24/16 24 in x 16 out

Monitor Amplifiers: McIntosh MC 2300 & MC 2100 Monitor Speakers: UREI Time Alianed

Echo, Reverb. and Delay Systems: EMT 140, 240, EchoPlate, Lexicon 224

Other Outboard Equipment: Kepex, dbx, UREI limiters-Prime Time processor, DDL, Eventide DDL & Harmonizer Microphones: Neumann: AKG, Sennbeiser, Bever, Shure:

Electro-Voice Instruments Available: Pianos, Hammond B-3, Fender

Rhodes, Vibes, Xylophone. Rates: \$200/hr for Studio D; \$70/hr for Studio C. (No charge for noise reduction)

**** AURA-SONIC LTD.

REMOTE RECORDING 140-02 Poplar Ave., Flushing, NY 11355 (212) 886-6500

Owner: Aura Sonic, Ltd

Studio Manager: Steve Remote

Extras: 40 channel transformer splitter, 38 channel 300 ft snake, video hook-ups with 2 monitors. We can run 2-24 track machines Air conditioning and heat included with our remote. We also record, outside of our remote with an Altec/Crown PA system and have a 40 mics, Neumann, Sennheiser, EV, AKG, Shure, and Sony

Direction: Our philosophy is to bring the multi-track studio to the concert 'home' and/or anywhere desired to develop the sounds needed. We are experienced in remote recording and broadcasting We have worked with the Specials, James Brown, Mobile Units, the Police, XTC, Steve Forbert, the Hittes, Disturbed Furniture to name a few From remote in a castle to broadcasting at the Beacon Live recorded dates and live sounding masters are our direction at the moment.

.... AUTOMATED SOUND STUDIOS 1500 Broadway, New York, NY 10036

(212) 869-8520

Owner: Steve & Arthur Friedman, Herb Gordon Studio Manager: Harvey Gordon

Engineers: Arthur Friedman, Steve Friedman, Leslie Mona Dimensions of Studios: A: L-shaped 60' x 45' x 36'. B: 30' x 4-track narration rooms.

Dimensions of Control Rooms: A 20' x 20', B-15' x 15', 24 rack mix room 20' x 25' w/vocal booth

Tape Recorders: (2) Studer A-80 24 track; 3M Series 79 24 track, (5) Studer A-80 4 track, (5) Studer B-67 2 track, (5) Studer A-67 2 track; Studer A-80 2 track (4); (6) Studer A-80 mono.

Mixing Consoles; (2) Neve 8078 (custom) w/Necam, 40 in x 32 out, Neve (custom) 8058, 38 in x 24 out: (3) Auditronics 501, 24 in x 24 out

Monitor Amplifiers: (14) McIntosh 2100's; (8) Crown her phone an

Monitor Speakers: (16) 604-8G's, (4) Big Reds, (2) JBL 4311's, (2 pair) Kirksaeters, (5) Auratones, Visonik, KLH, Kitchen Radio Echo, Reverb, and Delay Systems: (6) EMT, Master-Room reverb; (3) Lexicon digital 224's; (2) DDL (4) AKG

Other Outboard Equipment: Scamp Rack, Harmonizers, Or ban parametrics, LA4A, LA3's, Neve compressors, Dolby Microphones: Neumann U-87's, U-47's, KM-86, 85, AKG 414's, 60 assorted mic

Instruments Available: 2 sets Ludwig drums, 2 Steinway grand planos, 2 Fender Rhodes planos, 2 Hammond B-3 organs w/Leslie speakers, 2 Musser vibes, 5 Fender amps, assorted percussion

•••• BLANK TAPES INC., RECORDING STUDIOS 37 West 20th St., New York, NY 10011 (212) 255-5313

Owner: Richie Vetter, President, Lou Vetter, Vice President: Bob

Studio Manager: Lou Vetter, assistant: Jim Dohert

Engineers: Chief Engineer: John Bradley; Chief of Maintenance Rich Faszczewski, Engineers. Joe Arlotta, Butch Jones, Bob Blank, Roger Keay, Jim Doherty Dimensions of Studios: A 24' x 35', B 8' x 10', C 20' x 26'

Dimensions of Control Rooms: A: 12' x 16', B: 14' x 16', C

Tape Recorders: (4) MCI JH-114 24 track; (5) MCI JH-110 2 track, Scully 280 4 track, Scully 280 2 track; Studer A80 2 track Mixing Consoles: MCI automated 542, 42 in x 42 out, MCI automated 428, 28 in x 24 out, MCI 416, 24 in x 24 out

Monitor Amplifiers: (3) Crown 300's, (3) Crown 150's, (3) Crown 75's, (3) Crown 60's, (2) McIntosh 2105's, (2) McIntosh 2505's, (2) Bryston 4B, Bryston 3B

Monitor Speakers: Big Reds, JBL 4311's, Auratones, also any additional speaker on request

Echo, Reverb, and Delay Systems: The Plate, AKG BX-10, BX-20, Lexicon digital reverb, Lexicon DDL and MXR DDL

Other Outboard Equipment: Pultec MCQ 5 & EQH 2 equalviews UREI 539, 1176, 530 EQ/s; parametric 622B; Soundcrafts-men 20:12A Teletronux LA2A, LA3A's, UREI 175:A limiter.

Owner: Atlantic Recording Corp Studio Manager: Dave Teig

•••• AUDIO INNOVATORS, INC.

(412) 471-6220 Owner: Norman I. Cleary, President

Studio Manager: General Manager, Martha J. Wilson

Kepex and Roger Mayer noise gates, Gain Brains, dbx 160's, Fairchild 160 compressor, Eventide Harmonizers and Instant Phasers, Altec Filter 9067B, Orban Sibilance Controller 516 EC, DeltaLab Acousticomputer, Audio Design Recording Vocal Stressor F 769 X-R, Dolby and dbx noise reduction on every machine

Microphones: Neumann U-87's, U-47's, U-67's, U-64's, KM-85's, KM-84's; Sennheiser 421's, 441's; RCA DX-77's 44's; Electro-Voice RE-20's, RE-16's, RE-15's; Sony 224's, ECM 50's; AKG 451's, D-190ES, D-60's; Shure SM-57's, D-24's; Beyer M-160's.

Instruments Available: Steinway M grand piano, Yamaha C-7 grand, 2 Hammond B-3 organs, Melletron, String Ensembles, Slingerland drums, clavinet, Fender Rhodes 88 and 73, Syndrums, congas, timbales, vibes, percussion kits, other rentals also available on request.

Rates: Rates upon request, contact Studio Manager.

******** BLUE JAY RECORDING

669 Bedford Road, Carlisle, Massachusetts 01741 (617) 369-2200

Owner: Bob and Janet Lawson, Steve Langstaff.

Studio Manager: Janet Lawson. Engineers: Steve Langstaff (chief), Glenn Berger, Jeff Levine, Gragg Lunsfor, Walter James, Mike Golub, Bob Lawson.

Dimensions of Studios: A: 27' x 38'. 1 Dimensions of Control Rooms: A: 18.5' x 17

Tape Recorders: MCI JH 114, Autolocator III 24; MCI JH 110B, RTZ III 2 track; Revox B-77, ½ track 2 track; Revox A-77¼ track 2 track; 3 technics RS-M85 MKII cassette decks.

Mixing Consoles: MCI JH636 automated, parametric EQ, modified 32 Monitor Amplifiers: Crown PSA-2, McIntosh 2100, assorted

smaller Crown amps

Monitor Speakers: UREI Time Aligned Monitors, Electro-Voice Sentry III's, Canton GL-S's, Auratones.

Echo, Reverb. and Delay Systems: 2 Lexicon 224 Digital reverberation systems, all programs including 14 x 16, Lexicon 93 Prtme Time, DeltaLab DL-2 Acousticomputer

Other Outboard Equipment: URIE LA-4A's, 1176LN's and LA-2A's, Allison Research Gain Brains and Kepexes, Eventide 949 and Deltalab Harmonizers, Orban 516 De-esser, Dolby M24-H Noise Reduction, Troisi Parametric EQ's, dbx noise reduction optional.

Microphones: Neumann U-47's, U-87's, KM-86's, KM-84's; Telefunken 251, AKG C414 EB's, C-451's; others: Sennheiser; Electro-Voice, Shure; Beyer; PZM's.

Instruments Available: Steinway "B" 1927 seven foot; Hammond M-3 with Leslie; Rhodes 88; Fairlight CMI and others with notice

Rates: \$125/hr for 24 track recording and mixing, \$60/hr for live 2-track, \$300/day for CMI (not including programmer

Extras: Energy-saving earth-sheltered custom building in country setting 30 minutes from Boston offers lounge, kitchen, privacy, extreme acoustical isolation and a wide-dynamic range studio suited to both noise-reduced and digital recording

Direction: George Thorogood and the Destroyers (Rounder), Aerosmith (CBS), Pat Metheny, Mike Metheny, Andy Pratt, Robin Lane and the Chartbuster's (Warner Bros.), Private Lightning (A&M). Bill Staines

**** BLUE BOCK STUDIO 29 Greene Street, New York, NY 10013 (212) 925-2155

Owner: Edward Korvin Studio Manager: Edward Korvin.

******** BOLOGNESE RECORDING 989 Jerusalem Ave., N. Merrick, NY 11566 (516) 221-5555 Owner: Lou Bolognese Studio Manager: James Falcone

•••• CELEBRATION RECORDING INC. 2 West 45th St., New York, NY 10036 (212) 575-9095 Owner: MZH Inc

Studio Manager: Piers Plaskitt

Engineers: Piers Plaskitt, Michael Farrow, Edward Bowleg, Douglas Pomeroy, Holly Peterson, Mark Hood Dimensions of Studios: A: 33' x 28' plus drum booth and addi

tional isolation booth. B: 14' x 16' Dimensions of Control Rooms: A: 18' x 24', B: 15' x 17' Tape Recorders: (2) 3M M79 24 track; (2) 3M M79 4 track; (2) 3M M79 2 track; Scully 280 4 track; (2) Scully 280B 2 track, (4) Scully 280B mono; MCI JH110 mono, Revox 1/2 track; Revox 1/4

track; Tandberg, Sony, Technics cassettes Mixing Consoles: Harrison 3232, 32 in × 32 out, Harrison 36 in x 24 out.

Monitor Amplifiers: (1) Crown DC300 driving each control room monitor, Phase Linear 400 for studio playback

Monitor Speakers: Super Reds, Big Reds, JBL 100, Auratones Echo. Reverb. and Delay Systems: AKG BX-20 (2), EMT, MICMIX, Eventide Digital H910, Cooper Time Cube, Marshall Time Modulator

Other Outboard Equipment: Eventide Phaser and Envelope Follower, Pultec, Kepex, Gain Brain, Orban parametric EQ, Eventide Flanger, Orban stereo synthesizer, dbx limiters, UA Teletronix limiters, Eventide Omnipressor, Dolby's, Mutron Bi-Phase, digital metronome



Microphones: Neumann U-87, U-67, U-47, KM-84, KM-64; AKG 414, D-224F, Beyer M 160, M360; Electro-Voice 635, RE-15, RE-20, Sennheiser 421, 441; PZM 130

Instruments Available: All at no charge: (2) Fender Bhodes (1.73, 1.88), Steinway grand piano, Baldwin grand piano, Honky-tonk piano, Hohner clavunet, RMI Roc-Si-Chord, Musser vibes, pedal tympani, congas, 2 complete drum kits, guitar and bass amps, ARP Synthesizer, and we can rent for you (with no price mark up), "every instrument under the sun" from New York's best rental services.

Competitive and flexible, please call for quote, Rates: 212-575-9095

******** CELESTIAL SOUNDS 919 2nd Ave., New York, NY 10017 (212) 355-4825

Owner: Toni Pinelli and Celeste Pinelli. Studio Manager: Peter Sobel Engineers: Peter Sobel, Julie Last, Steve Addaro

Dimensions of Studios: 22' x 20' with drum booth and isolation booth Dimensions of Control Rooms: 19'x 17

Tape Recorders: Lyrec TR 532-24 24 track, Studer B67-2/2 VUK 2 track (2) one VUKC with sync, Studer/Revox A-77 2 track; Aiwa 6900-II cassette 2 track Mixing Consoles: MCI 636-36 automated, 36 in x 24 out Monitor Amplifiers: (3) BGW 750-B, SAE 2200 (4) Monitor Speakers: UREI 813 Time Aligned; ADS 3C0, Tannoy

Gold Monitors, JBL 4311's, Auratones Echo, Reverb. and Delay Systems: EMT 250 digital reverb.

Lexicon Prime Time, Eventide Harmonizer, Flanger Other Outboard Equipment: 30 channels dbx 21(, dbx 165 and (2) 160 comp/limiters, UREI LA4 compressors, Audioarts, Orban, UREI parametrics; White and UREI graphic SQ, Orban stereo synthesizer

Microphones: Neumann U-87, U-89; AKG 414's, D 224-E, E-V RE-20's; Sennheiser 421's, 441's, Shure SM-57's, Nakamichi CP-1

Instruments Available: Steinway B 7', Hammond E-3 w/Leslie, Fender Rhodes, Pearl drums w/Roto Toms, MESA/Foogie, Sunn Beta bass amp, Fender Princeton amp, Fender Strato- aster, Precision bass, Martin, Guild acoustic guitars, Ludwig drums, Roland 101/102 Synthesizer assorted percussion. All provided free Rates: \$150/hr block booking available

******** CHELSEA SOUND STUDIO/NORTH 130 West 42 Street, New York, NY 10036 (212) 869-0673 Owner: Mark Freeh Studio Manager: Phil Bulla

******** CHELSEA SOUND STUDIO/SOUTH 135 West 14 Street, New York, NY 10011 (212) 242-7326 Owner: Mark Freeh Studio Manager: Phil Bulla

.... COLLYER AVENUE STUDIO 90 Collyer Ave., New City, NY 10956 (212) 733-7799. (914) 634-2446 Owner: Kevin Misey

Studio Manager: Gary Hill

Engineers: Gary Hill

Dimensions of Studios: 20' x 30' main room, 8' x 18' separate rom main room, 15' x 20' separate

Tape Recorders: MCI JH 16 24 track, MCI JH-114 2 track, Ampex 440 2 track, Ampex 440 2 track, TEAC 1/4 track four

channel Revox 2 track Technics M85 cas Mixing Consoles: MCI JH 528, 28 in x 28 cut Monitor Amplifiers: McIntosh, Crown, QMI

Monitor Speakers: 604E Altec's in Big Fied cabinets with Mastering Lab crossovers, JBL 4311 Auratones

Echo, Reverb, and Delay Systems: EMT 240, AKG BX-20E, Lexicon digital reverb, Eventide Digital Deley, Lexicon Prime Time, Kepex Gain Brain

Other Outboard Equipment: UREI 1176 hmiters, filters, leveling amplifiers, Pulter mid EQ's, Roger Mayer limiter, Teletronix LA2A Kepex Gain Brain, Eventide Omnipressor, Flanger Harmonizer, Orban D'Esser, digital metronome I plby M16 24 track.

dbx 310D

Microphones: Neumann U-87's, U-47, KM-84; AKG 414's, D-224E, C-452, A-51; Electro-Voice RE-16, RE-15, 664, 655C, RE-20, Beyer M-500; Sennheiser 421, 441; Shure PE-54, SM-56; RCA 77DX; Sony ECM 22P.

Instruments Available: Bosendorfer grand, Fender Rhodes, Hammond C-3 organ w/Leslie, ARP 2600 synthesizer, percus-sion: Slingerland drums and cymbals, timbales. Rates: Special block rates for advanced booking

******** COLUMBIA RECORDING STUDIOS

also REMOTE RECORDING 49 E 52 Street. New York, NY 10019

(212) 975-5901

Owner: CBS Inc.

Studio Manager: William Townley: (212) 975-2958, Diane Brooks, Sales Mar: (212) 975-5901

Engineers: 4 Mixers-4 second studio men, 2 setup men. 10 editors, 5 custom mastering.

Dimensions of Studios: Studio E: 20' x 35' x 12'; Studio B: 35' x 50' x 14'

Dimensions of Control Rooms: Studio E: 600 sq. ft.; studio B 840 sq ft.

Tape Recorders: MCI JH42, 24 track; Studer, MCI Ampex ATR-2 track, Mitsubishi Digital 2 track; Sony Digital 2 track Mixing Consoles: MCI JH42, 36 in x 32 out; Neve with Necam 8109, 32 in x 24 out Monitor Amplifiers: Crown DC 300 and/or Phase Linear

Monitor Speakers:UREI 813's, Big Reds, JBL

Echo. Reverb. and Delay Systems: EMT 140, EMT 250, Room echo

Other Outboard Equipment: Upon Request Microphones: Upon Request. Instruments Available: Upon Request

Rates: Upon Request

•••• CONNECTICUT RECORDING STUDIOS INC. 1122 Main St., Bridgeport, CT 06604 (203) 366-9168

Owner: Paul Leka

Studio Manager: Vic Steffens, JoAnn Vendittelli.

Engineers: Joe Boerst: Chief engineer Dimensions of Studios: 13' x 14' x 12'

Dimensions of Control Rooms: 20' x 14' x 12'

Tape Recordera: MCI JH14, 8, 16, 24 track; (2) Scully 280 2 & 1 track: Revox A77, 2 (¼) track; TEAC 3300, 2 (½) track Mixing Consoles: MCI 428, 28 in 24 out

Monitor Amplifiers: BGW, H&H

Monitor Speakers: Big Reds. JBL 4311, Auratones, KLH. Echo, Reverb, and Delay Systems: EMT stereo plate, AKG BX20, Harmonizer, Tape Delay

Other Outboard Equipment: UREI 1176, UREI LA4, Gain Brain, Kepex, Roger Mayer Gates, Pultecs, Varispeed, UREI 1/3 octave EQ's, Eventide Flanger, Dolby M16 & 316.

Microphonese: (5) Neumann U87, U47, KM84, (4) Sennheiser 421, AKG 414, AKG 451, EV RE20; (2) Sony ECM22, Shure SM57, 58 53: RCA 77 Ribbon, RCA 44 Ribbon. Instruments Available: Steinway 7', 6' & 7' Harpscords, Rhodes 88, Clavmet, Hammond B with Leslie, ARP Strings, RMI piano, Celeste, Orchestra Chumes, Bell Chumes, Tympani, Clasterk drugs, Muylleset tack piano. Fondra arms, MVB effect Gretsch drums, Wurlitzer tack piano, Fender amps, MXR effects, Vocoder, various percussion, free of rental Ratee: 24 track Rates on request—Block bookings available. 16

track \$75/hr: 8 track \$65/hr, 2 track \$45/hr

•••• DAWN RECORDING STUDIOS INC. also REMOTE RECORDING 756 Main Street, Farmingdale, NY 11735 (516) 454-8999

Owner: James J Bernard

Engineers: James J Bernard, Thomas Schizzano, Mano Salvati Dimensions of Studios: A 25' x 23'; B 16' x 20' Dimensions of Control Rooms: (B) 12' x 14', (A) 12' x 28' Tope Recorders: 3M M79:24 track, TEAC 80-88 track; TEAC 3340.4 track, Scully 280.2 track, TEAC 60-8 6 track, TEAC and ¼ track, Nakamichi 581 cassette deck

Mixing Consoles: APSI 3000 custom, 24 in x 24 out; API, 12 in x 8 out

Monitor Amplifiers: Phase Linear, McIntosh, Dynaco

Monitor Speakers: Altec 604E's, JBL 4311, Auratone, Vega's Echo. Reverb. and Delay Systems: Sound Workshop reverb. (2) Loft delays, Fairchild reverb, Eventide Phaser/flanger, EXR Aural Exciter, Roger Mayer noise gates, Echo Plate II, Ursa Major Digital Reverb

Other Outboard Equipment: Ashly compressor/limiters, Tech-Microphones: Neumann U-87's, 47; AKG 451E, 414, 224E,

Beyer 260, 500, Sennheiser 421, 441 Instruments Available: Portfolio of custom vintage guitars,

basses and amplifiers, Knabe grand piano, Gretsch drums with hydraulic heads

Rates: Please call for rates

**** DIGITAL RECORDING SYSTEMS COMPANY, INC. also REMOTE RECORDING

47

P.O. Box 26786. Elkins Park. PA 19117 (215) 782-1002. New York office: (212) 431-9184 Engineers: Peter Jensen Dimensions of Studios: The World

Dimensions of Control Rooms: 30' × 50'

Tape Recorders: Sony PCM 1600 Mixing Consoles: Mark Levinson LNP-2. Monitor Amplifiers: Mark Levinson ML-2

Monitor Speakers: Mark Levinson Audio Systems HQD System

Microph B&K 4133

Rates: \$900 for one day. Discounts for bookings of several days. Extrem: Editing of digital tapes with Sony DAE-1100. On-location mixdown anywhere

Direction: On-location, anywhere in the world, for RCA, Vanguard, CBS, The Metropolitan Opera, Phonogram, Vox, and other top labels. Home base is a restored mill in the woods, just minutes from downtown Philadelphia.

******** DIMENSION SOUND STUDIOS, INC. also REMOTE RECORDING 368 Centre St., Jamaica Plain, MA 02130

(617) 522-3100

Owner: Dave Hill and Thom Foley

Studio Manager: Klare Hollender Engineers: Thom Foley, Klare Hollender and Brian Aces

Dimensions of Studios: 22' x 30', 950 sq. ft. actual space Dimensions of Control Rooms: 21' x 13', 275 sq. ft. Tape Recorders: MCI JH-16 24 track; Ampex 4, 2 mono Mixing Consoles: Audio Designs Quad with Vue Scan display,

30 in x 24 out.

Monitor Amplifiers: McIntosh.

Monitor Speakers: Altec 604E with Mastering Lab crossover. Echo. Reverb, and Delay Systems: (2) EMT plates, Lexicon Delta T

Other Outboard Equipment: Ursa Major Space Station, UREI 1176 compressor/limiter, custom parametric EQ's, SMPTE syn-chronizer, Altec hi and lo pass filters, Spectra Sonics 610 Complimiters, Kepex and Gain Brain

Microphones: Neumann, Telefunken, Electro-Voice, RCA, Sony, Shure and AKG.

Instruments Available: 7'4" Yamaha grand piano, Hammond B-3 organ with Leslie, Rhodes piano, two full drum kits and rototoms, amps available, and assorted percussion instruments

Extras: Dolby included at no extra charge, SMPTE synchronous recording available, no extra charge for use of instruments, strong espresso coffee always available

Rates: \$85/hr for 24 track. All other rates available upon request

•••• DIMENSIONAL SOUND STUDIOS 301 W. 54th St., New York, NY 10019 (212) 247-6010 **Owner:** Ed Chalpin

Studio Manager: Stan Goldstein

****** EASTERN ARTISTS RECORDING STUDIOS** 36 Meadow St., East Orange NJ 07017 (201) 673-5680

Owner: William Galanty. Studio Manager: David Miles.

Tope Recorders: New 3M Digital system 32 trk, 4 trk, & editor; 3M M79, 24 track; Studer B67, 2 track; Revox A77, B77 2 track; Nakamichi 600ZX cassette

Mixing Consoles: APSI 4000 32 in x 24 out

Monitor Amplifiers: Crown DC300A.

Monitor Speakers: Altec 6048H, JBL 4311, Auratone Echo, Reverb, and Delay Systems: EMT 140 Stereo Plate Eventide 949 Harmonizer, Lexicon Prime Time, loft analog Echo/Delay line.

Other Outboard Equipment: UREI LA3A, LA-4, 1176 limiter/compressor, dbx 160 stereo compressor/limiter, Roger Mayer Noise Gates, Kepex II noise gates, 24 track dbx Noise Reduction (Dolby available), console has spectrum analyzer

Microphones: Neumann U-47, U-87, KM-84, AKG 414's; Telefunken 251 tubes, Sennheser 420, 421; Electro-Voice RE20's; Shure SM 57, 58, 59; Beyer M-250.

Instruments Available: Yamaha C-7 grand paino, Hammond B-3 organ, ARP and Prophet Synthesizers, Fender Rhodes, Yamaha, Fender, and Ampeg amps, Tama drums, misc. percussion

Rates: Exceptional block rates, Call David or Melissa for information

****** ELECTRIC LADY STUDIOS** also REMOTE RECORDING 52 W. 58th Street, New York, NY 10011

(212) 677-4700

Owner: Alan Selby

Studio Manager: Jimmy Monroe

Engineers: David Wittman, Mike Frondelli, Brad Samuelson, Joel Cohn, Chief Engineer: Joe Blaney, Technical Engineers Sal Greco, Alan Silverman.

Dimensions of Studios: A: 42' x 37', B: 22' x 32'; C: 25' x

Dimensions of Control Rooms: A: 16' x 24': B: 13' x 16': C 20' x 24'

Tape Recorders: Studer A-800, .24 track, Studer A-80, 24 track; (full track stereo 1/2" mastering machine) MCI JH-114, 24 track

Mixing Consoles: A: Neve 8078 72 in x 40 out, B Neve 8068 36 in x 32 out, C: Neve 8068 36 in x 32 out Monitor Amplifiers: Crown, Yamaha.

Monitor Speakers: Westlake 4-way HR1, Electric Lady





Electric Lady Studios New York, New York

speakers, URELA134

Echo, Reverb, and Delay Systems: EMT 140, Eventide, Lexicon 102 & 122 digital reverb, Primetime, Publison harmonizer, Dimension D and other

Other Outboard Equipment: Pultec PEQ, MEQ, LA 2A, 1176LN, dbx 160, Kepex phaser, flanger, Klark-Teknik graphic EQ, Orban/Parasound, GainBrain, ADR comple limiter, Trident

Microphones: Neumann U-87, KM-84, KM-86, KM-88, U-47; AKG 414, D-12, 451E, Electro-Voice RE-20, 666, RE-15, Shure 56, 57, 81, SM-7, Sennheiser 421, 441,; Crown PZM

Instruments Available: Prophet V, Moog Series 3, Fender Rhodes, Hammond organ, drums, Clavinet, Yamaha & Steinway grand pianos

Rates: Call for details

Direction: To provide the finest creative and technical environ ment for making great records (not jingles) Over the past two years, our clients have included: AC/DC "Back in Black", Roy Ayers, The Brecker Brothers Band, Blondie, Sheik, The Clash "Sandinista", Chubby Checker, Hall & Oates, Ian Hunter, Joan lett, The Lenny Kaye Connection, Kid Kreole & The Coconuts, B.B. King, Ear. Klugh, Lonnie Liston Smith, Dave Matthews, Joni Mitchell, The Persuasions, Lou Reed, Max Romero, The Rolling Stones "Emotional Rescue", Ellen Shipley Three Minutes of Liter, Lenny White & Johnny Warman Also check out new releases by Brand X and Foreigner

---- ERAS RECORDING CORPORATION 226 East 54th Street, New York NY 10022 (212) 832-8020

Engineers: Flay Volpe, Dmitri Zbrizer, Ouestar Welsh Dimensions of Studios: 37' x 27' Dimensions of Control Rooms: 24' x 18'

Tape Recorders: Telefunken 32 TRK, Telefunken 24 track with modified BTX sync system, 2 Telefunken 2 track, cassette and 1/4 track machines

Mixing Consoles: Harrison 48 in and 48 out computerized Other Outboard Equipment: EMT plates, Telcom and dbx noise reduction, UREI, Eventide, others

Microphones: All kinds

Instruments Available: Steinway 9'6" concert grand Yamaha CS-80, Ludwig drums-all Zildjian cymbals, Wurlitzer piano, rious percussions

Rates: Call for special rates (212) 832 8020

**** FEDIO AUDIO LABS also REMOTE RECORDING 60 Manning St., Providence, RI 02906 (401) 272-3157 Owner: Lyle Fain Studio Manager: Jeff Eustis

******** THE GALLERY 87 Church St., East Hartford, CT 06108 (203) 528-9009 er: Douglas W. Clark Studio Manager: Linda Clark.

****** GENERATION SOUND STUDIOS** 1650 Broadway, New York, NY 10019 (212) 785-7400 Owner: Allan Mirchin, Ben Stern.

******** GREENE STREET RECORDING 112 Greene Street, New York, NY 10012

(212) 226-4278 Owner: Steve Loeb, Billy Arnell. Studio Manager: Michael Rubinstein.

Engineers: Roddy Hui, Kurt Munkacsi, Jim Jordan, paul Stevens, Erik Bock

Dimensions of Studios: 20' x 34'. Dimensions of Control Rooms: 20' x 25'

Tape Recorders: MCI JH-114 24 and 16 track; Studer A-80 2

track; Ampex 440C 2 track/mono; Ampex 440C 4 track Mixing Consoles: Trident TSM, 28 in x 24 out, includes Allison Fadex Automation

Monitor Amplifiers: Crown PSA2, BGW 600. Monitor Speakers: (2) UREI, (2) JBL, (2) Auratone. Echo, Reverb, and Delay Systems: EMT 140Ts, AKG BX-20E, Lexicon 122-S, Lexicon Prime Time, Eventide 1745 A, Eventide 910 Harmonizer, tape delay with vari-speeds, Orban/ Parasound reverb

Other Outboard Equipment: Orban 621B parametric EQ. Auditronics PEQ 82 EQ, Neve limiter compressors (4), Gain Brain (4), Kepex (4), Roger Mayer noise gale, ADR Compex com-pressor/limiter/expander (2), Eventide Phaser and Harmonizer, UREI 1176 LN compressor/limiter (2), UREI 566 filter set, Scamp compressors (2), noise gates, ADR Vocal Stresser, Marshall Time Modulator

Microphones: Neumann U-87's, U-89, KM-86's, U-47 tube, KM-56's; AKG 414's, 452's, C-34; Shure SM-53's; Sennheiser 421's, 441's; AKG D-202E's; Altec 21's; Schoeps tube MK-2's; Sony ECM-50; assorted dynamics

Instruments Available: Steinway concert grand, Hammond B-3 w/Leslie, Rhodes, Yamaha organ/synth, Hohner pianet, ARP Soloist and Explorer, drum kit, assorted percussion, congas Rates: Upon request

Extras: Dolby A on 24, 16, 4 and 2 and mono machines

Direction: If you remember our 6/80 listing stated that our direc tion was to expand and upgrade Big Apple Recording from 16 to 24 track capability Before we shut down for the renovation we informed our clients of our plans and soon after they booked every available hour Just this week, the last product which we recorded before closing reached "Gold"-Thanks for helping Big Apple Recording become Greene Street Recording!

•••• GRENADIER

also REMOTE RECORDING 1814 Crittenden Rd., Rochester, NY 14623 (716) 275-3821, 424-6788. Owner: Tom Greene

Studio Manager: James Greene

•••• GRENADIER

also REMOTE RECORDING 3 Lille Lane, Cheektowaga, NY 14227 (716) 668-1133 Owner: Tom Greene

Studio Manager: James Greene

•••• THE HIT FACTORY 353 West 48th St., New York, NY 10036 (212) 664-1000

Owner: Ed Germano

Studio Manager: General Manager: Jerry DiDomenico. Engineers: Ed Sprigg, Howie Lindeman, loe Barbaria, Bruce Tergesen, Ted Spencer, Tom Edmunds, Frank D'Agusta, Phil

Dunn Back Bouben Dimensions of Studios: A.6: 40' x 38' plus drum/vocal booth; A.2: 28' x 31' plus drum/vocal booth, A.5: 12' x 15'.

Dimensions of Control Rooms: A-6: 20' x 19'; A-2: 22' x 16'; A-5:17 x 20

Tape Recorders: 3 Studer A-80 24 track; MCI IH-114 24 track. 4 Studer A-80 2 track, 3 Studer B-67 2 track, 3 Scully 4 track; MCI 2 track Scully 2 track, 2 Ampex 2 track

Mixing Consoles: Neve/Necam 8068, 32 in x 32 out, MCI JH-500 computer, 28 in x 24 out, MCI JH636 automated, 36 in x 36 out

Monitor Amplifiers: McIntosh, Yamaha, Crown

Monitor Speakers: UREI 813's, Altec A19's, Westlake; JBL 4311, Mitsubishi, Auratones, Big Reds

Echo, Reverb, and Delay Systems: Stereo EMT's, AKG BX-20, Master-Room, Lexicon Prime Time, Marshall Time Modulator, Eventide DDL, Harmonizer

Other Outboard Equipment: Pultec's, Langs, Kepex's, Roger Mayer, Quad/Eight gates, Eventide Phasers, Flangers, Orban parametrics, D'Essers, 1176's, LA2A's, LA3A's, RM limiters, notch filters, Cooper Time Cube, White EQ's, Trident limiter

Microphones: Neumann U-87s, U-47s, KM-84's, tube 67, U-86's, SM-57's M2 429's, RE-15's, RE-16's, RE-50's, RE-20's, Sony C 37, C-500, ECM 50, EDM 22P; AKG 414's, 452EB,

AMPEX MM-1200. WHERE GREAT STUDIOS START.

Select your multitrack recorder as carefully as the other facets of your studio. Select the Ampex MM-1200. Because it's the one multitrack recorder that can go through every change your studio goes through on its way to greatness. And still be as economical and easy to operate as the first great day you got it.

Growth without growing pains. With the MM-1200, you'll seldom be faced with a situation you can't solve. Because the MM-1200 comes prewired to make upgrading from 8 to 16, or 16 to 24-track operation simple and swift. And if adding channels won't solve your problem, the MM-1200's versatility will. Mastering, live sound rein-

forcement, double system sound, video sweetening or film and TV production/post production are all jobs that the MM-1200 can handle. Built-in single point search-to-cue, elevated record level capability, 16" reel capacity and fast start times also help you grow.

Performance you can depend on. The MM-1200 has proven itself under some of the most adverse conditions. The massive, stable top plate comes aligned and stays aligned ... through repeated sessions in the cumforts of the studio, or on remote locations.

Ampex keeps your options open. The list of optional accessories for the MM-1200 is the longest in the busi-

ness. You can add multi-point search-to-cue and store 20 cue locations. This time-saving tape handling accessory provides tape time readout, cue point readout, "on-the-fly" cueing and more. Other accessories include the PURC[™] Record Insert Controller, Search-To-Cue Remote Control, and MSQ-100 Synchronizer for jobs that require more than 24 tracks. Contact your Ampex sales representative for complete details.

AMPEX MAKES IT EXCITING

Ampex Corporation, Audio-Video Systems Division 401 Broadway, Redwood City, CA 94063 415/367-2011



C-12, 202E, D-12, Sennheiser 421, 441, E24, MKH 404, MKH 415, MKH 805 MKH 416, Beyer M-101, M88N RCA 77-DXI-44, 664, C-61, PZM's

Instruments Available: 2 Steinway pianos, Baldwin upright, Fender Rhodes, 2 drum kits, Clavinet, Syndrums, Hammond B-3, Leshe, vibes, condas

Rates: Upon request

Extras: Complete hi-speed tape duplicating facilities and copy room with 4 Technics M-85 cassette machines

Direction: Allesi Bros , David Bowie, Blondie, BT Express, Tim Curry, Jim Croce Rick Derringer, Dr. John, Robert Fripp, For-eigner, Peter Frampton, Foghat, Roberta Flack, Peter Gabnel, Hall & Oates, Marvin Hamlisch, Lollita Holloway, Janis Ian, Marshall Tucker Band MI Sex, Meatloaf, Ted Nugent, Odyssey, Stephen Bishop Bernadette Peters, John Lennon & Yoko Ono Leon Redbone, Tony Orlando, Joe Perry, Pousette Dart Band, Rolling Stones the Roches, Lou Rawls, Boz Scaggs, Rex Smith, Paul Simon, Grace Slick, Carly Simon, James Taylor, Talking Heads, Village People, Stevie Wonder, Johnny Winter, Edgar Winter Robert Palmer

******** INTERMEDIA RECORDING STUDIO 331 Newbury St., Boston, MA 02135 (617) 267-2440

Owner: Ross Cibella

Studio Manager: Fred Torchio, Debby Cibella, (Traffic

ontroller) Engineers: Fred Torchio, Chief, Kristen Beard, and Tony

Caputo and independents Dimensions of Studios: 20' x 40'

Dimensions of Control Rooms: 20' x 20'

Tape Recorders: MCI JH 114/24 24 track, Studer B67 2 track, Ampex B440 4 track Ampex B440 2 track, Revox B77 ¼ track amaba TC 1000 cassette

Mixing Consoles: MCI JH-636 w automation Monitor Amplifiers: BGW 750B, Crown DC 300A, Crown Crown DC-75, Marantz tube

Monitor Speakers: UREI Time Aligned 813, JBL 4311, Auratone 5C's, Beyer DT 100 headphones

Echo, Reverb, and Delay Systems: EMT plate, AKG BX 20

Other Outboard Equipment: Dolby 24 tracks, Eventide Har monizer UREI 1176A Pye, Teletronix LA2A, Kepex's, Gain Brains, Orban parametric EQ. Pultec MEQ-5 EQ's, Lang PEQ-2. EQ's, (8) API 550A FQ's SAE Mark XVII EQ's, UREI room EQ's, assorted flangers, etc.

Microphones: Neumann U-87s, U-47 FETS, U-47 tube. KM-84's, AKG C 414EB's, BF 20, RE-15's, 451's, D-12's, Senn heiser 421's; Beyer M 60, RCA 77DX, DX 44; Shure SM-57's, PZM and more

Instruments Available: Yamaha 7'4" grand piano, Hammond B.3 organ (specially modified) in house, guitars, Moog syn thesizers, amps, full line of accessories available.

Extras: Video facilities 5 additional rooms of varying ambience and echo characteristics, John Storyk designed control room references incredibly well. Superior maintenance assistants Rates: \$80-\$105/hr, block rates available

Direction: Recent clients include The Rings/MCA, the Cars with B.B. Buell, Buster Jones Spring Records, Mike Johnson/Brunswick, Maurice Starr/RCA, Peter Dayton/Planet, Gary Numan/ Reel Time, Hick OCasek, New England, Dick Wagner, Sha Na Na, Genya Ravan, ABC Country Greats In Concert featuring Waylon Jennings Liynn Anderson, Johnny Paycheck Labels: RCA/20th Century, TJM/Casablanca Columbia MCA Planet Records West End, A&M Polydor, ABC Radio Network, Windsong Records, NBC Television Network Production companies Metro-Tube Production, Sky's The Limit Production, OTL Produc-tion, Eastwind Production, Alpha Ents, Mike Stone Ents, Back Stage Ltd. Positive Prod. Aucoin Mgmt, Summer Knights Rock Steady Prod. Joe Perry Project/Columbia, New Models/Simple Simon Records

•••• KAJEM SOUND & FILM 1400 Mill Creek Rd., Gladwyne, PA 19035 (215) 649-3277

Owner: Mitch Goldfarb Joe Alexander, Kurt Shore, Sam Mose

Studio Manager: Mitch Goldfarb

Engineers: Mitch Goldfarb, Joe Alexander, Terry Hoffman,

Asst Dave Conner. Dimensions of Studios: Hexagonal 35' x 30', plus an adja-

cent 2000 sq ft ambient room Dimensions of Control Rooms: 20' x 16'

Tape Recorders: 3M M79, 24 track, Studer B67, 2 track Tascam 90-16, 16 track.

Mixing Consoles: Harrison 2824, 28 in x 24 out.

Monitor Amplifiers: Crown DC300

Monitor Speakers: UREI Time Aligned 813's, JBL L60. Auratone Reference

Echo, Reverb, and Delay Systems: Ursa Major Space Station, Acousti-Computer, Lexicon Prime Time, MXR DDL, Master Room

Other Outboard Equipment: SAE Parametric, Scamp Rack. Roger Mayer Noise Gates, Symetrix compressors, LA4's Microphones: Neumann U-87's, KM-84's, Sennheiser 421's; EV

RE20's, 16's, AKG 451's, 414's, D19's, Shure 57's, 54's, 81's; Sony ECM33's Instruments Available: Mason Hamlin grand piano, ARP Omni, Vox organ, Ludwig & Rogers drums, Tack paino, Wurlitzer, Electric piano Fender & Acoustic amps, rentals available upon re-

Rates: Please call for rates Package rates available.



Extras: Dolby and dbx Noise Reduction, no extra charge Offhours had weekend rates are the same as our basic rates **Direction:** James McCain, I.ddie Holman, Unsung Herces, Neighbors, & Allies Philadelphia's newest 24 track studio, we specialize as a cutting foom because of the amazing versatility of our acoustical facility. Included in our premises is our sister to ADIO Production which is a full service radio production house specializing in lingles and convept commercials



Kingdom Sound Studios Syosset, New York

•••• KINGDOM SOUND STUDIOS 6801 Jericho Turnpike, Syosset, NY 11791 (516) 364-8666

Owner: Bill Civitella Clay Hutchinson Studio Manager: Nancy Sirianni

Engineers: Clay Hutclanson, Glen Kolotkin, John Devin: Maintenance engin

Dimensions of Studios: 26 x 32' x 13' Dimensions of Control Rooms: 16' x 26' x 13'

Tape Recorders: 3M M79 24 & 2 track, Studer A80, 2 track; ex 440C. 2 track

Mixing Consoles; Harrson 4032C automated 40 in x 32 out Monitor Amplifiers: (2) Crown 300's, (2) Crown 15C s, Phase

Monitor Speakers: Alter: 604-E2, (Big Reds), JBL 4311's, The New Advent loudspeaker's, Auratones

Echo. Reverb. and Delay Systems: EMT 140 reverb plate. EMT 240 Gold Foil Lexicon 224 Digital Reverb, Marshall Time Modulator, (2) Lexicon "Prime Time" digital delay's (3' Eventide Harmonizers, AKG BX-20

Other Outboard Equipment: (2) dbx 160 compressor/limiters, UREI LA 3A and LA-4 limiters. (4) UREI 1176 Peak Limiters, (2) Stereo A&D compex limiters, Orban De-essers. (24) API 560 Graphic EQ's, (4) Orb-in parametric EQ's, Eventide Flanger & Phaser, 1/6th Octave White monitor EQ's, Doiby noise reduction (all machines)

Microphones: Over 50 microphones-all major manufacturers Instruments Available: Steinway grand, Hammond B-3, 88 Key Fender Rhodes Baldwin Harpsichord, Yamaka CS-60, Rogers drum set, Boogie Amp Marshall Amp, Yamaka bass amp Rates: Please call for rates

****** LATIN RECORDING SOUND STUDIOS** 1733 Broadway, 3rd Floor, New York, NY 10019 (212) 541-8072 Owner: Raul Alarcon

Studio Manager: Raul Alarcon

******** LONG VIEW FARM

also REMOTE RECORDING Stoddard Road, North Brookfield, MA 01535 (617) 867-7662, 867-7050; Toll-free (800) 225-9055 Owner: Gil Markle Studio Manager: Kathleen Holden

World Radio History

Engineers: Jesse Henderson, Chief; Geoff Myers, Gil Markle. Dimensions of Studios: A. L-shaped 26' x 26' outside legs, 19' wide at control room end. 12' wide at "dead end" with 8' \times 6' \times 7' iso booth. B: 30' x 24'

Dimensions of Control Rooms: A 24' x 15' x 9', B 14' x 24' Tape Recorders: MCI JH 114 24 track, 3M M79 16 track, (2) Studer A-80 half track, Scully 280 half track, Ampex 440-S 4 track, Revox high and low speeds; Aiwa, Nakamichi, Uher, Superscope cassete decks; Stellavox portable. Mixing Consoles: MCI 528, 28 in x 28 out, Aengus Custom

1608. 18 in x 18 out Monitor Amplifiers: Crown DC 300 A's, BGW's, McIntosh.

Monitor Speakers: Altec Big Reds 604E's, JBL Century 100's, JBL 4311's, Auraton

Echo, Reverb, and Delay Systems: EMT stereo plate acoustic live chamber, AKG BX-20, BX-10, Eventide Harmonzer, Eventide DDL, Eventide Instant Phaser, Loft flanger/delay line, DeltaLab DL-2 Acousticomputer, DeltaLab DL-4 delay line

Other Outboard Equipment: Orban/Parasound stereo matrix, UREI digital metronome, Roger Mayer noise gates, Kepex, Gain Brain, Map parametrics: Aengus graphics, dbx 187 noise reduc tion, dbx 216 noise reduction, Dolby 360 single channel system API 550's API 560's

Microphones: Neumann U-87's, U 47's, KM-84's, AKG 414's, D-124 D 12; Sony 33F, C-55, Sennheiser 421's, 441's, Electro-Voice RE-10, RE-20's, RE-55, 666's; Shure SM 57's 53's, Beyer M 500, RCA 77's 44's; Schoeps

Instruments Available: Fender Rhodes, clavinet Elka Strings, ARP 2600, ARP Pro Soloist, Mini Moog, RMI electronic plano. Steinway grand piano, Baldwin grand piano, upright tack piano, Ampeg bass amps, Fender and Marshall guitar amps, 2 complete drum kits

Extran: Horses to ride, pinball machines, pool tables, sauna and Jacuzz, masseuse, fresh milk and eggs, well stocked cookie jar, woodstoves and fireplaces, sleigh rides, 150 acres of unspoiled acreage, Long View Farm is a resort Rates: City-competitive, flexible

Direction: Credits: Arlo Guthrie, Pat Metheny, The Blend, Rupert Holmes Tim Curry, Stuff, Don McClean, the J Geils Band, Oregon, Aerosmith, Joanne Barnard, Cat Stevens, Dick Wagner, The Mice Long View Farm is a total environment, total privacy, the two studios are linked by tie lines, residential facility offering fine food and lodging



Master Sound Productions Franklin Square, LI, New York

**** MASTER SOUND PROD. INC. 921 Hempstead Turnpike, Franklin Square, Long Island, NY 11010

(516) 354-3374

Owner: Ben Rizzi, Maxine Chrein

Studio Manager: Maxine Chrein Engineers: Ben Rizzi, Dave Brody, Joe Castellon

Tape Recorders: Ampex 1200 24 track, Ampex 1100 16 track, Ampex 440 8 track, Ampex 440 4 track; Ampex ATR 102 (2) 2 track; Ampex 440 2 track; Ampex full track mono, Tandberg assorted cassettes and reel to ree

Mixing Consoles: Trident TSM, 48 in x 32 out fully automated, API 40 input Monitor Amplifiers: McIntosh

Monitor Speakers: Altec 9845, JBL 4311, Big Reds, JBL 4313, KLH 6. Auratones

Other Outboard Equipment: EMT 250 digital audio proces sor, AKG BX-20, UREI 1176's, UREI LA4, UREI 970, Vidigraf, UREI 565, UREI 963 digital metronome, Lexicon Prime Time DDL, Eventide Clockworks Phaser, Flanger and Harmonizer, Kepex and Roger Mayer noise gates, D'Esser, Cooper Time Cube, 35mm mag , 3/4 inch U-matic video, 1/2 inch VHS video,

Microphones: Neumann, AKG, Sennheiser, Sony FV Shure Bever

Instruments Available: Mason-Hamlin grand piano, ARP 2600 synthesizer, ARP Omni II, Fender Rhodes 88, Hammond C-3 organ, Hohner clavinet and pianet, upright tack piano, Orchestron Insta-Piano drums, assorted percussion and amps Rates: Please call

**** MAYFAIR RECORDING STUDIO 701 7th Ave., New York, NY 10038 (212) 581-2178

Studio Manager: Joyce Manchese

****** MEDIASOUND INC.**

311 W. 57th St., New York, NY 10019 (212) 765-4700

Owner: Joel Rosenman, John Roberts

Studio Manager: Susan Planer.

Engineers: Fred Christie, Alec Head, Harvey Goldberg, Doug Epstein, Mike Barbiero, Michael Brauer Dimensions of Studios: A: 30' x 50' (former church); B: 20' x

20'; C: 10' x 15'; lounge 15' x 15'. Dimensions of Control Rooms: A: 15' x 10'; B: 14' x 14'; C:

10' x 14'; lounge control room 10' x 14'.

Tape Recorden: 3M M-79 24 track; MCI JH-114 24 track; Studer A-80RC 2 track; MCI JH-110 4 track; Scully 280 mono. Mixing Consoles: Neve 8086 modified, 42 in x 32 out: Harrison 4032 32 in x 32 out; API 280, mono.

Monitor Amplifiers: Phase Linear 700.

Monitor Speakers: Big Reds, Mastering Lab crossover. Echo. Reverb. and Delay Systems: EMT-140, AKG, Grampion, Eventide DDL, Lexicon Prime Time.

Other Outboard Equipment: Pultec EQ, UREI limiters, Neve limiters. Eventide Phasers and Flangers, MXR phasers and flangers, Kepex, Gain Brain, Eventide Harmonizers, Marshall Time Modulators

Microphones: Neumann, AKG, Shure, Sennheiser, E-V, Bever, Pressure Zone.

Instruments Available: Vibes, xylophone, Celeste, Hammond organ, Fender Rhodes, clavinet Rates: Upon request.

**** MINOT SOUND

19 South Broadway, White Plains, NY 10601 (914) 428-8080, (212) 828-1216

Owner: Ron Carran.

Studio Manager: Thom Cimillo

Engineers: Ron Carran, Ray Bardani, Bruce Robbins, Wayne Warnecke.

Dimensions of Studios: 40' x 25'

Dimensions of Control Rooms: 22' x 18'.

Tope Recorden: MCI JH16 24 track; MCI JH110B 2 track; Ampex 440A 2 track; Scully 280B 2 track; Ampex 351 2 track. Mixing Consoles: Harrison 3624, 36 in x 24 out.

Monitor Amplifiers: McIntosh 2300, H/H TPA 50's, BGW 100. Monitor Speakers: Big Reds, Secret Sound Cubes, JBL L100. Echo. Reverb. and Delay Systems: EMT 140 stereo, AKG BX-20E; Eventide Harmonizer, Cooper Time Cube, Lexicon Prime Time, Sony DRE 2000 Digital reverbertor

Other Outboard Equipment: Kepex; Pultec and other parametric EQ's (Orban); API EQ's; phaser; flanger; Scamp Rack; auto pan; UREI, dbx, API limiters; digital metronome; VSO; VTR. Microphones: Neumann U-87, KM-84, KM-86, U-47; Sennheiser 421; Shure SM-57; AKG 414, 451; E-V; plus many others. Instruments Avcilable: Rhodes, Steinway, clavnet, Ham-mond, Fender and Marshall amps, bass amp, drums, congas, vibes, timps, misc. perc. equip., OBX & other synthesizers. Rates: \$125/hr. Block booking rates available

Extras: Video library, full record & jingle production service, musician owned & run studio, storage.

Direction: Records: David Sanborn (W.B.); Starpoint (Casablan-ca); James Last Band (Polydor); Garrett Morris (MCA); Duke Jupiter (Mercury); Nils Lofgren (A&M); Harry Chapin (Elektra); Country Joe (Fantasy); Tasha Thomas (Atlantic); Ray Gomez (Columbia): Southroad Connection (U.A.). Jingles: Ivory, Jordache, CBS Election Coverage, O'Keele Beer, Resorts International, John McLaughlin, Al Dimeola, Paco Delucia (CBS), Bob James (Tappan 7.ee)

.... THE MIXING LAB. INC. also REMOTE RECORDING 100 Bellevue St., Newton, MA 02158 (617) 964-8010 Owner: John Nagy Studio Manager: John Nagy. Engineers: John Nagy, Paul Musson, Danda Stein, other engineers available on request

Dimensions of Studios: 10' x 10' Dimensions of Control Rooms: 18' x 19'

Tape Recorders: MCI JH-114, 24 track; Studer 2 track.

Mixing Consoles: Custom fully parametric EQ w/group faders UCA's patch points available everywhere.

Monitor Amplifiers: McIntosh.

Monitor Speakers: Big Red, 805-910, Phillips 1/2", many others. Echo. Reverb. and Delay Systems: Lexicon 224 digital reverb w/vocal plate & dx-20.

Other Outboard Equipment: UREI limiters, Kepex & Gain Brain, Marshall Time Modular, Avraband De-esser, Flanger phasers & Lexicon Prime Times

Microphones: Neumann, AKG, Shoeps. Instruments Available: Multiple Rates: \$70 to \$165 per hour

******** MOBILE RECORDERS LTD. also REMOTE RECORDING Southbury, CT 06488 (203) 264-2659 Owner: George Rothar Studio Manager: George Rothar.



******** NATIONAL RECORDING also REMOTE RECORDING

480 W. 42 St., 730 5th Ave., 232 E. 46 St., 228 W. 47th St., New York, NY, 41-41 Crescent St., Long Island City, NY (212) 279-2000, (212) 757-6440

Owner: Hal Lustig, Irving Kaufman. Studio Manager: Kim Llorente, Audio, Jeff Pastalov, Video. Englacers: 26 Engineers.

Dimensions of Studios: 12 studios from 1 voice size to full symphony. 6 Edit rooms

Dimensions of Control Rooms: To match

Tape Recorders: 43 Audio tape recorder, MCI, Scully, Ampex, Otari; 46 tracks to Mono. 23 Magnatech Film Dubber-recorders Synch locked to video or film; 2 Vidimag Sprocher video recorders, 3 quad, 10 1" Ampex video etc.; 8 video cameras, 4 Norelco projectors.

Mixing Consoles: 14 consoles including automated MCI, Sound Workshop, Grass Valley, Audio Designs

Monitor Amplifiers: Crown, McIntosh Monitor Speakers: UREI, Altec, Auraton

Echo, Reverb, and Delay Systems: EMT, AKG, Lexicon Other Outboard Equipment: Full stock of popular items. Microphones: More than 150.

Instruments Available: Steinway planos, Hammond organs, Vibs. Xvls. Bells. Drum sets. assorted electronic instruments Rates: On request.

Extras Compete complex from microphone or camera to final product. Recently required the New York City west side Air Terminal Building with over 60,000 square feet.

Direction: Full spectrum of audio, video and film with expertise built up through 22 years of experience at broadcast quality level for top advertising agencies and major product companies throughout the world. TV and radio commercials, music albums, industrial and educational recording. All performed at the same high standards.

•••• THE NINETEEN RECORDING STUDIO also REMOTE RECORDING 19 Water St., South Glastonbury, CT 06073 (203) 633-3286, 633-8634

Owner: Jonathan Freed. Studio Manager: Jonathan Freed

****** NOLA RECORDING STUDIO'S INC.** THE PENTHOUSE

111 West 57th Street, New York City, NY 10019 (212) 586-0040

Owner: James Czak, John Post, Philip Johan Studio Manager: Ms. Robin Bass

****** NORMANDY SOUND** 25 Market St., Warren, RI 02885

(401) 247-0218 Owner: Bob Shuman, Arnold Freedman, Phil Greene Studio Manager: Ron Gamache. Engineers: Phil Greene, Bob Winsor, A W. Dick Dimensions of Studios: 45' x 28', 2000 cubic foot isolation

booth. Dimer tions of Control Rooms: 15' x 19' Tape Recorders: MCI JH 114, 24 track; (2) Scully 280-B, 2

track; Tascam 70, 2 track; TEAC 3300 ¼ track, Pioneer CF1000, cassette; Nakamichi 7000, cassette

Mixing Consoles: APSI 2000 30 in x 24 out. Monitor Amplifiers: Crown, Spectro Acoustics Monitor Speakers: Altec 604-84, Auratones, JBL 4311's. Echo, Reverb, and Delay Systems: Lexicon 224 Digital Reverb, Audicon Stereo Plate, Lexicon Prime Time, Loft Delay Line/Flanger, MXR Digital Delay, Tape Echo.

Other Outboard Equipment: UREI LA4's, Ashly compressor/limiters, Orban D'esser, Ashly Parametric EQ, MXR Auto-Flanger, MXR Auto Phaser, Graphic EQ, MXR Mini-Limiters, Roger Mayer Noise Gates, dbx (24 tracks) Microphones: Neumann U-47 tube, U-48 tube, U-87, KM-84;

AKG 414 EBs, 451; Senheser 441, 421, Beyer 160, 260, 500; Shure SM 53, 57; EV RE-20 and many more.

Instruments Available: Yamaha conservatory grand, Hammond B-3, Fender Rhodes, Stratocaster, Jazz and Precision basses, various percussion

World Radio History

Rates: Available on request

.... NORTH LAKE SOUND, INC. 3 Lakeview Drive, North White Plains, NY 10603

(914) 682-0842/43

Owner: Joe Renda, Chip Taylor, Jon Voight. Studio Manager: Joe Renda.

Engineers: Chris Cassone, Eddie Solan

Dimensions of Studios: 30' x 22' x 14' ceiling. Dimensions of Control Rooms: 22' x 22' x 14' ceiling. Tape Recorders: MCI JH 16 24 track with Auto Locator II; (2)

MCI JH 110 A&B 2 track; Otari MX 5050 2 track; Revox A-77 ¼ track: Aiwa AD6900U cassette deck

Mixing Consoles: MCI JH 428B customized, 28 in x 28 out. Monitor Amplifiers: Crown

Monitor Speakers: Big Red 604E's biamped with time-sync crossover, Altec Little Reds studio, Auratone 5C, JBL 4311, Altec Model 9, Brauns SM 1002.

Echo. Reverb. and Delay Systems: AKG BX-20, Lexicon Prime Time; Scamp ADR Module; Orban/Parasound dual reverberation, Marshall Time Modulator, Eventide Harmonizer, Delta Labs AcoustiComputer

Other Outboard Equipment: (2) UREI compressor/limiter LA4, dbx 162 stereo compressor limiter, (4) dbx 160 compressor limiters, Scamp dual gates \$100, Roland Rhythm 77 Rhythm Ace, Pultec EOP 1A

Microphones: Neumann U-87's, KM-84's, U-47 tube; Sennheiser MD 421's; AKG C 451E's, 414's; Sony C 37P's, Shure SM 57's. Instruments Available: Kawai 7'4" concert grand plano, Hammond B-3 with Leslie, ARP String Ensemble, Fender Rhodes 73, Wurlitzer electric piano, various Fender amplifiers and guitars, Ludwig Octaplus drum kit.

Rates: Upon request

Extras: Complete live-in facilities. Mike, cue and video lines throughout entire house. Located in small country community next to reservoir and pine forest but only 35 minutes from mid-town Manhattan. Color TV, video games, swimming, ping-pong,

Direction: Experts in dealing with mad people. Recent clients in-clude: Ace Frehley, Casablanca; Rob Hegel, RCA; Air Raid, 20th Century; Carillo, Atlantic; Simms Brothers Band, Elektra/Asylum; "Crazy loe" and the Vanable Speed Band, Casablanca; Chip Taylor, Capitol; Joe' King' Carrasco and the Crowns, Stiff.

****** ANDY PARKS STUDIOS (Alias the Ranch)** 37 West 20th #1107. New York, NY 10010 (212) 741-0784

Owner: Parks Family

Studio Manager: Andy Parks & Cathy Parks. Dimensions of Studios: Main Room 16 ' x 26'; Isolation rooms 1: 15' x 13'; 2: 9' x 7'; Singers Booth: 5' x 3½' x 10 Dimensions of Control Rooms: 141/2' x 16' x 10' ceiling. Tape Recorders: 3M 79, 24 track; Ampex ATR102, 2 track.

Mixing Consoles: MCI 416-24, 36 in x 16/24 out Monitor Amplifiers: McIntosh, Crown

Monitor Speakers: Big Reds

Echo, Reverb, and Delay Systems: (2) Audicons full size plates, MICMIX Mark IV, Lexicon "Delta T" fully loaded, Mutron Digital Delay model #1173, various tape echoes

Other Outboard Equipment: (1) Teletronics LA-2, LA-3, (2) 1176LN, (2) LA-4; dbx 160, EXR exciter, Ashly parametric; Har-monizer; Flanger; UREI 529; ½ octave EQ, Pultec EQH-2. Techniques parametric; (2) Sound Craftsman 21 Band EQ; (2)

Kepex; 26 tracks dolby etc. Microphones: (3) U87, (2) Tube U47, Fet U47, KM 84 RE-20, 441, 421, D12, 414EB, D224E, C451, D202E, ECM22, etc

Instruments Available: Yamaha CS-80 Synthesizer, Ludwig Octoplus w/excellent cymbals Fender Rhodes piano, Fender amps, grand piano.

Rates: Excellent rates on request.

Extras: The room acoustics are some of the best to be heard, warm and alive. Also a bath with shower, full kitchen with best beans in town and TV with Intellivision

Direction: A studio built by Artists for the artist



Penny Lane Studios New York, New York (see listing on page 53)

•••• PENNY LANE STUDIOS 1350 Avenue of the Americas, New York, NY 10019 (212) 687-4800 Owner: Harley Flaum

Studio Manager: Mandy Aimeth Engineers: Alan Varner, Chief Engineer, John Terelle, Brian Marine David Chenkin

Dimensions of Studios: A: 25' x 36', B: 10' x 12' Dimensions of Control Rooms: A&B: 18' x 2 Tape Recorders: 3M 79 24 track; 2 Ampex ATR 104 4 track; 3 Ampex ATR 102 2 track. Mixing Consoles: Trident TSM with Fadex automation, 32 in x

24 out; Trident Fleximix, 8 in x 4 out Monitor Amplifiers: McIntosh Monitor Speakers: Big Reds, HM Long, Auratone

Ceho. Reverb. and Delay Systems: EMT, AKG, Lexicon Other Outboard Equipment: UREI, Allison, Trident com-pressor/limiters, Pultecs, Eventide Harmonizer, Kepex's, D'Esser,

Microphones: Neumann, AKG, Beyer, Sennheiser, Shure, E-V Instruments Available: Drums, piano (Steinway), Rhodes, MESA/Boogie and Fender amps, assorted percussion, Prophet evnth

Rates: On request

•••• POWER STATION RECORDING STUDIOS 441 West 53rd Street, New York City, NY 10019 (212) 246-2900

Owner: Bob Walters and Tony Bongiovi Studio Manager: Arlene Heckson Cohen

•••• QUEEN VILLAGE RECORDING STUDIOS 800 S. 4th St., Philadelphia, PA 19147 (215) 483-2200

Owner: Walter Kahn

Studio Manager: Wally Hayman Engineers: Chief Chuck O'Brien, Lorenzo Wright, Andy Michael Larry Lynch.

Tape Recorders: Ampex, Scully, Stephens

Mixing Consoles: 44 channel Neve, with Necam automation

Monitor Amplifiers: Crown. Monitor Speakers: JBL, Auratone

Echo, Reverb, and Delay Systems: EMT, digital Other Outboard Equipment: Lexicon Prime Time DDL, DL-2's, DeltaLab, Eventide, Neve, UREJ, dbx, Orban parametric

EQ's, sibilance controllers Microphones: Neumann, AKG, Electro-Voice, Shure, Beyer, RCA. Sennheise

Rates: \$150/hr 24 track \$125/hr 16 track \$50/hr 2 track

****** RCA RECORDING STUDIOS** also REMOTE RECORDING

1133 Ave. of the Americas, New York, NY 10036 (212) 930-4050 Owner: RCA

Studio Manager: Director of Recording Operations, Larry Schnapf, Studio Manager: Gene Cattnai, Sales Manager: Len Lawson

Engineers: Dick Baxter, Ed Begley, Tom Brown, Jim Crotty, Al Sait, Dennis Ferrante, Mike Getlin, Paul Goodman, Ray Hall, Joe Lopes, Pat Martin, Mike Moran. Tony Salvatore, Bob Simpson Mastering Jack Adelman, Mike Posner, Jay Koopman, Cyril Russ, George Drepot

Dimensions of Studios: A 60' x 100' x 30', B 50' x 75' x 28', C· 50' x 75' x 25'; D: 30' x 40' x 15', E· 15' x 25' x 10', F· 15' x 25' x 10'

Dimensions of Control Rooms: A, B, C: 30' x 40' x 25' 9 mastering rooms, 6 laquer mastering cutting channels **Tape Recorders:** MCI, Studer, Ampex, Presto 24 track: MCI,

Ampex 16 and 8 track 3M, MCI, Ampex. 2 track Ampex, 3M, MCT

Mixing Consoles: 5 Neve consoles, 1 RCA custom, 2 API's Monitor Amplifiers: McIntosh 2100

Monitor Speakers: 604's, Utahs, Mastering Lab crossovers Echo. Reverb. and Delay Systems: 36 plates, 6 AKG's, 6 live rooms

Other Outboard Equipment: All brands, full compliment

Microphones: Complete line, 600 microphones Instruments Available: 6 Steinway grands, 3 over 100 yrs old 8 organs. Extensive. What we don't have we'll rent Extras: Mobile van

Rates: On request Call manager

Direction: Donny Hathaway, Roberta Flack, Kansas, Elvis Presley, George Benson, Waylon Jennings, Jefferson Starship, Lou Reed, David Bowie, Marshall Tucker Band, The Band, Hot Tuna, Frank Zappa, Oscar Peterson, Ella Fitzgerald, Buddy Rich, Lionel Hampton, ABC-TV, AT&T, Avco Embassy, BBC Capitol Records, Dick Clark Prod., Met Opera, MGM Films, Motown Records

**** REEL DREAMS

6 East Newberry Rd., Bloomfield, CT 06002 (203) 243-8317

Owner: Reel Dreams Inc

Studio Manager: Carl Henry. Engineers: Bill Hudak, Bernie Evans, Dave Thibodeau Dimensions of Studios: 1800 sq ft (three isolation rooms). Dimensions of Control Rooms: 580 sq ft Tape Recorders: MCI JH100, 24/16 track; Scully 280 B-2, 2 track; Otan 5050 MK II-2, 2 track



Mixing Consoles: Loft features 4 band full parametric EO per channel, Transamp pre-amps, current source summing, series 800 Model 2624, 24 in x 24 out Monitor Amplifiers: Phase, Crown, SAE

Monitor Speakers: JBL 4315 with M&K sub woofer, three other

Echo, Reverb, and Delay Systems: Roland Space Echo with Dolby, 4' x 8' Plate Stereo Reverb, (2) Loft analog delays. Even tide Harmonizer

Other Outboard Equipment: Full dbx, EXR Aural Excitation 24 Roger Mayer noise Gates: Orban 418 Stereo limiter, two-tbx 160, Orban 622 A Parametric EQ, (2) UREI LA4 UREI 10-Hand graphic EO

Microphones: Neumann U-87's, 47, AKG 452's, Beyer M500s, Sony ECM 56-F, 65F, EV RF-20's, Sennheiser MD 421

Instruments Available: Yamaha grand Hammond B3, Leshe Rhodes, Baldwin Honky Tonk, Wurlitzer electric PAIA Synthe azers, Dekley Pedal steel guitar, many assorted guitars and ainps Rates: Package rates as low as \$50/br

**** REGENT SOUND STUDIOS INC. 25 W. 56th Street, New York, NY 10019 (212) 245-2630

Owner: Robert Liftin

Studio Manager: Elssa Kline Engineers: Bill Manno (Chief Engineer), Ken Hahn, Assistants Barbara Flyntz, Grant Maxwell, Sound effects Bob Donlar. Maintenance: Peter Dilorio

Dimensions of Studios: Studio A: 46' x 32', Studio B: 27' x x 10' (Vocal over-dub room) Studio C

Dimensions of Control Rooms: Studio A 16' x 18' Studio B: 16' x 20' Studio C: 16' x 14'

Tape Recorders: (4) Ampex MM1200 (w/PURC & renearse functions), 24 tracks, (2) Ampex ATR 102 2 track (4) Ampex ATR 104, 4 track, (2) Ampex 440 2 track, (2) Ampex 440 4 track (2) Ampex ATR 70C 2 track, TEAC 40-4 4 track, Ampex Modified mono Nagra, (2) Ampex VPR-2 type C 1" WDolby, (2) Sony 2800 ³/₄" U.Matic w/loystick (2) Sony 2800 ⁴/₄" U.Matic, Convergence 103 C Editor w/ADR, Magnatech 16/35 mm Mag Dubbers, (4) AJWA cassette decks, Natamichi 500 cassette deck

Mixing Consoles: MCI 528 28 in x 28 out Monitor Amplifiers: Crown

Monitor Speakers: JBL 4311's & 4313's, 604E's, Auratones Echo, Reverb, and Delay Systems: Live Chambber Lexicon DDL's, Lexicon 224, Marshall Time Modulators, UREI 555 filter

t Scamp rack Other Outboard Equipment: Pulter EQH2, 360 Frogram mable EQ model 2800, LA 4 limiters, 1176 limiters, EECD MQS computer (3) EECO Time ("ode Generator Programmable 'Autofade", Conrac Video Monitors (3) Ampex Sync Lock Ac

Microphones: Neumann U-87's U-89's, KM-84's, ATM 21, RCA 77 DX's, Sennheiser 421's, Shure SM-7's Electo Voice RE-15's, RE-16's, RE-20's, RE-55's, CS-15's, AKG-45 's Sony FCM 50's. Barcus Berry pick ups

Instruments Available: Fender Rhodes, Steinway & Yamaha grand pianos, Hammond B.3, Tympani drums X=lophone Vibes, Celeste, Percussion kit (including LP Bongos & Congas) Orchestrs-Bells

Rates: Computer controlled recording, sweetening & mixing to picture \$170/hr, 1' on line editing, \$220/hr; 8/16/24 track recor-ding, \$150/hr, 32/40 track, \$170/hr, 48 track, \$195/hr; 8/16/24 track mixing \$140/hr, sound effects assemble & preparation \$50/hr Call for 16/35 mm Mag rates

******** RIGHT TRACK RECORDING 168 W 48th St., New York NY 10036 49 W 24th St., New York, NY 10010 (212) 944-5770 Owner: Simon Andrews Studio Manager: Kip Kaplan

**** RPM SOUND STUDIOS 12 East 12th St., New York, NY 10003 (212) 242-2100 Owner: Robert Mason Studio Manager: Helene Greenspan Engineers: Neal Teeman, Dom Maita, Dominick Maita Dimensions of Studios: 1000 sq. ft

Dimensions of Control Rooms: 400 sq ft

Tape Recorders: Studer A80 24 track; Studer A80 2 track; Studer B67 2 track, Revox A77 2 track, Scully 280 4 track. Mixing Consoles: Neve w/Necam 8068, 36 in x 32 out Monitor Amplifiers: Crown & Yamaha Monitor Speakers: UREI Time Aligned 811's.

Echo. Reverb, and Delay Systems: EMT 140's, EMT 250 digital reverb. Lexicon Delta-T

Other Outboard Equipment: Dolby LA2A's; 1176 LN's, Kepex, gain brains, harmonizer, phaser sig, metronome, parametric & graphic EO. Pultec

Microphones: Neumann, AKG, Sennheiser, Shure, Beyer, Electro-Voice & RCA

Instruments Available: Grand piano, Fender Rhodes, clavinet, Sonar drum set, Hammond B3, percussion Rates: \$165/hr

**** SAXONY RECORDING STUDIOS INC. 228 Lake St. Rouses Point, New York, NY 12979 (518) 297-6359

Owner: Marc C Chapman

Studio Manager: Marc Chapman

Engineers: Marc Chapman, Dave Unwin. Dimensions of Studios: 35' x 24'.

Dimensions of Control Rooms: 15' x 20'. Tape Recorders: MCI JH116, 24 track; MCI JH110 4 track;

MCLIH110 2 track Mixing Consoles: MCI 500 series 20 in x 24 out. (console was custom built for Studio C of Criteria Studios Miami FLA, in 1970). Monitor Amplifiers: Crown DC300, Bryston 2B, (3) Tapco

20's, Tapco CP500 Monitor Speakers: Custom built Altec 604D's, w/Big Red Time Aligned crossover, Eastern Acoustic MS50

Echo, Reverb, and Delay Systems: EMT Plate (stereo), Lexicon Prime Time Digital, Tapco Reverb, Space Echo. Other Outboard Equipment: dbx 160 compressor/limiter,

White 4100 stereo EQ

Microphones: (4) Sennheiser 421 Instruments Available: Steinway upright grand, Kranich & Bach 5' grand, Hammond M100, Fender pedal steel, Fender Stratocaster, Fender Telecaster, Showman Princeton amps, Ludwig drum set Rates: Please Call

•••• HOWARD M. SCHWARTZ RECORDING, INC. 420 Lexington Ave., Suite 1934, New York, NY 10170 (212) 687-4180 Owner: Howard M. Schwartz

Studio Manager: Gerry Jablonski

•••• SECRET SOUND STUDIO, INC. 147 West 24 Street, New York, NY 10011

(212) 691-7674 Owner: Jack Malken Studio Manager: Rita Leonel.

******** SELECT SOUND

also REMOTE RECORDING 1585 Kenmore Ave., Kenmore, NY 14217 (716) 873-2717 Owner: Bill and Peggy Kothen

Studio Manager: Sales Manager: Chuck Mandrel, Production Manager Dick Bauerle

•••• SIGMA SOUND STUDIOS, INC. also REMOTE RECORDING

212 North 12th Street, Philadelphia, PENN 19107 (215) 561-3660

Owner: Joseph D. Tarsia, Harry Chipetz General Manager. Studio Manager: Vivian Abbott

******** SIGMA SOUNDS STUDIOS OF NEW YORK 1697 Broadway, New York, NY 10019 (212) 582-5055

Owner: Joseph D Tarsia Studio Manager: Gerry Block

.... SKYLINE STUDIOS, INC. also REMOTE RECORDING

36 West 37th Street, New York, NY 10018 (212) 594-7484

Owner: Paul R. Wickliffe III

Studio Manager: Lloyd P Donnelly.

Engineers: Paul Wickliffe, chief engineer; Dave Lichtenstien, Steve Goldman, A.T. Michael MacDonald.

Dimensions of Studios: 30' x 30' x 13' plus isolation booth. **Dimensions of Control Rooms:** 25' x 20' x 10'.

Tape Recorders: Ampex MM 1200 24 track; Ampex MM1000 16 track; Ampex 440-C 2 track; Ampex 440-B 2 track; Ampex 350 mor

Mixing Consoles: Tangent 3216, 30 in x 24 out. Monitor Amplifiers: Yamaha P-2200, McIntosh 2100. Monitor Speakers: Custom UREI 813 "time-aligned", JBL Echo. Reverb. and Delay Systems: EMT 240, AKG BX-20,

APRIL 1981

World Radio History

Lexicon Prime Time DDL, EMT 140 Plate, 10 story marble etaircas

Other Outboard Equipment: 30 channels of Dolby A; 12 outboard EQ's: Pultec, UREI, Lang, Delta-Graph; 8 compressors: Teletronix, UREI and dbx; 7 noise gates: Roger Mayer, Kepex, Eventide Flanger, UREI digital metronome and B&B VCA subarouper

Microphones: Newmann U-47's tube, U-47's FET, U-87's KM-84's; Sony C-37A tubes; AKG 414's, 451's; Sennheiser 421's, 441's; Electro-Voice RE-10, RE-15, RE-20; RCA 77-DX, 44; Altec "salt shakers"; Shure SM-57's, SM-58's, SM-81's.

Instruments Available: Baldwin 1909 grand piano, Fender Rhodes Suitcase 73 piano, Hammond B3 w/Leslie, Gretsch drums, Deagan vibes, vintage Fender and Ampeg amplifiers. Rates: 24 track \$115/hr. 16 track \$95/hr. Block booking rates available upon request.

Direction: Skyline Studios is fast becoming one of NYC's hottest new album oriented studios. We specialize in getting great sounds for the most reasonable "package rates" and many of the major labels (including: Casablanca, Buddah, CBS...) and publishers are using our facility to develop exciting new products Our "live" recording studio is ideal for recording all styles of electric and acoustic music and our custom UREI monitoring system and large comfortable control room provide an acoustically accurate setting for mixing music that will sound as good when you get it home Call Lloyd Donnelly for further information.

******** SOUND HEIGHTS RECORDING STUDIOS. 124 Montague St., Brooklyn, NY 11201 (212) 237-0250

Owner: Vince Traina

Studio Manager: Bob Motta.

Engineers: Vince Traina, Chief Engineer; Questar Welsh, Tim Benedict

Dimensions of Studios: 25' x 30' Dimensions of Control Rooms: 9' x 15'.

Tape Recorders: MCI JH-114 24/16/8 track, Scully 280 4 track; Scully 280 2 track

Mixing Consoles: MCI 416, 24 in x 24 out. Monitor Amplifiers: Phase Linear 700-B, CR; 400, studio,

rown DC 300Å, cue Monitor Speakers: UREI Time Align 811, Big Reds with Mastering Lab crossovers

Echo, Reverb, and Delay Systems: EMT plate, Lexicon Prime Time DDL, Eventide

Other Outboard Equipment: Eventide Harmonizer, UREI par ametric EQ, Pultec EQ, UREI graphic EQ, UREI 1176 limiter/ compressors, UREI LA4A's, Allison Kepex, Roger Mayer gate. All tape recorders variable speed. Pultec filters, UREI digital metronome

Microphones: Neumann U-67's, U-47's, KM-84's, U-64, Senn-heiser 441's, Syncron S10's; AKG 224E, D 170E; Sony ECM 377, ECM-23, ECM 22P; E-V RE-11, 666; Beyer 713, 201's, Altec M5 Birdcage

Instruments Available: Steinway Model A (1914) 7' grand plano, Rogers drums, Hammond B3 organ with Leslie, Fender Rhodes 73 (stereo), drums, percussion devices. All at no extra charge

Extras: Instrument amplifiers, Fender, Ampeg, All at no extra charge

Rates: 24 track \$95/hr; 16 track \$75/hr; 8 track \$50/hr; 4 and 2 track \$35/hr

Direction: Automation by 1981 Credits Harry, Tom & Steve Chapin, B.T. Express, Teddy Randazzo, Pete Fornatale, Elektra-Asylum Records, Dawnbreaker Music, Fantasy Records, Roadshow Records, Ron Hafkine-Bob Heller, Wright & Forrest, WKTU-FM Radio, Brook Benton/Polydor Records, Bob Motta/ West End Records, Bruce Kapler/Mercury Records, Bob Gallo/ CBS, Jayne County/Attic Records, Baby Records, IBC Records, Mike Nock, Johnny Lytle, John Stubblefield, World Saxophone Quartet Marty Cann

•••• SOUND IDEAS STUDIOS 151 West 46th St., New York, NY 10036 (212) 575-1711

Owner: George Klabin

Studio Manager: Bob Schaffner.

Engineers: Jim McCurdy, Dave Baker, Tom Roberts; Chief Technical Engineer Paul Hulse.

Dimensions of Studios: A. 1200 sq ft.; C: 1700 sq ft Dimensions of Control Rooms: A: 20' x 16'; C: 30' x 16' Tape Recorders: 3M Digital Mastering Recorder 32 track; 3M Digital Mastering System M-81.4 track; 2 MCI JH 114-24.24 track; MCI 110B 2 track; MCI JH-110.4 track; Ampex ATR 100.2 track; Magnatech 35mm full coat recorder 3 track Mixing Consoles: API with Allison Fadex Automation, 32/32,

40 in x 32 out; Aengus Series II w/Penny & Giles, 32 in x 24 out. Monitor Amplifiers: McIntosh and SAE

Monitor Speakers: Altec A 19's, 604E's; JBL 4311's, 100's, 99's; Auratones

Echo, Reverb, and Delay Systems: 2 AKG BX 20's, 2 EMT 140ST's; 2 live chambers, Eventide DDL, Harmonizer, Phaser, Omnipressor Loft analog delay flanger

Other Outboard Equipment: UREI 1176's, LA3A, LA2A, dbx 160's; Kepex; Gain Brains; Pultec & Ashly outboard EQ's; dbx and Dolby, color video projection.

Microphones: All popular Neumann, AKG, Beyer, Sennheiser, Electro-Voice, RCA and Shure mics available

Instruments Available: Yamaha 7'4" grand piano, Steinway grand piano, Hammond B-3 organ w/Leslie, full drum sets, bass amps, Fender, Roland, Yamaha guitar amps, misc. percussion, Fender Rhodes, Hohner D-6 clavinet, Musser vibes, Roto Toms, LP conga and tumba, Roland string synth , Syndrum



****** SOUNDMIXERS INC.** 1619 Broadway, New York, NY 10019 (212) 245-3100 Owner: Sound One Corporation

Studio Manager: Bruce Staple

Direction: In an ongoing effort to maintain the highest level of technical excellence, Soundmixers is presently updating Studio A Studio B contains the Trident TSM 40/32 and a Studier A80 2. track in the Sierra/Hidley/Eastlake control room. Studio C. the other Sierra/Hidley configuration contains an MCI 538 Studio D is another of our rooms and continues to maintain Soundmixers highest quality of technical excellence

•••• SOUNDTRACK STUDIOS 77 North Washington St., Boston MA 02114 (617) 367-0510

Owner: Robert A Cavicchio Studio Manager: Robert A Cavicchio

****** SPECTRUM RECORDERS** 151 South Main St., Lanesborough, MA 01237

(413) 499-1818 Spectrum Recorders Inc Owner:

Studio Manager: Peter Seplow Engineers: Peter Seplow, Bill Raimondi, David Fowle Dimensions of Studios: 25' x 30' x 15'

Dimensions of Control Rooms: 16' x 20'

Tape Recorders: MCI JH 100-24, 24 track, Scully 280-B, 2 track, Technics RS 1500, 2, ¼ play track; Technics RS-M63 ssette, 3 head

Mixing Consoles: Audio Processing Systems, Inc. 3000 32 in x 32 out with Fet auto-mute and four band EQ on all inputs

Monitor Amplifiers: (2) Carver, SAE, Pioneer Monitor Speakers: UREI 811 Time Aligned, Altec 604-E uraton

Echo. Reverb. and Delay Systems: MICMIX CSR EQ23. elta-Lab DL-2 Delay-Echo, Loft delay doubler-tlanger Other Outboard Equipment: UREI limiters, dbx limiters, Gates. TNE

Microphones: AKG, Sennheiser, Sony, Shure, EV, etc Instruments Available: Genuine Packard piano, Hammond organ at no charge, Synthesizers available at slight extra cost Rates: Rates are negotiable but always include use of lounge shower and kitchen

****** SOURES PRODUCTIONS INC.** also REMOTE RECORDING

196 Maple Ave., White Plains, NY 10601 (914) 997-1603 **Owner:** Squires Production Inc. Studio Manager: Greg Squires

•••• STARR RECORDING

201 St. James Place, Philadelphia, PA 19106 (215) 925-5265

Owner: David Starobin Studio Manager: Rose Payne Engineers: Carl Paruolo.

Dimensions of Studios: 10 36 x 8 30 x 4 14m (34' x 27'3" x

Dimensions of Control Rooms: 5.6 x 3.66 x 3.20m (16'7" x 12' x 10'6")

Tape Recorders: 3M M79 24 track; Studer A-80 2 track, Revox A-700 2 track Ampex 440 2 track, Sony Quadradial 4 track, cassette machines by Nakamichi, Sony and TEAC; Tapecaster 700-RP cart machine 2 track

Mixing Consoles: MCI 416LM, 24 in x 24 out, Sound

Workshop 1280EQ, 12 in x 8 out Monitor Amplifiers: Crown PSA-2, D-150, (2) D-60, IC 150; Marantz 510, 250 headphone, Bozak CMA50; McIntosh M60 (2); Pioneer QX949; Woodson

Monitor Speckers: Altec 604-E Big Red w/UREI x-over, JBL 4311, JBL L-100, Auratone, Utah, EPI, JVC, Beyer headphones, Audio-Technica electrostatic headphone

Echo, Reverb, and Delay Systems: EMT 240 Gold Foil, AKG BX-20 spring, live chamber, Lexicon Prime Time, Univox, Fender

Other Outboard Equipment: Eventide H949 Harmonizer UREI digital metronome Eventide Phaser, Orban dynamic



Starr Recording Philadelphia, Pennyslvania

situlance controller, (2) LA3A, (3) LA2A, (2) 1176, (4) 175, (4) RCA BA-6A, (2) Gain Brain, (2) Kepex, (8) tube Pultec, (2) dbx 16D, dbx 119, Boss Chorus, Morley Pedals, Inovonics compressor

Microphones: Neumann M-49, U-47, U-48, U-67, KM-56, U-87s, KM-84 S U-47 FÉT, (2) Telefunken 251, AKG C 28Bs, 45.'s, D-12 C-414's, C-412's, D 160s, D-202's, Sennheiser 421's, 441's, MKE-401, RCA KU-3A, 77-DX's; Sony C-38, 22P's; Electro-Voce RE-10, RE-11, RE-12, RE-20, Altec 633; Shure SM 57's; IVC binaural; Beyer M-260, M-500 Instruments Available: Korg vocoder, Yamaha C-3 piano,

Fender Rhodes, RMI piano, Hammond B-3 w/Leslie, Hohner clavinet, ARP and EMS synthesizers. Wurlitzer ivory piano, Fender, Peavey Music Man amps, Tama drums, percussion instruments, Conn Spinet Rinky-Tink, Gibson Mandobass, Fender White Neck bass, Ibanez guitar

Rotes: \$130/br 24 track \$85/br 2 track. Demo rates available

******** SUNDRAGON PRODUCTIONS, INC. 9 West 20th St., New York, NY 10011 (212) 243-9000

Owner: Michael Ewing and Ned Liben

Studio Manager: Mindy Glasberg Engineers: Michael Ewing, Ned Liben, Buddy Pollock

Dimensions of Studios: Approx 20' x 30'

Dimensions of Control Rooms: Approx. 15' x 20'. Tape Recorders: Studer A-80VU 24 and 16 track; Studer 2 track, Studer B-62 2 track, Studer A-67 2 track Mixing Consoles: Roger Mayer Custom English design, 28 in x

mux bus Monitor Amplifiers: Studer, Crown DC 300A, Crown D-6C's

Monitor Speakers: JBL L-200's Tannoy, Auratones, ROR's,

Echo, Reverb, and Delay Systems: EMT stereo, AKG stereo, Lexicon 224 Digital Reberb

Other Outboard Equipment: MXR DDL, Pultec EQ, Roger Mayer noise gates, UREI 1176 limiters, Teletronix limiters, 24 dbx noise reduction, Orban parametric EQ, ARP Phaser (The Pipe), Dolby A for 2 track Studer, Eventide H949 Harmoniz

Microphones: Neumann U-87 U-86, H-89; AKG C-414, D-12; Seppheser MD 421 and more

Instruments Available: Rhodes 88, Steinway grand piano, Hammond B-3, Fender guitar and bass amps, full drum kit (mixed makes), Mellotron Full line of keyboards guitar synthesizers by appointment, and Fairlight CMI computerized keyboard in struments by appointment. Rates: '595/hr

•••• SUNTREADER

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•••• SUPERDUPE

295 Madison Ave., New York, NY 10017 (212) 683-6854 Owner: Herb Gordon Studio Manager: Donna Levis

•••• VANGUARD RECORDS also REMOTE RECORDING 208 West 23rd St., New York, NY 10011 (212) 255-7732

Owner: Vanguard Recording Society, Inc. Studio Manager: Jeff Zayara, chief engineer

****** VIRTUE RECORDING STUDIOS** 1618 N. Broad St., Philadelphia, PA 19121 (215) 763-2825 Owner: Parr-X Corp Studio Manager: Frank Virtue



•••• THE WAREHOUSE RECORDING STUDIOS. INC. 320 West 46th Street, New York, NY 10036 (212) 265-6060

Owner: Lucas/McFaul, Inc

Studio Manager: Bill Barton

Engineers: Bill Robertson, Dave Immer, Dave Marx, Armen Mazlumian, Chaim Zegel.

Dimensions of Studios: Studio A: 27' x 29'; Studio B: 25' x 35'; Studio C: 12' x 15'.

Dimensions of Control Rooms: Studio A: 17' x 19', Studio B: 15' x 25'; Studio C: 12' x 15'; Transfer Room D: 10' x 15' Tape Recordens: Ampex MM1200-24Ww/Multi-Point-SearchtoCue; ATR-104; (2) ATR-102; ATR-101; Sony BVU-200A Video w/MQS-103 Synchronizer, MCI JH-10 16/24 Trk; Scully: 288-16 8/16 Trk; (2) 280 2 trk; 280 Mono; Otari MX-5050 4 Trk; Ampex ATR-700; IVC 6060 video, Magna-Tech MR-135 35MM Mag Stripe.

Mixing Consoles: A: Trident Series 80, 32 in x 24 out w/Allison Fadex and 65 K Programmer; B: Martin Audio Custom 16 in x 8(X3) out, C: Tapco C-12 12X4.

Monitor Amplifiers: Crown DC300A, DC 150A, D75; McIntosh 2120; Apt-Holman, Langevin; Martin; Phase Linear 700. Monitor Spectrars: Hidley/Sterra SM. 3w/White I/c ortage 500.

Monitor Speakers: Hidley/Sierra SM-3w/White ½ octave EQ, Big Reds w/UREI ½ octave EQ; JBL 4311; Visonik; Auratone, Klipsch LaScala. Video Monitors: Sony/Videotek.

Echo, Reverb, and Delay Systems: (2) EMT 140 ST; Space Station; Marshall Time Modulator; RCL/Sennheiser, Prime Time, tape.

Other Outboard Equipment: Compex limiter, Omnipressor, Orban Parametrics & De-Esser, UREI & MXR Vs octave EQ, Martin PEQ500, UREI LA-3A & 1176LN, Kepex II, Ampex: VS-10 Varispeed & Sync-Iock Resolver, Ampex/EECO MQS-103 SMPTE Timecode Video/Audio Sync (three mach.), Tektronics Video Sync; EECO Time Code Generator; UREI Click

Generator; 35MM Mag STripes; 48 track recording & mix. Microphones: Neumann U-47FET, U-67Tube, U-87, KM-84, KM-86; Beyer M-88, M-66, M-260; AKG C-414, D202, D1000; Sennheiser MD421, MKH405; Sony ECM-22, ECM-33p; Shure SM-57, EV RE-20; Nakamichi CM-300; Tram TR50; Countryman; PZM.

Instruments Available: Steinway D, Hammond B-3 w/Leslie speakers, Fender Rhodes, Clavinet, Wurlitzer, Prohpet 5 sythesizer, Ludwig drums, Yamaha & Martin Acoustic Guitars, Ampeg, Fender & Roland Amps, MXR Flangers. Rates: Studio A: \$195/hr; Studio B: \$150/hr.

•••• WIZARD RECORDING STUDIOS P.O. Box 25, Briarcliff Manor, NY 10510 (914) 941-9842, (914) 782-3015

Owner: Wizard Sound Inc., Mike Scott, Pres. Studio Manager: Mike Scott, Dave Marsac Engineers: Mike Scott, Dave Marsac, Frank Ostrander, Warren

Hammer. Dimensions of Studios: Main Room: 13' x 22' x 18'9'' x 12'9'' x

14', "Live room": 15'9" x 15'5" x 13' x 9' x 6' Isolation room: 10'8" x 12'9" x 7'3" x 15'9".

Dimensions of Control Rooms: 20'10" x 13'4" x 14' x 14' x 7'3".

Tope Recorders: Lyrec TR 532 24 track; TEAC 7030, Akai GX2 760-D cassette player; Studer A80 2 track; Nakamichi 582 cassette; Sansui 5100 cassette.

Mixing Consoles: Harrison MR-2, 32 in x 24 out. Monitor Amplifiers: All BGW

Monitor Speakers: UREI 813A, Altec Big Reds, Visonik David 7000, Auratones.

Echo, Reverb, and Delay Systems: EMT 240 Gold Foil reverb, AKG BX-20 reverb, Eventide 949 Harmonizer w/DE-Glitch Mod.), (2) Delta-Lab DL-1 Delay, MXR Digital Delay.

Other Outboard Equipment: (2) dbx 160, Eventide Flanger, Eventide Phaser, Eventide Omnipressor, (2) Pultec EQ's, (2) Symetrix signal gates, Ashly SC-66 parametric EQ, (2) Universal Audio LA 175 limiters, (2) Universal Audio S00-A EQ's, stereo Trident limiters, UREI LA2A, (2) UREI 1176 LN, UREI 535, Dual-10 band EQ, Acoustilog Image Enhancer, Biamp Dual 10-band EQ, Lang PEO-2 EQ.

Microphones: Neumann U-87's; E-V RE-20; AKG 414's, 502E's, 451, D-1000E's; Sennheiser 421; Beyer M-201; Sony ECM 22P's; PML; Shure SM-57's, SM-58's, SM-59, SM-60; (2) PZM. Isstruments Available: Steinway grand piano, Baldwin harpsichord, Hammond B-3 organ w/Leslie, Steinway upright grand piano, Fender Rhodes, ARP String Ensemble, Fender, Marshall and Lab amps, Ashly instrument pre-amp, Mini-Korg synthesizer, Ludwig drums, Tama drums, Roto-Toms, SUT cabinet **Retee:** Available on request.

•••• THE WORKSHOPPE RECORDING STUDIOS also REMOTE RECORDING 40-35 235th St., Douglaston, New York 11363 (212) 831-1547

Owner: Kevin M Kelly and John J Kracke Studio Manager: Rob Bengston

Engineers: Jeff Kracke, Kevin Kelly, Rob Bengston, Stu Gale

Lagineers: Jeff Kracke, Kevin Kelly, Hob Bengston, Stu Gale Dimensions of Studios: A: 33' x 15'; B: NA Dimensions of Control Rooms: A: 15' x 16', B: 11' x 12' Tape Recorders: MCI JH 10 24/16/8 track; Scully 280 2 track;

Sony 850-2 ½ track, Sony 85-4 4 track. Mixing Console: Sound Workshop Series 30, 28 in x 24 out,

Sound Workshop 1280-8, production room, 12 in x 8 out. Monitor Amplifiers: Phase Linear/Dynaco (Dynaco tube amps on all 4 cues)

Monitor Speakers: IBL 4311's, Auratones, UREI 813 Time Alian.

Echo, Reverb. and Delay Systems: Echoplate, Sound Workshop 262, Eventide and DeltaLab Digital Delay.

Other Outboard Equipment: UREI 1176's, Spectra Sonics, dbx, Gately compressors and limiters, Eventide Harmonizer, asst flangers and phase shifters, Kepex noise gates, 30 tracks of dbx noise reduction, 2 channels Dolby

Microphones: Neuman U-67, E-V RE-20's, RE-15's, RE-55, 66's: Sennheiser 421's, ME-40's, AKG C-451's, Sony FCM 22P's; RCA 77DX; Shure 57's, 58's

Instruments Available: Yamaha C.7 7'5" grand piano, clavuret, ARP Strings, Hammond, vintage Fender and Ampegtuble amps, Ludwig drums, melodic toms, rotos, congas, asst'd percussion

Extrons: 20 minutes from Manhattan's Penn station—at the Douglaston LIRR Station on the North Shore of Long Island Additional outboard gear/musical instruments available on request. Good food and accommodations nearby Block Time, 24 hr availability

Rates: Studio A: Call for rates, Studio B (4-track commercial production & voice over) 40/hr

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Dear Mix:

The February issue of Mix contains an interview with Norber: Putnam that I would like to discuss. The paragraph on page 17 regarding digital is misleading to the extent that, after the interview, Norbert came to Woodland Sound Studios and mastered his Jimmy Buffett and Nashville albums using our analog equipment. According to Norbert, we proved the superiority of analog over the current digital system spoken of in the article.

We currently have 1/2" Studer two track equipment, and we invite anyone to make the comparison between the current digital and analog systems.

> Glenn Snoddy Woodland Sound Studios Nashville, TN

EDITOR'S NOTE:

Sorry, we didn't intend to mislead anybody. Unfortunately, during the time it takes to typeset, paste up pages, and print the magazine, people do sometimes change their minds. After further evaluations of the digital system, Putnam did have second thoughts and decided to stick with analog for the time being.

Dear Mix:

My attention was called to your Sound Adv.ce column in the February, 1981 issue of Mix about operational amplifiers. It seems there is a lack of understanding in the field about these devices and their proper use if current devices on the market are an example of general applica-

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URSA MAJOR," Inc. Box 14, Belmorr, MA 02178 = Telephone (617) 489-0303 Telex 921405 URSAMAJOR BELM tions. Your readers may be interested in some sources of data, especially concerning the value of the lead compensation capacitor and other stability requirements of your circuit labeled "Figure 6".

The first is an article by Deane Jensen, the designer of the JE-990 Discrete Operational Amplifier, which was in Recording Engineer/ Producer, Vol. 9, No. 3, pp 42-53, June 1978, entitled Some Tips On Stabilizing Operational Amplifiers. In addition to discussing the calculation of the compensation capacitor based upon the closed loop gain of the device and the gainbandwidth product it also discusses the solution of the unity gain stability problem of such devices as the NE 5534 family by the limitation of the bandwith of the input stage. This draws particular attention to the book Design and Applications, "Burr-Brown", by Tobey, Graeme, Huelsman: McGraw-Hill, 1971, especially the material beginning on page 14 through 17. Additionally the article in the Journal of the Audio Engineering Society, January/February, 1980, Volume 28, Number 12, entitled JE-990 Discrete Operational Amplifier, by Deane Jensen discusses not only the particular design criteria modeling in this case using the H-P CNAP AC Circuit Analysis program. In discussions with Deane Jensen he highly recommends such analysis of circuits to ensure satisfactory stability of the operational amplifier under the control of negative feedback at all times in all circuit conditions below clipping. Such programs if not currently available, probably will be available for small home computers although their speed may not be as fast and use as versatile as those for the H-P.

Another interesting source of information is the page on Ceramic Capacitors, by John Hardy of the Hardy Co. which discusses various dielectrics and their resultant problems and benefits in audio applications.

I am certain there is much more information available, however, I have found this to be an excellent start. Analysis of presently commercially available equipment reveals either a shocking ignorance or lack of concern on the part of design engineers in the audio equipment industry. Perhaps an awareness through articles such as your will lead to significant improvements in equipment design.

Lee Furr Tucson, AZ

Dear Mix:

I've been an avid reader of Mix Magazine since I read my first issue—about a year ago. Since then I've visited area studios who were on your mailing list, begging for any extra copies of your publication they might have.

Your November '80 issue "Inside Tracks" column was a delight, as I found I had an opportunity to receive free issue's being an eight track studio engineer. We too, have a publication called "The Aware Musicians Source", you will find enclosed.

Your magazine has enlightened me on many aspects of recording that have proven to be extremely helpful in our small "neighborhood" facility. Thank you very much for your concern with the small businesses.

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