

FOR THE PROFESSIONAL

the

NATIONAL RECORDING INDUSTRY DIRECTORY

VOL. 4 NO. 4

APRIL 1980

Mix

**Studio Listings
New York
& Northeast**

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Echo and Reverb
Soundmixers**

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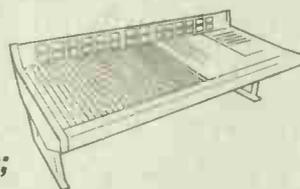
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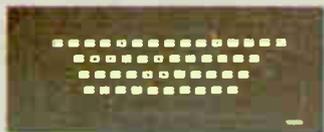
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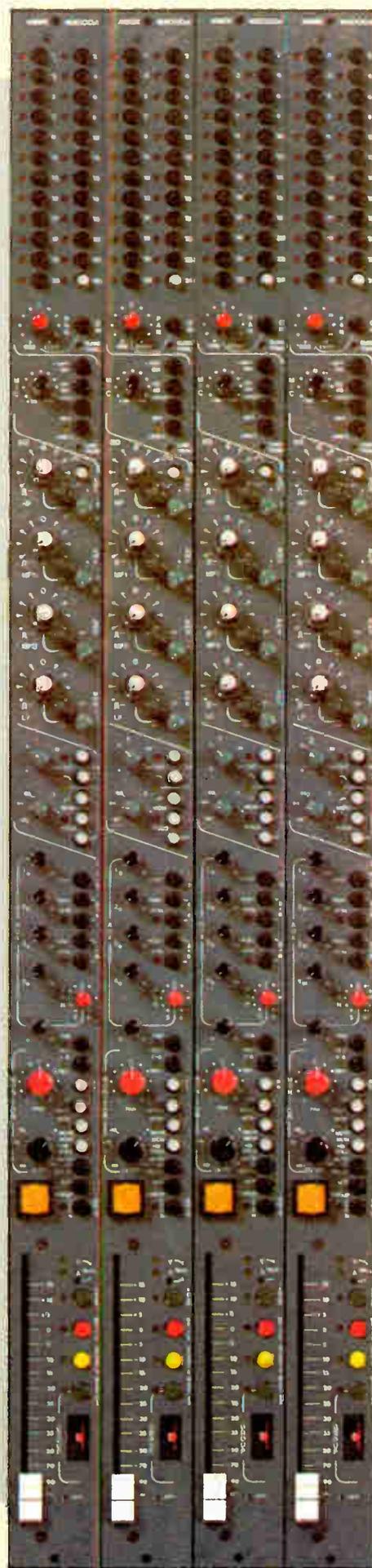
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the Mix

Recording Industry Publications



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Mediasound Studio A
New York, NY

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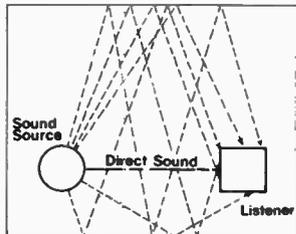
Correction:
Sorry Lyon Recording, we know
you're really in Newport Beach,
CA.

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APRIL 1980

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INSIDE

This month we expand our coverage of the New York recording scene to include the many fine studios of New England, as well as a listing of freelance engineers and producers. Our next update for this area will appear in the October Mix. If you know of a studio that we have overlooked, please have them get in touch with us and we'll do our best to keep them from getting lost in The Mix.

• • •

A graduate of M.I.T.'s engineering school, Dr. Tom Stockham expanded on his research in digital processing to form Soundstream, a true corporate pioneer in the field of digital audio recording and mastering. In Karen Ravich's interview with Dr. Stockham, we learn how Soundstream intends to provide digital recording as a practical and economical companion to analog and how they see the consumer marketplace developing for the new technology.

New York City spawns a unique breed of recording studio. Responding to the nearly inescapable level of hyperactivity, some studios appear to constantly stretch out and compound upon themselves at a pace that makes nuclear fission seem sluggish. Harry Hirsch's Soundmixers is a good example of this very New York kind of studio and Howard Sherman provides us with an inside look at their latest developments. A special bonus to this story is the first part of an exclusive interview with the reknown studio designer Tom Hidley, who details some of the acoustical and architectural features of Soundmixers' newest rooms.

For quite a while we have been wanting to run a major feature on echo and reverberation—one that would provide the background for basic understanding of the behavior of sound, but also would connect the abstract with the practical application level. Fred Ridder, from New York's Martin Audio, came up with just the piece we were looking for as he provides a clear understanding of the basics and concludes with today's state-of-the-art in hardware and software.

Don't miss the May New Product issue of the Mix, where we preview the new audio equipment released for the Spring AES Convention.

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CURRENT

NEW YORK, NEW YORK, A STUDIO TOWN EVENTS

New York is back—or so seems to be the word in the record business these days. After ten or so years of concentrated entrenchment in Los Angeles, the record industry has been steadily returning to the city in which it was spawned. This movement, coupled with a growing acceptance for the New York sound, and a local advertising industry still as solid as ever, has meant a recent resurgence in the New York recording studio marketplace.

Despite a downturn in the record business, which has resulted in tightening of budgets and A&R penny-pinching, New York studios report that conditions are stable and in many cases are on the upswing. Many report recent upgrading of facilities and equipment for adaptation for interlock systems and video post-production. With a strong local club scene, many of the smaller studios are even reporting that demo work is keeping them active.

"I can't tell you what's happening elsewhere but we're very busy," says Hal Selby, owner of the Electric Lady Studios in Greenwich Village. After years of legal hassles and mismanagement, under Selby's direction the House that Hendrix built is gathering new momentum in the New York market. "Sure the record companies are watching budgets closely but there is still plenty of work here."

For the New York studio scene, as well as elsewhere, this wasn't the case in late 1979 when

the record industry ground to a near halt in anticipation of a slow Christmas season. The season wasn't slow and in the early part of 1980 the industry seems to have shown new commitment to new product. And with competition still keen and some hourly rates topping the \$200 mark, there still seems to be room in New York for a new quality facility.

Much attention has been paid, of late, to Blue Rock Studios in New York's Soho district which has featured work by Brian Eno, Bob Dylan, Todd Rundgren, Keith Richards, and the Kirks. "We offer an alternative to the uptown facilities. With one room we offer privacy, as well as the best equipment and engineering," says studio owner Eddie Korvin. "The New York market is still open for something good."

Something good means equipment upgrading for many of the studios that are following the lead of others toward the 46 track SMPTE-code interlock. CBS studios, Sigma Sound, Electric Lady, Atlantic Studios and the Power Station all report that they are upgrading along these lines. Other studios report the addition of new rooms.

Such is the case at the Power Station which is rapidly becoming one of the city's premier facilities, favored by the likes of Bruce Springsteen, Chic, Carly Simon, Blondie, David Bowie and Diana Ross. According to Power Station owner, Bob

Walters, "We are doing a seven day a week, 24 hour business. If our third room was open now we could fill it too. People get addicted to this place. I've heard that word used by a number of people."

Expansion is also the word for National Recorders, a ten room facility specializing in advertising and jingle work which is now in the process of expanding for video production and post production work at the West Side Terminal. "The advertising business is very strong," says owner Hal Lustig. "March has traditionally been a slow month but everything is now holding its own. We have been seeing studios that normally don't do this kind of work coming into the market, but this is the case everytime there is a shrinking in the record business."

"The energy is here in New York City. The creativity is here in New York City," adds Bob Walters. "We work and create. No matter how difficult it is we always have the right musician. I don't know if it's so much a 'New York sound.' But here we get the job done."

NEW CAMEO DICTIONARY

CAMEO, the Creative Audio and Music Electronics Organization, has released their long awaited "Dictionary Of Creative Audio Terms" intended for those who are not necessarily technically inclined. The scope and purpose of the book is to provide a fundamental and working knowledge of creative audio terminology to all who are involved in this field and industry. Illustrations are used to give the reader a quick grasp where words alone might be difficult to understand. The definitions are written in as few words as possible while still covering the basic facts. CAMEO has designed the book to serve as a reference volume for the musician, composer, arranger, producer, sound mixer, educator, or anyone interested or involved with creative audio equipment.

The CAMEO Dictionary of Creative Audio Terms can be purchased for \$4.95 plus \$1.00 for 1st class postage and handling and is available to audio equipment and music dealers in quantity by writing to CAMEO, 10 Delmar Ave., Framingham, MA 01701.

CAMEO is a non-profit organization made up of some 35 professional audio equipment manufacturers and/or distributors, as well as a number of associate members from other support industries.

One of CAMEO's prime objectives is to educate users and dealers with clear, useful and understandable information. CAMEO has also sponsored educational seminars at recent NAMM (National Association of Music Merchants) and AES (Audio Engineering Society) conventions as an additional effort to provide education to this rapidly growing industry. CAMEO plans to provide additional types of educational seminars in the future.

Entertainment Technology '80, the international exposition for the manufacturers of technical equipment and services, will convene at the Los Angeles Convention Center December 11-14, 1980. The event will focus on four main areas: [1] Performance Technology, [2] Video Technology, [3] Motion Picture Technology, and [4] Recording Technology. For more information, write to **Victor Harwood, American Expositions, Inc.**, Post Office Box 935, One Lincoln Plaza, New York, N.Y. 10023, 212/691-5454...

Ampex Corporation is expanding its **Golden Reel Awards** program to all international markets. Since the start of the program in the United States three years ago, Ampex Golden Reels have recognized the technical personnel as well as the performing artists responsible for a gold record. "A unique feature of the program is the cash award that Ampex donates to a non-profit charitable organization chosen by the performing artist," said **Gerhard Wick**, Marketing Manager for Ampex International, the worldwide marketing arm for all Ampex products. "More than \$150,000 has been contributed to worthy causes since the program began," Wick noted. The appointment of **Jim Edwards** to the position of Commercial Sound Product Manager was announced by **Jim Long**, Director of Product Management at **Electro-Voice**. Edwards will have the responsibility for Electro-Voice's extensive lines of general purpose microphones, PA speakers and professional sound reinforcement components for fixed installations plus the various marketing tools required for their successful sale. In this position Edwards will also act as Marketing Manager of Educational Products... **Noww**

Music Productions, Inc. has begun operations in Vancouver, British Columbia, according to the company's General Manager, **Earl Noble**, who doubles as President of Nova Lumber Co., Ltd. in North Vancouver. The company will be headed by Operations Manager **Jay Gold**, who will be headquartered at Noww's offices at 200 Bridge Street, North Vancouver, B.C. The telephone number there is 604/929-1262. The **65th Audio Engineering Society Exhibition and Convention**, held in London February 25-28, was the locale for the European introduction of the **3M Digital Mastering System**, the world's first commercially produced multi-track digital system. The system will also be introduced in Japan in March. Walt Disney Productions' "The Black Hole" is the first motion picture soundtrack to be digitally recorded. The music was scored by award-winning composer **John Barry** who composed scores for "The Deep" and 10 of the 12 James Bond films, including "Moonraker," "Goldfinger," and "Thunderball." He received Oscars for his work on "Born Free" (Best Song and Best Original Score, 1966) and "The Lion In Winter" (Best Original Score, 1968). "The Black Hole" is the first film Barry has scored for Disney. The first digital multi-track recording of an opera was made during December and early January by **Herbert von Karajan** for **Polygram**, utilizing **3M's 32-track Digital Mastering System**. The recording of Richard Wagner's four and a half hour opera "Parsifal" utilized the Berlin Philharmonic Orchestra and the chorus of the Berlin Opera. Analog tapes were also made of the sessions. The recording is an-

VIEWPOINT

APRS STUDIO CONTRACT

England's Association of Professional Recording Studios provides a forum to discuss ways in which technical and operational standards throughout the recording industry can be improved, as well as presents numerous engineering courses and trade exhibitions.

Currently some 160 studios are full or affiliate members of the Association. During last year it was also decided by the executive committee that radio and television production studios would be allowed to join APRS.

After three years of discussions between the Executive of the APRS, its legal advisers and the Office of Fair Trading, the Association has released to its members the updated edition of its "Conditions of Hire of Recording Studios." The new contracts are designed to safeguard the interest of APRS members by setting out certain, well-defined, conditions of hire to prospective customers.

One important addition to the new Conditions of Hire, which are copyright the APRS and may only

be used by members, is limited liability in the event of damage or delay in delivery of a tape. A new clause in the APRS Conditions of Hire limits the claim that a customer can make on a studio in respect of any master tape. Hitherto the majority of recording studios were unprotected and could be faced with unlimited damages, either because of no express term to this effect being included in the contract of hire, or by reason of subsequent changes in the law. The new clause also provides a means by which APRS members may insure a master tape for a specified greater sum, at the customer's option and expense.

Other clauses in the new Conditions of Hire give APRS member studios the right to dispose of tapes after six months, provided the procedure for notifying a customer is carefully followed, and also for a studio to retain copyright in a recording until the customer has paid their bill. This latter clause also enables an APRS member studio to bring pressure to bear on a record company using or proposing to use a tape if a non-paying customer subsequently tries to sell it.

Further details of APRS membership and the new Conditions of Hire of Recording Studios can be obtained from the Secretary, Edward Masek, 23 Chestnut Avenue, Chorleywood, Herts. WD3 4HA. Telephone Rickmansworth 72907.

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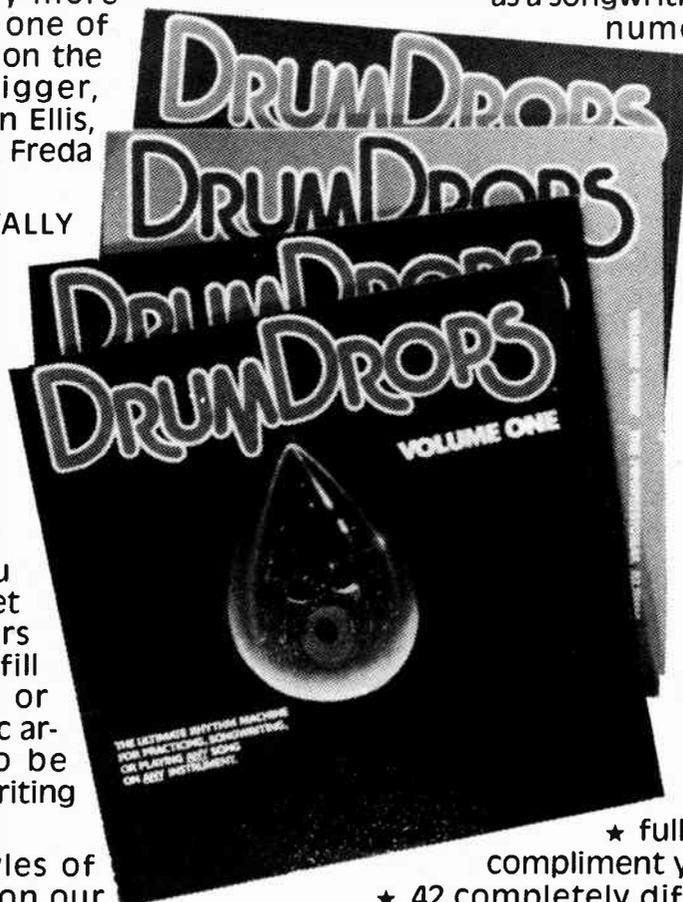
Recorded at Sound City . . . one of Hollywood's hottest 24 track recording studios, where Fleetwood Mac, Foreigner, and many more have recorded. Played by one of the top session drummers on the West Coast . . . David Crigger, whose credits include: Don Ellis, Burt Bacharach, Brian Auger, Freda Payne and many more.

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★ 42 completely different contemporary styles that you hear on the top recording artist's albums.

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- | | |
|----------------------|----------------------|
| Side 1 | Side 2 |
| 1. Introduction | 1. Funk Rock |
| 2. Fast Disco | 2. Straight Rock |
| 3. Slow Disco | 3. Medium Rock |
| 4. Jazz | 4. 3/4 Country Rock |
| 5. Bluegrass Country | 5. Hard Rock Shuffle |
| 6. Country Swing | 6. Latin Rock |
| | 7. Rock Ballad |

VOLUME TWO

- | | |
|------------------------|------------------------|
| Side 1 | Side 2 |
| 1. Introduction | 1. Jazz Fusion |
| 2. Samba Disco | 2. Hard Rock |
| 3. Pulse Disco | 3. Country Rock |
| 4. Medium Rock Ballad | 4. Syncopated Funk |
| 5. Medium Rock Shuffle | 5. Country Rock Ballad |
| 6. Raggae | |

VOLUME THREE "THE PROFESSIONAL ALBUM"

- | | |
|-------------------|--------------------|
| Side 1 | Side 2 |
| 1. Intro | 1. Jazz Fusion II |
| 2. Straight Disco | 2. Afro Cuban Jazz |
| 3. Salsa Disco | 3. Jazz Funk |
| 4. Rhythm & Blues | 4. 1/2 Time Rock |
| 5. 5/4 Rock | 5. R&B Ballad |
| 6. 7/8 Funk | |

VOLUME FOUR "THE LIGHT ROCK ALBUM"

- | | |
|----------------------|-----------------------|
| Side 1 | Side 2 |
| 1. Intro | 1. 3/4 Rock Ballad |
| 2. Half-Time Ballad | 2. Funk Ballad |
| 3. Latin Ballad | 3. Half-Time Shuffle |
| 4. Swing Ballad | 4. Uptempo Light Rock |
| 5. Medium Light Rock | 5. Laid Back Blues |
| 6. Slow Rock Ballad | |

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EVENTS

anticipated for release in Spring 1981 **Mark Damon Cohen**, Marketing Directory for the Scientific Audio Electronics Professional Products Group, today announced the appointment of **Shalco, Inc.** of Pleasant Ridge, Michigan. Shalco will represent **SAE Professional Products** in the state of Michigan. The seventh in the highly successful series of **APRS** technical courses for studio engineers, managers and directors will be held from September 13 to 19, 1980, at the University of Surrey. Organized by the Association of Professional Recording Studios, the week-long course covers a wide range of technical subjects relating to the increasingly complex world of music recording. For further details of the 1980 APRS studio engineers course contact the Secretary, Edward Masek, 23 Chestnut Avenue, Chorleywood, Herts WD3 4HA. Telephone Rickmansworth 72907... **David**



Clark Duffey

Hadler, recently appointed National Sales Manager of **Quad/Eight**, comes to them with a wide range of knowledge and experience in professional audio. His experience includes design, application and consultation with a complementary background in marketing and management... **Zar Productions** in Mill Valley, California, announces the formation of **Video Wheel Production Services** specializing in video projects for cable, pay cable, cassette and laser discs. For more information, 415/388-1080... **Clark Duffey** has been named market development manager for professional audio products, by **3M's** Mincom Division. In his newly created position, Duffey works closely with marketing, sales and research personnel and with customers, to develop and expand the market for 3M's entire professional audio line, with emphasis upon the digital mastering systems. He headquarters in St. Louis. Appointment of **Richard Chilvers** as sales manager for **Neal Ferroglyph U.S.A., Inc.** is announced by A.J. Helliwell, Managing Director of the company's U.K. parent, Neal Ferroglyph Ltd. Chilvers will be responsible for sales and service operations in the U.S. for Neal cassette recorders, Ferroglyph open reel recorders, and audio test equipment, and will be located in the U.S. firm's headquarters at 652 Glenbrook Road, Stamford, Connecticut 06906 (203) 348-1045... **Dave Kelsey**, President of Audio Concepts, Inc. (A.C.I./Dave Kelsey) has been named as the new President and chief executive officer of the **Filmways Audio Group** companies consisting of Filmways Audio Services, Wally Heider Recording (Los Angeles, & San Francisco) and Heider Scoring Service. The principle assets of his company, A.C.I., a professional audio equipment sales co. will be acquired and will become part of the audio group. Both Larry and Bob Estrin will remain with the audio

group **Starfleet Productions, Inc.** of Boston, and **Multivision, Inc.** of Canton, Massachusetts announce the establishment of a cooperative relationship for the production of state-of-the-art audio/video projects. For further information contact: Harnet Bellush, Starfleet Productions, Inc., (617) 482-4881... **Phillip Dudderidge**, Managing Director of **Soundcraft Electronics Ltd.**, London, England, announces the appointment of M. Thomas Taylor as President of Soundcraft, Inc., Kalamazoo, Michigan. Tom brings to Soundcraft six years of organizational and sales experience as President of Pro-Co Sound, Inc., a manufacturing firm and retail outlet of professional quality sound systems... **Stanley Silverman** has joined **Ampex Corporation** in the newly-created position of Director of Market Planning, it was announced by Ridley Rhind, Vice President of Marketing. Silverman will evaluate and forecast the trends and requirements of the markets served by Ampex's four manufacturing divisions in his new position. He reports to Rhind. **Thomas H. White** has been elected President of **White Instruments, Inc.** in Austin, Texas. Mr. White joined the firm in 1964 after studying mathematics at the University of Texas. He became Executive Vice-President in 1972 and served in that capacity until becoming President **Gifford E. White**, who founded the company in 1953 and is the immediate past-President, has been named Chairman of the Board. **TDK Electronics Corp.**, manufacturer and marketer of quality audio and video recording tape products, today announced the presentation of its Rep of the Year Award to the **Len Haas Company** of N. Miami Beach, Florida and its Advertising and Merchandising Award to **Sam Goody's** of Maspeth, New York. **Neilson/Anklam, Inc.**, of Studio City, California, have been appointed the advertising agency

for **UREI**... **Fred Muhl**, formerly Manufacturing Manager of RCA Records and Operations Manager of GRT Corp., has been named Operations Manager and **Bob Taylor**, formerly Western Regional Sales Manager of James B. Lansing Sound (JBL), has been appointed National Sales Manager, loudspeaker products, of

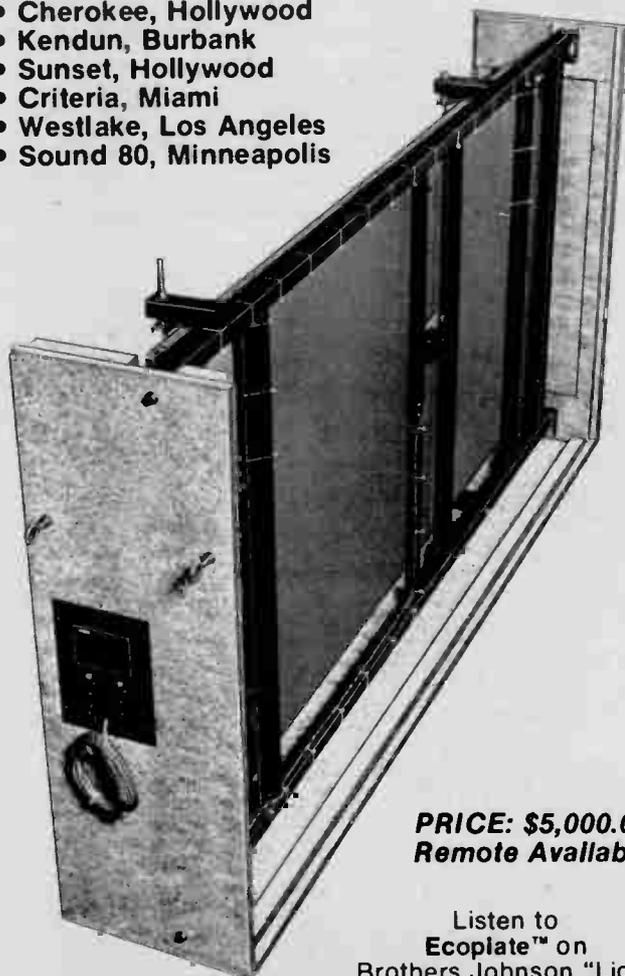


Robert E. Morrill

Cotec Gauss The appointment of **Robert E. Morrill** to the position of VP Marketing was announced today by Robert Pabis, President of **Electro-Voice, Incorporated**. For the past three years Morrill was VP-Marketing at Phase Linear Corporation of Lynwood, Washington. Prior to joining Phase Linear he was West Coast Sales Director for Hy-Gain Electronics, and Assistant Marketing Manager for U.S. Pioneer Electronics. **RTS Systems**, a subsidiary of **Compact Video Systems, Inc.**, is now an official supplier to **R.C.A.**, Broadcast Equipment Division. RTS Systems' complete line of professional inter-communication equipment can be purchased through any R.C.A. sales office throughout the world.

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"The density of reverberation and the shape of the reverb curve are such that I can use more of it, yet it doesn't swallow the music. It's just great." **Tom Jung**, President, Road 80 Recording.

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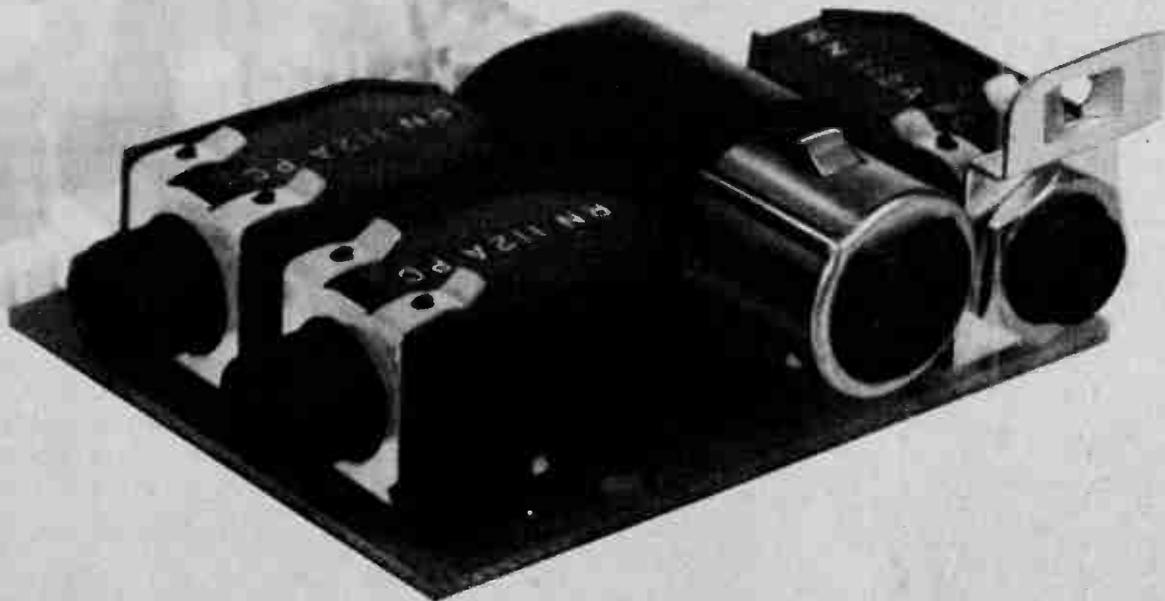
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Professional

Voltage Controlled Amplifiers

by Larry Blakely

VCA's (Voltage Controlled Amplifiers) are being used in some of today's recording consoles (usually the automated type) and in certain types of signal processing equipment as well. There seems to be a lot of talk and head scratching about the various available types of VCA's and which is better for various applications. In order to shed some light on this timely subject, let us look at the VCA as well as the conventional amplifier to determine the differences and benefits of each.

A conventional amplifier can be defined as a device used to increase the level of a signal (amplification). These conventional amplifiers only have the capability to **increase** the level of a signal and will not **decrease** the signal in level. Therefore, the amplifier sits in the signal path usually with a pre-determined amount of gain (amplification). Some amplifiers have an adjustment for the desired amount of gain such as we might find on a microphone pre-amplifier. However, the minimum amount of gain is that of "unity" (sometimes referred to as a gain of 1). A unity gain amplifier will pass the signal with no change in level (given level in, same level out). It can be seen that these conventional amplifiers pass a signal at the same level (no amplification) or increase the level by whatever amount of gain the amplifier is set to provide. These amplifiers are not designed to attenuate a signal but only to amplify.

What happens if you want to reduce (attenuate) the level of a signal when using a conventional amplifier? Since the amplifier is usually pre-set for a given amount of gain, if the level is to be reduced, a resistor of some type is placed prior to the amplifier input to reduce the signal level before entering the amplifier. If the amplifier were set for 30 dB of amplification, a signal entering the amplifier would leave at a 30 dB higher level. If, however, a resistor were placed at the input to reduce the incoming signal level by 15 dB, the net increase in level at the amplifier output would be 15 dB. Likewise, if the resistor were to reduce the incoming signal level by 30 dB, the net result at the amplifier output would be "0" dB level increase (unity gain).

However, if the incoming signal were reduced in level 50 dB, the net result would be a signal loss (attenuation) of 20 dB.

The common level control is a variable resistor that is typically used to reduce the level of a signal and, in most cases, is placed in front of an amplifier. When recording consoles are designed, they utilize many amplifiers as well as many pots (level controls) and resistors to decrease the signal levels prior to entering the amplifiers. When the signal level is decreased prior to entering the amplifier, it will often reduce the signal-to-noise ratio of the amplifier and often add audible noise. As a signal is routed through a recording or mixing console it is first amplified by the microphone pre-amplifier and then routed to a fader (variable resistor) that is used to decrease the level prior to entering another amplifier. The signal then leaves that amplifier and is routed elsewhere through another fixed resistor or pot (variable resistor) into another amplifier. This process continues, although it can be seen that this is a rather crude method for increasing and decreasing the levels of audio signals.

I would like to point out that this procedure is not only common to mixing consoles, but in most every type of audio equipment where the level of the signal is increased or decreased.

What is a VCA and why is it different or better? It is a new type of amplifier that is designed to **increase** or **decrease** gain over a wide range. A high quality VCA will perform this function over in excess of a 100 dB range. The VCA can change its gain at a rapid rate over this wide range in level while maintaining excellent bandwidth (frequency response) and signal-to-noise. The gain of the VCA is controlled by a DC control voltage. Using VCA's, only DC control signals (not audio signals) need to be routed to front panel controls and the gain of audio signals does not have to be amplified, then reduced in level, and amplified again.

What are the benefits? First of all we can say goodbye to all of those noisy pots. When using a conventional amplifier the audio signal is routed to and controlled by the pot. Using a VCA the pot only adjusts the level of the DC control signal and the VCA controls the signal level. Remote control is a breeze! The conventional method of remote controlling a signal is to run the actual signal down a long wire to a pot or control and then back to the main equipment again. This method is usually susceptible to picking up pops, radio frequency interference, as well as signal or frequency response losses. When using VCA's, the signal remains at the main equipment and is controlled by the VCA. Only the DC control signal is routed to the remote location, which

is not susceptible to any of the undesired noises or interference.

Automation for mixing consoles utilizes VCA faders. The signals recorded on the tape control track will provide the correct DC control signals for the faders to make the appropriate level changes quickly and accurately. Grouping and Sub-Grouping can be easily done with VCA's by a simple method of connecting the DC control lines together. Precision faders can be made to control any number of signal channels with the use of the required number of VCA's (one per channel) and a single pot (which will control the DC control signal for all the VCA's). Conventional multi-channel precision pots or faders are very expensive. Mixing consoles can be constructed with VCA's and not require the building up and throwing away of gain (amplification) and provide better signal to noise ratios.

VCA's are now being used in signal processing devices, such as compressor/limiters, providing excellent results due to the quality VCA's ability to change gain rapidly and accurately over a wide range (in excess of 100 dB). VCA's are also being used in expanders and in some types of compander noise reduction systems, as well. Synthesizers have used VCA's for many years and their technology could not exist without them. Synthesizer manufacturers do not utilize the expensive high quality VCA's as they are not necessary for the majority of synthesizer functions, thus many synthesizers do have a higher noise level than most quality audio equipment.

What lies in the future? It has been said that an inexpensive, high quality Voltage Controlled Amplifier will have as large an impact on the audio industry as the Integrated Amplifier. The day will come when most every type of audio equipment will utilize VCA's. When these lower cost VCA's become available, they will be used for applications such as Voltage Controlled Equalizers in mixing consoles adding to the automated mixdown functions. Mixing consoles and many other types of audio equipment can be made better and for ultimately less money.

There is a wide range of VCA's available today, and those that can be used for high quality audio work must meet stringent specifications. Currently there are high quality Voltage Controlled Amplifiers available from Allison Research and dbx. Yet another high quality device called a Voltage Controlled Attenuator is also available from B and B Audio. The benefits that the VCA has to offer the audio industry are many and its future is a bright one. The VCA will have a great impact upon professional audio and we are now only seeing the tip of the iceberg. ❁

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ON TAPE MACHINE ALIGNMENT

by Dr. Richie Moore

One of the most important quality control items in the studio has got to be tape machine alignment. This is an area in which there seems to be much confusion and, for this reason, I will attempt to shed some light on the process.

Mechanical Alignment

The first procedure in machine alignment is de-magnetization. It is essential that the head demagnetizer only be used with the equipment turned off. If this is not done the magnetic flux created can blow the output transistors, as well as decrease the effectiveness of the rest of the components.

Manufacturers go to great lengths to keep residual magnetism very low on the tape decks. The use of mumetal in the heads and stainless steel in the rest of the deck helps insure that there will be no excess magnetism in the transport. However, if the heads are not properly demagnetized after about eight hours of use, the tape could become damaged. Approach the heads in a straight on fashion with the demagnetizer. Move the protected tip up and down the center of the head at least a half dozen times; and move it away from the head at least two feet while continuing the up and down motion. This action should be performed for each head and also all guides in the tape path. Any area which creates a reading of 0.8 gauss to 2.0 gauss can deteriorate 1/10th of a db at 12 KHz on every pass the tape makes through the area.

The cleaning of the tape path is also very important. Even the most advanced tapes available leave some oxide on the rollers and the tape heads. These oxide accumulations tend to degrade the overall performance of the recorder/reproducer. Manufacturers recommend that the cleaning procedure be done at least every eight hours of use, or more often if visual inspection warrants. To clean the tape heads and guides most effectively, I recommend cotton swabs with flexible plastic stems and denatured woodgrain alcohol which dries fast and leaves no residue.

Periodic check of components that need lubrication is best left to the tech people. Each machine has a manual that describes the various moving components and their cleaning methods. If it is even suspected that a moving part is stiff, it should be checked out immediately. This can affect the total operating performance of the machine.

The tape path alignment is a very critical area in the alignment procedure. It need not be done every day, but should be checked often. This alignment consists of checking turntable height, tape tension, pinch roller adjustment (if there is one), and flutter.

Turntable height accuracy assures that the tape will not encounter any undue friction as it passes from supply to take-up reel. There are several components such as tape guides, head guides, and other stations that the tape must

touch in its travels. If the turntable height is not proper the hardware may skew the edges of the tape, thereby damaging edge tracks and their effective use. Also, the dragging can create tape flutter.

Tape tension adjustment is very important to the contact of the tape to the heads, and also affects the machine start up in any mode. Tape tension problems can cause deviations in the machine's operating speed. Proper tape tension also assures that the tape will pack evenly in both directions.

The final mechanical concern is the pinch roller adjustment. This does not apply to some current machines such as the Ampex ATR series and the Stephens constant tension machines. On machines that do have pinch rollers, their pressure adjustment is very critical to the operating speed. Too little pressure and the machine will run slow, and too great, it will also cause the machine to run slow, and can cause damage to the capstan motor and the tape by jerking it when the capstan servo closes at the initiation of the play command. Tape spillage is also a by-product of this.

Electronic Alignment

Having made sure that the machine is in good mechanical alignment, we can now move on to the electronics. The electronics alignment is the session-to-session adjustment of the machine that allows for its optimum audio performance.

The first order of business is to set the reproduce alignment, using the reproduce reference tape. There are several manufacturers of these tapes, such as Ampex, MRL, and STL, all having in common that they are manufactured to NAB standards. To obtain the accuracy required in the manufacture of test tapes, each tape is an original. Manufacturers of standard test tapes hold the recorded frequency level to plus or minus 0.25 dB or less. A voice announcement precedes each frequency for identification.

Most test tapes in use are full track, which means they are recorded over the entire width of the tape. When this is done, readings below 10 KHz become progressively invalid as the frequency decreases. This is caused by the low-frequency fringing effect of the reproduce head as it picks up additional flux beyond the track width of the head while the frequency decreases. This error, being wavelength dependent, becomes worse as the wavelength increases. Most tape machine manuals provide the amplitude correction factors to be used when setting operating levels using a full track alignment tape. A close look at the way the amplitude varies on the machine once the 1.0 KHz is set to zero level will show the obvious necessity of these tables.

At the top of the test tape, the announcer will identify the tape. For example, the announcer will state that the following tone is 1000 Hz recorded at the standard operating level of 185 nWb/m (nano Webers per meter). He will also announce if the recording is full track or not, and if there is any compensation used on the tape for equalization. He will then state the recorded levels of all following tones. The tones are 12 seconds in length, with the exception of the opening 1.0 KHz tone of 20 seconds and the azimuth adjustment tone of 16.0 KHz which is 60 seconds in length. I might interject at this point that 12 seconds of tone at 10.0 KHz is never enough. Someone should market a test tape that contains 60 seconds at 1.0 KHz, 10.0 KHz, and 60 Hz, at a reduced rate so that machines could be checked rapidly at these key frequencies. They also could be used by students to do machine alignment without fear of ruining a key test tape.

As far as caring of the test tape, it should

always be stored as a prized possession. Never store test tapes where there are temperature or humidity extremes, and always remove the test tapes from equipment only after normal play or spool mode. The tapes come and should always be stored tails out. It might be advisable to keep them stored in a ziplock plastic bag to keep them free from dust. Test tapes are an investment and should be treated as such.

Test tapes today are recorded at various levels and equalization. It is because of this that some engineers and tech people have been a little confused as to their operating level. Ampex standard operating level is 185 nWb/m. Operating level is set by reproducing a standard alignment tape of known short circuit fluxivity, and adjusting the tape machine's reproduce gain for the desired operating level. Standard operating level of 185 nWb/m has a relative level of zero at a frequency of 700 or 500 Hz. Elevated operating level is +3 dB at 260 nWb/m and a frequency of 1.0 KHz. Recommended operating level for high-output tapes such as Ampex 456 and Scotch 250 is +6 dB at 370 nWb/m at a frequency of 700 Hz. In short, when setting operating levels, a 185 nWb/m test tape should be set to read zero level. A 250/260 nWb/m test tape should read -3dB, and a 370 nWb/m test tape should read -6 dB.

It is wise to set up the operating level for the machine according to the tape manufacturer's guidelines. The operating level used is a matter of personal preference on the part of the engineer. It should be noted that with most current machines Ampex 456 or Scotch 250 is recommended, with an operating level of 370 nWb/m. This level will provide the lowest distortion and adequate headroom prior to tape saturation. Use of these high output/low noise tapes with a lower operating level will degrade the signal-to-noise ratio but will lower distortion and increase headroom. With other types of tape, other operating levels may be preferable. For example, when using 406/407 or 206/207 tape, an operating level of not more than 260 nWb/m is recommended.

After this relevant sidetracking on test tapes, let us continue with the reproduce alignment. After we have set our operating level, we proceed to set high frequency equalization using the 10 KHz tone on the test tape. We do not set the low frequency equalization in the reproduce mode because of the fringing effect, although we may set it for an on-scale reading.

The third tone on the test tape is 8.0 KHz for coarse adjustment of the playback head azimuth. If you have an oscilloscope, connect it to the edge tracks of a two-track, or tracks 2 and 23 of a 24-track. Set the scope up to create a Lissajou pattern. Utilizing this means, when the signal creates a 45 degree right angle it is in phase and azimuth is correct. You can minimize the average phase error by carefully adjusting the head azimuth adjusting screw while playing back one of the following tones: a) 30 in/s-15 KHz, b) 15 in/s-10 KHz, c) 7.5 in/s-5.0 KHz, d) 3.75 in/s-2.5 KHz. If a scope is not available, you may use the combining of two channels of equal output, and achieve a maximum signal output using the highest frequency on the referenced tape. As stated before, the 8.0 KHz tone is used for the coarse azimuth adjustment, and the 16.0 KHz for the fine azimuth adjustment. Always be sure to turn the azimuth adjustment screw several turns counter-clockwise, and then back to make sure that you achieve the proper peak. At slower tape speeds you may encounter a false secondary peak, and the above routine ensures that you avoid it. You may also check the phase and azimuth settings of the record head by putting the machine in sel-sync and repeating the above procedures. By switching back and forth from play to record head you can make sure that the phase and azimuth adjustments are in order.

A very important factor for quality of recording is the physical alignment of the record and playback heads. The record and playback heads in the head stack have five adjustments: height, zenith, rack, wrap, and azimuth. Azimuth is the only item that should be checked every alignment, but the rest should be checked frequently if the machine is used extensively or moved around. The tests are quite simple and expedient. Height can be adjusted by using a tape of the proper track configuration and adjusting the head height for a maximum output at 1.0 or 3.0 KHz. Zenith is adjusted by covering the center of the head with white grease pencil and playing a piece of tape (please, *not* the reference test tape) to observe where the grease pencil wears off. The pattern of wear should be parallel. If they are not, the screws on the head block should be adjusted. Wrap angle is checked the same time as zenith, by making sure that the wear pattern is centered around the gap. Need for rack adjustment is indicated if the grease pencil wear pattern is wider on the record head than the playback head and vice versa. A quick way to check azimuth is to skew the tape across the heads and see if there is any increase in signal. If there is, adjustment is necessary. If all the above is somewhat understood, it is now time to do the record alignment.

During the whole course of the reproduce alignment we have been setting up a definite set of parameters for the record alignment. We now have a basis on which to accurately set our record levels, the first of these being our input level. Measuring with an ac voltmeter, we set up our sends from the console to read +4, or, 1.2275 volts/rms, if that is our choice. Sending a tone of 1.0 KHz to the machine, with the machine set to reproduce, pull the level send down to read on-scale. (An on-scale reading is one that will not go off the readable area of the VU when adjusting the bias.)

The first and most important adjustment that we make for the record alignment is the bias adjustment. The bias frequency varies from one machine manufacturer to another. MCI states 1.0 KHz as the alignment frequency on their machines, while Ampex suggests 20 KHz for 30 ips, and 10 KHz for 15 ips in doing the bias adjustments. Both 250 and 456, as well as 406 and 206, have differing levels of overbias values that should be used in setting up the machine. "Overbias" is the amount of bias that you drop to after reaching the bias peak. For example, Ampex 456 tape has an overbias value of 2.75 plus or minus 0.25 dB. This means that you turn the bias control fully counter-clockwise to reach a zero bias reading on the channel VU meter, then you proceed to turn the control clockwise until it reaches a peak and starts to fall back down. You then let the meter drop down 2.75 dB from the top of the peak. You have now "overbiased" this channel. Proceed to do this to the rest of your channels of the machine.

Once you have finished biasing, reset the console output to read zero (+4 dBm) on all channels. Proceed to set the machine in reproduce, still, and adjust the record gain to zero level on the VU meter. When this is accomplished, set the machine to input and adjust the record calibrate to indicate zero level on the VU. Switch between reproduce and input to make sure that your adjustments are correct. Next, set the oscillator to 10.0 KHz on the console and adjust your high frequency record setting to read zero level. You can, after this is done, fine tune the azimuth of the record head and re-check your levels at both 1 and 10 KHz. After all this is done, sweep the audio oscillator from 25 Hz to 400 Hz and set the optimum level for the low frequency reproduction. The last thing you should do is set the sel-sync gain. Before that, print 60 seconds of 1.0 KHz, 10.0 KHz, and 100 Hz at zero level on the tape. These tones will allow you to set up the machine the same way anywhere else, and on any piece of equipment. Doing the sel-sync gain last assures you of almost identical levels when in that mode.

Machine alignment is an important key to quality recordings, and great sound is the key to satisfaction and success. Understanding opens the door.

Until next time, have a great MIX! 🎧

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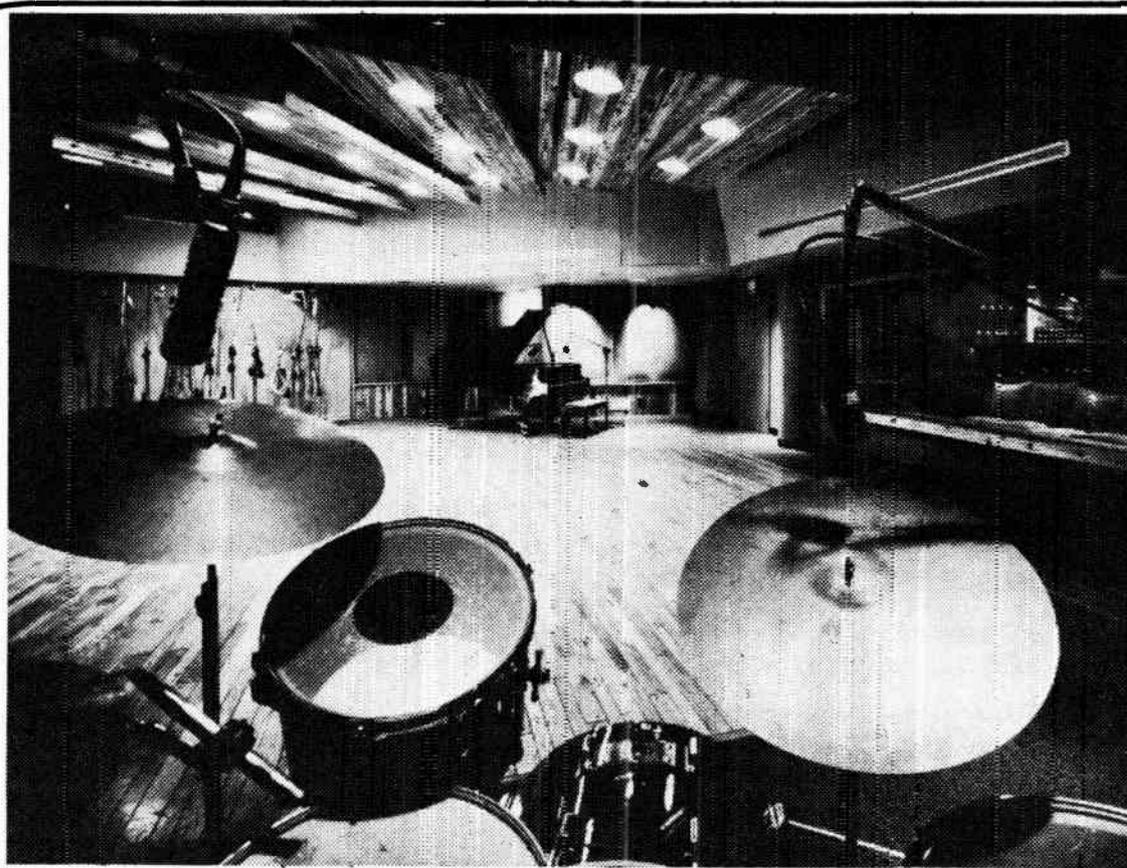
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by Dennis Buss and Chris Haseleu

Advertising is a mystery to most studio owners. It takes on this quality because it is difficult to identify what is the most effective method to advertise the studio's services, and the results are very often impossible to measure.

Responsible advertising is not hype. If this is your view of studio marketing, then you have been exposed to inappropriate advertising techniques. The sole objective of advertising is to get information out to "qualified" buyers on what the studio has to offer. This is also known as "targeting the market." Simply, it is the identification of a group of buyers who have a need for the studio's services and then directing advertising efforts toward this market. It is not an easy task, but it is the first step in selecting which promotional methods are appropriate for the recording studio.

WORD-OF-MOUTH. Because this technique isn't "paid-for" promotion, in academic circles it usually isn't considered a viable advertising alternative. However, in our case it can be used to achieve our purpose of reaching qualified buyers. The results of a survey the authors conducted recently indicated this method is used extensively by small to medium-size studios (83.3% of the respondents). This is probably due to the fact that word-of-mouth doesn't cost anything, it doesn't take much of the studio owner's time, and it is, by far, the most credible informational vehicle: a good word from a successful producer can be worth many future sales. In addition, the effectiveness of this technique can be increased by public relations/publicity activities. For instance, virtually all of the industry professional organizations (AES, SPARS, CMA, etc.) journals and every trade publication will consider publishing, in special sections, interesting developments about the studio, if submitted in proper "press release" form. The only cost to the studio owner is the price of postage.

However, there are some disadvantages. Do you remember back when your studio just opened — how hard it was to let the industry know you existed? This is a problem of this method — usually it takes a long time to get information to the marketplace. It is also difficult to target your market with this technique. Directing your message at the right artist, producer, or agency and monitoring what is being said is next to impossible. Effective word-of-mouth can be used to improve, or sustain a studio's reputation, but other uses are limited. If the studio operator desires to announce the addition of a new service, the expansion of the facility or similar current developments, this technique is normally inappropriate. This leads us to our final comment on word-of-mouth promotion: to be effective for the studio, it must be supplemented with other types of advertising.

DIRECT MAIL. The market for the services of a recording studio is a selective, esoteric body of clients with specific needs. The primary advantage of direct mail advertising is its capacity to target this specialized market. This technique

can be one of many forms: brochures, catalogues, letters, bulletins, etc. If done properly, it is also possible to get the personalized promotional message to qualified buyers in a relatively short amount of time.

The above benefits of direct mail advertising can be illustrated by a situation one of our clients faced early last year: decreasing sales due, primarily, to the industry slowdown. The results were frequent down-times, particularly at night. After a cost analysis, we suggested filling the excess studio capacity by offering evening "budget" hourly rates to musicians and producers for demo taping sessions. A one-page flyer was put together announcing the new program, and it was mailed out to about 1,200 musicians. Based on the breakdown of printing cost figures below, the total spent by the studio was under \$250.

*Simple artwork for studio logos or brochure layout will run between \$20-\$45 an hour.

*Typesetting a flyer with a type style selected from many available choices will average about \$20 an hour.

*Printing costs for one side of the paper, using black ink, will range from \$13-\$20.

*Colored 70 lb. paper stock averages for about \$3 per one hundred pieces.

*First class "bulk" (15¢ per ounce) is normally the cheapest way to mail this type of campaign.

Our mailing list was developed from an A.F. of M. (musician's union) membership list, and past customers. The results of the new program were so successful, the studio owner is still offering the special rates.

The key to our campaign was that we were able to develop an excellent mailing list. In most cases, locating an effective source of qualified buyers is a problem. For instance, a studio which has just added a tape duplication service, would like to inform the industry through direct mail. This will be no easy task, because a mailing list probably does not exist that will effectively target this market. The studio will have to develop its own sources of prospects. The final **TELEPHONE BOOK.** This method of advertising is one of the most effective sources of new customers, or prospects, open to the smaller to mid-size studio. It is particularly useful for an operation which hasn't been in the marketplace long enough to develop prospects by relying primarily on the studio's reputation. A properly done ad in the Yellow Pages can target that potential client who is looking "in the book" for a specific recording service. Also, the ad stays current for an entire year — thus one ad can feasibly expose the studio's services to hundreds of potential clients.

disadvantage we will mention regarding this advertising technique is its limitation in the types of promotional message it can be used for. Over time, word-of-mouth can be used to enhance a recording facility's image and reputation. Direct mail, on the other hand, is most useful only in announcing an event or change in studio policy (grand opening, updated equipment, reduced rates for demo tapes, etc.).

However, the costs of this technique can definitely be considered a major promotional expense for the studio. Accordingly, time and effort should be spent in analyzing the need for, and placement of, a Yellow Pages ad. Below are some approximate prices for a 2" x 2¼" "camera-ready" ad in the Yellow Pages section of selected cities:

*Nashville (Davidson County): \$50.00 per month for over 500,000 copies distributed.

*Miami (Dade County): \$99.35 per month for 1.5 million copies distributed in the area, plus 50,000 distributed in Central America and the Caribbean.

*Los Angeles (city): \$58.75 per month for 1.5 - 2 million books sent out.

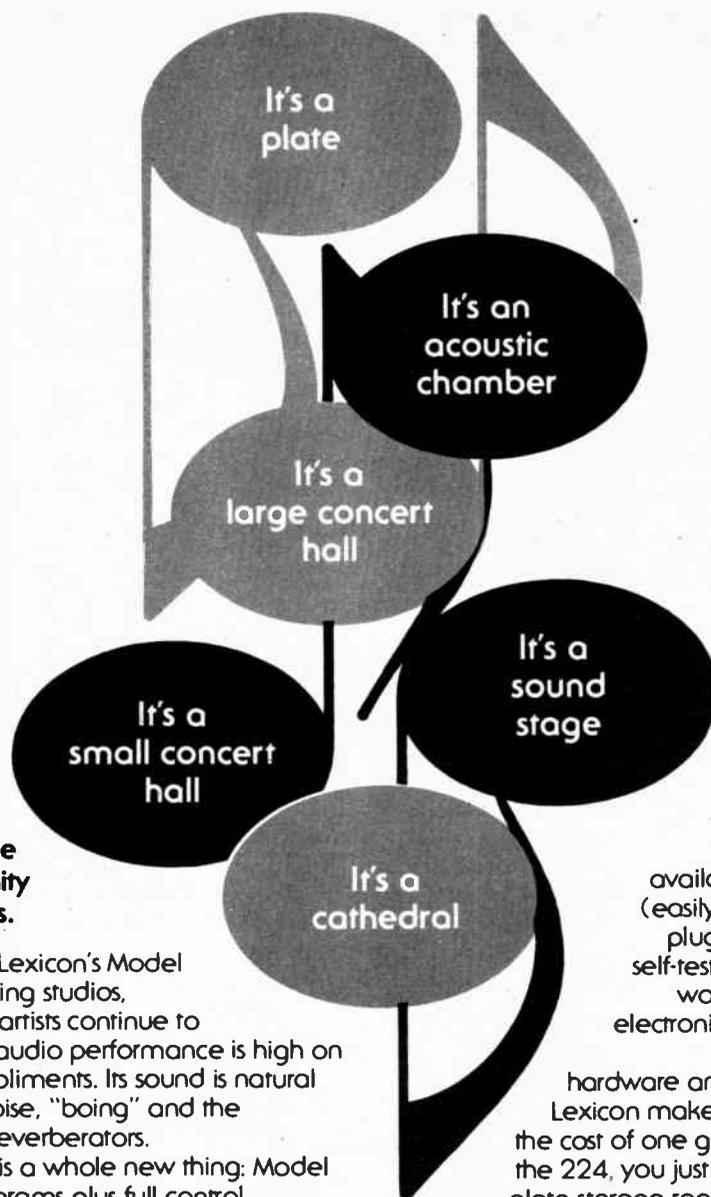
*New York (Nassau County): \$72.25 per month.

*New York (Suffolk County): \$104.25 per month for three directories.

TRADE ADVERTISING. Usually, it is hoped that a recording studio's services and quality of work will ultimately produce a regional and/or national (even international) reputation. If this does occur, it might be appropriate for the studio owner to broaden the market by advertising in a trade publication. For instance, a Seattle, Washington studio selling an exclusive line of well-known professional audio equipment might find it beneficial to place an ad in *Recording Engineer/Producer* to reach potential customers on the East Coast and in the Southeast, as well as on the West Coast. Or a successful tape duplication facility in Nashville could very well improve sales by advertising in *Mix Magazine*. It is possible to target a great number of qualified buyers through the use of trade publications.

Other trade publications you might consider are those that your studio receives on a regular basis and those that your clients tell you that they read. It is a good idea to write to all of these publications for rate cards, demographics and circulation figures to keep in your files.

SO WHAT'S BEST? We have suggested several advertising options available to the studio owner. Advantages, disadvantages, and applications of each technique were touched upon. The best method(s) for each studio is/are dependent upon the answer to three, inter-related questions: What is the *growth stage* of the studio? Accordingly, what *market* is the operation targeting? Finally, the answer to the first two questions suggests a third — what is the appropriate *advertising mix* (or combination of techniques) for the studio? As the successful recording studio grows in increased sales volume, and in physical size, its markets change, thus requiring different combinations of advertising methods. The progressive studio owner must continually assess the operation in terms of growth and markets, in order to select the correct advertising techniques for the studio. ☺



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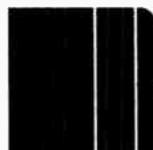
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The Soundstream Story

by Karen Ravich

As we enter the eighties, 'digital' has become a buzzword from the inception of record production up through the finished product. In fact, it has already infiltrated the more sophisticated levels of the consumer marketplace. **SOUNDSTREAM**, in Salt Lake City, is a most unusual and innovative company, a pioneer in digital mastering. Dr. Tom Stockham, founder and President, is a recognized expert in the field. His symposiums and seminars on the subject have been among the most popular at recent gatherings of audio engineers and recording buffs. Recently, I was fortunate enough to spend a most rewarding afternoon at Soundstream's headquarters, a lovely townhouse in Salt Lake.

It is difficult to separate the two identities, the man from his company. So ingrained are the goals, the philosophy, that Soundstream's personality is that of Dr. Stockham. He is committed to digital, to rewards it can bring to the listener as well as to the industry. At the same time, he is aware of the frustrations of bringing a new technology into play, and is most articulate about these feelings as well.

Soundstream is an organization of people which came into being in 1975. In actuality, Dr. Stockham had had digital 'on the mind' for years. In 1974 Malcolm S. Low, an old friend of his (the L in KLH), approached him and said, "You've been telling me all these years about digital processing and image processors and sound modeling with computers...it's time to bring it into the audio industry." Stockham hadn't been thinking about it recent to that time, although five years prior he had considered it. He added up a number of factors: costs of hardware, how important it might be, etc., and Soundstream was born.

The basic objective of the company is a triad: First, to provide a workable set of equipment for professional audio—not necessarily to replace conven-

tional analog. Secondly, to head vigorously towards the accumulation of a collection of recordings which would make it clear that digital was practical and provide the basis for goal number three, a digital record. As Dr. Stockham likes to phrase it, "Instead of buying wiggles and grooves, the consumer would purchase digits and take them home and play them."

From March of 1975 to August, 1976, Soundstream created a practical working digital audio recorder; practical as defined by a piece of equipment that could go on an airplane and have high reliability to operate for days and weeks without failure, one which could truly go into the field and be superior to the best analog recorder. In less than two years, Soundstream went to Santa Fe (New Mexico) in conjunction with New World Records to record an opera, the first opera to be recorded in the US in years. New World provided Soundstream with a special 'live to stereo mix' of opera sessions. Soundstream then made a full-fledged recording in parallel to their conventional analog multitrack master. The opera was called, "The Mother of Us All," a title which Stockham says befits the birth of a "really practical field recording exercise."

Soundstream had a demo of the opera at the November 1976 AES show in New York, playing the four minute overture, fully edited (editing choices formed on the basis of analog). The demonstration was held in a private suite as well as in open sessions on digital. Dr. Stockham recalls, "I didn't know what to expect, especially in a large room with noise (air-conditioning, etc.). The response was good; people realized that they were hearing something very different, there was a lot of discussion. It became clear to me that the AES group had taken digital out of the speculation phase. It was gratifying."

The next step was the 1977 AES spring convention. This involved recordings for the occasion, mainly soloists. People had been asking to hear separate instruments on digital. These were edited together to provide a running dialogue of sorts. "This made a great impression," Stockham remembers, "there were long lines waiting to get into our room." Impressions were still mixed. Some people said Soundstream was barking up the wrong tree, ahead of it's time. Others said, "At last, a way to go forward." Then, of course, there were others with opinions which fell in between.

The opera recording of 1976 was a giant step; it was the first time that the machine had been used outside of the lab. It performed through 5 days of sessions with no breakdowns. After the May 1977 AES in LA, Soundstream was invited by Lincoln Majorca of Sheffield Records to do an experimental recording for his Town Hall label. "We went to Hollywood and did a parallel recording in stereo with an analog recording of a work entitled "The Art of Fugueing," says Stockham. "This was a considerably longer session, but without breakdowns; we've never had any in the field. The scariest thing to happen was in recording a Bartok Concerto for Orchestra with Eugene Ormandy and the Philadelphia Symphony. We had a power supply failure which our engineer, Jules Blumenthal fixed. We later discovered that the power supply manufacturer had used a chip from a sub-contractor which was unsatisfactory; however, the project wasn't affected."

Stockham claims that maintenance and reliability are good, and in many respects, superior to analog.

Soundstream does not sell machines. They are supplied on a service basis for recording, editing and mastering audiophile quality discs. "We feel that it is our business to bring digital to a broad spectrum. Not everyone can afford to buy a digital machine. This way, they can get in and get out without worrying about the technology." Stockham continues, "We are providing a way for anyone in the industry to get started in digital in a manner which is financially acceptable and we are interfacing with the new technology."

In August of 1977, Soundstream, together with Crystal Clear Records, did two long-playing recordings of Virgil Fox and shortly thereafter commissioned the new 'second generation' machine. This machine was brought into being based on demos and projects up to that point. There are subtle improvements in concept and Stockham feels that it provides "next to the equivalent" of a live sound in a recording. The Boston Pops was recorded with the new machine in October of 1977 and generated a new wave of interest. The masters were played at the November AES and received a lot of compliments. "People recognized that the technology was here and that it worked."

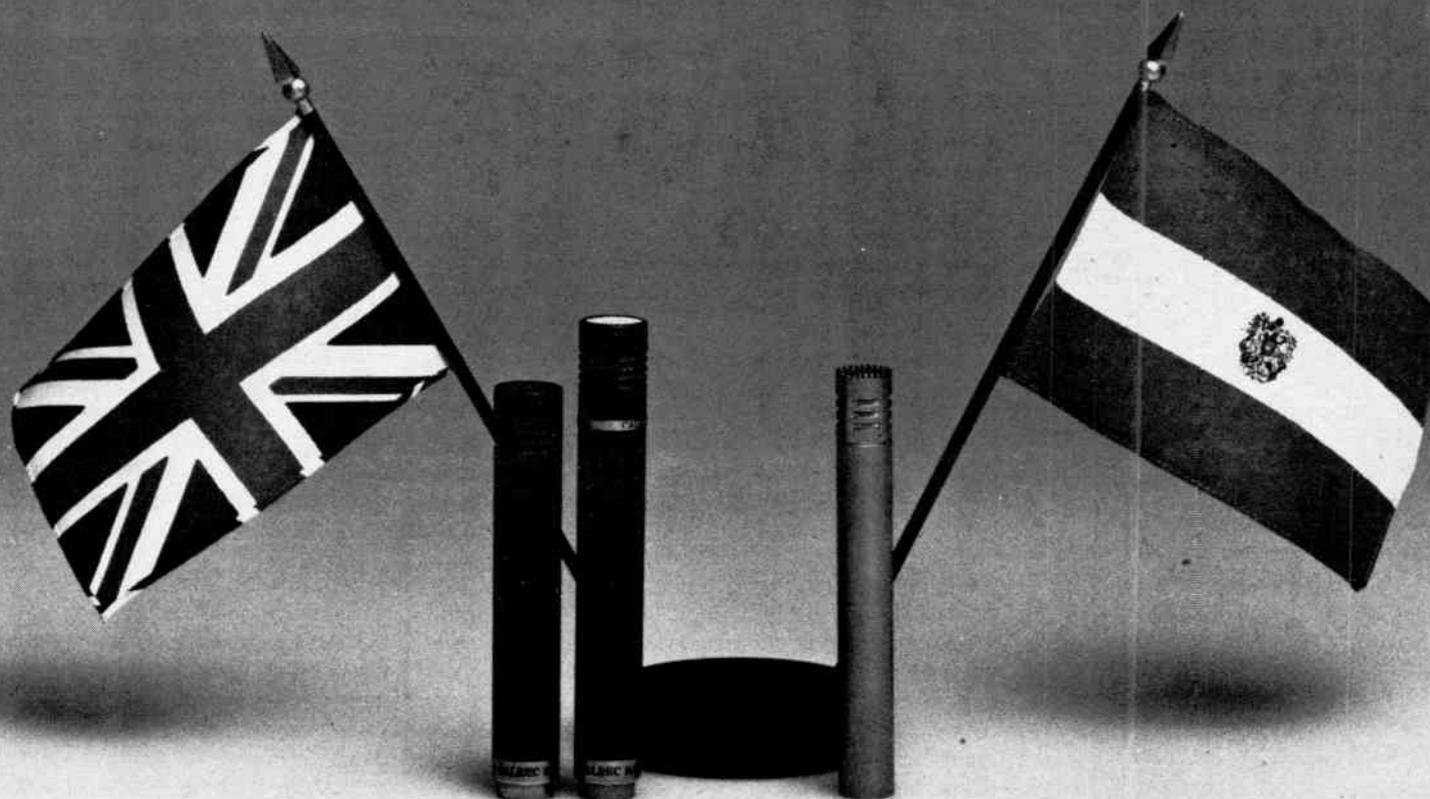
Shortly thereafter, Soundstream recorded Diahann Carroll with the Duke Ellington Orchestra for Orinda. It was the first recording intended for release as a digitally mastered analog, or hybrid. They were approached by Bob Woods and Jack Renner, President of Telarc, to record Frederick Fennell and the Cleveland Symphonic Winds performing the Holst Suite. "Then it went from there," says Stockham, "since then we've done 50 more and we're going at the rate of 4 - 5 per month."

Soundstream is known to many for its work in restoration although Dr. Stockham emphasizes that this was a sideline and not the major focus of the business. Of the restorations he says, "They stir up the imagination; they have a mystical quality to them, but by no means are they as important in the long run as the modern techniques of recording with digital. The process for restoration is completely different; no editing is done, there is no digital master tape, although we use computer technology to create filtering." The most well known restorations are those of Caruso, released by RCA.

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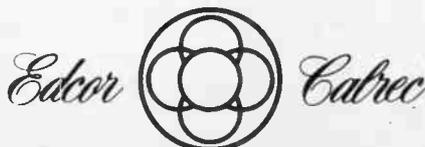
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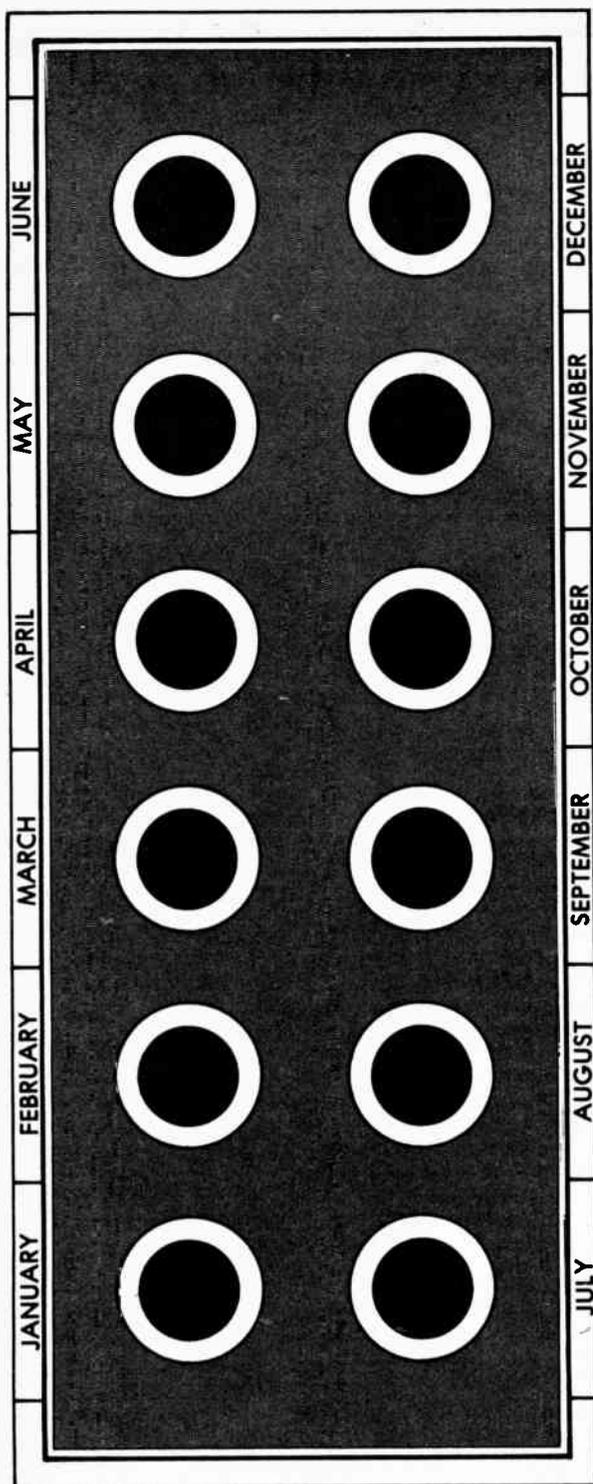
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Soundstream Story



Photo by Karen Ravich

Disk packs used for editing. Each disk pack receives its information directly from the digital tape recorder. The digital audio information, once on the disk packs, can be edited using the computer.

From Caruso to Fleetwood Mac—so wide the spectrum. Recently, Soundstream proposed to Fleetwood producer Ken Caillet that the group might want to master its new album, "Tusk," digitally. The group listened to the difference and was impressed with the sustaining quality that digital gave and the 'freezing of impact.' "Tusk" was completely analog at the multitrack stage, and at post-mix it was completely digital. Group members, Mick Fleetwood and Lindsay Buckingham, along with Caillet and some engineers came to Salt Lake to work with Soundstream on the project. The results were successful from both sides. Stockham says, "The motion of sustaining quality through the cutting of lacquers and the avoidance of generation losses in making masters has a final effect on the record. If there should be a re-release of that album, it can have the same quality; time takes no toll."

But what about location? Does being in Salt Lake City inhibit Soundstream's ability to perform? Apparently not. "It would be folly to argue that Salt Lake isn't some disadvantage," states Stockham, "but we've had permanent staff in LA for a year. Between cutting in LA and recording there, the disadvantages have been dulled. Besides, 85% of our clients don't want to record in Salt Lake or in LA." Soundstream has done 11 records in London and will be going to Europe and Mexico in 1980. The emphasis will be on multitrack. Dr. Stockham says Soundstream hasn't gone to multitrack in the past because "It's our approach to crawl, walk, and then run with quality. As we approach more tracks, we anticipate more quality. Besides, we're concerned about digital editing advances which mirror our flexible fixed base editing in a portable system. The rate at which we encounter things that can't be done is still so great that any fixed architecture editing system would not be long lived. We want to do it when features are all there and that point has not yet been reached."

What about digital mixing? "The penalty of coming in and out of digital can be absorbed in the mixing process. We would like to have a digital mixing system with level control, panning, EQ, reverb and special effects, but this is at least a year away. We'll be doing some experimental work soon."

Other plans for Soundstream include rapidly adding to the collection of digital masters. Stockham feels

that there will soon be a world-wide library of digital master tapes which will reach what he calls 'critical mass;' people will react and say that the recording world is switching over. This will fire the popularity of digital and bring the digital disc into the home.

The consumer market has always been a goal of the company. "All the things we do now are steps in that direction." Stockham believes it is logical to adapt the video disc to digital audio. He feels that the market will soon see activity in digital audio tape for home use, this among audiophiles who can afford it. "A digital audio disc could be played on a video disc player, but not vice-versa. That might be a nice compromise. Music is music and television is television. "There will be a natural market for audiophile equipment relative to digital audio. Will it be tape or disc, optical or mechanical, compatible with video or not? It's exciting not to know."

Mr. Stockham is a dynamic personality who is as stimulated by the future of Soundstream as much as he is influenced by its beginnings. "I'm in this business because I've always liked the challenge. Personally, I've felt starved for the kind of sound quality that I'd like to see the industry have. When Telarc began to sell, this was one of my biggest thrills."

Where does Soundstream fit in? "I think there will be a long-term need for first class services involving the best equipment. Because our equipment is manufactured solely to provide services, we can put a lot more into it, we can afford that. We don't have to price-point compromise. Because of the expense of digital equipment, the frontier in the professional market (for service) is ever-widening. This is the echelon effect."

Soundstream will soon be opening permanent facilities in LA and Salt Lake City will be used largely for research and development, not uncharted territory. A graduate of MIT's engineering school, Dr. Stockham did research there in digital image processing. "I've actually done more research in video than audio. Many times I wake up having dreamed about some shelved research project I want to get back into."

I love what I do; it's not easy, but what is? The thing I dislike is circumstances which make it (artificially) impossible to move ahead, financial circumstances, for example. I felt a lot of negative reactions to digital, resistance. It makes me sad because I see a new way of making music and sound that is potentially beneficial. It's natural for people to worry about new technology; it's a fear of not understanding, and I can sympathize with it."

Two incidents have highlighted Dr. Stockham's career in Soundstream. The first was in Chicago last spring. "I gave a talk and afterward a fellow said, 'Could I indulge in a little vanity? Could I have my picture taken with you?' That was one of the nicest things. The second was particularly touching. When I was in college in Cambridge, I had a summer job where I rubbed shoulders with a young engineer who joked each day by asking, 'Well Tom, shall we revolutionize the industry today?' We would laugh about it. Then at CES last June, I went into a demo room where they were playing one of our records. It was very impressive. Afterwards, the gentleman said, 'Tom, you must be very pleased with what you've done...you've revolutionized the industry.'" 🎧

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Soundmixers

Growing with the Apple

by Howard Sherman



Soundmixer President Harry Hirsch.

Like its Big Apple home town, Soundmixers Recording Studios is distinguished by an apparently unending program of change, expansion, upgrading, restructuring and generally improving itself. In one sense, the old joke about how New York is going to be a terrific town when they finally finish it doesn't really apply to Soundmixers, a division of the giant Sound One Corp.; one of the largest multi-media film/tape, recording/editing facilities in the feature film and advertising industries. When the studio officially opened its doors in September of 1977, Soundmixers was complete, at least for a while.

The paint may have still been wet at various spots around the 13,000 sq. ft. second floor of the historic old Brill Building (generally acknowledged as the true heart of "Tin Pan Alley,") but Soundmixers' three 24-track studios, its experimental 16-track room, state-of-the-art electronic music center and full range of mixing, film and videotape equipment and all the related goodies were ready to roll tape.

And roll tape they did. That first year the studio turned out platinum for Kenny Loggins' "Nightwatch," and Meat Loaf's "Two Out of Three Ain't Bad," and assorted gold for a host of major artists from Peter Allen to Peter Brown to The Average White Band and The Bee Gees.

Throughout that all-important year, one when its reputation was beginning to grow, Soundmixers' president and founder Harry Hirsch began outlining and implementing a continuing program designed to keep the studio at the head of the class insofar as technology was concerned. From the BTX Microprocessor/Programmer to the Lexicon Model 224 Digital Reverberation System, Soundmixers was intent on being the first studio to acquire breakthrough technological advancements and was frequently selected to serve as a proving ground for equipment which was not yet ready for official introduction to the industry but needed to be "tested" under highly professional studio conditions.

As the studio quickly earned its stripes and became one of the busiest facilities in Manhattan, Harry Hirsch's dream continued to blossom. The experimental 16-track room was soon upgraded to 24, the date sheet in the booking room was full and time was locked away for weeks and in some cases months in advance.

Still not totally satisfied with the studio, Hirsch decided to upgrade the year-old studio C and engaged top studio designers, Tom Hidley and Kent R. Duncan of Sierra Audio to design and build the first new Sierra/Hidley room in New York in over 12 years. Completed in May of 1979, the new "C" features the latest developments in studio design technology.

"C's" precise geometric design and painstakingly detailed construction have provided it with an essentially flat, unvoiced frequency response and negligible acoustic phase shift making the new room an accurate, comfortable environment.

With Soundmixers' business booming and with New York City itself comfortably assuming the mantle of capitol of the music world as artists, record companies, writers and other "industry types" return to make NYC their home base, Harry envisioned an even larger studio complex than the existing one. And, not just more rooms, but, a mammoth one hundred man studio with a 26 foot high ceiling—the first

room of its size to be built in New York in more than twenty years.

In order to create this new musical wonderland, Harry had first to acquire additional space, the third and part of the fourth floors at the Brill Building. The process was a long one, negotiations with the building owner continued for months. As this article is being written the actual signatures on the lease are still fresh.

An exotic new design by Tom Hidley and Kent Duncan, the new Soundmixers Studios will add an additional 15,500 sq. ft. of floor space to the existing thirteen thousand feet. The 3000 sq. ft. hundred man room, already christened Studio E (for Enormous), will be a duplex affair, starting out on the third floor and reaching up an additional 13 feet through the fourth floor for, as Harry Hirsch says, "Music needs space."

The new studios will feature spacious 700 sq. ft. control rooms and a number of the little extras that West Coast musicians have grown fond of and accustomed to... saunas, private office space, game rooms replete with pinball machines and lots of other goodies. As for the equipment package, it is still a bit too early on to make a formal announcement, but Soundmixers' just completed Hidley-designed studio B took delivery on a new British-made Trident 40 X 32 console, one of the first two such consoles in America. It is currently being used to good advantage by The Blues Brothers, hard at work in "B" on the 48-track mix of their feature film sound track and ip. (Soundmixers has always been film and video oriented, having worked on countless commercials, tv and feature film scores and tracks during the past 3 years.) With the ever-increasing demand for video-disc, videocassette and other forms of home video use software, Soundmixers' expanded new operation is geared for total video production compatibility.

And so, as the fortunes of New York City continue to rise, so too, it seems, do the fortunes of Soundmixers Studios. Optimistic is a conservative word in Harry Hirsch's vocabulary these days.



New Trident console in Studio "B".

Robert Wolsch Designs

Tom Hidley Comments on

Soundmixers

Because Soundmixers' control rooms were all very similar, they all exhibited the same problems and hence we drew one plan that was suitable to all control rooms. The client reaction to the re-build of Studio C was apparently quite good; good enough at least that Harry said, "Ok, we're going to do B and then we're going to do A at some point in the future". B is now completed and they're using the control room.

This time around Harry also said "We have some difficulty in musicians feeling comfortable in the studio room of B. Is there anything that can be done to upgrade that situation?" So in December of this year we designed a re-build for the studio side of B.

They wanted a room that would vary in reverberation time from about .25 seconds at a frequency of, say, 1000 Hertz upward to perhaps .32, or somewhere in this area, and this is what we designed for them. Depending on the amount of carpet that is laid down over the built-in hardwood flooring, these variables can take place and the resultant change in environment allows them to adjust the room to the characteristics that they might want to hear.

There are variable acoustics within the drum cage that will allow altering of the floor conditions and the inside screen conditions and the back wall, various things that they can develop within the drum cage for the drummer only. The rest of the room also has variable characteristics. The geometry of the wall systems is such that we were able to use hardwood floors, however, there are roll out carpets available. The walls, where there is open trapping, have the ability to be able to be closed down with wood covering, in lieu of the drapery covering that is presently there. They can change these finish materials and still not get into acoustical flutter because of the geometry that is set forth in the design. They will find that their reverberation time, with full drapes and full carpets in the studio area in general, will be about .25 seconds from say 250Hz upward to the top of the band. As they remove some of the drapery and expose hard woods, and as they remove some of the carpet and expose hard floors, I believe this reverberation time from about 250Hz, or perhaps 500Hz upward, will begin to rise to about .33, although I haven't measured it at this point.

This is really quite a significant claim, and a listener would recognize it as a move from a relatively dead, short room to one that is quite free and open. It doesn't sound like much in numbers, though, because the numbers in our industry have unfortunate-

ly been bandied about. People feel that long reverb time must be 10 seconds when, in fact, what they're saying is that the gymnasium might have .9 seconds in the mid-range. That's an extremely uncontrolled, bright reverberent field in which to record.

Consider that an echo chamber is in the neighborhood of three seconds. Now how many bands could you put into an echo chamber and record with a total of three seconds reverberation time? So when moving from .25 or .24 on upward to .33, you are going through quite a significant subjective change and certainly one that you will perceive in the microphones up in the control room and certainly one that the musician will perceive when he sits to play.

When the room is in the rhythm condition, or short reverberation time setup with carpets and drapes, that particular studio section of B should climb up from .25 at 250Hz to about .5 at 50Hz. Now again this sounds like a curve that is very long on the low end and really, in fact, is not. Many studios are running one second at 50Hz and 40Hz quite comfortably. The difference between one second on the low end versus .5 on the low end is one of, well, subjectively at one second you'll say, "Oh, that bass is everywhere, it's loose, it's tubby, it's muddy, lack of definition." But when you come down in the neighborhood of .5 or .4, you will be able to understand or perceive positioning of the low end, which really is nothing other than good low end definition. It doesn't stay in the room for a second or longer after the note has been emitted from the loudspeaker in the control room. This, however, means that to be able to appreciate what is going on in the studio, the control room must have a stable, predictable and controlled reverberation field throughout. Which is to say that Studio B's control room will have about .4 to .5 at 50Hz and up at 200Hz it will be .25 throughout the top of the spectrum; that positioning, definition and clarity is possible within the control room.

We now have a predictable tool between the studio and the control room that will allow us to know precisely what is going on that master mix and, in turn, on the disc and, in turn, out to the consumer. It is a situation that allows the producer to work in comfort and with knowledge of what he is getting, rather than just guessing and having to compensate in his ears. The acoustical design is not only for reverberation time, but for frequency response of monitor systems and frequency response uniformity as we move from where the balance engineer would sit, to where the producer would sit, to where the producer's wife would sit. So we're talking perhaps 9, 10, 12, or 15 feet of horizontal spread that we want to be able to have the same tonal balance. And indeed this is what Studio C now does and what Studio B will prove to do once it is put into operation.

What Harry has done has gone from a non-controlled, unpredictable type of monitoring and studio thing into an absolute definite controlled condition, from the emission of the sound from the instrument itself to the ears in the control room that hear what the monitor system is putting out. If we turn an equalizer one notch at any frequency across the band, we are going to perceive it because the monitor system is accurate with respect to power and the control room is one that will not play games on our ears. It will truly tell us what is there, whether we like it or not. 🎧

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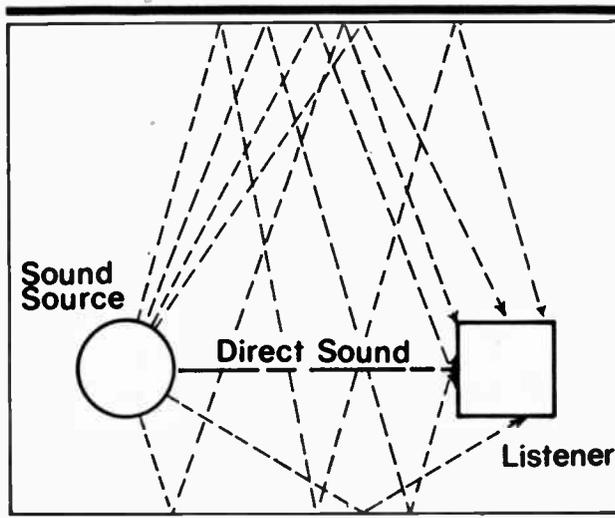
A PRIMER & SURVEY

by Fred Ridder

There is perhaps no more universal acoustic phenomenon than echo and reverberation. Virtually every sound we hear is closely followed in time by a series of repeated versions of that sound which have reflected off the various physical boundaries (walls, floor, ceiling, etc.) of the space around the sound source and listener. Each of these reflections is delayed slightly after the original sound, by a time which corresponds to the additional distance the sound waves travel from source to reflecting surface(s) to listener at their approximately 1100 feet/second velocity. In certain physical situations such as caves, canyons, sports arenas, and certain large rooms, the pattern of reflected sounds will be strongly dominated by one or more distinct and relatively widely separated repeats or echos; this is the familiar phenomenon of slap echo or slap repeat. In a more typical room the reflections will largely overlap one another since there will be a large number of reflected paths that are very nearly the same length physically and thus have delay times which are closely clustered. The result is a kind of "splash" of reflected sound. This is reverberation in its simplest sense; in reality, the situation is enormously complex due to the multiplicity of reflections, including numerous multiple-surface reflections, and subtle differences between different reflections. The subjective quality of the reverberant sound is determined by a large number of physical factors, the most significant ones including the size and shape of the room or space, the spatial positions of both the sound source and the listener (or his microphone), the angles formed by the room boundaries, the acoustic absorption or reflectivity of the various boundary and reflecting surfaces (which will be significantly frequency-dependent), and the presence and location of solid objects other than sound source and listener within the room's volume, each of which may be absorptive or reflective at various frequencies.

The complexity of the reverberation mechanism and its psychoacoustic effects make it difficult to quantify the characteristics of a reverberant sound field, particularly since reverberation is a dynamic phenomenon that cannot be measured meaningfully by most steady-state techniques. The two most intuitive measurements of a reverberant field are the stopped reverberation decay, more commonly

known as "reverb time", and the initial reflection delay. Reverb time is the length of time it takes for the reverberant energy to decay to a level some specified number of decibels below the level of the original sound source; 30 dB and 60 dB are the commonly used ratios and are notated as RT_{30} and RT_{60} respectively. Reverb time varies with frequency, being longer at low and mid frequencies than high frequencies as a rule, and is generally presented as a graph of reverb time versus frequency; where a single value of reverb time is given, this will usually refer to the RT at a mid-band frequency such as 500 Hz. Initial reflection delay is a measurement of the relatively silent period between the arrival at the listening position of a sound pulse and its earliest major reflections; one could also think of this as the time it takes for the reverberant field to build up to its full energy level before beginning its uniform decay. The quality of sound during this initial period will significantly affect the perceived quality of the running reverb, which is the reverberant sound behind a continuing sound source such as a speaking voice or musical program, as opposed to stopped reverb which is dominated by the decay of the reverberant field. These two measured quantities are of significant interest to a mixing engineer because both phenomena give a listener psychoacoustic clues about the size of the room surrounding the sound source. Initial reflection delay gives the strongest clue about room size since it varies directly with the distance between the sound source and the primary reflecting surfaces, while the decay time is strongly affected by the damping or ab-



Direct sound and reverberant field created by reflections from boundary surfaces.

sorption of room boundaries as well as the room dimensions.

Besides these two measurements of time-related phenomena, there is another measurement which may be useful in specific situations. This is the averaged frequency response (or more properly the energy response) using a broad-band sound source such as pink noise. The most familiar measurement of this type is real-time analysis of a control room/monitor speaker system where the total energy re-

sponse of the system is the sum of the direct and reverberant fields at the measuring position. A broad-band signal such as pink noise or swept $\frac{1}{3}$ -octave pink noise is necessary for this type of measurement because any type of single-tone signal will tend to excite the various resonances of the room thus yielding wildly fluctuating readings as the frequency of the tone is swept.

ARTIFICIAL ECHO AND REVERBERATION

We know that any sound source in a non-anechoic room will produce a reverberant sound field which we can and usually do hear if we are in the same room as the sound source. But what of the situation in a recording studio where an engineer is likely to position microphones a matter of inches from a musical instrument which is in turn several feet from the nearest room boundary? And what if those nearby boundaries are relatively sound-absorbant, as is the case in many studios? The answer is simply that the microphone will pick up large amounts of the direct, "dry" instrument sound and insignificantly small amounts of the reverberant sound.

What are the recording engineer's alternatives if he wants a more natural, reverberant sound than his close-in microphone produces? If the studio itself is reverberant enough, and if its reverberation sounds good subjectively, the engineer can simply put up a more distant mic in the studio to pick up the reverberant field. This technique is commonly used in classical and jazz recordings where maximum isolation between instruments is not of primary importance, and it can also be used to good advantage in the overdub stages of a pop or rock recording. But when laying down basic tracks for a song, an engineer is frequently trying to maximize the isolation between instruments and will thus not be able to use a room mic since it will pick up the reverberant sound of *all* sound sources in the room. Miking the room is likewise not a useful technique if the room is too "dead" or sound-absorbant, or if it has an unnatural coloration to its reverberant sound. In these cases the engineer must turn to artificial echo and/or reverb to simulate a reverberant field or generate an artificial ambience.

Traditionally, the simplest form of artificial ambience has been slap echo as generated by a tape delay. A three-head tape machine will generate a delay equal to the distance between the record and reproduce heads divided by the tape speed. Normally this will be a single repeat of the input signal, but multiple repeats may be produced by cascading tape channels or by recirculating the delayed output to the input. Typical delay times range from some 130 to 300 milliseconds at $7\frac{1}{2}$ IPS (depending on the brand of tape machine) down to 30 to 75 milliseconds at 30 IPS, but are not continuously variable unless the tape machine has variable speed with at least a $\pm 33\frac{1}{3}\%$ range. Tape delay is convenient to use as long as the control room has an extra machine handy (most professional studios do), but it does, of course, require periodic rewinding of the tape, plus each machine can only generate one delay time at a given time. Various specialized tape delay machines are available in the musical instrument market but these are generally not of sufficient quality for routine studio use.

To get around the disadvantages of tape delay, various forms of electronic or electro-mechanical delay lines have been devised and used. They range from acoustic delay lines, such as the now-deceased Cooper Time Cube, through analog delays to the current generation of digital delay lines (DDL's). To-

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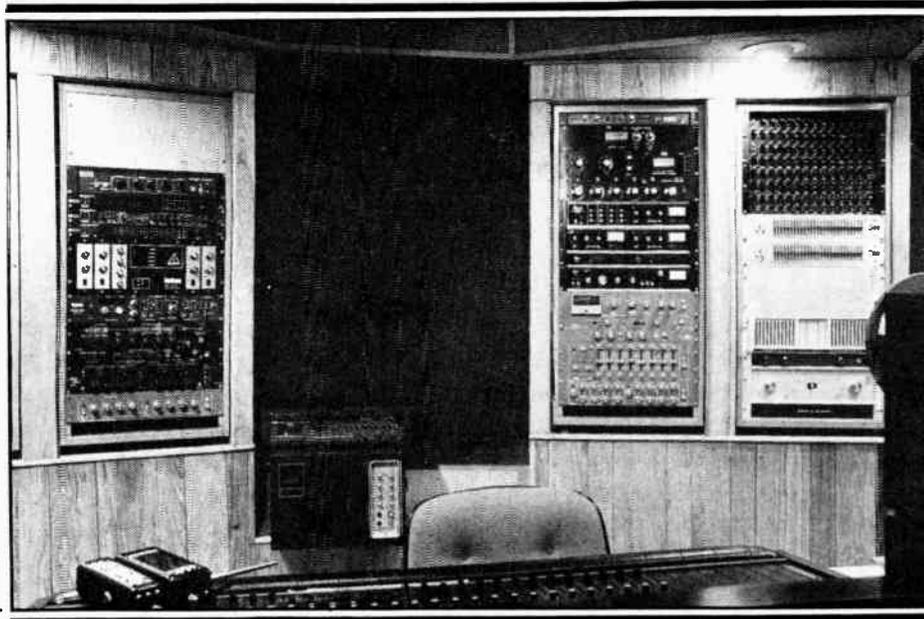
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day's digital delay lines use Random Access Memory (RAM) circuitry rather than the earlier shift register circuits and represent the state of the art in delay devices. The steadily diminishing cost of digital circuit devices has brought prices down to a level that would have been unthinkable just a few years ago, and has made it possible for manufacturers to offer sophisticated DDL-based effects generators for little more than the price of a basic DDL.

Reverb has always been more of a problem to generate artificially because of the complexity of the acoustic process that produces reverberation in a real room. The classic way of generating artificial reverb is to build a live reverb chamber, an isolated reverberant room equipped with loudspeaker and mics, but this solution is no longer cost-effective with today's real estate and construction prices. As an alternative to live chambers, a number of electro-mechanical systems lend themselves to this simulation because they can be designed with enough degrees of mechanical freedom to approximate the complex acoustic reverb mechanism, which is itself a mechanical or physical system. Reverb designers and acousticians will speak of such things as density of resonant frequencies (or eigenfrequency density), pulse density, and time domain diffusion, all of which are ultimately measurements of the variety and multiplicity of the reflections produced by a reverberant system, whether it is acoustic or electro-mechanical. In relation to these criteria, electro-mechanical reverb devices compare favorably with reverberant rooms.

The most familiar type of mechanical reverb device is the spring reverb, which can be found in one form or another in everything from guitar amps and budget mic mixers on up. Spring reverb has a rather bad reputation in professional audio circles based primarily on the "boingy, twangy" sounds produced by cheap spring units when they are fed a percussive or transient-rich signal, but the fact remains that a good quality spring reverb is still a very cost-effective means of producing good quality reverberation. In fact, springs have several inherent properties which closely parallel the behavior of sound waves in a real room, resulting in more natural reverb characteristics than some other means of generating reverb. Specifically, these properties are a decay time which decreases with increasing frequency, paralleling the damping properties of the air in a room, and a gradual build-up of reflections in the first hundred or so milliseconds after an input is applied, which simulates the early reflection delay in a reverberant room. The two common sonic shortcomings of a spring type reverb are a sensitivity to per-

cusssive or transient input signals, which are usually controlled with a limiter circuit in the input stage of the system, and a relatively low density of resonant frequencies, which may lead to some mid-range coloration unless a relatively large number of spring elements with carefully distributed mechanical characteristics are used. In addition, spring units often have a limited range of adjustment of reverb time (if this adjustment is offered at all) because the only effective way of reducing reverb time in a spring unit is by using motional feedback techniques.

The other principal type of mechanical reverb is the two-dimensional tensioned metal plate as originated and patented by the German company EMT. The original EMT design called for a large (approximately 3½ x 7 foot), thin steel plate suspended from its corners under tension within a tubular steel frame. The plate is excited by a dynamic driver mounted near the center, and the sound reflects from the taut edges of the plate to be picked up by a pair of pickups mounted asymmetrically near each end of the plate, to produce a stereo reverb image from a single input signal. For many years plate reverb was synonymous with EMT due to a strictly enforced patent, but since that patent lapsed a couple of years ago several alternative models to the EMT have been introduced to the professional audio market. Steel plate reverbs are physically quite large and are quite sensitive to the pick-up of external vibration in the form of airborne sound vibration and structure-borne mechanical vibration, forcing the user to provide a quiet, isolated room big enough to house his plates and perhaps to even suspend them elastically from the ceiling to eliminate vibration pick-up. Small plate units have been developed, but there are several pitfalls in the design of a physically smaller plate; specifically, as a plate is made smaller it must also be made thinner to maintain the same kind of eigenfrequency density and avoid coloration, but thinner plates are more subject to the high-frequency damping effect of the air surrounding the plate. This has necessitated the development of special materials for the plate itself which exhibit less high-frequency damping than the normal steel alloys used for the plates. EMT's solution, in fact, was to use a small (about 10½" x 11½"), very thin (18 microns) foil membrane made from a gold alloy. The small size of the membrane has allowed EMT to design a two shell isolation structure around the membrane itself to achieve some 50 to 80 dB of isolation from the pick-up of airborne sound in a reasonably-sized package overall.

The physical sound propagation properties of a

plate or foil type of reverb unit are such that the reverb builds up very rapidly initially, typically taking less than 50 msec. to reach maximum level and begin its decay, so that these units have a sound that is often described as explosive. Like other mechanical reverb systems, plates have shorter decay times at high frequencies than low and mid frequencies but the actual value of high frequency decay is significantly longer for a plate unit than springs, giving plates a bright, splashy kind of decay with a high rate of diffusion of pulse signals; this makes plates especially useful for drums and percussive input signals. Mid- and low-frequency decay times are controlled in plate units by the proximity of a sound-absorbing damping plate which hangs parallel to the sound plate; this is an effective means of controlling overall reverb times from about 5 or 6 seconds down to 1 second. Most plate reverbs are designed to have fairly uniform decay time over the mid-range and bass frequency range to avoid the muddiness associated with the long bass decay times of spring reverb units. All of these effects combine to produce a reverb sound which may not be particularly natural sounding or room-like (unless it's a pretty unusual room), but which is particularly useful in a multi-track mix-down situation. Many rock mixing engineers find that a more natural-sounding reverb, like a good spring unit, will tend to clutter up or muddy a mix whereas a plate reverb will cut through and establish a space around an instrument without taking up too much subjective room in a mix. Many engineers will frequently use a tape delay or DDL in series with a plate (usually in the send) to give a bigger sounding reverb by simulating initial reflection delay; again, the overall effect is not necessarily natural, but is very useful in mixing.

The most recent development in the field of artificial reverberation is digital reverb, which is actually synthetic reverb. The theory of synthetic reverb is simple enough: since natural reverberation is caused by the various time delays associated with sound reflecting off the surfaces within a room, it should be possible to duplicate that reverb sound with a number of delay lines of varying lengths being fed back to one another and mixed together at their outputs. The basic hardware necessary to do this has existed for a number of years, but we have only seen workable digital reverb units for about three years because the design and programming tasks involved are formidably complex. Each reflection, each resonance, each attenuation or absorption must be designed and programmed into the system. This is at once a tremendous freedom, since the designer can now produce *any* reverb characteristics including ones which could never be achieved acoustically or mechanically, and a tremendous burden since even simple reverberant fields require extensive computer analysis and lots of programming time to successfully simulate digitally. Several designers have recognized the potentials of a digital control system and have given the user direct control of several program parameters for an unprecedented degree of control over the reverb effect generated. As a consequence, however, these more sophisticated digital reverb systems may require some experimentation on the part of the user to achieve a particular sound, particularly since some of the controls provided are not entirely intuitive to a mixing engineer. One of the few real shortcomings of a digital reverb system is that of quantization error, which is present in all digital audio systems. This is perceived as a low-level noise of a particularly annoying, grainy kind of quality, and may become objectionably audible when a sound is allowed to ring out or decay to silence. The use of a linear, rather than a more natural exponential decay rate for the final decay, along with other

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optimization techniques, can reduce the audibility of this phenomenon to the point that it is not noticeable in a mixdown, particularly if other reverb devices are in use at the same time. Most currently available digital reverb units are limited to a high frequency bandwidth of about 8 KHz, but this is hardly detectable since higher frequencies are normally damped out almost immediately in acoustical and electro-mechanical reverb systems.

CHOOSING A REVERB UNIT

When choosing a reverb device, it is first necessary to assess your needs and analyze the probable applications for reverb. Each particular type and model of reverb device will have its own particular strengths and weaknesses and its own characteristic sound which will make it more suitable for some applications than others. There are some useful generalizations which can be made about the three basic types of reverb units, and we have summarized these general characteristics as advantages and disadvantages in the accompanying survey. When considering these generalizations you should still bear in mind your particular application, because a disadvantage which is intolerable in one application may be acceptable in another, or more significantly, what may be an advantage in general terms may actually make a given unit *less* suitable for some applications. For example, the requirements are quite different for a reverb unit which has to stand alone, as the ambience behind an announcer's voice and one which will be used for a few instruments in a complex rock music mixdown.

Ideally, the choice of a reverb unit should be made

on the basis of a listening evaluation under actual session conditions in your own studio, but this is a very imperfect world and it is often very difficult or impossible to accomplish a listening test under these ideal conditions. If you are located in one of the major recording markets, there may be an equipment rental house who can rent you the spring or digital reverb you are considering, or you may rent or borrow such a unit from a friendly competitor studio to try out in your own studio. Many professional audio equipment dealers are prepared to furnish equipment to their customers for a specific period for evaluation purposes. But, if you are considering a plate reverb, there are formidable obstacles to an in-studio evaluation, most notably the problem of transporting and properly setting up a plate unit. Under these circumstances, or if you are not located conveniently close to one of the major recording markets, it will probably be necessary to rely on the demonstration facilities of your favorite professional audio dealer. Recognizing that it is desirable to duplicate studio conditions as completely as possible, some professional dealers have installed demonstration rooms which are essentially studio control rooms. A good example of this type of installation is found at New York's Martin Audio, a leading professional dealer in the northeastern United States. Martin has three demonstration rooms at their Manhattan location, one of which is set up as a fully-equipped multi-track control room. The equipment racks in Martin's demo room are filled with a rather complete assortment of signal processing devices including delay lines and effects units, digital and spring reverb units and an Ecoplate plate reverb chamber (which is located in a separate room, of course) allowing customers to audition a wide variety of equipment

under conditions which relate to their particular application more directly than a typical hi-fi type demonstration room.

When actually listening to reverb units there are several characteristics which you should pay particular attention to. You should listen to both the running and stopped reverb with a variety of input signals, listening particularly for colorations and undesirable repetitive or flutter-type echoes. Vocals and string sections may be particularly useful for evaluating coloration since this is primarily a mid-range phenomenon in reverb devices, while a drum kit will be very effective for evaluating diffusion and freedom from flutter. A grand piano can be a particularly demanding test for a reverb unit since it will tend to show up any frequency modulation effects as well as colorations and flutters. It is important to remember not to base your final judgement of a particular reverb system solely on such single instrument tests; all good mixing engineers know that reverb is very hard to judge accurately in isolation because it is strongly affected by the musical context and by the other sounds in the mix. If you are buying reverb to use as a mixdown effect, it is essential that you evaluate it in the context of a multi-track mix.

For those who are so inclined, it may also be useful to make some measurements of a reverb device with test equipment, although as explained above, the number of meaningful measurements that can be done with conventional test equipment is rather limited for reverb devices. Spectrum analysis and reverb time measurements may provide useful clues about the performance of various reverb units, if the appropriate equipment is available in your studio or

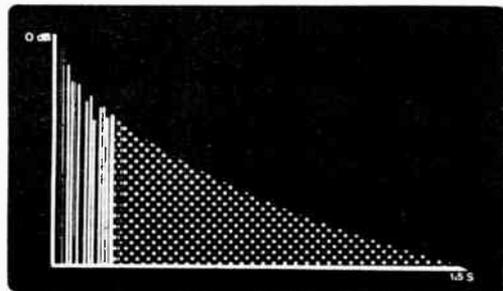
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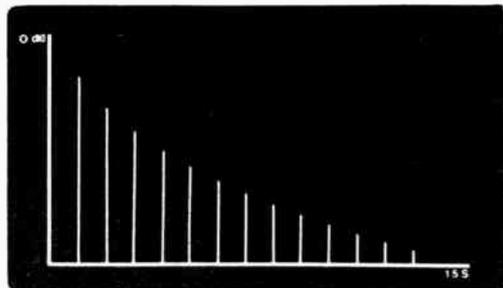
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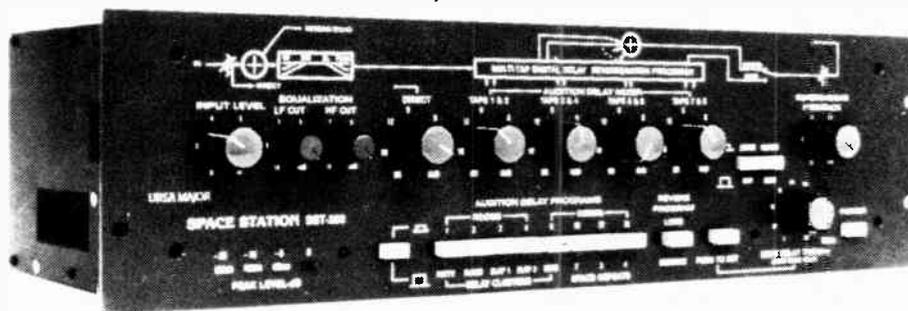
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at your dealer's demonstration facilities. Again citing Martin Audio as an example, Ivie and Innovonics audio analyzers are available for use in their demo rooms along with a UREI Model 200 plotter for hard copies of test results; both the Ivie and the Innovonics perform reverb time as well as 1/3 octave spectrum analysis measurements.

SPRING REVERBS SURVEYED

A variety of low-cost spring reverb units are available for musical instrument, sound reinforcement and semi-pro recording applications. Among the best of these units are the Sound Workshop 242 and Tapco 4400 reverbs. These are both excellent performers considering their modest price, but they fall rather short of the performance desirable for use in professional recording studios.

At the low end of reverb units one would find in the studio would be models such as the Sound Workshop 262 and the Orban 111B, both of which are compact rack-mount stereo reverbs. The Sound Workshop offers two bands of sweepable constant-bandwidth equalization on each reverb channel plus wide-range LED metering and a convenient switch to convert the unit from true stereo to single-input/stereo output operation. The Orban unit has become very popular with broadcasters and production companies at least partly due to its unique peak limiter which controls the typical spring reverb going on percussion and allows the reverb to be used effectively on program material rather than only as an effects unit. The unique aspect of the limiter is that it operates on a kind of floating threshold basis and limits transients without significantly altering the

overall program dynamics.

The traditional leader in the field of spring reverb has been AKG Acoustics of Austria. The top of their line is the BX-20, a fairly large, free-standing unit which has been used as an alternative to plate reverb in studios for many years. The BX-20 is a very carefully engineered product which has a remarkably natural sound which has made it a particular favorite with producers and engineers of classical music. In a considerably more reasonable price bracket, AKG offers the BX-10E2, a fairly compact stereo reverb which was designed for portability. This latest version features recently redesigned equalization (bass and treble shelving EQ for each channel) and Torsional Transmission Line for a smoother sound than the earlier BX-10. Decay time is variable using motional feedback techniques and has switch settings for 1.5, 2.5, and 3.5 seconds at 500 Hz. AKG recently announced the introduction of a new relatively low cost (about \$1500) model, the BX-5, which is a compact rack-mount unit which gives pseudo stereo operation with a single TTL spring unit rather than the dual transmission line used in the BX-10E2. This model is expected to be available sometime this spring.

MICMIX Audio Products has built its reputation on their Master Room series of reverb units. These units were specifically designed to simulate a concert-hall type of ambience and several different versions are offered which simulate rooms of specific cubic volumes. The sound of these units is very natural and life-like, making these units popular with classical engineers particularly. On the other hand, these models are seldom found in multi-track studios because their specific design approach limits their

flexibility and because a concert-hall ambience with its relatively long low frequency decay is not very useful in mixdown applications. MICMIX recently introduced a new, low-cost (about \$1200), rack-mount unit which embodies an all-new design approach. This new model is the XL-305 which is billed as The Acoustic Chamber Synthesizer. From the name it is obvious that the unit was designed to simulate the sound of an echo chamber rather than a concert hall which should make the unit much more applicable to multi-track applications. User response from studios has, in fact, been very enthusiastically favorable. A number of studios are using the XL-305 to augment their compliment of reverb plates, and several remote recording facilities will be using the unit for monitor reverb. Each channel of the XL-305 has a 4-band equalizer as well as level and output mix controls, and switches are provided to mono mix the input and/or output for various operating modes.

PLATE REVERB SURVEYED

The original steel plate reverb is the EMT 140, which is still the standard to which all other plates are compared. The original version was a mono unit with tube electronics, which was later updated to stereo output tube electronics and finally to solid-state stereo electronics. The EMT is shipped partially tensioned and must be tensioned up when installed, which is a painstaking and rather frustrating process but absolutely essential for the best reverb sound. The EMT 140 is considerably more expensive than the various other reverb plates due to the unfavorable exchange rate from dollars to Deutschmarks, and the additional costs of shipping, duty, and importer's mark-up, but many users still feel that the

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Among the various reverb plates which have hit the market since the expiration of the EMT patent, the two which are most highly regarded are the Ecoplate from Programming Technologies and The Plate from Audicon Marketing Group. Both these units are similarly priced (about \$5000), similarly sized and similarly constructed. The Ecoplate uses a stainless steel alloy plate which was designed to give a more controlled decay profile, particularly at low frequencies where long decay times can be troublesome; additionally, the Ecoplate incorporates an 18 dB/octave filter in the drive circuitry to block low frequency signals from exciting the plate (many EMT users add such filters outboard of their units for exactly the same purpose).

Both Audicon and Programming Technologies now offer smaller sized plate reverbs for studios with space limitations. The Audicon unit has been available for some time at a price only slightly lower than the full-sized Audicon Plate; its primary advantage seems to be its smaller size. The new, smaller Ecoplate II is said to have frequency response identical to the full-sized Ecoplate and very similar decay characteristics in a physical package that occupies approximately 1/3 the volume of the larger unit. At a list price of \$2500, the Ecoplate II is the lowest cost plate type reverb available.

The EMT 240 Gold Foil reverb is a unique product in the world of reverb. The 240 is definitely a high technology product from its 18 micron thick foil membrane to its piezo-electric driver and 17 milligram moving coil pick-ups to its sophisticated two shell acoustic isolation package. The sound of the 240 is somewhat crisper than a steel plate reverb due to the lower mass of the gold foil. Reverb time is somewhat longer at high frequencies than in other types of reverb, and is virtually constant below 1 kHz at the value selected by adjusting the damper plate; nominal reverberation time is variable from .7 sec to 5 sec at 500 Hz. The 240 is also quieter than the various steel plate units by approximately 5 dB. But the big advantage of the 240 is that it can deliver plate-type reverb sound from a compact, more-or-less portable (it weighs 148 lb.) package that offers very effective acoustic isolation allowing it to be located virtually anywhere including in a corner of the control room.

DIGITAL REVERB SURVEYED

EMT was also a pioneer in the field of digital reverb with their Model 250, which has been affectionately dubbed R2D2 by many studios due to its futuristic control stalk design. Besides being the first workable digital reverb to hit the market, the EMT 250 must surely rank as the Mercedes-Benz of reverb devices, complete with its price tag in the \$20,000+ bracket. The 250 is a single input/four output unit with six primary effect programs and a variable pre-effect delay of from 0 to 60 msec. A delay program with 4 independent delay outputs and a slap-echo program are the simplest effects followed by stereo phasing (actually flanging), and reverberation. The reverberation program uses 19 delay elements and arithmetic control from a central processor to generate the basic reverberation which is then processed by a dis-correlator to generate four distinct reverberated outputs. The other two programs are a chorus effect and "space," a reverberation program which has a constant decay time at all frequencies for a super-bright reverb decay which can not be duplicated acoustically because of air friction. (For an example of this effect listen to the

tamourine on the J. Geils Band's recent *Sanctuary* album). For studios that don't have an unlimited budget but still want digital reverb, EMT also makes a model 242 which is essentially the reverb section only from the 250.

The Ursa Major Space Station is the lowest priced digital reverb unit at about \$2000. (Several DDL effects units such as the Lexicon Prime Time and the Deltalab DL-2 include "reverb" effects, but these are not really useful as reverb in a recording studio). The Space Station's controls take some getting used to: one first selects the basic delay program from 4 "rooms," 4 "combs," 5 "delay clusters," or 3 "space repeat" programs, and then brings up some combination of "audition delay taps" which are controlled in stereo pairs by four knobs on the panel. Additional controls are provided for reverb/echo feedback and echo delay time, plus switches to select echo or reverb and medium or long reverb. Once the user has the controls figured out, he has an incredible variety of effects at his fingertips, including some very realistic room simulations.

The Lexicon 224 digital reverb is probably what we would have to consider the state of the art in digital reverberation. The system is totally software controlled so that the user may update his system as new and better programs become available. Six basic programs are currently available, two which simulate small concert halls, one large concert hall, two plate simulators, and an acoustic chamber program. The system will accommodate up to eight programs at the same time. The 224 system has a remote control box which allows the user to call up any of the available programs with the push of a button, and

provides him with slider controls to adjust the basic parameters of the reverb sound within any of the basic programs. The parameter controls include bass decay time, mid-range decay time, bass to midrange crossover frequency (split point between the controls), treble decay frequency (above which the reverb decays quickly), depth (approximately the depth of the listener in the hall), and pre-delay time. These parameters may be controlled at will and have a digital readout for reference. Four complete settings of program and adjusted parameters can be stored in memory registers for immediate recall to speed up the process of experimenting to find just the right effect. The range of control over the parameters is astonishing as is the overall range and sonic quality of the reverberation the 224 will generate. The 224 is not cheap, at about \$8300 with six programs, but it is clearly the most flexible and versatile reverberation system you can buy and as such is probably worth every penny.

• • •

This survey of reverberation units is not intended to be exhaustive, but rather is an overview of the models which have had the greatest acceptance among professional users and we apologize to the manufacturers of other worthy reverb devices that we have overlooked. One point that we stress, however, is that no article, no matter how complete, can substitute for a listening test. ☺

Fred Ridder is a sales engineer with Martin Audio in New York. He has extensive experience in sound reinforcement and FM Broadcast and spent three years as maintenance engineer with New York's Record Plant.



Above: AKG's BX-5
At left: Program Technology's Echoplate
Below: Ursa Major's Space Station



THE RIGHT THUMP

by Mr. Bonzai

It was the most gruesome pie fight ever filmed. With razor blades hidden under the crusts, blood and boysenberries soon filled the screen in the fruity conflict. A gang known as The Slivers attacked a lone member of a rival gang, The Warlords. They pounded him down like a fencepost.

"Stop the film. It sounds like they're hitting a cantalope. We need something that sounds meatier!"

That was the voice of Gordy Lawrence, executive producer of "The Warlords," the monstrously successful gang movie. Through a roundabout route I found myself in the dubbing room of Goldwiz Studios in Hollywood. It was the final day of work on the soundtrack.

Earlier that week, we at Ryan Recording had been booked to do some of the music for "The Warlords." The film's producer, Frank Mars, happened to live near our studio and was using his brothers, Phil and Matt, to arrange and play some tunes for the film. One of the songs was a re-make of that old classic, "The Purple People Eater." Frank wanted a hard rock version to play during the pie fight scene in the film. The spectacle was shot at Pop's Berry Farm, an amusement park where the gangs of southern California were supposed to have rendezvoused for a massive showdown.

The music session went like a dreamy breeze thanks to Phil Mars' expertise in scoring and arranging. Film scoring demands an accuracy that is seldom called for in rock 'n' roll, but Phil was well experienced in these disciplines thanks to his work in burger jingles. Metronomes, stopwatches, and split-second restrictions are common when the music has to be exactly fifty-eight and a half seconds long. We enjoyed working with a pro like Phil and his band. The drummer was John Ferrari, a timekeeper whose sense of meter was uncanny. John could shake a maraca all day and never lose a beat or a bean.

Frank was pleased with our brutal version of "The Purple People Eater" and invited me to join them in Hollywood when they assembled the soundtrack and layed the tune into the film. These brushes with the film industry are always a thrill and an education.

I arrived early the next day at Goldwiz Studios and was introduced to Gordy Lawrence, the overall producer, Walter Magnum, the director, and Tex Butler, the chief sound engineer.

Tex gave me a tour of the elaborate system used in soundtrack work. Rather than putting all of the various sound effects, music, and dialogue on a multi-track tape, they assembled all of the pieces of

the soundtrack from a bank of thirty or forty separate projectors with 35 millimeter mag film. The projectors were all locked together mechanically and the procedure is the same one used for the past sixty years. It seemed archaic, but Tex made it all work like a charm.

Tex had worked on major films since the forties and had a fascinating grab bag of acoustical stories to tell...things like Bogie's favorite mic, the secret of Tarzan's yell, and dubbing in the voice of Cathy the Talking Clam. Tex commanded a unionized staff of thirty people: sound effects engineers, dubbing boys, music gaffers, and projectionists. It was in the midst of this remarkably organized process of dubbing that Gordy Lawrence called out for the film to stop because the sound effect wasn't right for the head-bashing sequence. Tex calmly stated the case.

"Listen pardner, that's the sound of the kid getting his head beat. That's what you recorded on location."

Gordy shook his head. "It just doesn't work. We gotta get the right sound."

Tex replied, "We don't have anything close to that in our SFX library and the soundtrack has to be ready by tonight."

It was at this point that I jumped at the chance to get involved with "The Warlords."

"Excuse me, but sound effects are my specialty. Why don't you let me zip out and get some really good thumps for you?"

Frank was grateful for the offer and while everyone took their hourly twenty minute coffee break I headed to the studio I manage, Ryan Recording.

Back at the studio I explained the problem to Cart, our engineer, and Smilin' Deaf Eddie, our tech man.

"Let's get the Uher portable 2-track and go record outside so we don't make a mess," suggested Cart.

"How 'bout using this RE-50 omnidirectional microphone?" added Eddie. "We'll get a nice ambience and the RE-50 almost works like it has a built-in limiter, so we won't have to worry about distortion."

After a quick trip to the supermarket and a sporting goods store we began our experiment to find the right thump. Quite often, the sound that works best in film comes from a source remote to the actual effect. A model airplane in a garbage can might create the sounds of bombers over Berlin. A bowling ball rolled down a drainpipe might give the sound of an earth-

quake in a tunnel. We assembled our props and began.

While Cart worked the Uher and Eddie aimed the microphone, I began to beat on a coconut with a hard salami. It had a beautiful cranial resonance and sounded like it just might work, but to play it safe we experimented further.

Our next thump was produced by whacking an over-inflated basketball with a leg of lamb. I pounded, slapped and beat on the ball and produced a surprising variety of frightening sounds. Next we filled a Tupperware container with calves brains and hit it with a leather-covered mallet. The effect was good, but perhaps a little too liquid. As a last choice, we filled some panty hose with jello and hung them from a tree branch. I bopped and beat the hose with a baseball bat. We collected over fifty different thumps.

With the Uher under my arm, I rushed back to Goldwiz Studios and found Gordy, Frank, Walter and Tex in a near panic. The thump was the only thing keeping them from their deadline. The scene of the gang fight was put up on the screen and we played the thumps along with the picture. Thump after thump was met with disapproval. Gordy just wouldn't settle for anything and it looked like my big chance to contribute to the film was lost. I felt kinda stupid after promising the right thump.

As I watched the situation worsen, I sank deeper and deeper into the plush viewing chair. Gordy pounded his fists, rolled his eyes, and pinched the bridge of his nose in desperation.

Finally, he collapsed and slammed his head down on the producer's desk with a painful thud. Everyone looked over to see if he was alright. He was motionless. I was the first one to break the silence.

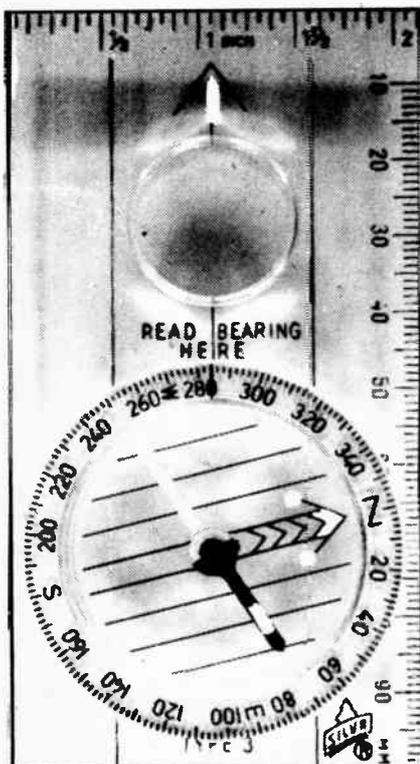
"Mr. Lawrence...are you OK? The thump was perfect."

"Uhhnnn..." he moaned. "Did it really work? Let's get it on tape and try it!"

I stepped right up with the Uher and Gordy proceeded to bang his head on the desk with a variety of effects. After ten or so takes we played the tape through the big monitors and Gordy smiled the smile of recognition.

"That third thump is perfect," he said. His eyes looked rather glassy and his head was cocked slightly askew. "Thanks, Mr. Bonzai...you saved the day."

"Oh, it was my pleasure...believe me." ☺



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4 TRACK

• **THE AUDIO DEPARTMENT, INC.**
110 W. 57th St., New York, NY 10019
(212) 586-3503

Owner: Joe Danis.

Studio Manager: Joe Danis, Bob Bolbach.

Engineers: Bob Chapman, Gene Coleman, Bob Bolbach.

Dimensions of Studios: A: 20' x 16', B: 10' x 12'.

Dimensions of Control Rooms: A: 15' x 16', B: 11' x 12'.

Tape Recorders: (2) Scully 280B 4 track; (5) Scully 280B 2 track; (4) Scully 280B full track.

Mixing Consoles: (2) Audiotronics 110, 8 in x 4 out.

Monitor Amplifiers: (3) McIntosh 2505; (2) Crown DC75; (1) Crown DC30.

Monitor Speakers: (2) JBL 4315; (6) JBL 4311; (2) JBL 4301; (4) Auratones.

Echo, Reverb, and Delay Systems: (2) AKG BX10; Eventide Harmonizer.

Other Outboard Equipment: (3) UREI LA3A leveling amplifiers; Martin 14KC sync generator; Eventide Harmonizer; Kepex; Orban/Parasound D'Esser; Orban parametric EQ; UREI band-bass filter; ADM noise gates; phone patches; ESE timers.

Microphones: Neumann U-87, U-47; Sennheiser 421; AKG D-1000; Sony ECM 50, 53.

Extras: Music and SFX libraries, editing room, phone patches, Nakamichi 1000 and 550.

Rates: A: \$75/hr; B: \$65/hr; C: \$45/hr (mono editing).

Direction: The Audio Department, Inc. is a recording studio whose personnel and facilities are oriented toward the recording and production of commercials for radio and TV.

• **COLLEGIUM SOUND, INC.**

35-41 72nd St.
Jackson Heights, NY 11372
(212) 426-8555

Owner: Don Wade, Jerry Epstein.

Engineers: Don Wade, Jerry Epstein.

Dimensions of Studios: 12' x 12'.

Dimensions of Control Rooms: 10' x 18'.

Tape Recorders: TEAC 4340, 7030; Ampex 350; Sony 850; Revox A77.

Mixing Consoles: Sound Workshop, Tapco, Gately, Shure.

Monitor Amplifiers: Dyna.

Monitor Speakers: JBL L-100, Avid.

Other Outboard Equipment: Audio-pulse digital reverb; spring reverb, Phase Linear Autocorrelator, dbx, Dolby B, Shure Audio Masters, UREI notch filter, dbx limiters.

Microphones: Neumann KM-84; Shure SM-81; Sony ECM-22; AKG-C-414, D-200E, 202, 1000; Shure SM-58; E-V 1776, RE-15; Beyer M-160, 100; direct boxes.

Instruments Available: None.

Rates: \$25/hr (less 10% if over 4 hours); \$180 day rate.

Direction: We aim toward folk and acoustic music. Because of our small studio we do a lot of remote recording. We also do a lot of sound reinforcement either in conjunction with recording or alone.

• **IDH RECORDING**

also REMOTE RECORDING
200 Cape Cod Way, Rochester, NY 14623

(716) 334-4796

Owner: Israel Hill.

Studio Manager: Israel Hill.

Engineers: Israel Hill.

Dimensions of Studios: 678 Sq. Ft. for studio and control room combined.

Tape Recorders: TEAC A3340S 4 track; TEAC A300SX-2T 2 track; Akai GXC-710D 2 track; Akai CR-83D 8 track.

Mixing Consoles: TEAC 2A, 6 in x 4 out; Shure M688, 4 in x 2 out; Shure M68, 4 in x 1 out; Shure M67, 4 in x 1 out.

Monitor Amplifiers: Phase Linear 400 Series II.

Monitor Speakers: Altec Model 19, Koss K2+2, Koss HV/1LC.

Echo, Reverb, and Delay Systems: Phase Linear 6000 Series II.

Other Outboard Equipment: dbx 124, Phase Linear 4000 Series II preamplifier with autocorrelation noise reduction, Phase Linear 5000 Series II tuner, Pioneer PL-570 turntable with Stanton 881S cartridge for disk monitoring, Soundcraftsmen RP2201-R graphic EQ, TEAC MB20 meter bridge.

Microphones: Audio Technica AT801, AT813; Electro-Voice DS-35; Realistic Dual dynamic 33-922 electric condenser 33-1044A.

Instruments Available: Baldwin Hamilton studio piano, Baldwin 210 organ with Leslie 710, Hammond B-2 organ with Leslie.

Rates: \$10/hr.

Direction: Our aim is to offer production quality recordings at very reasonable rates. This installation was selected as "Installation of the Month" by Stereo Review Magazine.

• **LE STUDIO INC.**

also REMOTE RECORDING
715 Boylston St. Boston, MA 02116
(617) 267-2825

Owner: Samuel Boroda.

Studio Manager: Claire V. MacDonald.

Engineers: Samuel Boroda.

Dimensions of Studios: Studio A: L-shaped approx. 400 sq. ft.; Studio B: under construction (22' x 20').

Dimensions of Control Rooms: Studio A: 14' x 14'; Studio B: 13½' x 15' under construction.

Tape Recorders: Scully 280 4 track; 3M 79 4 track; (2) Scully 280 2 track; Nagra 4.2 mono; Nakamichi; Sony TC 152.

Mixing Consoles: APSI 2000, 19 in x 4 out.

Monitor Amplifiers: McIntosh 3500 (2); Crown DC-300.

Monitor Speakers: Altec 9844A or Electro-Voice Sentry III (upon request), Philips Motional Feedback.

Echo, Reverb, and Delay Systems: Tapco or Lexicon 224 (additional charge).

Other Outboard Equipment: Lexicon Prime Time, (4) Teletronix LA2, Moog parametric, other equipment available upon request.

Microphones: Sennheiser 421; E-V RE-20, Shure and AKG dynamics, RCA 77-DX.

Extras: dbx 187, dbx 122, fully equipped repair lab.

Rates: Demos \$15/hr, production \$30/hr, location services negotiable (recordings, engineering, etc), tape not included.

Direction: Presently one of two studios is operating. We are primarily involved in local demo work, audio visual productions and advertising, we also offer full services in the sound reinforce-

ment field including consulting, design, installations and repairs of pro audio equipment. Presently under construction is a 24 track facility.

• **THE LITTLE STUDIO**

also REMOTE RECORDING
Box 416, Rockland, Maine 04841
(207) 594-2497

Owner: Helmut Vles.

Studio Manager: Helmut Vles.

Engineers: Helmut Vles.

Dimensions of Studios: 15' x 16'.

Dimensions of Control Rooms: 8' x 13'.

Tape Recorders: Scully 280B 4 track; Ampex 354 2 track; Ampex PR-10 2 track; TEAC 3340 4 track.

Mixing Consoles: TEAC 15, 8 in x 4 out.

Monitor Amplifiers: Crown DC-300, Marantz 15.

Monitor Speakers: (4) JBL 4311.

Echo, Reverb, and Delay Systems: Quad/Eight, Clover.

Other Outboard Equipment: Dolby A 361, 2-channels; dbx 157, 4-channels; Orban EQ 621B; Audiotronics EQ 4 channels.

Microphones: E-V RE-16's, DX-35; AKG C-451.

Instruments Available: Electric guitars and bass: amps.

Extras: Orban stereo synthesizer 245E, record cutting lathe, Quad/Eight noise gates.

Rates: \$15 to \$25/hr depending...

Direction: Radio spots, solo albums, band demos, also dubbing — all formats.

• **MUSKRAT PRODUCTIONS, INC.**

also REMOTE RECORDING
59 Locust Ave., New Rochelle, NY 10801
(914) 636-0809

Owner: Muskrat Productions, Inc.

Studio Manager: B. McNichols.

Engineers: B. McNichols, J. Lawyer, J. Manchrow.

Dimensions of Studios: 20' x 15'.

Dimensions of Control Rooms: 8' x 12'.

Tape Recorders: Tascam Series 70 ½" tape, 4 track; Tascam 25-2 ¼" tape, 2 track.

Mixing Consoles: Yamaha EM-150, 6 in x 2 out (2).

Monitor Amplifiers: Yamaha EM-150's.

Monitor Speakers: Temple Columns.

Echo, Reverb, and Delay Systems: MXR delay unit, Yamaha reverbs.

Microphones: Assorted Shure and Electro-Voice.

Instruments Available: Orchestra bells, electronic piano, electric piano, drum set.

Direction: Muskrat handles Dixieland and banjo bands. We are interested in recording acoustic bands that are not satisfied with studios that are mostly into electric bands.

• **POSTHORN RECORDINGS**

also REMOTE RECORDING
142 West 26th St., 10th floor, New York, NY 10009
(212) 242-3737

Owner: Jerry Bruck.

Studio Manager: Frank Stettner.

Engineers: John Dildine, Helene Kaplan, Noel Harrington.

Dimensions of Studios: 35' x 50'.

Dimensions of Control Rooms: 15' x 17'.

Tape Recorders: Studer/Levinson A-80/ML-5 2 track; Ampex ATR-100 2/4 track; Ampex AG-440 2/4 track; Nagra 4-SL 2 track; Nagra 4.2L 1 track.

Mixing Consoles: Mark Levinson custom, 4 in x 4 out; SATT Sam 82, 8 in x 2 out.

Monitor Amplifiers: Dyna 416, Hafler 200, Crown D40.

Monitor Speakers: IMF RSPM IV; IMF ALS-30, IMF super-compact; Rogers LS-3/5A.

Echo, Reverb, and Delay Systems: ADS 10.

Other Outboard Equipment: 16 mm magnetic film dubber (Ameba), 35 mm magnetic film dubber (Cinotech), A&D, F760X-RS limiter/compressor/expander, Rebis RA-402 parametric equalizer.

Microphones: Schoeps CMC 441UK blue point, MSTC 44, CMTS 301; Calrec soundfield system.

Instruments Available: Harp.

Rates: \$60/hr.

Direction: New World Records, Nonesuch, CBS/Odyssey, etc., "Purist" recording techniques preferred. Location concert and session recording, editing and production for LP release, 16 and 35 mm film sound transfer. Location motion picture sound recording, TV: "Music Project for TV", "La Voix Homaine", Movies: "The Groove Tube".

• **QUEENS REHEARSAL RECORDING STUDIOS**

89-48 Woodhaven Blvd., Somewhere with some number.
(212) V17-5777

Owner: Richard Bora.

Studio Manager: R. Bora, G. Willette.

Engineers: G. Willette, R. Bora.
Dimensions of Studios: 22' x 15'.
Dimensions of Control Rooms: 8' x 5'.
Tape Recorders: Tascam 4 in x 8 out.
Mixing Consoles: Custom.
Monitor Amplifiers: Kenwoods.
Echo, Reverb, and Delay Systems: Echoplex, digital, Univox, etc.
Other Outboard Equipment: Multi.
Microphones: Shure, etc.
Instruments Available: Steck grand piano, Wurlitzer electric, RMI electric, ARP String Ensemble, Minivox Korg II, Hammond B-3, Farfisa organ.
Extras: 6 guitar amps, 4 bass amps, Ludwig, Rogers drums.
Rates: \$3.50/hr.
Direction: For the creative musician and his pocket for low budget.

• REVOHAH RECORDS

also *REMOTE RECORDING*

Box 217, Old Rt 17, Ferndale, NY 12734
 (914) 292-5965

Owner: Paul Gerry.

Studio Manager: Pat James.

Engineers: Paul Gerry.

Dimensions of Studios: 18' x 22'.

Dimensions of Control Rooms: 12' x 18'.

Tape Recorders: (2) Ampex 351 2 track; Ampex 351 mono; Sony 4C 850 2 track; Nagra 4-2L mono.

Mixing Consoles: Custom built, 16 in x 4 out.

Monitor Amplifiers: Marantz Model 8.

Monitor Speakers: JBL 4311, Auratones 5-C, Altec.

Echo, Reverb, and Delay Systems: Fisher K-10 reverb, Pioneer SR-202 reverb, Sony echo on recorder.

Other Outboard Equipment: Fairchild 670 stereo limiter and compressor, Fairchild Conax 602 high frequency limiter, Ashly SC-66 parametric EQ, TEAC GE-20 graphic EQ, UREI 1176N limiter, Pultec EQD1A, Pultec stereo panner, Crown OC150A, dbx, Dolby.

Microphones: Neumann U-67; Electro-Voice 644; Western Electric 639-A; Sony ECM 22P's, ECM 165's, C-17B.

Instruments Available: Hardman baby grand 5'6", Martin D-28 guitar, acoustic bass, Dobro guitar, etc. Anything special is available as a rental.

Extras: Complete in-house custom disc mastering facilities, can do direct to disc, tape editing, 45's and LP complete production available, 8 track and cassette duplication, album photography, radio commercials, video taping, artist management booking, free coffee and...

Rates: \$50 1st hour, \$30 each hour for audio recording only; tape extra; Rates for other specialized services are negotiable such as editing, disc cutting, assembling tapes, etc.

Direction: We have produced over 50 LP's for our own label, Revonah, and 15 LP's under our other custom label Tel-E-Vue. Also have custom produced over 25 45's for independents. We are located in the country and have a very relaxed atmosphere which leads to better quality from the artists on down. We also specialize in custom disc cutting, having our own Scully lathe with Westrex 3DII cutter (stereo) and video inspection system. We like people, music, and video and want to contribute quality products and to grow in our ability to supply the aspiring artist with the quality and dedication he or she deserves.

• STAFFORD SOUND

11 West 17th Street, New York, NY 10011
 (212) 929-1441

Owner: Lee Stafford.

Studio Manager: Bruce Derusha.

Engineers: Lee Stafford.

Dimensions of Studios: 25' x 18'.

Dimensions of Control Rooms: 8' x 6'.

Tape Recorders: Tascam series 70 (1/4") 4 track; TEAC A-7300 2 track; TEAC A-2300 1/4 track; TEAC 360S cassette.

Mixing Consoles: Tascam 5 8 in x 4 out.

Monitor Amplifiers: 2 Marantz 250; 2 Dynaco 70.

Monitor Speakers: 2 JBL 4311XL (CR); 4 Bose 901 series II (studio).

Echo, Reverb, and Delay Systems: Sound Workshop stereo reverbs #242, Maestro Echoplex.

Other Outboard Equipment: 4 dbx 161 compressor/limiter; 2 Soundcraftsmen 20-12A audio frequency equalizer; dbx 117; TEAC AN300 noise reduction unit; AX300 aux 6" mixer; Pioneer PL51A turntable.

Microphones: Electro-Voice 16, 55, 635, Shure.

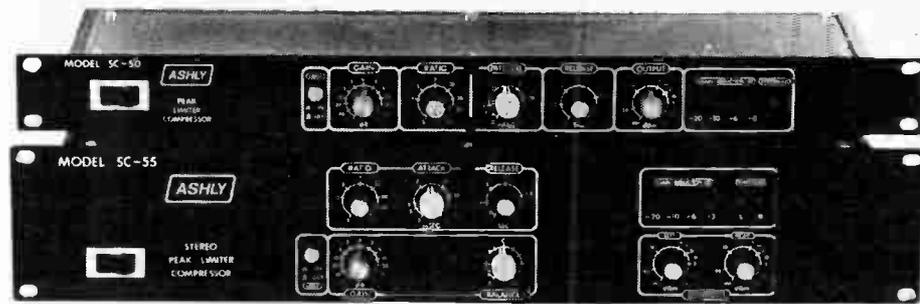
Instruments Available: Sohmer console piano, upright acoustic, RMI electric piano, Ludwig drums.

Extras: Chinese bell tree, tamborine, maracas, etc.

Rates: Call for rates.

Direction: John Cullum (Toni Award winner), New Orleans Jazz Band, Howard Cosell, Warner Cable TV, Warner Com., Barron's Mag.; producing Steve Haggard for Small Axe Records to be released in Sept.

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8 TRACK

•• ANGELSEA

also REMOTE (video only) RECORDING
55 Russ Street, Hartford, CT 06106 (offices/studio 3)
(203) 246-2287

Owner: Angelsea Productions.

Studio Manager: Douglas Munford.

Engineers: Douglas Munford, David Gillon: producer/engineers; Allen Sojka, 2nd eng.; Cindy Whitehill, Jeff Kubran: production co-ordination.

Dimensions of Studios: Studio 1: 20' x 36' x 13'; Studio 3: 12' x 24' x 8'.

Dimensions of Control Rooms: 10' x 12' x 9'.

Tape Recorders: Otari MX 5050-8 8 track; (2) Revox A-77 (w/varipitch) 2 track; Technics RS-1520 2 track; Sony 755 2 track; Technics & Optonica cassette/stereo-8; (3) Spotmaster (Broadcast Electronics) 10/70 RPS broadcast cartridge format.

Mixing Consoles: Cetec Series 10, 20 in x 2 out; Soundcraft Series II, 16 in x 8 out.

Monitor Amplifiers: McIntosh, Yamaha.

Monitor Speakers: McIntosh ML-4C, (4) Bose 901, Advent.

Echo, Reverb, and Delay Systems: MXR digital delay line, Sound Workshop reverb.

Other Outboard Equipment: Dolby noise reduction, Fairchild parametric 664 equalizers, Southwest Technologies graphic EQ's, dbx 117 and 118 comp/limiters, Fairchild 663 compressors, McIntosh MI-3 oscilloscope.

Microphones: Neumann U-87; AKG D-12; Sennheiser MD 421's, 441's, MKE 202, 402, 802, MKH 416-P48; Shure SM-58's; Sony ECM-22P's.

Instruments Available: Baldwin Acrosonic piano.

Extras: In-studio and on-location color video tape recording (Sony EIAJ open-reel and Beta formats, Sony Tricon DXC-1600 camera); package rates for videotaping in conjunction with 8-tr recording; staff of announcers for narration or commercial work; large music library, kitchen.

Rates: \$25/hr, 6 hours for \$125. Mixdown: 2-track recording: \$20/hr, 6 hours \$100. Free set-up and rehearsal time. Please call for other package deals and video tape recording rates.

Direction: Angelsea has studios at 2 locations: one in Hartford and one in Simsbury—about 15 miles north of Hartford. Both sound and video production are done at both locations. For the most part, our clients come from the following 3 categories: (1) musicians making demo or audition tapes & seeking a studio surpassing the 'basement' level but who don't need the sophistication of the big 24-track facilities, (2) those who come to us with unusual needs, such as the production (in sound or video) of documentary projects, and (3) narration and production of broadcast spots, jingles, etc. For these, we offer a wide variety of announcers and custom beds. Studio musicians are available. Credits: co-arranged, produced and recorded the soundtrack for "The Phantom Tollbooth" and "Earth Game" (Westledge Touring Co.). Recorded master "R.E.T." cassette series (Albert Ellis, Eliot Abrahams) for Proseminar Institute, San Francisco. Recorded demo tape "Brainwave" (produced by Bill Nelson for PBS).

•• ASSOCIATED AUDIO SERVICES

also REMOTE RECORDING
14 Willett Ave., Portchester, NY 10578
(914) 937-5129

Owner: D. Richard Kraus, Allan Johnson.

Studio Manager: Bob Pinchbeck.

Engineers: D. Richard Kraus, Allan Johnson, Harry Bartlett.

Dimensions of Studios: 20' x 25'.

Dimensions of Control Rooms: 20' x 24'.

Tape Recorders: Ampex ¼" 351 2 track; Ampex 1" 440-8 8 track; Tascam ½" 70 4 track; Ampex ½" 350 4 track; Scully ¼" 280 mono.

Mixing Consoles: CBS, 4 in x 4 out.

Monitor Amplifiers: McIntosh.

Monitor Speakers: JBL.

Echo, Reverb, and Delay Systems: Fisher.

Other Outboard Equipment: Dolby.

Extras: Filmstrip pulsing, all systems.

Rates: \$25/hr, voice and filmstrip pulsing.

•• AUDIO WORKS

also REMOTE RECORDING

144 Wolf Hill Road, Huntington, New York 11747
(516) 421-4841

Owner: Shelton Leigh Palmer.

Studio Manager: Mark Traub.

Engineers: Shelton Leigh Palmer, Doug Conrad, Phil Winters.

Dimensions of Studios: 14' x 30'.

Dimensions of Control Rooms: 12' x 14'.

Tape Recorders: TEAC/Tascam 80-8 8 track; TEAC/Tascam 25-2 2 track; Nakamichi 1000 cassette; Sony 377 2 track.

Mixing Consoles: Sound Workshop 1280B-8eq, 12 in x 8 out.

Monitor Amplifiers: Technics SE-9060.

Monitor Speakers: Electro-Voice Sentry 3; Auratones, AR 3A's.

Echo, Reverb, and Delay Systems: Tapco 4400, Marshall Time Modulator.

Other Outboard Equipment: Ashly compressors, Orban 672A EQ, dbx noise reduction, Eventide Harmonizer, Eventide Flanger, Scamp noise gates.

Microphones: Sennheiser, AKG, Shure, Beyer, E-V.

Instruments Available: Yamaha C-3 6'1" grand piano, 7 piece Ludwig drum set, ARP 2600, Odyssey, Omni, Sequencer, Korg, Sequential Circuits Prophet 10, Model 800 digital sequencer, Thomas organ, assorted voltage processing devices.

Extras: Video tape capability.

Rates: Call.

Direction: Audio Works is a demo studio for composers and producers of commercial music. Our emphasis is on music for film and television. We have experience in radio and album production, too. Audio Works was built as an in-house electronic music facility. It is now available for hire along with young creative musicians and technicians who understand both the limitations and the infinite potential of the medium.

•• BATTERY SOUND

also REMOTE RECORDING
90 West St., New York, NY 10006
(212) 227-3896

Owner: M. Freedman, J. Neuhoff.

Studio Manager: M. Freedman.

Engineers: M. Freedman, L. Schwartz.

Dimensions of Studios: 16' x 30' x 12'.

Dimensions of Control Rooms: 16' x 12' x 10'.

Tape Recorders: MCI JH110-A 8 track; Otari 5050-B 2 track; TEAC 3340S 4 track; Nakamichi 582 2 track.

Mixing Consoles: Sound Workshop 1600, 12 in x 8 out.

Monitor Amplifiers: Crown.

Monitor Speakers: Big Reds, Cizek.

Echo, Reverb, and Delay Systems: Live echo chamber, Delta Acousticcomputer, Sound Workshop 262, Roland Space Chorus.

Other Outboard Equipment: Compressors, noise gates, equalizers, Roland Compu-Rhythm.

Microphones: AKG, Shure, Electro-Voice, Beyer, Sennheiser.

Instruments Available: Hammond B-3 with Leslie, Baldwin piano, drums, marimba, vibes, many percussion instruments, ARP 2600.

Rates: Upon request.

Direction: We are geared towards working with original artists who need a professional production in order to further their careers. The engineers are also active musicians who can relate directly to any musical project. Our philosophy is simple: sonic satisfaction.

•• BURCLAN/OMNICOM, INC.

also REMOTE RECORDING
38 Pleasant St., Watertown, MA 02172
(617) 924-8080

Owner: Bruce Burke & Jack Clancy.

Studio Manager: Bruce Burke & Jack Clancy.

Engineers: Bruce Burke, Jack Clancy.

Dimensions of Studios: 18' x 16' x 10'.

Dimensions of Control Rooms: 16' x 10' x 10'.

Tape Recorders: Otari MX5050-8 8 track; Otari MX5050FT mono; Crown SX722 2 track; Ampex 351 mono.

Mixing Consoles: Tascam Model 5, 8 in x 4 out; Sony MX 515, 6 in x 2 out; Tascam Model 1, 8 in x 2 out.

Monitor Amplifiers: Crown DC60.

Monitor Speakers: Pioneer CS88.

Echo, Reverb, and Delay Systems: Orban reverb 111B 2 channel.

Other Outboard Equipment: Orban compressor/limiter 418A; (2) dbx RM 155.

Microphones: AKG 1000D, D-19, 451; Altec 626A; Beyer M500, M320; E-V 635, RE-15's; Sony ECM 22P, ECM 50.

Instruments Available: Piano and drums.

Extras: On the Charles River 10 minutes from downtown Boston. Audio/visual and film soundtrack production. Best jazzroom in area. Free parking.

Rates: Available on request.

Direction: Professional attitude. Relaxed working environment. Have done soundtracks for Harvard University, Polaroid, American Optical Corp., Wang Labs, Digital Equipment Corp., Massachusetts Port Authority and the Boston Globe. Also demos for many local musicians.

•• CP SOUND INC.

also REMOTE RECORDING
200 Madison Ave., New York, NY 10016
(212) 532-5528

Owner: Steve Dwork, Peter Bengtson.

Studio Manager: Steve Dwork.

Engineers: Steve Dwork, Peter Bengtson, Gary Roth.

Dimensions of Studios: 11' x 13'.

Dimensions of Control Rooms: 11' x 15'; and 12' x 20'.

Tape Recorders: Ampex MM1000-8 8 track; Ampex 440 4 track; Ampex 440 2 track; Ampex 440 mono; Ampex 300 mono; assorted ¼ track and portables; Nagra 3.

Mixing Consoles: Quad/Eight, 12 in x 4 out; API custom 8 in x 2 out.

Monitor Amplifiers: Crown D150.

Monitor Speakers: JBL 4313.

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

Other Outboard Equipment: UREI, Pultec, dbx, etc.

Microphones: Neumann U87's; Sennheiser 404, many others.

Extras: Sync transfer for 16 and 35 mag. Negatives of all formats, cassette and 8 track and open reel duplication. All A.V. pulsing formats.

Rates: \$45/hr 1-4 track; \$55/hr 8 track.

•• DANCING BEAR STUDIOS

also REMOTE RECORDING
1815 Riverside Drive, #8E, New York, NY 10034
(212) 569-0249

Owner: Dancing Bear Productions.

Studio Manager: Bill Ohashi.

Engineers: Mike Friese.

Dimensions of Studios: Studio A: 20' x 12' x 8'; Studio B: 30' x 16' x 12'.

Dimensions of Control Rooms: Studio A: 18' x 12' x 8'; Studio B: 18' x 14' x 8'.

Tape Recorders: TEAC/Tascam 80-8 8 track; Otari 5050 2 track; Nagra IV-S 2 track; TEAC cassette A-170 2 track.

Mixing Consoles: Custom built 12 in x 8 out; Sound Workshop

1280B, 12 in x 8 out.

Monitor Amplifiers: Crown DC-300A, D-150A, D-60.

Monitor Speakers: JBL 4311, Bose 301, Auratones.

Echo, Reverb, and Delay Systems: AKG BX-10, MXR, Altec, Lexicon Prime Time.

Other Outboard Equipment: Numerous MXR and Electro-Harmonix guitar boxes; dbx and UREI limiters, Pultec EQ.

Microphones: Neumann U-47, U-87; AKG 414EB, 452; RCA 44; Shure SM-81, SM-57, 545; Sony ECM 22P, ECM 170, ECM 270, C-37A; Electro-Voice RE-15, RE-16, RE-11; Beyer M-160, M-500, M-69.

Instruments Available: Gretsch drums, Yamaha snare, Fender Rhodes, ARP Odyssey, Hohner D-6 clavinet, 6' 7" acoustic grand, latin percussion.

Extras: Arranging, contracting, production.

Rates: \$30/hr. Call for block rates.

•• DEMO-VOX SOUND STUDIO, INC.

also REMOTE RECORDING

1038 Bay Ridge Avenue, Brooklyn, NY 11219

(212) 680-7234

Owner: Frank J. Grassi President.

Studio Manager: Laura Grassi.

Engineers: Frank J. Grassi.

Dimensions of Studios: 20' x 15'.

Dimensions of Control Rooms: 20' x 8'.

Tape Recorders: TEAC/Tascam 80-8 (w/dbx noise reduction) 8 track; Ampex 300/351 4 track; Revox HS-77 2 track; Tapesonic 70 TRSH 2 track; Tapesonic 70 DFT full track mono; Sony TC-355, 366 quarter track stereo.

Mixing Consoles: Custom built MPR 6-A 12 in x 4 out.

Monitor Amplifiers: Ultra Linear (tube type) 60W per channel.

Monitor Speakers: Rectilinear Research Mini III; Demo-Vox Model Spectra-Vox 6.

Echo, Reverb, and Delay Systems: Ross Analog delay system. Fisher K-10 springs (2); Tapesonic tape delay.

Other Outboard Equipment: Sanyo limiter; Olson HF-16 graphic equalizers; dbx noise reduction (8 tracks).

Microphones: Shure 545S; Sony C-22; Sony AD-39; Electro-Voice 666, 664; Realistic Omni Condenser; Univox CE-2; Sony electret condenser miniature mikes.

Instruments Available: Drums, acoustic upright piano, Gibson K-101 organ, Celeste and polyphonic synthesizer; Univox K-2 synthesizer (2-voice); ARP Omni and String synthesizer available with 1-week advance notice. Various percussion instruments such as tambourine and temple blocks.

Extras: Amplifiers: Ampeg Jet, Reverberocket 2" and Sears "Silvertone" guitar amps and Ampeg B-15N bass amp, Univox wah-wah pedals, fuzz and sustain boxes and Maestro "Phase shifter" and Octave doubler boxes available; Univox "Leslie effect" generator available.

Rates: Mono \$25/hr; 2 track \$30/hr; 4 track \$35/hr; 8 track \$40/hr; mixing \$25/hr. (Note: All rates for time and tape are prorated on actual time used, rather than time booked basis. We will charge back to last quarter hour used for partial segments of an hour.

Direction: Our studio is a small, comfortable and highly professional operation. We have recently formed a separate division for our broadcast operations. DVX International Division will concentrate on the creative aspects of record album production, radio and television spots and jingles. With over 300 musicians, actors and actresses at our disposal, we have an adequate work force for any communication media project. We have also recently become an advertising agency which can create original scripts and purchase air time on commercial broadcast stations in New York. Our aim is for total media packaging.

•• "DESTINY SOUND STUDIOS"

also REMOTE RECORDING

53 Knickerbocker Road, Englewood, NJ 07631

(201) 567-8160

Owner: Frank Timpono.

Studio Manager: Frank Timpono.

Engineers: Frank Timpono, Linda Doran.

Dimensions of Studios: 14' x 20'.

Dimensions of Control Rooms: 8' x 14'.

Tape Recorders: TEAC/Tascam 80-8 8 track; TEAC/Tascam A-3440 4 track; Akai M-8 2 track; Akai GX-F80 (metal cassette) 2 track; Invictor 6000 (cassette) 2 track.

Mixing Consoles: TEAC/Tascam 5-B, 8 in x 4 out; Yamaha EM-150, 6 in x 2 out.

Monitor Amplifiers: Yamaha P2100; McMartin LT-80C.

Monitor Speakers: Acousti-phase II (control room); Altec/Lansing Voice of the Theater (studio).

Echo, Reverb, and Delay Systems: Roland RE-201 Space Echo (no delay).

Other Outboard Equipment: dbx noise reduction, MXR flanger/doubler (rack mount), Clone Theory, Univox micro-phaser, Uni-Vibe chorus/vibrato, TEAC GE-20 10-band 2-channel EQ, Ashly limiter/compressor, MXR compressors, electronic metronome, Ross distortion.

Microphones: Electro-Voice RE-20; Shure SM-81's, SM-57's;

8 TRACK

Sony EMC 23F; Audio Technica ATM-11; Sennheiser MD-421; Countryman direct box.

Instruments Available: (All free) RMI electric piano/harpisicord, Brewster up-right piano, Terada mandolin, Suzuki classical guitar, Rhythm Band auto harp, 5-string banjo.

Extras: (All free) refrigerator, coffee machine, rehearsal PA, bathroom/shower, studio musicians, singers, lyrics available, musicians referral service, mood lighting, witness for tapes, lyrics, song sheets, by licensed NJ Notary Public, plus a relaxed, clean and creative atmosphere.

Rates: 1 hour free set-up time; \$20/hr recording (plus tape); \$10/hr mixdown (plus tape); cassette and 8 track tape copies \$5.00 (tape included); practice time \$10/hr (BY PREVIOUS ARRANGEMENT ONLY!)

Direction: To give artists every convenience possible, to help the natural creative juices flow, capture it on a quality recording, at a price that is within the reach of any serious band. At Destiny Sound, we were musicians before we were engineers, so we know what it's like on both sides of the glass.

•• ELECTRO-ACOUSTIC SYSTEMS, INC.

20 Piedmont Street, Boston, MA 02116

(617) 482-8110

Owner: Electro-Acoustic Systems, Inc.

Studio Manager: Connie St. Pierre.

Engineers: Ted St. Pierre.

Dimensions of Studios: 17' x 24'.

Dimensions of Control Rooms: 12' x 16'.

Tape Recorders: Tascam 80-8 8 track; Otari MX 5050 2 track; TEAC A-107 (2) cassette.

Mixing Consoles: Tascam Model 5, 8 in x 4 out.

Monitor Amplifiers: Crown & Dyna.

Monitor Speakers: JBL 1-26, Auratone.

Echo, Reverb, and Delay Systems: Furman reverb, Maestro Echoplex, Polyfusion voltage controlled reverb.

Other Outboard Equipment: UREI compressor/limiters, Furman parametric EQ, Polyfusion parametric EQ, assorted effects devices.

Microphones: Sennheiser 421, Audio-technica ATM 41 and ATM 10, Shure SM-57, Electro-Voice RE-16.

Instruments Available: Ivers & Pond piano, Yamaha & Ludwig drums with Zildjian cymbals, Polyfusion modular synthesizer system with double manual and sequencer, assorted guitar & bass amps, assorted guitars, assorted instruments and percussion.

Extras: In-house session musicians, synthesizer programming, arranging & lead sheets, promo packages.

Rates: \$15/hr including engineer, no charge for set-up or breakdown plus tape costs.

Direction: We specialize in new wave and electronic music. The atmosphere is low-pressure as we find it provides a more creative environment. Some of our credits include Willie Alexander, Peter Dayton with Ric Ocasek (The Cars) producing, The Rings, and sound tracks for several productions of the Boston Shakespeare Company.

•• EUPHORIA SOUND STUDIO

also REMOTE RECORDING

90 Shirley Ave., Revere, MA 02151

(617) 284-9707

Owner: Moss Lynch, Howard Cook.

Engineers: Moss Lynch, Howard Cook, Jeff Epstein.

Dimensions of Studios: 35' x 25' plus 12' x 12' isolation booth.

Dimensions of Control Rooms: 14' x 14'.

Tape Recorders: Tascam 80-8 8 track; Otari 5050 2 track; Ampex AX 300 4 track; TEAC 3340S 4 track.

Mixing Consoles: Tascam Model 5, 8 in x 4 out.

Monitor Amplifiers: Dunlap Clarke Dreadnaughts.

Monitor Speakers: Altec 604-4.

Echo, Reverb, and Delay Systems: Natural reverb chamber; Ampex AX300 for echo; MXR digital delay.

Other Outboard Equipment: dbx limiters, compressors, noise reduction; Mutron III, Mutron phasers.

Microphones: Sony ECM 56's; Sennheiser 421's; Electro-Voice CS15, RE-11; AKG 451, D200E; Shure SM-81, SM-57.

Instruments Available: Synthesizer, String Ensemble; baby

grand piano; Fender Rhodes.

Extras: Vocal and drum isolation booth, subsidiary record label, jingle and soundtrack composers, 2 lounge areas, 2 practice spaces, cable TV, studio musicians, arrangers, producers.

Rates: \$25/hour.

Direction: Grossman's radio spot, Waltham Camera & Stereo spot, Showcase Cinema soundtrack, Boston Globe multi media slide presentation soundtrack, Maine Nat'l Bank jingle, Polaroid music. Philosophy: You can't base an opinion on anything until it's done right. Aspiration: To build the finest musical complex. To be the best.

•• FIREHOUSE

also REMOTE RECORDING

648 Broadway, New York, NY 10012

(212) 533-1692

Owner: Systems Ltd.

Studio Manager: Steve Manes.

Engineers: Mike Friese, Todd Anderson.

Dimensions of Studios: 24' x 21' x 12'. LEDE (Live end/Dead end).

Dimensions of Control Rooms: 18' x 15' x 10'.

Tape Recorders: TEAC/Tascam 80-8 with dbx 8 track; Otari 4 track; Revox A-77 2 track; Scully 280 mono.

Mixing Consoles: Sound Workshop 1280B, 12 in x 8 out.

Monitor Amplifiers: Crown DC-300A, D-150A, D-60.

Monitor Speakers: Yamaha NS-1000, Auratones.

Echo, Reverb, and Delay Systems: AKG BX-10, Lexicon Prime Time.

Other Outboard Equipment: dbx, UREI limiters; Pultec, Spectra Sonic EQ; Ashly SC-40 bass preamp, digital sequencer, outboard dbx, Dolby, phaser, flanger, bass micro synthesizer.

Microphones: Neumann U-87, U-47; AKG 414EB, 452; RCA 44; Sony ECM 22P, ECM 270, ECM 170, C-37A; Shure SM-81, SM-57, 545; Beyer M-160, M-500, M-69; Electro-Voice RE-16, RE-15, RE-11.

Instruments Available: ARP 2500, Prophet 5, ARP Odyssey; Yamaha CP-30, Fender Rhodes Suitcase, Steinway grand, Fender and Ampeg amps, custom-built Ashly/Community/Crown bass amp, Ludwig 6 piece drums, Zildjian, assorted percussion.

Extras: Isolation room, amp booth, 24 hour elevator (no stairs); production and contracting assistance, if requested.

Rates: \$35/hr. Call for block rates.

Direction: Firehouse was designed specifically to service the growing demand for high quality commercial 8 track recording in NYC. Many arrangers and producers have returned to 8 track for their demo and industrial work. They expect the same service and sound quality from us as they do from larger studios. Firehouse is staffed by experienced professionals from all facets of the recording arts and they are qualified to service your needs in recording a simple voice-over or a new wave single. Our policy is to create a comfortable environment for our clients to work in and to treat each client's project as our own.

•• GOLDEN EAST RECORDING

also REMOTE RECORDING

70 Turner Hill Rd., New Canaan, CT 06840

(203) 966-0765

Owner: Lisa Null.

Studio Manager: Don Wade.

Engineers: Don Wade, Bob Moscovitz.

Dimensions of Studios: 12' x 19'; 9' x 9'.

Dimensions of Control Rooms: 12' x 15'.

Tape Recorders: Tascam 70 8 track; Crown 800 4 track; Nagra IV-S 2 track; TEAC 7030SL 2 track; Ampex 300 2 track; Sony, JVC and Nakamichi cassette recorders.

Mixing Consoles: A&H Model 2, 8 in x 8 out; A&H mini, 6 in x 2 out; Tapco 702, 8 in x 2 out; plus several other small portable mixers.

Monitor Amplifiers: Onkyo, Harman-Kardon.

Monitor Speakers: JBL L-200, Avid 102, E-V Interface A.

Echo, Reverb, and Delay Systems: Audio Pulse digital reverb, Fairchild and homemade spring

Other Outboard Equipment: dbx on all channels; Dolby B; Orban dynamic sibilance controller; Korg tuner; Phase Linear Autocorrelator; Burwen dynamic noise filter.

Microphones: AKG C-414, C-61, D-200E, D-1000, D-202E, D-160; Shure SM-81, SM-58; Sony ECM-22P; E-V 1776, RE-16; Synchron S-10; Beyer M-160, M-100; Neumann KM-84.

Instruments Available: Steinway grand piano, drum set.

Rates: \$28 (2 or 4 track), \$38 (8 track); 4-hour session rate: \$90 (2 or 4 track) and \$120 (8 track).

Direction: We are owned by Innesfree/Green Line Records and are set up to serve them. We also do independent work and have produced many private label records and demo tapes. Our direction is strongly pointed toward acoustic music.

•• GOLDEN HORN RECORDING STUDIO

97 West Second Street, Freeport, NY 11520

(516) 623-7588

Owner: M. Sami Uckan.

Studio Manager: M. Sami Uckan.
Engineers: Erol Uckan, Jim Kenniff.
Dimensions of Studios: 23' x 14'.
Dimensions of Control Rooms: 10' x 7'.
Tape Recorders: Scully 280 8 track Scully 280 2 track Sony 854 4 track; Sony 850 2 track (2).
Mixing Consoles: Cadco custom made, 15 in x 8 out.
Monitor Amplifiers: (2) McIntosh amps, 4 CM Laboratories 80.
Monitor Speakers: Altec, JBL.
Echo, Reverb, and Delay Systems: Lexicon digital delay, Delta Lab Acousticcomputer, Tapco reverb, Binson echo.
Other Outboard Equipment: Pultec EQ's, Spectra Sonics EQ's, Spectra Sonics compressor limiters, UREI compressor limiters.
Microphones: AKG, Neumann, Shure, E-V, Altec, etc.
Instruments Available: Gulbarnsen piano, double bass Slingerland drums, hand-made A. Zildjian cymbals imported from Turkey.
Rates: \$35/hr.
Direction: Album: "Kleer/Love To Dance," Single: "Keep Your Body Working." Creatively complete, located on the harbor in Freeport.

•• HOMETOWN RECORDING
645 Broadway, New York, NY 10003
(212) 260-5226

Owner: Martin Balk, Larry Carola.
Studio Manager: Gail Hagler.
Engineers: Martin Balk, Larry Carola, Gail Hagler.
Dimensions of Studios: 20' x 25'.
Dimensions of Control Rooms: 15' x 15'.
Tape Recorders: 1" Otari 7300 8 track; Otari 5050B 2 track; Pioneer RT 1050 2 track; Yamaha TC-720 cassette.
Mixing Consoles: Sound Workshop (up-graded) 1280B, 12 in x 8 out.
Monitor Amplifiers: Crown DC 300; Dyna 400.
Monitor Speakers: UREI 811, Auratone.
Echo, Reverb, and Delay Systems: AKG BX10, live chamber.
Other Outboard Equipment: UREI, Universal, Teletronix limiters; Lang PEQZ equalizers, 8 tracks dbx and 2 tracks for mix-down, phasers.
Microphones: AKG 414, 452EB, 224; Sony C-22; Electro-Voice RE-20, RE-16; Sennheiser 421; Shure SM-57.
Instruments Available: Yamaha baby grand piano, Fender Rhodes, full set Pearl & Yamaha drums, three vintage Fender guitar amps (circa 1960).
Rates: \$35/hr record and mix; \$20/hr edit, assembly, copy time.
Direction: We believe in the unlimited capabilities of 8 track recording and have demonstrated it over and over again by the number of products that have gone on to be aired or used for commercial purposes.

•• INNERCITY SOUND
351 Jay Street, Brooklyn, NY 11201
(212) 624-7807

Owner: Danil Dreger.
Studio Manager: Bob Dreger.
Engineers: A. Latorre, chief engineer; B. Dreger assistant engineer.
Dimensions of Studios: 20' x 20' (including drum booth).
Dimensions of Control Rooms: 15' x 15'.
Tape Recorders: Scully 284-B 8 track; TEAC A-7300 2 track; Revox A-77 2 track; Dokorder 7100 2 track.
Mixing Consoles: Sound Workshop 1280B expanded EQ, 12 in x 8 out.
Monitor Amplifiers: Crown DC-300A, Uni-Sync Model 50, Crown V7X crossover.
Monitor Speakers: Altec 604E, JBL L100, Secret Sound Cubes.
Echo, Reverb, and Delay Systems: Sound Workshop 242A.
Other Outboard Equipment: UREI graphic EQ Model 527A, Pandora stereo limiter Model LM-402, dbx 157, Sound Workshop vocal doubler Model 220.
Microphones: Shure 57; Neumann KM-84; Sennheiser MD 402-U; AKG SE-10, D-124E, DM-700, CM-2000; Electro-Voice RE-10, 1751; Beyer M-69; Sony C-37.
Instruments Available: Knabe upright piano, Hammond M100, 12-piece Tama drum kit, 10-piece Ludwig, Crumar Multiman string synthesizer, Maxi-Korg.
Extras: Large drum booth, and isolation room.
Rates: \$35/hr recording and mix, bulk rates available.
Direction: To produce high quality recordings in a relaxed and comfortable atmosphere. We provide studio musicians and production services at little or no extra charge.

•• KEWALL PRODUCTIONS RECORDING STUDIO
also REMOTE RECORDING
77 Bayshore Rd., Bayshore, Long Island, NY 11708
(516) 586-8436
Owner: Kewall Productions Inc.
Studio Manager: Walter K. Gutschwager.
Engineers: Keith A. Gutschwager and Walter Gutschwager.

8 TRACK

Dimensions of Studios: 22' x 18'.
Dimensions of Control Rooms: 10' x 10'.
Tape Recorders: TEAC 80-8 8 track; Tascam 40-4 w/dbx 4 track; TEAC A-3300 SX 2 track; Akai 400 DB 2 track; JVC KD-15 cassette w/Dolby 2 track.
Mixing Consoles: Tapco C-12 with expander, 12 in x 8 out; Sony MX-510, 6 in x 2 out.
Monitor Amplifiers: JVC JA-41 in control room and studio.
Monitor Speakers: 4 AR18 in control room, 4 EVS-14B in studio and 2 JBL 4311's in studio.
Echo, Reverb, and Delay Systems: Tapco 4400 stereo reverb.
Other Outboard Equipment: dbx on all tracks, Tascam Model 1, Pioneer SG-9500 graphic EQ, ADC frequency EQ, Echoplex echo chamber.
Microphones: Shure SM-57, PL-55; Electro-Voice 1778-1E, PL-33, PL-31, RE-20; AKG D-160, etc.
Instruments Available: Aeolian Melodigrand piano, drums, guitars, percussion, etc.
Extras: 24 hour recording, all the coffee you can drink, snacks, plenty of free parking, 24 hour restaurant 2 blocks away, 24 hour motel 2 blocks away, refrigerator, 1/2 setup time free, tape duplication on the spot, record label available, promotions, pleasant atmosphere, bulk album and 45's rates with recording included, we could go on and on.
Rates: 2, 4, 8 track \$25/hr. Week rates on full production. Bulk rates for 25 or more hrs. Mixing \$20/hr. Note: Recording time does not include tape.
Direction: We don't profess to have the space of the larger NY studios, but we do have the "know how", the equipment and the homey relaxed atmosphere to produce the sound you are looking for. We also have our record label, and we do complete production on records for any organization, and our prices are unbeatable. We do a lot here, and we have found from experience that the artist has to be relaxed and feel at home to be at his or her best. Here at Kewall you get that feeling. Kewall Productions is owned by Keith and Walter Gutschwager and is one of the finest studios located in central Long Island. As we say at Kewall "See us first to be first." We have the key to make good sound.

•• CHARLES LANE STUDIOS
7 Charles Lane, New York, NY 10014
(212) 242-1479

Owner: Michael F.J. Lynch.
Studio Manager: Cliff Petroll.
Engineers: Gee Strongbear.
Dimensions of Studios: 20' x 30'.
Dimensions of Control Rooms: 12' x 16'.
Tape Recorders: Ampex AG350 8 track; Ampex 350 2 track; Ampex 960 2 track.
Mixing Consoles: Northwest custom 20 in x 16 out.
Monitor Amplifiers: Crown DC 300A.
Monitor Speakers: Altec 604E.
Echo, Reverb, and Delay Systems: Sound Workshop 242A; Dynacord DRS 78.
Other Outboard Equipment: Altec compressors; Pultec EQ; Dynacord TAM19.
Microphones: Neumann U-47; AKG C12A, 224, C60A; RCA 77DX; Shure SM56; Altec 633.
Instruments Available: Hammond B-3, Fender Rhodes, Ludwig drum set, Sunn and Yamaha amps.
Rates: 8 track \$40/hr, block time discounts.
Direction: We specialize in artist development.

•• LINEAR SOUND RECORDING STUDIO
also REMOTE RECORDING
211 Glenridge Ave., Montclair, NJ 07042
(201) 744-0686

Owner: M. Kroll.
Studio Manager: Tom Steinmann.
Engineers: M. Kroll, S. Hornstein, B. Clark.
Dimensions of Studios: 20' x 30', 10' x 10', 8' x 10'.
Dimensions of Control Rooms: 10' x 10'.
Tape Recorders: Tascam 80-8 8 track; Pioneer 1050 2 track;

Tascam 6010 2 track.
Mixing Consoles: Tascam 2 Model 5's customized to 16 in x 8 out, stereo cue and echo send, transamp inputs by 4/80 (differential transformerless inputs.)
Monitor Amplifiers: SAE.
Monitor Speakers: Canton, Advent, control room; Presage 9 and Fairfax FTA, studio.
Echo, Reverb, and Delay Systems: Intersound reverb w/parametric EQ pre or post, MXR delay.
Other Outboard Equipment: dbx, Dolby, 4-channels of 4-band parametric EQ, 3-channels of graphic EQ, 7-channels of compression, phase, flange, echo, stereo synthesizer, envelope follower, instrument preamps (completely replaces guitar or bass amp, w/tube overdrive to full distortion available w/4-band parametric EQ to simulate any type of amplifier), 2-channels of notch filters.
Microphones: E-V RE-20's, 1711's; AKG 414's, 451's; Sony ECM 50's, 21's; Shure SM-56, 57, 58's.
Instruments Available: Electrocomp synthesizer, 7' concert grand piano, various electric and acoustic 6 and 12 string guitars, Fender bass, elec. piano, cornet, tenor sax, flute.
Extras: In-house musicians, arranger, and producer, 14' ceilings, RF shielded (entire studio is metal encased). Anything we don't have can be rented for the session.
Rates: \$40/hr, block rates are available under certain conditions.
Direction: We feel that a creative mix involves both art and science, but the art has the major import here. We don't believe in studio drumsets, or a particular mic for piano, etc., as we feel every artist has a unique sound requirement. Good equipment is nice, but good ears are the mandatory requirement for a great studio. We try to create a comfortable environment for people, without any flash or razzle dazzle.

•• NORTH COUNTRY SOUNDS
RFD #7, Box 163F, Auburn (Manchester), NH 03032
(603) 483-2662

Owner: Tom Bartlett.
Studio Manager: Tom Bartlett.
Engineers: Chief Engineer: Tom Bartlett, Engineer: Mark Fecteau.
Dimensions of Studios: 20' x 12' main studio with separate 8' x 8' isolation booth.
Dimensions of Control Rooms: 12' x 8'.
Tape Recorders: Tascam 80-8 with DX-8 NG 8 track; TEAC 6100 2 (1/2) track; Akai 4000 DB 2 (1/4) track; Sony TK3 cassette.
Mixing Consoles: Tascam Model 5, 8 in x 8 out.
Monitor Amplifiers: Scott.
Monitor Speakers: JBL.
Echo, Reverb, and Delay Systems: Roland Space Echo, Fender (pre CBS tube) reverb.
Other Outboard Equipment: dbx compressor, Electro-Harmonix phase shifter, and noise gates, dbx noise reduction.
Microphones: Shure, Beyer, AKG, Electro-Voice, Superscope condensers.
Instruments Available: Piano, drums, acoustic guitar, banjo, violin, dulcimer.
Extras: Studio musicians, equipment rentals arranged, Visa, charge cards accepted, acres of woods and fields.
Rates: \$18/hr weekdays until 6pm, \$22/hr evenings and weekends, plus tape. Block quotes available, demo packages, 6 hrs, reel-master mix, 1 cassette \$100 days; \$125 evenings and weekends.
Direction: A relaxing country atmosphere contributes greatly to our ability to consistently produce a sound superior to many 24 track studios (our clients' words, not ours). Despite reports of an industry slow down, and competition from the Boston area, we recently were able to increase our rates with no loss of business. Our advertising is word of mouth and our reputation for a good, clean, flexible sound and customer service is spreading rapidly. We will be expanding soon to 16 tracks and already have time reserved.

•• PERFECT CRIME PRODUCTIONS
80-A Elton Avenue, Watertown, MA 02172
(617) 924-7181

Owner: Rob Dimit.
Studio Manager: Rob Dimit.
Engineers: Rob Dimit, Rex Morrill, Derek Huntington.
Dimensions of Studios: 20' x 24' x 12'.
Dimensions of Control Rooms: 12' x 8' x 8'.
Tape Recorders: Tascam 80-8 8 track; Otari MX-5050 QXHD 4 track; Revox A-77 2 track (1/2); Sony TC-850 2 track (1/2 & 1/4); 4 cassette decks various manufacturers.
Mixing Consoles: Sound Workshop 1280-8 (modified), 12 in x 8 out; Allen & Heath Quasi, 8 in x 4 out.
Monitor Amplifiers: Dynaco 400, Acoustech and Southwest Technical.
Monitor Speakers: Altec 9844's, Auratone 5C's, large Advents.
Echo, Reverb, and Delay Systems: AKG BX-10, various tape delays.
Other Outboard Equipment: Ashly SC-66 parametric EQ, Ashly SC-50 compressor/limiters (2), Allen & Heath limiter/com-

HUSH MONEY.

The dbx 208 tape noise reduction system is a new product that will impress both your engineering staff and your accountant. The 208 features 8 channels of simultaneous noise reduction on plug-in modules, plus a spare, all in a compact 5 1/4" rack mount package.

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dbx, Incorporated,
71 Chapel Street
Newton MA 02195
617-964-3210

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Making Good Sound Better



*Nationally advertised value.
Actual prices are set
by dbx dealers.

processors (2), A&H 9-band graphic EQ, A&H noise gates (2), dbx noise reduction on all tape decks.

Microphones: Electro-Voice RE-20, DS-35; AKG C-451's, D-1000's; Sennheiser 421's; Beyer M-500's, M-260, M-160, M-201's, M-101's; Shure SM-58.

Instruments Available: 1928 Steinway Model L grand piano, Ampeg B-15 bass amp.

Rates: \$20/hr, packages arranged.

Direction: Perfect Crime is under new management as of last May. Projects during the last year have included album tracks for Jonathon Richman (Berserkley); "Living In The World," Professor Anonymous (Bomp); Dave Laibman (Rounder); as well as pre-production and demo work for the Pousette-Dart Band, Liv Taylor, Robin Lane and the Chartbusters, Chip Harding, the Nervous Eaters, and the Paley Brothers.

•• RECORDED PUBLICATIONS LABORATORIES

also REMOTE RECORDING

1100 State St., Camden, NJ 08105

(609) 963-3000

Owner: David H. Goodman, Edward J. Goodman.

Studio Manager: Howard Solomon.

Engineers: Ernest W. Merker, Howard Solomon, Nelson Davison, Howard Podolnick, Sid Morton, Bob Zerling, Art States.

Dimensions of Studios: Studio A: 35' x 25'; Studio B: 15' x 25'; Studio C: 8' x 10' (film).

Dimensions of Control Rooms: Studio A: 15' x 15'; Studio B: 11' x 15'; Studio C: 35' x 15' (film).

Tape Recorders: 3M M-79 8 track; Ampex 440 4 track; Ampex 440 2 track; Ampex 440 mono.

Mixing Consoles: Electrodyne 2016, 20 in x 16 out; Electrodyne 1204, 12 in x 4 out; custom film mixing, 8 in x 4 out.

Monitor Amplifiers: CM Labs, Fairchild, Dyna.

Monitor Speakers: Altec A-7, Altec 604-E, RCA LC-1A.

Echo, Reverb, and Delay Systems: 2 natural chambers, 2 stereo EMT, Orban/Parasound.

Other Outboard Equipment: Dolby A&B, dbx, Kepex, UREI 1176LN limiters.

Microphones: Telefunken, Neumann, AKG, RCA, Electro-Voice, Shure, all popular models.

Instruments Available: Vibes, string bass, orch. bells, Steinway grand piano, Hammond C organ.

Extras: Complete high speed duplication facilities for cassettes, 8 track, reel to reel.

Rates: \$65/hr Mon.-Fri. 8:30am to 5:00pm; \$75/hr Mon.-Fri. 5pm-mid., Sat 8:30am-5:00pm.

Direction: A professional studio with 30 years in the business.

•• REEL APPEAL

also REMOTE RECORDING

308 West Main St., Smithstown, NY 11787

(518) 724-1593

Owner: C.G. Spero, J.G. Karcher.

Studio Manager: Jim Karcher.

Engineers: Jim Karcher, Charlie Spero chief engineer.

Dimensions of Studios: 25' x 18'.

Dimensions of Control Rooms: 18' x 8'.

Tape Recorders: Tascam 80-8 8 track; Tascam 25-2 2 track; TEAC 2300SX 2 track; Toshiba PC 3000 cassette.

Mixing Consoles: Sound Workshop 1280 parametric EQ, 12 in x 8 out; Kelsey 1200 1200, 12 in x 4 out.

Monitor Amplifiers: Dyna 400, Technics.

Monitor Speakers: E-V Sentry V; BIC Formula II.

Echo, Reverb, and Delay Systems: Sound Workshop 242 reverb; Sound Workshop 220 delay, EC-100 tape echo.

Other Outboard Equipment: Mutron Phasor, dbx 118 comparators, DX-8 noise reduction, dbx 161 compressor/limiters, Tannoy turntables.

Microphones: Shure SM-58's; E-V DO-54's, RE-11; Sennheiser MD 421's, ME-20, ME-40.

Instruments Available: Kranich-Back acoustic piano, Ludwig drums, studio amplification, string synthesizers.

Extras: Separate "living room" for whatever.

Rates: Recording \$25/hr; Mixing \$20/hr.

Direction: Dedicated to stay the no. 1 demo studio on Long Island. RoseAnne Sorrentino, Lead in road company of "Annie"; Citizen's Band, Casablanca Recording Artists, Hargrave, soon to be heard.

•• RENAISSANCE RECORDING STUDIO

71 Ave., Turners Falls, MA 01376

(413) 883-9711

Studio Manager: James Skiathitis.

Engineers: James Skiathitis, Karen Barry.

Dimensions of Studios: 35' x 40' w/stage for live work. Studio is actually an old movie house converted.

Dimensions of Control Rooms: 12' x 20'.

Tape Recorders: MCI JH 114-8 8 track; MCI JH 110 2 track; Ampex AG 440 B 2 track; Revox A700 2 track; Revox A77 2 track.

Mixing Consoles: Quad/Eight 1682, 16 in x 8 out.

8 TRACK

Monitor Amplifiers: Crown D150 and 300 A.

Monitor Speakers: JBL 4350 and 4311.

Echo, Reverb, and Delay Systems: EMT 240, Eventide 1745 M DDL.

Other Outboard Equipment: 4 UREI 1176 limiters, Eventide Omnipressor, Orban parametric 622B; 8 Allison Kepex, Audio Design Compex-limiter F760X-RS, 2 UREI 527-A graphic EQ's, Eventide Instaphaser.

Microphones: Neumann 87's, 85's, 84; Sony C-37P; Sennheiser 421's, 441's, 415, 815; AKG D-202; Shure SM-58's, 57's.

Rates: \$35/hr plus tape.

Direction: Have done radio production, demos; produced the Renaissance Church Radio show for 4 years. Philosophy: To best reproduce whatever creative project that we are given.

•• ROSEMARY MELODY LINE STUDIO/VAN RECORDING

also REMOTE RECORDING

633 Almond St., Vineland, NJ 08360

(609) 696-3085

Owner: Rosemary Melody Line.

Studio Manager: Dennis Link.

Engineers: Dennis Link, A. Steven Powers.

Dimensions of Studios: 15' x 15'.

Dimensions of Control Rooms: 8' x 8' van—Ford Econoline.

Tape Recorders: Tascam 80-8 8 track; Studer/Revox A77 MKIV 2 track; Studer/Revox A77 MKIII ¼ St; BIC T-4 cassette-2.

Mixing Consoles: Tascam 10B 12 in x 8 out; Custom built for remote truck, modified Kelsey design with 27 channel snake connection, 24 x 8 x 2 x 1.

Monitor Amplifiers: SAE XXI B, Dynaco QSA 300.

Monitor Speakers: Custom built by ASP Sound, Koss & Sennheiser headsets.

Echo, Reverb, and Delay Systems: Tapco 4400.

Other Outboard Equipment: DX-8, MXR-15 EQ, dbx 162 compressor/limiter, isolation transformer stage box with 27 pair snake for remote recording, frequency analyzer E/H.

Microphones: E-V RE-20, RE-15's, RE-16's, DS-35, 635A's, CS-35, RE-10's, RE-11's; Sony ECM 22's; Turner Crystal, Hot Dots; Shure SM-58's.

Instruments Available: '58 Fender Telecaster, Chickering console, ARP Odyssey, Cone Traps.

Extras: Photography, producing, sound reinforcement system, mobile van recording for concert promotions 8 channel and 2 channel, distilled negative polarized water, meditation room and patience.

Rates: \$35/hr, \$300/day for studio; \$800/day for 2 track van recording; \$1000/day for 8 track van recording with 24 channel board. Special rates for readers of the Mix. Send for a quote along with your specifications.

Direction: RML is 1 hour from Atlantic City and Philadelphia, 2 hours from New York. We produce a radio show on WMVB 97.3 FM which highlights original material RML recorded as well as other studios and artists. The show consists of all types of music and sound consciousness. Complementing this we offer custom direct print jackets and pressings for 45's and 33's in small quantities. We have engineered several local albums as well as the Hunger Project album, "Riding the Wings of Love," available through Goodworks Music, Bridgetown, NJ. Also, "Gambling Town" by Movie, \$2 from the studio.

•• SADLER RECORDING STUDIO INC.

120 W. 44th St., New York, NY 10036

(212) 575-0295

Owner: John H. Sadler.

Studio Manager: John H. Sadler.

Engineers: J. Sadler, Ken Dovel.

Dimensions of Studios: 24' x 12'.

Dimensions of Control Rooms: 24' x 12'.

Tape Recorders: Scully 280 8 tracks; Ampex AC-440 4 track; Ampex AG-350 2 track; Ampex 350 1 track.

Mixing Consoles: Allen and Heath, 16 in x 8 out.

Monitor Amplifiers: Crown, Dyna.

Monitor Speakers: Altec, KLH.

Echo, Reverb, and Delay Systems: Orban, Fairchild.

Other Outboard Equipment: Burwen noise eliminator-

reducer, Kepex filters, etc.

Microphones: AKG 451, Sony C37, EV 666, and others.

Instruments Available: Piano, drums, Moog.

Rates: \$50/hr 8 track; \$40/hr 4 track; \$35/hr mono.

Direction: Mostly advertising, location recordings, demos.

•• SHUSTER SOUND

29 Burt Court, Valley Stream, NY 11581

(516) 791-2985

Owner: Bob Shuster.

Studio Manager: Bob Shuster.

Engineers: Bob Shuster.

Dimensions of Studios: 12' x 28'.

Dimensions of Control Rooms: 9½' x 15'.

Tape Recorders: TEAC/Tascam series 70H8 (½") 8 track; Scully 280-2-4 (¼"-½") 2, 4 track; TEAC 3340S (¼") 4 track; TEAC 3300S (¼") ¼ track stereo; Akai GX220 (¼") ¼ track stereo; JVC KD-75 cassette deck; JVC KD-10 cassette deck; Sony TC-140 cassette deck; Ampex AG-600 ½ track mono.

Mixing Consoles: Custom built Sontec I, 12 in x 4, 8 out; graphic EQ on each channel, 2 cues, 2 echo sends/returns, Phantom powering for condenser mics.

Monitor Amplifiers: BGW 250D; Sansui AU6600, Dynaco-Mark III.

Monitor Speakers: Altec 9865 8A; BSR SS70, bookshelf type; Lafayette radio PIP Speaker Model 1.

Echo, Reverb, and Delay Systems: Echoplex tape delay (tube type unit), Gramplan 636 reverb unit.

Other Outboard Equipment: dbx 160 compressor/limiter, Deltagraph EQ, Dolby noise reduction, TEAC AN300, TEAC AN-80, Technics SL-1500 MKII turntable, JVC HR6700U ½" video cassette machine, Jensen transformer direct boxes.

Microphones: AKG 451E; Neumann M49, U67, U87, KM84, U-269; Sennheiser 421, 441; Shure SM57, SM81; Sony ECM22P, ECM33P; TEAC ME180.

Instruments Available: Baby grand piano, drums, amps.

Extras: Air conditioned, free parking, sound effects and production music library, color TV monitoring system, free set-up.

Rates: 8 track \$25/hr plus tape/materials; 4 track \$18/hr plus tape/materials; 2 track \$18/hr plus tape/materials; tape copies, reel to reel or cassettes, please call.

Direction: Our main operation is to produce high quality demos for bands and songwriters, though some of the material done here has been pressed for local distribution, mainly in the local clubs where the bands play. We also have increased our sound effect and production music library for our jingle work for local radio stations and A/V presentations.

•• SORCERER SOUND

also REMOTE RECORDING

19 Mercer St., New York, NY 10013

(212) 228-0480

Owner: Al Feierstein.

Studio Manager: Gregory S. Curry.

Engineers: Terry Murphy, Gregory Guarino, Tom Young, Poco, Gregory S. Curry, Al Feierstein.

Dimensions of Studios: 13' x 27'.

Dimensions of Control Rooms: 11' x 13'.

Tape Recorders: Tascam 80-8 8 track; (2) Technics 1500 ½ and (1) ¼ track; Akai GXC 750D cassette; Nagra Model 3 full track mono.

Mixing Consoles: Acoustilog, Inc.

Monitor Amplifiers: Phase Linear, BGW.

Monitor Speakers: Allison Three's, ROR E³.

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb, Lexicon Delta-T digital delay, EMT 140 stereo plate reverb, DeltaLab digital delay, Master-Room 'Studio B' reverb, analog delay.

Other Outboard Equipment: ROR parametric EQ's, Kepex, Acoustilog Spectrum Multilyzer, UREI digital metronome, Eventide Harmonizer, phaser and compressors.

Microphones: AKG 414, 451, 422, C-33, C-34, D-224, etc.; Neumann U-47 tube; Electro-Voice RE-15, DS-35; Shure SM-57, SM-58, 545, 565; RCA 77-DX; PZM's; Acoustilog direct boxes with Jensen transformers.

Instruments Available: Baldwin upright piano, Fender Rhodes piano, Tama drums, amps, etc.

Extras: Copy room, Dolby and dbx.

Rates: 8 track \$30/hr.

Direction: Sorcerer Sound is owned by Acoustilog, Inc., a manufacturing, studio design and electro-acoustical consulting firm. As a showroom for our design services, the studio must also provide the most up-to-date equipment in a logical arrangement for our recording clients. The equipment is expertly maintained and upgraded regularly, assuring that the quality of our sound is second to none. This spring, as we expand to 24 track, we will maintain our competitive rates while providing new capabilities which will continue to make Sorcerer unique.

•• SOUND DESIGN RECORDING STUDIOS
80 Rear Cambridge St., Burlington, MA 01803
(617) 273-1548

Owner: Bruce Mancinelli.

Studio Manager: Bruce Mancinelli.

Engineers: Brad Szostek/Chief; Bruce Mancinelli; William Saunders, set up; William Gaherty, Maintenance.

Dimensions of Studios: 32' x 28' with drum booth presently under construction: 10' x 8'.

Dimensions of Control Rooms: Presently 10' x 15', being expanded to 12' x 30'.

Tape Recorders: Tascam 80-8 8 track; TEAC 3300SX ½ track 2 track; TEAC 2300S ¼ track 2 track; Sansui 2002 cassette; Panasonic cassette.

Mixing Consoles: Sound Workshop 1280B, 12 in x 8 out; (the console has a 180 point patch bay).

Monitor Amplifiers: Crown D-300, DC-150; Dunlap-Clarke Dreadnaught 250; Akai, also monitor amps designed by our chief engineer.

Monitor Speakers: JBL 4311 (control room main), custom design Altec (studio), Speaker Lab Model 5 (control room).

Echo, Reverb, and Delay Systems: Reverb: Tapco 4400 with limiters on inputs; Lexicon Prime Time digital delay with optional memory cards; tape delay.

Other Outboard Equipment: Allison Kepex's (2); Spectra Sonics Model 610 Complimiters (2); dbx 160 comp/limiter; Ashly SC-66 parametric EQ (2); dbx noise reduction on all tape machines; 180 point patch bay.

Microphones: Electro-Voice RE-20; Sony ECM 56-F; Sennheiser 421; AKG D-222's, D-200E's, D-1000E; Shure SM-58's, SM-57, SM-53; Beyer M-500's.

Instruments Available: Grand piano, Hammond B-3 organ with Leslie, 7-piece Ludwig drums, specially modified Fender Stratocaster, Gibson bass.

Extras: Fast, quality record pressing, tape duplicating, cassette duplicating, production assistance available at nominal fee.

Rates: Standard rates: \$20/hr studio and mixdown; block time rates on a per project basis; demo package rates: 8 hrs studio or mix time plus 1 master and 1 mixdown reel of tape plus 2 cassette copies/\$150.00.

Direction: Sound Design is a young 8 track studio in the New England area quickly gaining reputation for its transparent, well produced recordings. When working in our studios you will encounter a warm, relaxed atmosphere and a staff most eager to assist you in reaching your goals and dreams. Our engineers are experts at helping the artist make the transition to studio life. The engineering philosophy here is one of total commitment to our work and to the artist.

•• SOUND LAB STUDIOS, LTD.
2687 E. 14 St., Brooklyn, NY 11235
(212) 934-8585

Owner: Peter Diorio.

Studio Manager: Peter Diorio.

Engineers: Peter Diorio.

Dimensions of Studios: 30' x 20'.

Dimensions of Control Rooms: 20' x 20'.

Tape Recorders: TEAC 80-8 8 track; TEAC 7300 2 track master; TEAC 1230 2 track.

Mixing Consoles: TEAC Model 15, 24 in x 16 out.

Monitor Amplifiers: Crown DC 300A (new), Dynaco 150 cue amp.

Monitor Speakers: (2) Mastering Lab crossover Big Reds; (2) JBL 4311B's; (2) Auratones; (2) Fraziers.

Echo, Reverb, and Delay Systems: Sound Workshop 2322 reverb.

Other Outboard Equipment: Sound Workshop doubler.

Microphones: Sennheiser MD-421's, ME-40's, MKH 416T; AKG C-451EB's, D-224E; Shure SM-57, SM-58; E-V 1777.

Instruments Available: Crown PA system with JBL cabinets, Ludwig drum set, oversized Acoustic 220 bass amp with Sunn bottom, (2) 15" JBL's, (2) Fender Twin amps, Music Man guitar amp, Acoustic 150 guitar amp, Marshall 100W, Marshall 50W, Sohmer baby grand piano, Hammond L-100 with Leslie cabinet, 88 stereo Suitcase Rhodes, Mini Moog synthesizer, Crumar Orchestrator (strings).

Rates: 8 track recording \$30/hr, mixing \$25/hr; 4 track recording \$20/hr, mixing \$15/hr; 2 track \$15/hr, mixing \$10/hr; Rehearsal time, Mon thru Friday before 6pm \$10/hr, after 6pm \$12/hr; Sat and Sun \$12/hr.

Direction: Will be going 16 track (3M Scotch) by May 1980; will have great selection of outboard equipment and microphones and effects.

•• SOUNDREALM RECORDING STUDIOS INC.
also REMOTE RECORDING
880A West Beech Street, Long Beach, NY 11561
(516) 431-8705, 432-8988

Owner: SoundRealm Recording Studios Inc.

Studio Manager: Heath Morgan, President.

Engineers: H. Morgan, D. Moore, J. Corkery, T. Knobel.

Dimensions of Studios: 25' x 16' x 10' main studio with 3

8 TRACK

smaller isolation and vocal rooms. Upper observation deck for friends and guests.

Dimensions of Control Rooms: 12' x 12'.

Tape Recorders: Autotech 1" 8 track; Ampex 440 B 2 (½) track; Ampex 350 2 track ½ track; TEAC 2340 4 track ¼ track; BIC T-3.

Mixing Consoles: Langevin, 13 in x 8 out; Tascam 5B, 8 in x 4 out; Shure SE-30's.

Monitor Amplifiers: McIntosh 2105, Nikko Alpha I.

Monitor Speakers: Altec 604E's.

Echo Reverb and Delay Systems: Orban/Parasound reverb, variety of boxes and effects. Shure limiter/compressors.

Other Outboard Equipment: Nikko Beta III, Nikko EQ-1, Soundcraftsmen 20-12 EQ.

Microphones: Neumann U-87's; Shure SM-81's, 58's; E-V RE-55's, RE-15's, 635's, 666; AKG 160E's, 200E's.

Instruments Available: Harrington upright, Hammond B-3 and 145 Leslie, ARP Strings & synthesizer with patch bay, CAT synthesizer, Roland synthesizers, assorted percussion, amps, guitars, drums, timbals, and effects.

Extras: Relaxed, professional atmosphere catering to the performing arts. Located in the "Twilight Zone", Long Beach on the Atlantic Ocean with convenient travel to Manhattan and airports. Locally well known for the staging of a variety of beach concert programs highlighting new and original material.

Rates: 8 hours recording originals all tape and tax \$300 complete. Block rates available on request for rehearsal and 2/4/8 track.

Direction: SoundRealm is an innovative studio dedicated to helping new and aspiring recording artists achieve their creative goals. We offer full management and promotional support with personalized attention. N.Y. metro bookings of artists and bands are directed through our in-house agency, Wizard Talents by Ms. Terri Knobel and John La Cella. Our own record company was formed in Sept. of '79, Realm Records, with 3 singles by "The Alley Cat Choir," "Jan Wickline," and "Neil Wax" released thus far, with much more yet to come, as SoundRealm continues to be L.I.'s leading in-house production studio/record corp.

•• SOUND TECHNIQUES
3 Laurel St., Watertown, MA 02172
(617) 923-4040

Owner: Leon Janikian.

Studio Manager: Leon Janikian.

Engineers: Andrew Schatz, Leon Janikian, Karen Kane.

Dimensions of Studios: 25' x 35' x 11' with isolation 8' x 9'.

Dimensions of Control Rooms: 16' x 13'.

Tape Recorders: Tascam 80-8 8 track; Technics RS-1500 2 track; TEAC F-200 cassette.

Mixing Consoles: Sound Workshop 1280-B, 12 in x 8 out.

Monitor Amplifiers: Bryston 3-B, BGW 100.

Monitor Speakers: JBL 4311, Eastern Acoustic Works M5-50, Auratones.

Echo, Reverb, and Delay Systems: AKG BX-10, DeltaLab DL-2, MXR DDL.

Other Outboard Equipment: Ashly Audio comp/limiters, White 4100 graphic EQ, EXR Exciter.

Microphones: RCA 77-DX; AKG C-414EB, C-451; Sony C-22, ECM 56F; Shure SM-57; E-V RE-20, RE-10, 635-A; Beyer M-160, M-260, M-500; Sennheiser MD-421, MD-441.

Instruments Available: Chickering grand, Rhodes 73, Hammond A-100, Maestro woodwind effects, Latin percussion.

Extras: Fender Pro reverb, Champ amps, Korg tuning standard, electric metronome.

Rates: \$20/hr; \$170/10 hour blocks, tape extra.

Direction: We offer complete record production through to saleable product. Credits include Marion Brown, Budget Symphony, Volo-Volo, Ray Paul & RPM, and to date 16 LP's and 6 45's/EP's. Looking forward to installing our 16 track facilities.

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

Engineers: Ray Hagerty, Don Van Gorden.

Dimensions of Studios: No studio for recording available at the moment. Specializing now in master disk cutting, using Scully lathes, Neumann SC 74 cutting head, and Westrex.

Dimensions of Control Rooms: Control room used for remixing purposes only 8 track, 4 track and 2 track.

Tape Recorders: Scully 280 8, 4, and 2 track.

Mixing Consoles: Electrodyne, 15 in x 4 out.

Monitor Amplifiers: McIntosh MC 40.

Monitor Speakers: Altec 846.

Echo, Reverb, and Delay Systems: EMT Chambers (2).

Other Outboard Equipment: dbx, Dolby, Varispeed.

Extras: Custom disk mastering including toy records.

Rates: Available on request.

•• STILLWATER SOUND STUDIO
also REMOTE RECORDING

11 Turn Of River Rd., 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 (15-30ips) 8 track; Ampex 351 2 track; TEAC 3340 4 track; Advent 201 cassette.

Mixing Consoles: Allen & Heath modified 12-2, 12 in x 4 out; Allen & Heath 142, 6 in x 2 out.

Monitor Amplifiers: McIntosh MC2100.

Monitor Speakers: JBL L-100, Altec 604, Altec 755, others available on request.

Echo, Reverb, and Delay Systems: Roland 201, Fisher spring, others on request.

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

Microphones: Neumann U-67's; Sony C-37's; Sennheiser 421's; Electro-Voice RE-15's; Shure SM-56's, others on request.

Instruments Available: Yamaha electric grand piano, Krueger upright piano, Rhodes, Wuritzer electric piano, drums and percussion, Fender and Ampeg amps; others on request.

Extras: Production, musicians, systems design, convenient to rail, bus and highway, many restaurants, grocery stores and bars within walking distance.

Rates: Please call for rates.

Direction: Recent clients: Simms Bros. Band, Sister Sun, DBFM, Alligator, Fame, David Wolfe, Another Bowl, Taxi, Fast Fingers.

•• STUDIO 44

44 Country Corners Rd., Wayland, MA 01778

(617) 358-2243

Owner: Buddy MacLellan, David Faucher and others.

Studio Manager: Mark Mudgett.

Engineers: Buddy MacLellan, Mark Mudgett, Mitch Fava.

Dimensions of Studios: Main 24' x 12' w/isolation booth 9' x 9'.

Dimensions of Control Rooms: 9' x 11'.

Tape Recorders: TEAC/Tascam: 80-8 with DX-8 dbx 8 track; Otari MX 5050-B 2 track; TEAC 3300 2 track; Technics RS-M85 cassette.

Mixing Consoles: Decibelabs custom, 16 in x 8 out.

Monitor Amplifiers: Crown D-150, Dynaco, Dynakit.

Monitor Speakers: JBL L-100's, Auratone 5-C's.

Echo, Reverb, and Delay Systems: DeltaLabs DL-2 Acoustic-computer, Orban/Parasound reverb.

Other Outboard Equipment: Custom stereo limiter.

Microphones: AKG C-414EB's, C-451-E's, D-202's; Beyer M-260's; Electro-Voice RE-15, 635A; Sennheiser MD-402-U; Shure SM-54, SM-59, SM-57's; Sony ECM 22P's, ECM 280.

Instruments Available: Baldwin 6' grand piano, Rhodes 73 electric piano, Autopiano upright, Elka Rhapsody string ensemble, ARP Odyssey synthesizer, Hohner clavinet "C", Musser Provibe-55 vibes, Ludwig/Rogers drumset, rototoms, congas, misc. percussion, Fender Jazz Bass, Fender and Peavey guitar amps.

Extras: Air conditioning, swimming pool.

Rates: \$20/hr includes engineer and use of all instruments.

Direction: Musicians working with musicians! Studio 44 originated as a musicians' co-operative, and our staff consists of musicians. An easy going atmosphere, and reasonable rates for low cost demos. Our staff includes the Studio 44 rhythm section, and background vocalists and horn players.

•• SUPREMACY SOUND RECORDING STUDIOS
261 Spring St., Brockton, MA 02401
(617) 583-0616

Owner: Sam Mathews.

Studio Manager: Sam Mathews.

Engineers: Sam Mathews.

Dimensions of Studios: 16' x 30', drum booth 8' x 8'.

Dimensions of Control Rooms: 11' x 12'.

Tape Recorders: Otari 7308 1" 8 track; TEAC 2340 SX 4 track; Otari 5050 2 track; Sony 152 cassette.

Mixing Consoles: Sound Workshop 1280-B super EQ, 12 in x 8 out.

Monitor Amplifiers: Pioneer 8500.

Monitor Speakers: JBL 4311, KLH 23.

Echo, Reverb, and Delay Systems: Horizon reverb.

Other Outboard Equipment: 8 channels dbx; Ashly parametric EQ; Ashly compressor limiter.

Microphones: E-V 20, 16; Sennheiser 421; Shure 57; AKG D-2000; Beyer M-500.

Instruments Available: Fender Rhodes piano, Hammond B-2, Baldwin upright, ARP Axse synthesizer.

Extras: MXR effects, AKG headphones.

Rates: \$15/hr.

Direction: Credits include: Soundtrack for "Blackeye" Tanya Hart, Expose, "The Beginning" Mysterious Ways Pro., Sheri Gale. Our service is personalized. Our atmosphere is relaxed. Our tapes are excellent and our price is right.

•• RIK TINORY PRODUCTIONS

also REMOTE RECORDING

822 Rte 3A, Cohasset, MA 02025

(617) 383-9494

Owner: Rik Tinory.

Studio Manager: Richard Tinory, Jr.

Engineers: Rik Tinory, Richard F. Tinory.

Dimensions of Studios: 30' x 50'

Dimensions of Control Rooms: 20' x 15'

Tape Recorders: Ampex AG-440 2, 4, 8 track.

Mixing Consoles: Ampex custom, 24 in x 8 out.

Monitor Amplifiers: Lansing with Ampex amps.

Monitor Speakers: Ampex.

Echo, Reverb, and Delay Systems: EMT, AKG, Fisher.

Microphones: Neumann RE-20; Electro-Voice, Shure, RCA 77DX.

Instruments Available: Steinway piano, Gretsch drums.

Extras: High speed duplicator cassette maker, album jacket design, complete album packages, slide film packages including photography, cassettes duped any quantity, radio and TV spots.

Rates: Price for studio ranges from \$25/hr to \$55/hr.

Direction: Recorded Pope John Paul II, Pittsburg Steelers Super Bowl Album, Tom Jones, George Jessel, Bob & Ray, Betty Hutton, many others.

•• TRITON RECORD PRODUCTIONS, INC.

25 W. 43rd St., New York, NY 10036

(212) 575-8055/575-7809

Owner: Sylvia K. Israel.

Studio Manager: David W. Smith.

Engineers: David W. Smith, Jack Babraitis.

Dimensions of Studios: 20' x 14'; 30' x 60'

Dimensions of Control Rooms: 8' x 14'; 10' x 12'

Tape Recorders: Ampex AG 350, 1/2 track; Ampex AG 440, 4 track; Scully 280, 8 track.

Mixing Consoles: Tascam Model 10, 4 out; custom console, 8 out.

Monitor Amplifiers: BGW.

Monitor Speakers: JBL, KLH.

Echo, Reverb, and Delay Systems: AKG.

Other Outboard Equipment: UREI, Pultec, Koss.

Microphones: Neumann M-496; AKG 251, C-60, 451; Beyer M-500; Shure SM-58.

Instruments Available: 9' Steinway, 6' Yamaha.

Rates: 2 track: B: \$35/hr, A: \$45/hr; 4 track: B: \$45/hr, A: \$55/hr; 8 track: B: \$60/hr, A: \$85/hr.

•• UNIQUE RECORDING

701 7th Ave., 8th floor, New York, NY 10036

(212) 398-0574, 997-9005

Owner: Joanne Georgio, Robert Nathan.

Studio Manager: Joanne Georgio.

Engineers: Robert Nathan, Joanne Georgio, Michael Finlayson, Alan Meyerson, various NY freelance engineers at extra cost above studio rates.

Dimensions of Studios: 30' x 15'

Dimensions of Control Rooms: 15' x 15'

Tape Recorders: Tascam 80-8, 8 track; Otari MX 5050-B, 1/2 track; Tascam 32-2 1/2 track; Nakamichi 480 cassette; Sony 350 1/4 track.

Mixing Consoles: Sound Workshop 1280-B w/super EQ, 12 in x 8 out; Sound Workshop Series 30B, 24 in x 8 out.

Monitor Amplifiers: (2) Crown DC 150's, Yamaha P2050's.

Monitor Speakers: JBL 4311's, ROR E3's (control room); Cerwin Vega SM 12's (studio); Auratone (lounge).

Echo, Reverb, and Delay Systems: Lexicon 93 Prime Time, Eventide Harmonizer with stereo outs, 2 Mutron digital delays (for pre reverb chamber delay), Master Room MICMIX XL-305 reverb chamber (stereo), Sound Workshop stereo reverb.

Other Outboard Equipment: MXR flanger-doubler, Roland Vocoder, MXR studio phaser, MXR studio flanger, 3 Roger Mayer noise gates with Kepex, 4 Ashly SC-50 peak limiter compressors, MXR stereo 15 band EQ, Orban parametric stereo EQ,

8 TRACK

full dbx noise reduction on 8 track and 2 tracks.

Microphones: Shure SM-58, SM-57, 81; Sennheiser MD 421; AKG 452 EB's, 414 EB's; Neumann U-87, KM-84's; Sony ECM 33F.

Instruments Available: 6' Yamaha C-3 grand piano, 73 Fender Rhodes Suitcase, ARP Omni, Hohner D-6 clavinet, Polymoog, Multi Moog, 2 MESA/Boogie guitar amps, Acoustic 136 w/JBL K140, Slingerland drums with 10', 8', 6' roto toms, wind chimes, many percussion toys, Fender Stratocaster, Fender Precision bass, Epiphone acoustic guitar. Extras: 1 block from Manny's Music and entire 48th Street Music Exchange; accessible to all subways and parking.

Rates: \$30/hr for recording or mixdown; 10 hrs for \$250; all tape and studio time subject to 8% NYC sales tax.

Direction: Unique Studios is owned by musicians and run for musicians. It is for the group, jingle writer, or songwriter, etc. Our credits include B.T. Express, Crown Heights Affair, Gloria Gaynor, Musique, Bionic Boogie, Chic, Delfonics, Pat Metheny Group, the Dots, PolyRock, Rave, RCA, Polydor, Warner Bros., Chappell Publishing, Carole Bayer Sager, Marvin Hamlisch, Peter Allen. We feel master quality demos is our only business and we can be a great help to the novice group or songwriter who will need a little helpful coaching to produce a very commercial recording.

•• THE VIDEO WORKSHOP

also REMOTE RECORDING

488 Forest Avenue, Portland, Maine 04101

(207) 774-7798

Owner: William Knowles.

Studio Manager: Eric Jurgenson.

Engineers: Eric Jurgenson.

Dimensions of Studios: 20' x 40'

Dimensions of Control Rooms: 15' x 20'

Tape Recorders: Tascam 70-8 8 track; Technics 1500 2 track; Technics M85 cassette.

Mixing Consoles: Tascam 10B, 12 in x 4 out; TEAC Model 5, 8 in x 4 out.

Monitor Amplifiers: Southwest Technical Products 207A.

Monitor Speakers: Yamaha 690, Advent One, Klipsch La Scala (studio).

Echo, Reverb, and Delay Systems: AKG BX-10.

Other Outboard Equipment: dbx 161 compressor/limiter; Bi-Amp graphic equalizer; (2) MXR noise gate/line driver; 8 channel dbx 157 noise reduction.

Microphones: Electro-Voice RE-20's, RE-16; Calrec 2050C condenser; Sony ECM-56F; TEAC ME-120 electrets; AKG D-202E's.

Instruments Available: Yamaha grand, Rhodes w/stereo vibrato, Mini Moog, assorted amplifiers.

Rates: \$30/hr.

Direction: We are primarily a video production house specializing in commercial broadcast productions and video productions for business and industry.

•• WILDFLOWER RECORDING

Scott's Corners, (P.O. Box 81), Pound Ridge, NY 10576

(914) 764-8220

Owner: Wildflower Enterprises, Ltd. (Jerry Bock).

Studio Manager: John A. Keil.

Engineers: John A. Keil.

Dimensions of Studios: 18' x 25'

Dimensions of Control Rooms: 10' x 15'

Tape Recorders: Scully 284-B-8, 8 track; Ampex AG-440B, 2 track; (2) Tandberg series 10X 2 track; Tandberg TCD-330, 2 track cassette; Nakamichi Model 700 2 track cassette.

Mixing Consoles: Sound Workshop Model 1280B-12EQ, 12 in x 8 out.

Monitor Amplifiers: BGW Systems for all monitoring.

Monitor Speakers: Control room: JBL 4315's (1/2-octave equalized), Auratone SC's; studio: Electro-Voice Sentry's II's.

Echo, Reverb, and Delay Systems: Reverb: AKG BX-20, Orban 111-B. Delay/Echo: Delta Lab DL-1.

Other Outboard Equipment: Ashly limiters and parametric

equalizers, DeltaLab DL-2 Acousticcomputer, UREI 964 digital metronome, Bi-Amp octave equalizers. Noise reduction: dbx 158 (8 track) and dbx 155 (2/4 track).

Microphones: AKG 414's, 452's; Sennheiser 421; Shure SM-57, SM-58, SM-81; Electro-Voice RE-20, RE-15, 635A; Neumann U-87; Beyer M-160, X-1, etc.

Instruments Available: In studio: Yamaha piano, Ludwig drum set with Remo roto-toms. On rental basis: Hammond organ, ARP String Ensemble. Fender Rhodes, Mellotron, Roland SH-2000 synthesizer.

Extras: Ground level loading, relaxed atmosphere, friendly natives, and especially "the Westchester Sound." Also mastering to cassette or disc, long run duplication, reference discs, air checks, etc. House tape: Ampex 456.

Rates: 8 track recording/mixing \$40/hr plus tape, 2 track recording/mixing \$25/hr plus tape. Rate applies round the clock seven days a week, block booking available, all other services call for rate card.

Direction: Recent clients have been: Candy Band (children's album), Spoons (mainstream rock), Eclipse (pop/easy listening), Rusty Dunn/the Gunns (new wave), The Harmony Grits (country), John Coperine (easy listening album), and "Swing" (a new Broadway musical). Wildflower Recording has just completed its first year of operation, and would like to thank the mentioned clients as well as those unmentioned artists who have made it all happen. Our studio will continue to expand in the '80s, so we may better serve our clients with the "Westchester Sound".

•• ZEAMI STUDIO

102 Greene St., New York, NY 10012

(212) 226-3685

Owner: Takashi Tsuruta.

Studio Manager: Yoshi Maruta.

Engineers: Naka Suzuki, assistant: Danny Zeronky.

Dimensions of Studios: LEDE design.

Dimensions of Control Rooms: LEDE design.

Tape Recorders: Ampex ATR 100 2 track; Otari MX-7800 8 track; Revox A-77 2 track; Luxman K-12 2 track cassette.

Mixing Consoles: A&H Syncon, 16 in x 16 out.

Monitor Amplifiers: BGW 250 D, BGW 100B, Luxman 507.

Monitor Speakers: Big Reds, JBL 4311, ROR.

Echo, Reverb, and Delay Systems: AKG BX-10, Lexicon Prime Time.

Other Outboard Equipment: UA LA-175 limiter board, UREI LA-4 compressor/limiter, UREI 530 graphic EQ, Roger Mayer noise gate.

Microphones: AKG 414; Neumann U-87; Sennheiser 421; Shure SM-57, 54, 565, PZM 130; Aiwa 68N, Sanke MU-2.

Instruments Available: Steinway grand B (brand new), Gretsch drum set, Music Man bass and guitar amplifier, Ampeg B-15, Fender Rhodes, Fender Twin Reverb, Champ, MESA/Boogie Mellotron, Hammond B-3 with Leslie.

Extras: Anything is possible at Zeami Studio.

Rates: Call for rates.

Direction: Although we are known as a center for independently produced new wave singles, we are involved with name jazz groups, as well as commercially oriented work. Musicians of all disciplines are attracted by our reasonable rates and quality product.

•• ARIES RECORDING STUDIO

Pepperell Mass.

(617) 433-6351

Owner: Edward Andrews.

Studio Manager: Mark Teubey.

Engineers: Edward Andrews.

Dimensions of Studios: Drum booth 12' x 15'; guitar, bass and vocal overdub 12' x 15'; live room 18' x 24'.

Dimensions of Control Rooms: 8' x 8'.

Tape Recorders: Tascam 80-8 8 track; Tascam 25-2 2 track; Technics 646D 2 track.

Mixing Consoles: Soundcraft Series 2, 16 in x 16 out with full sweep parametric EQ.

Monitor Amplifiers: Control room: Unisync 100; cue send: Scott 344 C-13.

Monitor Speakers: JBL 4311WX, Criterion 100A.

Echo, Reverb, and Delay Systems: DeltaLab DL-2 Acousticcomputer.

Other Outboard Equipment: MXR dual 15 EQ for monitors, Ashly SC-50 peak limiter compressor.

Microphones: Shure SM-57; E-V RE-20's; Sennheiser 421; AKG 414, 190, SE-5E 10, D-1000.

Instruments Available: Gibson guitar L65, Gibson EB3 bass, Rogers drums, Zildjian cymbals.

Extras: Fender amp, AKG K140 headphones for over dub.

Rates: \$5 to \$15/hr plus tape.

Direction: Soon to be 16 track and moving to very large bldg. in Lowell.

Peavey equalizers have been designed using the latest computer assisted design techniques and precision components to offer the musician, sound man, and home audiophile flawless performance without extravagant cost or compromises in quality.

The Stereo Graphic features two independent ten-band sections with 15 dB cut or boost at ten center frequencies. Filters are provided for each channel with continuously variable 12 dB high and low cut or boost.

The EQ-27 features 27 bands at one-third octave centers throughout the audio range and is fully compatible with the most professional real time analyzers.

Each system's input circuitry can be matched to a wide range of signal levels thanks to special gain/attenuator level controls. Balanced and unbalanced outputs are equipped on each unit with protection for any accidental overvoltage or short circuit situation that may occur.

Because of a high level transformer balanced output circuitry, the Stereo Graphic and EQ-27 have the capability of providing greater than +16 dBm into 600 ohms making them excellent as high quality line amplifiers.

The Peavey Stereo Graphic and EQ-27 are technically two of the finest equalizers available today. Exceptional performance and compatibility with a wide range of signal and impedance levels make these units an unmatched professional value.

PEAVEY STEREO GRAPHIC & EQ-27 price/performance no other graphics can equal.



Complete specifications and descriptions of the Stereo Graphic and EQ-27 are available upon request

by writing our Literature and Promotional Department, Peavey Electronics; 711 A Street; Meridian, Miss. 39301.



16 TRACK

••• AAA RECORDING STUDIO

835 Dorchester Ave., Dorchester, MA 02125

(817) 825-7370

Owner: Joseph Saia.

Studio Manager: Joseph Saia.

Engineers: Chief: Paul Walunas, Nick Prout, Patricia Costa.

Dimensions of Studios: 30' x 50'.

Dimensions of Control Rooms: 15' x 25'.

Tape Recorders: Ampex MM 1000 8/16; Ampex 440B 2 track; Ampex 440B mono; Akai 6X630D ¼ track; Advent 201A cassette.

Mixing Consoles: Opamp Labs custom, 20 in x 16 out.

Monitor Amplifiers: Crown, McIntosh.

Monitor Speakers: Altec 605, JBL L-100.

Echo, Reverb, and Delay Systems: EMT plate.

Other Outboard Equipment: Harmonizer, UREI 1176, Ashly Audio Teletronix limiters, Lang EQ's, dbx noise reduction, "The Pipe" phase/flanger, Kepex noise gates.

Microphones: Neumann U-67's, U-64; AKG D-224's, D-190, C-451's, D-1000; E-V RE-20, 635; Shure SM-57.

Instruments Available: 9' Mason Hamlin concert grand piano, Hammond B-3 organ, Roland synth, ARP Strings, Celeste, vibes, marimba, tympani, chimes, assorted percussion inst.

Extras: studio musicians, arrangers, sound FX, TV production.

Rates: Negotiable.

••• AAA RECORDING STUDIO

130 W. 42nd. Suite 551, New York, NY 10036

Owner: Variety Sound.

Studio Manager: Fred Vargas.

Engineers: Joe Cyr, Mike Dacek, Clarence Stacy, Fred Vargas.

Tape Recorders: MCI JH 16.

Mixing Consoles: Audio Designs, 16 in x 16 out.

Rates: \$60/hr for 16 track.

••• ARTCRAFT RECORDING STUDIO

285 E. 49th St., New York, NY 11203

(212) 778-5150

Owner: M. Serby.

Studio Manager: Anthony Sebiniano.

Engineers: Anthony Sebiniano, Michael Sebiniano.

Dimensions of Studios: 20' x 30'.

Dimensions of Control Rooms: 16' x 10'.

Tape Recorders: MCI JH10, 16 track; MCI JH110, 4 track; Ampex, 2 track; Otari, 2 track.

Mixing Consoles: MCI JH 416, 16 in x 16 out.

Monitor Amplifiers: McIntosh.

Monitor Speakers: (4) Altec A700's, JBL 100, Realistic Mini's.

Echo, Reverb, and Delay Systems: MICMIX echo, Korg stage echo w/delay.

Other Outboard Equipment: MXR 31-band EQ, dbx 165, API 525, dbx 16-track noise reduction.

Microphones: Sennheiser, AKG, Neumann, Beyer.

Instruments Available: Gretsch drums, RMI Rocksichord, Crumar string ensemble, Hammond B-3, Weber piano.

Extras: Fender and custom amps, full video capability ¼" system.

Rates: 16 track \$80/hr (\$65/hr block), 8 track \$45/hr, 4 track \$45/hr, 2 track \$45/hr (also 3 track)

Direction: Spec. reggae, disco, rock.

••• BAKER ST. STUDIOS

1072 Belmont Street, Watertown, MA 02172

(817) 464-9812

Owner: Roger L. Baker.

Studio Manager: Tiffany Newport.

Engineers: Roger L. Baker, Darleen Wilson.

Dimensions of Studios: 350 sq. ft. includes piano room and drum booth.

Dimensions of Control Rooms: 15' x 14' x 10' designed by Abaddon/Sun, Inc.

Tape Recorders: Otari MTR 90-16 16 track on 2"; Otari 7800 8 track on 1"; Ampex 440 2 track; Pioneer RT-701 ¼ track; Pioneer and Technics cassettes.

Mixing Consoles: Tangent 3216, 20 in x 16 out.

Monitor Amplifiers: Phase Linear 200, Crown DC-60 (2).

Monitor Speakers: UREI 811 Time Align, Celestion Ditton 66, Auratone, plus convenient outlets for visiting reference speakers.

Echo, Reverb, and Delay Systems: Echoplate stereo plate reverb, Tapco stereo spring, Ibanez analog delay, DeltaLab digital delay, acoustic space chamber.

Other Outboard Equipment: Ibanez flanger, MXR phaser, dbx 160 comp/limiters, Kepex, Gain Brain, Tapco 10-band graphic EQ, Orban D'Esser, Technics turntable, dbx noise reduction on all channels.

Microphones: Neumann U-67, U-47; AKG 451's; E-V RE-20, RE-16, RE-10, CS-15; Shure SM-57's; Sennheiser 421.

Instruments Available: Sohmer grand piano, Hammond organ w/Leslie, Wurlitzer electric piano, Moog synthesizer, Fender Rhodes keyboard bass, Fender Deluxe Reverb amp, Ampeg B-15 amp.

Extras: Musicians' lounge with refrigerator, TV, games; visitor observation lounge with windows and monitors; strobe tuner; air conditioning; creative staff of producers, arrangers, studio musicians, vocalists; record pressing and album jacket production.

Rates: 16 track: \$40/hr or \$300/10 hours; 8 or less tracks: \$20/hr or \$175/10 hours. No charge for set up or break down time. Includes all facilities, tape costs are extra.

Direction: We are one of the fastest growing studios in the area (4 to 16 tracks in less than 3 years). We specialize in offering self-contained groups a top quality facility at low rates. We have done work for Omikron International Records, United Artists, and Arista. We are proud that our reputation stands on its own.

••• THE BARGE SOUND STUDIO

92 Lionshead Drive West, Wayne, NJ 07470

(201) 835-2538

Owner: Jim Barg.

Studio Manager: Jim Barg.

Engineers: Jim Barg.

Dimensions of Studios: 17' x 27'.

Dimensions of Control Rooms: 10' x 14'.

Tape Recorders: Auto-Tec L-16 16/8 track; Otari MX 5050 2SHT 2 track; TEAC 3340 4 track.

Mixing Consoles: Tascam 10B, 16 in x 8 out.

Monitor Amplifiers: SAE 2200.

Monitor Speakers: Altec 612C/604-8G.

Echo, Reverb, and Delay Systems: DeltaLab DL-2 Acousticcomputer; MICMIX Master-Room XL-305; Fisher K-10.

Other Outboard Equipment: dbx noise reduction on all

machines; Soundcraftsmen graphic Eq's, Technics RS-616 cassette recorder; dbx 160 compressor/limiter.

Microphones: AKG C-414EB, C-505E; Neumann KM-84; Electro-Voice RE-20; Shure SM-57; Sony ECM 280, ECM 170, ECM 270, ECM 22; Beyer M-500.

Instruments Available: Baldwin Acrosonic piano, drums, percussion, amps.

Extras: Sescom active and passive direct boxes, TEAC Model 1 mixers for cue system mixing, EXR and Aphex Exciters available. Private label pressing available.

Rates: 16 track \$35/hr; 8 track \$25/hr; 4 track \$18/hr; block rates available by arrangement.

Direction: Our combination of low rates, personal attention, comfortable atmosphere, and high quality recording has made us one of the fastest growing studios in North Jersey. It is our desire to continue to provide these basics while continuously expanding and upgrading our facilities.

••• BIG APPLE RECORDING STUDIO, LTD.

112 Greene Street, New York, NY 10012

(212) 228-4278

Owner: Billy Arnell, Steve Loeb.

Studio Manager: Michael Rubinstein.

Engineers: Roddy Hui, Jim Jordan, Kurt Munkacsi.

Dimensions of Studios: 19' x 34'.

Dimensions of Control Rooms: 15' x 17'.

Tape Recorders: MCI JH-110 16 track; Ampex 440C 2 track; Ampex 440C 4 track; Ampex 440C 2 track/mono. Copy machines: TEAC 3300S (¼ tk) 2 track; Revox HS77 (½ tk) 2 track; Nakamichi 600II cassette.

Mixing Consoles: Neve 4018 (modified), 16 in x 16/4 out.

Monitor Amplifiers: BGW 600, Crown DC-300, D-150 (3), D-60.

Monitor Speakers: (2) JBL 4331, (4) 4311, (2) 4310; (2) Auratone 5C.

Echo, Reverb, and Delay Systems: EMT 140S, AKG BX-20E, Eventide 1745 A, Eventide 1745 M, Lexicon Prime Time, Eventide 910 Harmonizer, tape delay with Vari-speed.

Other Outboard Equipment: Orban 621 B stereo parametric EQ, Audiotronics PEQ 82 EQ, Neve limiter/compressors (4), Gain Brain (4), Kepex (4), Roger Mayer noise gate, ADR Complex compressor/limiter/expander (2), Eventide Phaser, Eventide Harmonizer, UREI 1176 LN compressor/limiter (2), UREI 566 filter set.

Microphones: Neumann U-87's, U-89, KM-86's, U-47 tube, KM-56; AKG 414's, 452E's; Shure SM-53's; Sennheiser 421's, 441; 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/combo preamp, Rhodes, Yamaha organ/synth, Hohner pianet, ARP Soloist, ARP Explorer, full drum kit, assorted percussion, congas.

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

Rates: Call for rates.

Direction: Big Apple offers a highly competent staff complimented by the best in equipment and comprehensive maintenance. Each session is treated individually with total involvement and maximum cooperation from the staff. Among the studio's clients are John Cale, Don Cherry, Anthony Braxton, Philip Glass, Brian Eno, Mike Oldfield, Elvis Costello, Brecker Bros., United Artists Music, and many others. Big Apple will be expanding in the spring of 1980 to offer 24 track capability, with Trident TSM and lots of new gizmos. Please call or write for further information.

••• CENTURY THREE

545 Boylston St., Suite 505, Boston, MA 02118

(817) 287-9800

Owner: Ross Cibella.

Studio Manager: Jim Dean.

Engineers: Rob Hill, William Garrett.

Dimensions of Studios: 460 sq. ft.

Dimensions of Control Rooms: 345 sq. ft.

Tape Recorders: MCI JH 116 16 track; MCI JH 110 mono; Scully 280 4 track; Scully 280 2 track; Ampex AG 440 2 track.

Mixing Consoles: MCI 428 18 inputs.

Monitor Amplifiers: Crown DC 300A.

Monitor Speakers: JBL 4311's, Altec Big Reds.

Echo, Reverb, and Delay Systems: EMT 140 plate reverb; Lexicon Prime Time digital delay.

Other Outboard Equipment: 160 limiter/compressors, Pultec MEQ-5, Teletronix LA-2A limiter/compressor, Lang EQ, Orban parametric EQ, Orban sibilance controller Model 516EC.

Microphones: Neumann U-87's, U-47 tube; Shure SM-57; AKG 451's; Sennheiser 421's; E-V RE-20's, RE-15, RE-16's, RE-55; RCA DX-77 ribbon, BX ribbon.

Instruments Available: Yamaha 7' grand piano, Pearl drums.

Extras: Century III has the latest music and sound effects library in New England, consisting of the major sound effects library as well as the De Wolf and major music libraries. One may also be interested in Century Three's sister studios: Intermedia Sound and our Centel Film and Videotape Studio, both in Boston.

The Volks Console



3216 by Tangent

In its short (3 year) existence, the Volks-Console has found its way into the hearts, studios and homes of engineers, producers, and musicians around the world; out-selling its competition 3 to 1. The 3216 combines ease of operation, flexibility and the best specs in the industry, and is at home in recording studios, production, S.R., and other applications. **With features like these, its no wonder why.**

Automation

Tangent Automation uses the exclusive Faderaide automatic Fader nulling system, and the Allison 65K programmer. Faderaide frees you to concentrate on the mix, not Fader level sets. This feature cannot be found on any other Allison based system.

VCA Grouping

For those not needing full automation, nine voltage controlled subgroups are available. All VCA consoles may be expanded to full automation at anytime.

Multiple Solo Systems

In addition to the prefade listen (PFL) solo, a stereo positional, and subgroup solo are provided as standard features.

Semi Parometric EQ

One of the most musical EQ's available is a standard Tangent feature, not an expensive option as with other systems. The three band sweepable EQ covers the audio band from 20 to 20khz.

Transformerless Circuitry

Transformerless Balancing keeps your original sound pure with incredible transient response. Noise is within 3 dB of the theoretical limit.

Transformerless Balancing is suddenly a big deal among the other console manufacturers. It should be. Tangent's been doing it for years.

16 Submasters

Tangent's 16 submaster busses plus "Direct" allow tremendous flexibility for 16 or 24-track work.

FET Switching

Electronic FET switching silently rearranges the signal flow for maximum convenience and minimum repatching.

Lots of Extras

Ferry & Giles faders, multiple Echo and Cue send, Phase Reverse, Tape Return Gain, and many other features on each channel give full professional control and reliability.

Tangent Does It . . . Again!

Tangent Systems, Inc.

tangent 
Musical Engineering
2810 S. 24th St. / (602) 267-0653
Phoenix, Arizona 85034

Rates: Please call for rates.

Direction: Century Three is fully equipped to handle the needs of the musician, jingle producer, and advertising producer. Our credits include film soundtracks, a number of jingle spots, special effect tapes, and albums. For further information call Jim Dean our studio manager at (617) 267-9800.

••• **DAWN RECORDING STUDIOS INC.**
also **REMOTE RECORDING**

756 Main Street, Farmingdale, NY 11735
(516) 454-8999

Owner: James J. Bernard.

Studio Manager: Kathi McCabe.

Engineers: Thomas Schizzano, Carmine Bonomo, James Bernard.

Dimensions of Studios: A: 25' x 23'; B: 16' x 20'.

Dimensions of Control Rooms: (B) 12' x 14'; (A) 12' x 28'.

Tape Recorders: Xedit 16R 16 track; TEAC 80-8 8 track; TEAC 4340 4 track; Scully 280 2 track; Revox A-700, 2-1/2 track and 1/4 track; Nakamichi and Akai cassette decks.

Mixing Consoles: API, 12 in x 8 out; Gately, 16 in x 8 out.

Monitor Amplifiers: Phase Linear, Altec Lansing.

Monitor Speakers: Cerwin Vega's, JBL 99's, Realistic Minimus, Lafayette Pip Squeak.

Echo, Reverb, and Delay Systems: (2) Loft analog delays with modification for Harmonization, Sound Workshop stereo reverb, Fairchild reverb.

Other Outboard Equipment: Ashly parametric equalizer, Eventide phase shifter, Van Epps mono disc cutting lathe.

Microphones: Neumann U-87; AKG 451E, 414; Beyer 260, 500; Sennheiser 421.

Instruments Available: Knabe grand piano, Gretsch drums.

Rates: 16 track \$70/hr, 8 track \$50/hr; 4 track \$40/hr; 2 track \$30/hr. Prices include engineer and all outboard effects. Prices exclude tape cost, and copies.

Direction: In-progress—all composition work for a local radio station, featuring original unsigned artists—called "Home Grown". Home of the Audio Recording Technology Institute, both private and college level classes in audio engineering. Our grand opening of Studio A, a unique esthetically designed studio, for the comfort of musicians and producers. In-house disc cutting lathe—Van Epps.

••• **DELTA RECORDING STUDIOS**

16 W. 48th Street, New York, NY 10038
(212) 840-1350

Owner: Bernard Zimney.

Studio Manager: Robert Liebert.

Engineers: Robert Liebert, Andrew Milano (chief engineer), John Clemente.

Dimensions of Studios: 30' x 30', Studio A; 20' x 20', Studio B.

Dimensions of Control Rooms: 12' x 25', Control A; 12' x 20', Control B.

Tape Recorders: Ampex MM 1000 16 track; Scully 280 B 4 track; Scully 280 B 2 track; Ampex 440 B 1 track.

Mixing Consoles: Audio Designs, 20 in x 16 out; Tascam Model 5, 8 in x 4 out.

Monitor Amplifiers: McIntosh 2105, McIntosh M-75, Crown D-60.

Monitor Speakers: Big Reds (Altec), JBL 100, Auratone, Altec 9844.

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

Other Outboard Equipment: Eventide Delay, Marshall Time Modulator, dbx, Dolby, dbx compressors, Orban parametric EQ, Pultec EQ, UREI compressor/limiter, UREI digital click track, Quad/Eight noise gates.

Microphones: Neumann U-47, U-48, U-87; Sennheiser 421; AKG 457; Electro-Voice RE-10, RE-20; RCA 77.

Instruments Available: Steinway grand piano, Hammond B-3 w/Leslie, Ludwig/Gretsch drums w/Zildian cymbals, Fender Rhodes, ARP string ensemble, Mini Moog, ARP 2600 synthesizer, Hohner clavinet, Ampeg B-15 bass amp, Fender Deluxe Reverb guitar amp.

Extras: Disc cutting (stereo), original music scoring for commercials and jingles, reel to reel and cassette duplication, music library, EFX library, full musician contracting, narrator and actor contracting.

Rates: 16 track \$75/hr; 8-4 track \$55/hr; 2 track and mono \$45/hr.

Direction: Jingles, top Latin recording artists, has Latin album of the year with Charanga '76 on T.R. records; jingle done: Tasty cake, Sasson jeans, WBLS disco and more, Crazy Ball, Clouds jeans, Sid's Pants; radio and TV commercials; TSS, Brands Mart, Sam Goody, GQ Magazine, Danskins, Roosevelt & Yonkers Raceways, Kaufman Carpet, A/V Production, McDonalds, Air India, Hawaiian Holidays; sound track for King features classic comics syndicate radio shows live from the Bottom line for Dan Neer and Radio-On.

16 TRACK

•••• **EARTH AUDIO TECHNIQUES, INC.**

also **REMOTE RECORDING (2 track only)**

The Barn, North Ferrisburg, Vermont 05473
(802) 425-2111

Owner: Michael Couture, William Schubart.

Studio Manager: Chas. Eller.

Engineers: Michael Couture, Chief Engineer; Chas. 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.

Monitor Amplifiers: Crown DC-300, Crown DC-150 (3), BGW 750.

Monitor Speakers: Altec 6048G in 620 cabinets; ADS 710; Auratone; Altec 887A; Marantz 7; ESP-9.

Echo, Reverb, and Delay Systems: AKG reverb BX-20; Eventide DDL; tape delay.

Other Outboard Equipment: Dolby A all channels, Eventide Phaser, UREI 1176, Lang EQ, VSO all transports, UREI LA3A (2); API 550A EQ; dbx 160 (3).

Microphones: Neumann U-87's, U-47, KM-84's; AKG 414, C-451E's; Sennheiser 421; Beyer 160; E-V RE-20, RE-11, RE-16, PL-95; Sony ECM 33F, ECM 99A, ECM 150; Shure SM-57, SM-58, 330 ribbon, 16EQ; AKG CK9 shotgun.

Instruments Available: Steinway grand piano, Yamaha studio upright w/tack; Fender Rhodes, ARP 2600 synthesizer, Hammond B-3, Ludwig drums, assorted percussion.

Extras: Studio musicians, record pressing and cassette duplication, sound reinforcement, sound effects library, mailing service, home of Philo Records, situated in converted barn in Vermont close to Lake Champlain.

Rates: \$25-\$75/hr, please call for specifics.

Direction: Our projects include 80 commercial LP releases; demos, film soundtracks, advertising, sound reinforcement, and remote recording. Keith Jarrett, Tom Rush, Mary McCaslin, the Johnson Composers Conference, the VT. Symphony Orchestra, and national public radio are among our wide variety of clients. Our engineers believe the technology of the studio should remain transparent to the artistic process. This philosophy has fostered a great respect for our studio over the past 10 years. We are currently redesigning and expanding to a state of the art 24 track automated facility which will be in full operation in the summer of 1980.

Rates: \$25-\$75/hr, please call for specifics.

Direction: Our projects include 80 commercial LP releases; demos, film soundtracks, advertising, sound reinforcement, and remote recording. Keith Jarrett, Tom Rush, Mary McCaslin, the Johnson Composers Conference, the VT. Symphony Orchestra, and national public radio are among our wide variety of clients. Our engineers believe the technology of the studio should remain transparent to the artistic process. This philosophy has fostered a great respect for our studio over the past 10 years. We are currently redesigning and expanding to a state of the art 24 track automated facility which will be in full operation in the summer of 1980.

••• **F-V SOUND LTD.**

also **REMOTE RECORDING**

17 East 45th Street, New York, NY 10017
(212) 697-8980

Owner: Fred Venitsky and Vernon Sollecito (Chief Engineer).

Studio Manager: Ann McGuire.

Engineers: Fred Venitsky, Vernon Sollecito, Steve Day, Jimmy Regan.

Dimensions of Studios: 30' x 40'; 25' x 30'; 15' x 15', 10' x 15'.

Dimensions of Control Rooms: 50' x 30'; 30' x 40'; 10' x 15'.

Tape Recorders: 4 Scully 280 B full track; 4 Scully 280 B 2 track; 2 Scully 280 B 4 track; Scully 280 4 track and 2 track; Ampex MM-1000 16-8 track; various 1/4 track, 1/4" machines.

Mixing Consoles: Audiotronics 110A, 8 in x 2 out; Audiotronics 110A, 12 in x 4 out; Audiotronics 110A, 16 in x 8/8 out; Sound Workshop 1280, 12 in x 8 out.

Monitor Amplifiers: (7) Crown D-60, Crown D-150.

Monitor Speakers: 6 JBL 4311, 2 Altec 604 B.

Echo, Reverb, and Delay Systems: Master-Room echo systems.

Other Outboard Equipment: 4 track dbx noise reduction systems; UREI LA3A's, Pultec equalizers and filters; various audio visual pulsing systems; cue noise gate system.

Microphones: RCA-77X's, RE 20's, AKG C12A's, assorted AKG's and Sandok, Neumann U-806.

Instruments Available: Set of drums, baby grand piano.

Rates: Upon request.

Direction: To maintain the finest quality and most comfortable surroundings in the industry.

••• **G & T HARRIS, INC.**

215 Lexington Avenue, New York, NY 10016
(212) 481-8500

Studio Manager: Mr. Bill Taylor.

Engineers: Warren Mazur, Gretchen Lockner Zoeckler.

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

Dimensions of Control Rooms: 18' x 20'; 23' x 18'; 21' x 18'.

Tape Recorders: Ampex MM-1200 8 and 16 track; Ampex 440 4 track; Scully 280 4 track; Ampex 300 & 351 2 & mono; Otari MX 5050 QXHD 4 1/4" 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, Altec 1594, 1593.

Monitor Speakers: Big Reds (Altec 604E).

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; AKG C12, C-60; Electro-Voice RE-20, RE-15, RE-16; Shure; RCA.

Instruments Available: Yamaha grand piano 7'4", drums.

Extras: 1/2" VCR playback, disc to tape, hi speed cassette dupes, computerized slide show programming, sound rentals, and A/V show staging, screening rooms, audio consulting.

Rates: Call.

••• **JIMMY KRONDES ENTERPRISES**

2 Musket Lane, Darton, CN 06820
(203) 655-3680

Owner: Jimmy Krondes.

Tape Recorders: Scully 280 8 track; MCI (Audio Techniques) 16 track; Ampex 4 track; Ampex 2 track; Ampex mono.

Mixing Consoles: Allen & Heath 16 track.

Outboard Equipment: All outboard gear, UREI flanger (Little Dipper); UREI limiter, Altec compressors, Pultecs, etc.

Microphones: Broad spectrum from Telefunken, Beyer, Electro-Voice, Shure, RCA, etc.

Instruments Available: Fully equipped. Yamaha grand piano, Lowery organ, Fender Rhodes electric, synthesizer, Hohner harpsichord, complete drum ensemble, Ampeg bass amp, Fender guitar amps, fuzz, delay, etc.

Extras: Video equipment: Ampex 5800 Editor 1", 2 IVC 1" recorders (all color), 2 RCA color cameras. 4 quartz lights with shades, etc., custom switcher, Sony monitors.

Rates: Please call for rates.

••• **MAGNAGRAPHICS**

also **REMOTE RECORDING**

72 Bedford Street, New York, NY 10014
(212) 691-2333

Owner: Robert Prewitt.

Studio Manager: Tina Prewitt.

Engineers: Robert Prewitt, chief engineer; Ken McCaleb, George Laccorn, Michael Kelly, assistant engineers.

Dimensions of Studios: 25' x 15' x 12'.

Dimensions of Control Rooms: 9' x 15' x 10'.

Tape Recorders: Scully 288-16 with full sync 16/8 track; Scully 280-4 4 track; Scully 280-2 2 track; Magnecord 2 2 track; Op-tonica computerized cassette duplicator.

Mixing Consoles: Spectra Sonics 101/103/106/500/700'3 (cards and EQ), 26 in x 16 out; Carvin custom Q 1608, 16 in x 8 out.

Monitor Amplifiers: Spectra Sonics, North American Phillips, Akai, Southwest Tech.

Monitor Speakers: JBL, Altec, Infinity, Pignose, JBL Reds.

Echo, Reverb, and Delay Systems: MICMIX Super C custom stereo, MXR full digital delay, Magnagraphic analog delay, Loft.

Other Outboard Equipment: Gainbrain, Kepex, Martin PEQ 500A's, dbx, Dolby.

Microphones: Neumann U-87's; Neumann KM84's; Pressure Zone microphones.

Instruments Available: New Baldwin grand piano, Hammond C3 organ w/Leslie, Ludwig and Slingerland drums, Moog-3 synthesizer, Rhodes, ARP strings.

Rates: 16 track \$60/hr; 8 track \$50/hr; 4 track \$45/hr; 2 track \$40/hr.

Direction: Credits: John Lennon, Yoko Ono, Kiss, National Public Radio, Public Television, Peter Allen, Harry Chapin, Chris Stein's soundtrack for "Union City" major motion picture.

Direction: Credits: John Lennon, Yoko Ono, Kiss, National Public Radio, Public Television, Peter Allen, Harry Chapin, Chris Stein's soundtrack for "Union City" major motion picture.

••• **MEGA MUSIC**

345 E. 62nd St., New York, NY 10021
(212) 838-3212

Owner: Don Dannemann and Norris O'Neill.

Engineers: Howard Kaufman.

Dimensions of Studios: 8' x 12' studio; 5' x 7' drum/isolation booth.

Dimensions of Control Rooms: 15' x 25'.

Tape Recorders: Ampex MM-1100 16 track; Scully 280 1, 2, and 4 track; Scully 280-B 1, 2, and 4 track; Ampex 350 1 track;

Otari MX5050 1 and 2 track; Nakamichi 1000 2 track.
Mixing Consoles: Ashly (Custom), 20 in x 8 out.
Monitor Amplifiers: McIntosh 2100, (2) Crown D60.
Monitor Speakers: JBL 4311, Auratone.
Echo, Reverb, and Delay Systems: Master Room (MICMIX), Orban 111B, Ibanez AD-230.
Other Outboard Equipment: UREI LA-3A, leveling amps.
Microphones: Neumann U-47 FET, U-87; E-V RE-20; Shure SM-58; Beyer M88; Sony ECM-22P.
Instruments Available: Mini Moog, Yamaha upright piano, Crumar orchestrator drum kit, percussion, amps, clavinet, Celeste, xylophone, tympani.
Direction: Basically Mega's studio is an in-house production facility. It is made available on a limited basis for hire.

••• MUSIC DESIGNERS INC.

1128 Boylston St., Boston, MA 02215

(617) 262-3546

Owner: Jeff Gilman.

Studio Manager: Fred Berk.

Engineers: Jeff Gilman, Tony Caputo, Fred Muellor, Richard Mendelsohn, Glenn Berger.

Dimensions of Studios: A: 25' x 40'.

Dimensions of Control Rooms: 25' x 15'.

Tape Recorders: MCI JH 16 16 track; MCI JH 110 4 track; MCI JH 110 2 track; Ampex 351-2 2 track; Otari MX 5050 2 track; Revox A77 2 track.

Mixing Consoles: MCI JH 416, 18 in x 16 out.

Monitor Amplifiers: Bryston 4B, McIntosh, Sansui.

Monitor Speakers: Altec 604 8G, JBL 4311, Auratone, RSL 100.

Echo, Reverb, and Delay Systems: EMT 240, AKG BX-20, DeltaLab DL-1, Cooper Time Cube.

Other Outboard Equipment: Teletronix LA2A compressors (2), UREI 1176LN comp, Allison Gain Brains, Kepex, Vari-Band graphic EQ.

Microphones: Neumann U-67, 87's, 47's; Telefunken ELM 251; Sony C-37A's; AKG 451's; Sennheiser 804 shotguns; PZM transformerless, lots of others.

Instruments Available: Bleuther 7' grand piano, Hammond B-3, harpsichord, ARP Omni, 7-piece Sonor drum set, Roland JC-60 amp, Fender Studio bass, roto toms, percussion toys.

Extras: Broadcast production, tape duplication, "Rock Around the World," "Modern Music" credits in broadcast production.

Rates: 16 track \$90/hr; 4 track \$55/hr; 2 track and broadcast production \$40/hr.

Direction: Road Apples "Let's Live Together" Epic; Storman Norman & Suzy "Ocean of Love" Polydor; Carolina Edwards "Rainbow Reign" Great Northern Arts; Oliver Lake "Heavy Sprints" Arista; Daring & Stahl "Sweet Melodies in the Night" Harbor Records.

••• PLANET OF THE TAPES

also REMOTE RECORDING

Box 212, Brunswick, Maine 04011

(207) 725-5155, 729-4581

Owner: John Etnier, Stephen Hanks.

Studio Manager: John Etnier, Stephen Hanks.

Engineers: John Etnier, Stephen Hanks.

Dimensions of Studios: Main studio: 14' x 30'; Second studio space 14' x 14' for special purpose work. Main studio features special variable reflectivity system.

Dimensions of Control Rooms: 14' x 14', expansion planned.

Tape Recorders: Tascam 90-16 16 track; Otari 5050 4 track; Otari 5050 2 track; TEAC 7300 2 track; Revox A77 1/4 track; Tandberg 330 three head cassette; Nakamichi 550 cassette; full dbx noise reduction for all reel to reel recorders.

Mixing Consoles: Tangent 3216, 24 in x 24/16 out.

Monitor Amplifiers: Yamaha 2200, Crown D-75's for Auratone and cue system.

Monitor Speakers: Yamaha NS-1000, Auratones, monitors 1/2 octave EQ'd by UREI 539's.

Echo, Reverb, and Delay Systems: Marshall Time Modulator, Loft delay line, Orban 111-B with custom EQ.

Other Outboard Equipment: dbx 160 limiters, MXR flangers, phasers, compressors, and additional full range of outboard equipment is available for special lease by advance arrangement.

Microphones: The usual, Neumann, AKG, Sennheiser, E-V, Shure, etc.

Instruments Available: Fully reconditioned 1926 Steinway grand, Fender Rhodes piano, Hammond Porta-B with Leslie, EML 101 four oscillator synthesizer, MESA/Boogie and Fender guitar amps. Fender Telecaster guitar, percussion assortment.

Extras: Overnight accommodations at studio available with advance request. Wide variety of studio musicians on call. Complete album pressing/packaging service, including graphics.

Rates: Rates vary with job but are posted at \$50/hr for 16 track; \$25/hr for other work. Remotes quoted per job. Block bookings, spec. work accepted.

Direction: We are a fully-equipped studio located in a log cabin in the beautiful Maine countryside close to all Maine cities and just two hours from Boston. We are equally at home with album pro-

16 TRACK

jects and thirty second commercials. We pride ourselves on always providing state of the art sound while working to move our clients efficiently from basic tracks to final mix and pressing. Artists have included the Blend, Chuck Kruger, Lenny Breau, Teedfox, Springs, Aces and Eights, the Same Band and many more.

••• PRODUCERS RECORDING STUDIO

45 W. 45th St., New York, NY 10036

(212) 246-4238

Owner: Edd Kalehoff.

Studio Manager: Mark P. Friedman.

Engineers: Mark Friedman.

Dimensions of Studios: 25' x 26'.

Dimensions of Control Rooms: 16' x 11'.

Tape Recorders: 3M M79 16 track; Scully 280 4 track; Scully 280 2 track; Scully 280 mono; Otari 5050-B 2 track; Aiway 6900-II cass.

Mixing Consoles: Auditronics 501, 20 in x 16 out.

Monitor Amplifiers: McIntosh 2100.

Monitor Speakers: JBL 4310, Cizek KA-1, Auratone.

Echo, Reverb, and Delay Systems: (2) AKG BX-20.

Other Outboard Equipment: dbx noise reduction, 2 Harmonizers, Marshall Time Modulator, Delta-Graph EQ, Roger Mayer & Electrodyne limiters, UREI digital Click Track.

Microphones: U-87's, KM-64's, Sennheiser 405, 421's; AKG 451's, 414; Shure 57's; Beyer 160; Sony 22, 50.

Instruments Available: Steinway, Polymoog, modular Moog, Rhodes, clav., Baldwin harpsichord, Hammond B-3, Ludwig drums, Fender Vibrolux.

Rates: On request.

Direction: Mostly, but not exclusively, in-house production of film scores, TV themes, jingles, synthesizer effects, record dates.

••• RBY RECORDING STUDIO

R.D. #1 Main St., Southbury, CT 06486

(203) 264-3688

Owner: Jack Jones.

Studio Manager: Marjorie Jones.

Engineers: Jack Jones, Evan Jones, Staff photographer: Moira Jones.

Dimensions of Studios: 32' x 26' x 18'.

Dimensions of Control Rooms: 18' x 16'.

Tape Recorders: Ampex 16, 4, 2, 1; Otari MX 50, Sanyo PCM digital recorder.

Mixing Consoles: Tangent, 32 in x 32 out.

Monitor Amplifiers: Phase 400, Yamaha.

Monitor Speakers: JBL 4315, JBL 4311, Electro-Voice Century 3, Auratone.

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

Other Outboard Equipment: LA3 limiters, Electrodyne compressors, Roger Mayer noise gates, MXR flangers and phasers, Eventide Harmonizer.

Microphones: Sennheiser MK 105's, 421; AKG 414; RCA 77-DX; Electro-Voice RE-16's, 15's; Shure SM-53, 58, 57; Sony ECM 22, 37; AKG 451E's.

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).

Extras: Copy machines, Sanyo metal cassette, JVC 95 cassette, Pioneer 1/4 track, 15 and 30 ips on 16 track and 2 track, musician and arranger contracting, recreation room with wet bar.

Rates: \$40/hr 16 track; \$30/hr 4 and 2 track.

Direction: As one of the only (if not the only) 100% family owned and operated facility, we are in a position to give each of our clients the kind of attention only an owner is willing to provide and that goes for a local musician recording for the first time as well as for our clients doing tracks for major labels. Family management also enables us to keep our rates down to an unbelievable minimum and to keep our equipment and facilities in top shape.

••• ROSE HILL STUDIOS

3929 New Seneca Tpk., Marcelus, NY 13106

(315) 873-1117

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; Crown SX822 2 (1/2) track; Studer 2 (1/2) track; Tandberg 300X 2 (1/4) track; TEAC 220 cassette.

Mixing Consoles: Custom 15 frequency EQ, 20 in x 20 out.

Monitor Amplifiers: QEI-2, QEI-CP1, QEI-DM4.

Monitor Speakers: Altec 604E Big Reds with Kent Time-Sync crossovers, M&K bass extender, Auratones.

Echo, Reverb, and Delay Systems: EMT 140S, live chamber, various springs; Eventide delay, Space Station, tape.

Other Outboard Equipment: dbx noise reduction, Eventide Harmonizer, many dbx compressors, limiters, expanders, EXR Exciter, Technics parametric EQ, Quad/Eight noise gates, UREI 529 EQ.

Microphones: AKG C-12A; Beyer 160; Electro-Voice RE-20; Neumann U-47's, U-87's, KM-84's, K-64, SM-2; RCA 44's, 77-DX's; Sony C-37's, C-57's, ECM 50.

Instruments Available: Mason & Hamlin 7' concert grand piano, Hammond, ARP Odyssey II, Hohner D6 clavinet, Wurliitzer electronic piano, Ludwig/Zildjian, assorted percussion, Ampeg B15.

Extras: Autolocator, Mini-mag audio/video synchronizer, Kent stereo phaser (1,000° per channel), Vari-speed, Kent Tube Spiker, Bang & Olafson 3000 turntable. We also have a full-time in-house maintenance staff, test equipment & repair shop, as well as the finest in research and design of one-of-a-kind magical devices.

Rates: \$75 tracks/\$60 mix.

Direction: Hits. A producer's dream (Mark Doyle, Allen Blazek, Jay Chattaway, Eric Thorngren, Vince Taft) and a group's inspiration (NY Flyers, National Jazz Ensemble, Taksim, Pictures, The Bashers, The Works, Todd Robin Band). Philosophy: Excellence. All-out support for every producer and group from established heavies to new bands just starting out. Located in a relaxed rural setting, 5 minutes from fine hotels, restaurants and New York's purest (you can drink it) lake.

••• SEAR SOUND

235 W. 46th St., New York, NY 10036

(212) 582-5380

Owner: Walter Sear.

Studio Manager: Roberta Findlay.

Engineers: Walter Sear, Bob Schwall.

Dimensions of Studios: 37' x 15'.

Dimensions of Control Rooms: 15' x 11'.

Tape Recorders: Ampex MM1200 16 track; Ampex 300 2 track; Ampex 350 2 track; Ampex 300 1 track.

Mixing Consoles: Custom built, 16 in x 16 out.

Monitor Amplifiers: McIntosh M175.

Monitor Speakers: JBL.

Echo, Reverb, and Delay Systems: EMT 140, Fisher K-10, Fairchild tape delay.

Other Outboard Equipment: UREI, Pultec, equalizers; Fairchild, Teletronix compressors.

Microphones: Neumann U-47 (tube type), U-67, U-87, KM 86, KM 56; RCA 44, 77; Shure SM-57; AKG C12; Sony C 37; Sennheiser MKH 405; E-V RE-16, 666-R.

Instruments Available: Steinway grand, Hammond B-3, RMI Rocksichord, Baldwin electronic harpsichord, Celeste, Moog Model C synthesizer, Slingerland drums.

Extras: Film mix, dubbing and screening rooms; film editing.

Rates: 16 track \$75/hr; 8 track \$50/hr; 2 track, mono \$35/hr.

Direction: Our studio is built with about 90% tube electronics, including the console. We find the "warmer" tube sound to be much more pleasing to the human ear.

••• STUDIO 21 SOUND

635 Madison Ave., 11th floor, New York, NY 10022

(212) 688-4070 or 688-1576

Studio Manager: Sandi Morrof, business representative.

Engineers: Frank Heller, chief music engineer; Jerry Summers, music engineer, production engineer; Tom Cardace, assistant engineer.

Dimensions of Studios: 41' x 15' x 8 1/2'.

Dimensions of Control Rooms: 23' x 14' x 11'.

Tape Recorders: 3M M-56 16/8 track; 4 Scully 280 2 track; 2 Scully 280-B 2 track.

Mixing Consoles: Modified Allen and Heath mod 1/2, 24 in x 10 out; 22 db outputs.

Monitor Amplifiers: BGW 250D.

Monitor Speakers: Altec Vaencias, JBL 100's.

Echo, Reverb, and Delay Systems: MXR digital delay, Master Room MICMIX 1.

Other Outboard Equipment: 4 UREI LN1176 limiters, Pultec filter, Martin Varispeed, 2 Lang PEQ equalizers, 2 MXR flangers,

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16 TRACK

2 Aengus graphic EQ, Burwen noise reduction.

Microphones: 2 Shure SM-54's; AKG 2 414's, 2 C451's, D-25; Sennheiser 3 421's, 5 441's, 5 402/802's, 416, 2 415's; Sony 2 C-500's, 2 BK5's; RCA 77DX; Group 128.

Instruments Available: Yamaha grand piano, Gretch drum kit with Ludwig hardware and hydrolic skins, Ampeg B-15 and twin reverb amps, Hammond B3 organ and Leslie, Hohner D6 clavinet, Fender Rhodes, Wurlitzer electric piano, Remo Roto toms, timbales, ARP Odyssey and 2600 synthesizers with Aries 300 outboard modules.

Extras: 8 track is 1" format running both at 15 and 30 ips; 16 track both at 15 and 30 ips; Burwen non-encoding noise reduction for voice; musicians lounge; terrace overlooking Manhattan and Central Park.

Rates: 2 track mono 1 or 2 instruments and voice \$50/hr; 2 track live mix 3 or more instruments \$50/hr; 8 track (1") 15 or 30 ips \$50-80/hr; 16 track 15 or 30 ips \$60-100/hr.

Direction: Studio 21 Sound specializes in sophisticated multi-track demo production for bands and artists as well as LP and singles for record companies. The studio is well known as an excellent rhythm room (rock, funk, disco, etc.) and an excellent keyboard room. Our clientele include major NY advertising agencies for whom we record and produce jingles and commercial spots; music for Broadway shows and tapes for working jazz and rock groups and artists. Our facilities are friendly and congenial; our recording and mixing extremely high quality.

... STUDIO B

also REMOTE RECORDING
419 Boylston St., Boston, MA 02116
(617) 266-5464 or dial COOKING

Owner: Wayne Wadhams.

Studio Manager: Allen D. Smith.

Engineers: Allen D. Smith, Tom Brandau, Robin Coxe-Yeldham, Wayne Wadhams.

Dimensions of Studios: 20' x 25'.

Dimensions of Control Rooms: 15' x 17'.

Tape Recorders: 3M M79 16 track; Revox A77 1/2 track; Revox A77 1/4 track; Ampex AG 600 1/2 track; 2 Pioneer CF 2121 cassette decks.

Mixing Consoles: Sound Workshop 1628, 20 in x 16 out, with VCA grouping, trans amp and parametric EQ.

Monitor Amplifiers: Phase Linear 400.

Monitor Speakers: JBL 4311, Auratone, Eastern Acoustic Works studio monitors.

Echo, Reverb, and Delay Systems: MICMIX Master-Room reverb, complete selection of digital effects available upon request.

Other Outboard Equipment: Full range of processing equipment available upon request.

Microphones: Neumann U-87, KM-84, KM-86's; AKG 202's, C-451; Sennheiser, Sony C55's, Shure SM-57's, SM-58; RCA 77DX, Sony C-22's, Beyer M-260's, M-360's, Electro-Voice RE-15.

Instruments Available: Hammond B-3 with Leslie, Henry Miller 9' concert grand piano, Fender Rhodes, Ampeg B-18 and Rocket Reverb, 2 Fender Champs.

Extras: Coffee and pinball.

Rates: \$55 1 hr 16 track; \$45 10-19 hrs 16 track; \$40 20 plus hrs 16 track; \$35/hr 2 track and edit; \$20/hr copy.

Direction: We've created each other for our own existence.

... TROD NOSSEL

10 George St., P.O. Box 57, Wallingford, CT 06492
(203) 269-4485

Owner: Trod Nossel Artists, Inc..

Studio Manager: Richard Robinson.

Engineers: Richard Robinson, Jeff Franklin.

Dimensions of Studios: 29' x 34'.

Dimensions of Control Rooms: 20' x 15'.

Tape Recorders: Scully 100-16 16 track and 8 track; Scully 280 4, 2 track and mono.

Mixing Consoles: Automated Processes 2061 modified, 26 in x 8 out.

Monitor Amplifiers: Crown DC 300, D150.

Monitor Speakers: Altec Big Reds, Bozak B-201.

Echo, Reverb, and Delay Systems: AKG BX-20E reverb, EMT 140ST reverb, Lexicon Prime Time DDL.

Other Outboard Equipment: (2) Allison Gain Brains and Kepex's, (2) Altec 436 compressors, PYE compressors, Eventide Phaser and Flanger, Honey Box Omnisonic Imager™.

Microphones: U-47's tube, RE-15's, RE-20's; Synchron S-10's; Sennheiser MKH 405; AKG D-900.

Instruments Available: Knabe 9' grand, Hammond B-3, Baldwin elec. harpsichord, clavinet, drum set, orchestra bells, ARP Odyssey synth.

Extras: Guitar amps, drum booth, vocal booth, piano baffle.

Rates: 16 track, \$225/4 hrs; 16 record, \$87/hr; 16 mix, \$77/hr.

Direction: Excellent service at a good price. We have a great sounding live room and with the drum and vocal booths available, our studio can produce an excellent rock and roll sound which has been acclaimed by many. (No noise reduction either!)

... VARIETY RECORDING STUDIOS

130 West 42nd. (Room 551), New York, NY 10036
(212)221-6625

Owner: Warren Allen Smith and Fred Vargas.

Studio Manager: Joseph Cyr.

Engineers: Joseph Cyr, Mike Dacek.

Dimensions of Studios: 36' x 45'.

Dimensions of Control Rooms: 16' x 18'.

Tape Recorders: MCI 16 track; Scully 280 4 track; Scully 280 2 track; Scully 280 mono; Ampex 2 track.

Mixing Consoles: Audio Designs, 24 in x 16 out.

Monitor Amplifiers: Misc.

Monitor Speakers: Misc.

Echo, Reverb, and Delay Systems: MXR Digital Delay, Eventide Instant Flanger.

Microphones: Misc. including Neumann 87's.

Instruments Available: 7' Kawai grand piano; Hammond church organ, Hammond portable organ; drums; Mellotron, Fender Rhodes, Farfisa VIP 345 organ.

Extras: dbx 158, Scully lathe for cutting stereo acetates plus masters.

Rates: \$70 for 16 track; \$60 for 8 track.

Direction: Since 1960, we have worked with a variety of showbusiness people (including pianist Marvin Hamlisch, who brought Liza Minnelli for her first demo). Our reputation for quality work at competitive prices has led to inclusion in *Who's Who In The World*, and we prize a large international clientele for recording, acetates, cassettes, cartridges, tape copies, pressings in quantity, and album jackets. In addition to extensive Spanish, West Indian, and gospel sessions, we recently taped David Amram's cues for the Broadway production of "Harold and Maude."

... VISCOUNT RECORDING STUDIOS

also REMOTE RECORDING
486 Wellington Ave., Cranston, RI 02910
(401) 467-9362

Owner: Russell J. Martin.

Studio Manager: Russell J. Martin.

Engineers: Russell J. Martin, Larry Hill.

Dimensions of Studios: 25' x 18' x 9' plus piano booth and isolation booth.

Dimensions of Control Rooms: 13' x 14' x 9'.

Tape Recorders: MCI JH 114-16 16 track; Scully 280-2 2/4 track; Crown CX801-P2 2 track; Otari remotes, 8 track.

Mixing Consoles: API/MCI custom, 16 in x 16 out; Quantum remotes, 20 in x 20 out.

Monitor Amplifiers: Crown, McIntosh, Techcraft.

Monitor Speakers: UREI 813's, Electro-Voice Sentry V's, Auratones, and Jensen TRF 3's.

Echo, Reverb, and Delay Systems: Audicon plate, Lexicon Prime Time, digital; Sound Workshop, analog.

Other Outboard Equipment: Allison Gain Brains, UREI 1176LN, UREI LA4's, Kepex's, Eventide Phaser, Orban sibilance controller.

Microphones: Neumann U-87's, U-64; Sony ECM 22; Shure 546's, SM-81's; E-V RE-16, RE-15's, RE-20, DO-54's, 654A; Sennheiser MD 421; AKG D-24E; Altec M-30.

Instruments Available: Yamaha C-3 grand piano, Ampeg B-15 bass amp.

Rates: 16 track \$35/hr; 2 track \$25/hr; 4 track \$30/hr. Remotes quote only.

Direction: Big Walter Horton, Blind Pig Records BP-006-78; J.B. Hutto and The New Hawks, Baron Records. Film Credits: "Life Among The Lonely," Robin Miller film-maker, for national PBS TV broadcast. "Brothers To Dragons," WNET TV, New York, for national PBS TV broadcast.

24 TRACK

•••• A&R RECORDING

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

Studio Manager: Milton Brooks, Wayne Philippo.

Engineers: Elliot Schiner, Jim Boyer, John Curcio, Ed Rak.

Dimensions of Studios: A-1: 50' x 40' x 40' ceiling; A-2: 8.1m x 9m; R-1 C-shaped 12m x 9m; R-2: 9m x 6m.

Dimensions of Control Rooms: All approx 400 sq. ft.

Tape Recorders: MCI JH114 24 track; Lyrec 24 track; Studer A-800; Studer A-67, B-67 2 track; MCI 2 track.

Mixing Consoles: MCI JH528 auto, 32 in x 32 out; Neve w/Necam, 32 in x 24 out.

Monitor Amplifiers: McIntosh 2200.

Monitor Speakers: UREI 813.

Echo, Reverb, and Delay Systems: EMT 140 stereo (17), Lexicon 240, Eventide DDL.

Other Outboard Equipment: Scamprack, Orban D'Essers, LA3, LA2A (Universal), Universal 1176, Fairchild stereo 280, Kepex and Roger Mayer gates, Pultec.

Microphones: Neumann U-87, KM-84, U-47 (tube and FET); AKG 414, C-60, 452; Beyr 88; Sennheiser 421; Sony C-37, C-38, C-22, ECM 251, ECM 33F, ECM 50; E-V RE-20.

Instruments Available: Steinway pianos, Ludwig drum, Ampeg B-15's, Fender Super Reverb.

Rates: On request.

Directions: A good client mix; records, advertising and film.

•••• 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 Addey.

Engineers: Malcolm Addey, chief; Allan Tucker, assoc.

Dimensions of Studios: This is a remote facility with a production/remix room only.

Dimensions of Control Rooms: 14' x 15', remixing, multi-machine mixing, tape editing and copying, etc. only.

Tape Recorders: Electro Sound or MCI 16/24 track; Ampex 8/4/2 and mono.

Mixing Consoles: Custom, 48 in x 24 out.

Monitor Amplifiers: Phase Linear and Marantz.

Monitor Speakers: Altec 604E, JBL 4311, Auratone.

Echo, Reverb, and Delay Systems: MICMIX.

Other Outboard Equipment: UREI LA3A, 175 & 1176LN; Fairchild 670; Orban stereo synthesizer; Orban parametric EQ 622B; Pultec EQ; Burwen dynamic noise filter; Dolby A and dbx noise reduction, etc.

Microphones: Neumann U-87; Sony C38; ECM 22P; Beyr 160, 500; AKG 451; Sennheiser 421; RCA 44BX, 77DX; E-V; Shure, etc.

Extras: Snakes (27 & 15 pairs), direct boxes, splitters, and all remote gear.

Rates: According to facilities, please call for quotation.

Directions: Our very flexible remote facilities allow us to successfully bid for all budget levels and all types of recordings. Credits include "live" recordings for Mel Torme, Buddy Rich, Yuri

Egorov, John Lee Hooker, Kenny Burrell, Dexter Gordon, Billy Taylor Trio, Savoy Records, Muse Records, radio and TV broadcasts. We are fully equipped for radio/TV commercial and production work, remixing, multi-machine mixing, re-processing old masters, etc.

•••• ATLANTIC STUDIOS

1841 Broadway, New York, NY 10023

(212) 484-8093

Owner: Atlantic Recording Corp.

Studio Manager: Dave Teig.

Engineers: Jimmy Douglass, Lew Hahn, Gene Paul, Bobby Warner, Studio. George Piros, Dennis King, Mastering. Tom Heid, Randy Mason, Mike O'Reilly, Bill Dooley, Assistants. Joel Rice, Barry Diamant, Tape Copy. Sami Uckan, Bob Leefe, Joel Kerr, Ray Deleon, Maintenance.

Dimensions of Studios: A: 45' x 23'; B: 16' x 35'.

Dimensions of Control Rooms: A: 22' x 18'; B: 16' x 24'; Mix Room: 19' x 24'.

Tape Recorders: MCI JH 24 24 track, MCI JH 110 2 track.

Mixing Consoles: MCI JH 556, 56 in x 56 out; MCI JH528, 38 in x 38 out.

Monitor Amplifiers: Crown DC 300.

Monitor Speakers: UREI 813, Altec 195.

Echo, Reverb, and Delay Systems: EMT 140, EMT 250, Eventide Digital Delay.

Other Outboard Equipment: EXR Exciter, Dolby, MXR Flanger, Phaser, Scamp, Orban parametric EQ, Eventide Harmonizer, Kepex, Gain Brain, MCI automation, in all consoles, MCI auto lock, UREI Click Track generator.

Microphones: U-47, 49, 67, 87, 84, 86, 89; Sennheiser 415, 421, 441; Shure 57, 81; Electro-Voice 15, 16, 20, 55; AKG 451, 414; RCA 46, 44, 77; Sony 37A, 37P; plate mic PZ.

Instruments Available: Hammond organ, grand piano, drums, guitar amps, bass amps.

Extras: Fender Rhodes, Clavinet, Scamp.

Rates: Studio and mix time, Monday thru Friday until midnight \$200 per hour.

Directions: Chaka Khan, Bette Midler, Dollar Brand, Mass Production, ADC Band, Slave, Foreigner.

•••• AURA RECORDING CO. INC.

136 West 52nd St., New York, NY 10019

(212) 582-8105

Owner: Allan Mirchin, Benjamin Stern.

Studio Manager: Eleanor D'Elia.

Engineers: Frank Tomaino, Hitch Raboy, Larry Collen, Brian Tamer, Ed Rice.

Dimensions of Studios: Studio D: 45' x 45' x 25'; Studio A: 35' x 25'; Studio B: 25' x 20'; Studio C: 15' x 10'.

Dimensions of Control Rooms: D: 20' x 20'; A: 15' x 15'; B: 15' x 15'; C: 15' x 15'.

Tape Recorders: Ampex MM1200 24 track; MCI 24 track; Ampex ATR 102 2 track; Scully 8 track; Ampex 440-4 4 track; Ampex 440-2 2 track.

Mixing Consoles: Amek 3000, 36 in x 24 out; Audio Designs, 24 in x 16 out; Audio Designs, 24 in x 8 out.

Monitor Amplifiers: McIntosh MC 2300.



AURA RECORDING STUDIO
New York, N.Y.

Monitor Speakers: UREI 813, Big Reds.

Echo, Reverb, and Delay Systems: EMT 140, EMT 240, echo plate, Lexicon digital reverb.

Other Outboard Equipment: Lexicon Prime Time, Eventide Harmonizer, Kepex, LA2A limiters, dbx limiters, LA4A limiters.

Microphones: Neumann U-87, 67's, 49M, 47 FETS; Shure, AKG.

Instruments Available: Fender Rhodes, Hammond B-3, Steinway and Baldwin pianos, vibes, xylophone, orchestra bells.

Rates: \$195/hr Studio D—down to \$65/hr Studio C.

•••• AURA-SONIC LTD.

REMOTE RECORDING

140-02 Poplar Ave., Flushing, NY 11355

(212) 838-8500

Owner: President: Steve Prinius, Vice: Joel Schreiber.

Studio Manager: Steve Prinius.

Engineers: Steve Prinius, Marty Atlas and of course Prny-Jitsu.

Dimensions of Studios: We are a remote facility and work with various rehearsal studios in NY.

Dimensions of Control Rooms: 12' x 7' x 7' on a Ford 600 truck with reel and supply boxes under the rig.

Tape Recorders: 3M (2) M79 24 track; (2) Otari 5050/5C50B 2 (1/2) track; Otari 5050QX 4 (1/4) track; Aiwa 6900 cassette.

Mixing Consoles: Newly installed Soundcraft 1624, 24 in x 24 x 16 with additional mixers; Sony MS-20, 8 in x 4 out.

Monitor Amplifiers: Yamaha P-2200, Crow: D-75.

Monitor Speakers: JBL 4311's, Auratones.

Echo, Reverb, and Delay Systems: Roland Vocoder, Marshall Time Modulator, Lexicon Prime Time, Roland Space Echo.

Other Outboard Equipment: Crown EQ-2, SAE 27B EQ, (2) dbx 160, (2) Ashly compressors.

Microphones: Sennheiser 441, 421, 416; E-V RE-20, RE-16, RE-15, 635A; Neumann KM-84; AKG C-451E; Sony ECM 50; Shure SM-57, 58; 30 mics total; we can get many more on request.

Extras: 40 channel transformer splitter, 38-channel 300 ft snake. Video hook-ups with 2 monitors. We can also run 2-24 track machines. Air conditioning and heat included.

Rates: Prices on request.

Directions: We've done live radio broadcasts for WPIX-FM, and WNEW-FM. Our philosophy is to bring the multitrack studio to the home, concert and/or anywhere desired to develop the sounds needed. We have worked with the Police, Joan Armatrading, Magazine, Jerry Lee Lewis, the Yachts, Moon Martin, Sam & Dave, Wreckles Eric, XTC, the Specials, to name a few. We are looking forward to the future to bring the opportunity of live recorded sound and feelings to a wider clientele.

•••• AUTOMATED SOUND STUDIOS

1500 Broadway, New York, NY 10036

(212) 869-8520

Owner: Steve & Arthur Freidman, 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 25'; 3 4-track narration rooms.

Dimensions of Control Rooms: A: 20' x 20'; B: 15' x 15'; 24 track 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, 48 in x 32 out; Neve (custom) 8058, 38 in x 24 out; (3) Audiotronics 501, 24 in x 24 out.

Monitor Amplifiers: (14) McIntosh 2100's; (8) Crown headphone amps.

Monitor Speakers: (16) 604-8G's, (4) Big Reds, (1 pair) 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, Orban parametrics, LA4A, LA3's, Neve compressors, Dolby.

Microphones: Neumann U-87's, U-47's, KM-86, 85; AKG 414's, 60 assorted mics.

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

Extras: Complete high speed duplicating, mag transfer facilities, computerized shipping, 2 color VTR's (1 cassette, 1 reel to reel.)

•••• 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 Blank.

Studio Manager: Lou Vetter; assistant: Knut Hoff, Jr.

Engineers: Chief Engineer: John Bradley; Chief of Maintenance: Chuck Ange; 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: 16' x 20'.

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.

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 equalizers, UREI 539, 1176, 530 EQ's; parametric 622B; Soundcraftsmen 20-12A. Teletronix LA2A, LA3A's, UREI 175-A limiter, 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 Acousticcomputer, Audio Design Recording Vocal Stessor 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, Syn-drums, congas, timbales, vibes, percussion kits, other rentals also available on request.

Extras: Computerized tape library, TV room, pinball machines, electronic games.

Rates: Rates upon request, contact Studio Manager.

•••• BLUE ROCK STUDIO

29 Greene Street, New York, NY 10013

(212) 925-2155

Owner: Edward Korvin.

Studio Manager: Edward Korvin.

Engineers: Edward Korvin, Michael Ewasko.

Dimensions of Studios: 22' x 45' x 14' high.

Dimensions of Control Rooms: 16' x 22' x 14' high.

Tape Recorders: Studer A-80 16 and 24 and 2 track.



BLUE ROCK STUDIOS
New York, N.Y.

24 TRACK

Mixing Consoles: Neve 8058, 28 in x 24 out.

Monitor Amplifiers: Crown 300A, McIntosh 50, 75, 100, 220.

Monitor Speakers: Big Red, Altec 604E, JBL 4311, Auratone.

Echo, Reverb, and Delay Systems: EMT 140 ST, AKG BX-20, Eventide, 2 TR.

Other Outboard Equipment: Kepex, Gain Brain, UREI, Roger Mayer, Marshall, Dolby, dbx, Eventide, MXR.

Microphones: Neumann, AKG, Sony, Shure, Beyer, RCA, Electro-Voice, Sennheiser.

Instruments Available: Steinway, Hammond, Fender Rhodes, Fender, VOX, Hi-Watt, Sunn, Ampeg guitar amps.

Extras: NY State sales tax when applicable.

Rates: \$175/hr.

Direction: Joe Simon; Philip D'Arrow, Polydor; Kinks "Low Budget", Arista; Spinners, Michael Zager, Jerry Love, Atlantic; Richard T. Bear, RCA; Tom Verlaine, Elektra; Screamin' Jay Hawkins; Bob Dylan, Columbia; Don Cherry; Etta James; Houston Person; Mike Oldfield, Philip Glass, Virgin Records; Chuck Jackson, Sun Ra, Brian Eno, Richard Lloyd, Alan Gordon, Gene Simmons (Kiss), Casablanca. Additional Clients: Keith Richards, Saturday Night Live Band, The d'B's on Shake Records, Robert Fripp, The Roches, Ed Blackwell on Sweet Earth Records.

•••• CBS RECORDS

49 E. 52nd St., New York, NY 10022

(212) 975-5901

Owner: CBS Inc.

Studio Manager: Diane Brooks.

Dimensions of Studios: Studio 30: 100' x 50' x 20'; Studio B: 35' x 50' x 14'; Studio E: 20' x 35' x 12'.

Tape Recorders: MCI 24 track; Ampex MM1000 16 track Ampex/Scully 8, 4, 3, 2 track and mono machines.

Mixing Consoles: Custom, 36 in x 24 out; MCI (AVC), 32 in x 24 out.

Monitor Amplifiers: Crown, McIntosh.

Echo, Reverb, and Delay Systems: Live, EMT echo, Cooper Time Cube, Eventide, Delta Labs.

Other Outboard Equipment: Eventide Flanger, Countryman phaser, Instant Phaser, UA LA2A, LA3A, 1176, Fairchild, RCA BA6A, Neve limiters; Kepex, Quad/Eight gates, UREI limiters.

Instruments Available: Steinway pianos, Hammond B-3, Rhodes, Celeste, vibes, bells, chimes, xylophone, tympani, Rogers drums, Fender amplifiers.

Extras: 200 Dolby channels, 24 dbx channels, Sony digital pulse code modulator (PCM) w/Betamax recorder, Bode ring modulator.

•••• 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, Douglas Pomeroy, Edward Bowleg, Norman Keller.

Dimensions of Studios: A: 33' x 28' plus drum booth and additional isolation booth. B: 14' x 16' including drum booth.

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 TCD310 cassette; Sony TCK711 cassette.

Mixing Consoles: Harrison 3232, 32 in x 32 out; Harrison 3624, 36 in x 24 out.

Monitor Amplifiers: (1) Crown DC300 driving each control room monitor; a Phase Linear 400 driving 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 limiters, 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-224E; Beyer M-160; Electro-Voice 635, RE-15, RE-20; Sennheiser 421, 441; PZM 130.

Instruments Available: All at no charge: (2) Fender Rhodes, Honkytonk piano, Hohner clavinet, RMI Roc-Si-Chord, Musser Vibes, pedal tympani, congas, 2 complete drum kits, guitar and bass amps, Steinway grand piano, Baldwin grand piano, 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.

Extras: Our parent company, MZH Inc, is a music for advertising production house, so we have complete facilities for jingle production; all types of sync, VTR playback, tape to 35mm magnetic film transfer, and a pool of arrangers, lyricists and composers. All our outboard equipment and studio instruments are available at no extra charge. We have coffee, tea, beer, soda, and charge accounts at local restaurants for your convenience.

Rates: Competitive and flexible. Outside New York, please call collect, 212-575-9095, in New York, please call direct for a quote, and for any other information you may require.

Direction: With the completion of Studio B, we were able to accept bookings from outside clients. Our first Platinum and Gold Albums came in as a result of Mecos's "Star Wars," and Ashford & Simpson's "Is It Still Good To Ya" Since then we have worked with: Diana Ross, Joey Travolta, Sam The Band, The Pointer Sisters, and Slide Hampton. Our most recent achievements include David Sanborn's "Hideaway" album for Warner Brothers and Mecos's "Star Trek/Black Hole" for Casablanca Records. We are currently considering a one month trial of the 3M 32 track digital system. By the time this article is in print the project should be under way, and we will be the only multitrack digital facility on the East Coast. The atmosphere here is efficient yet relaxed. Everything works, and we allow plenty of time between sessions, so you never feel rushed. If you want to present your finished product to your record company in the studio, we will lay on champagne and a cold buffet. For your additional information: our tape formulation is Ampex Grand Master 456, and we run our multitrack machines at 355NWB/m. We carry most other brands of tape, and will be happy to change for your project, if you give us at least 48 hours notice.

•••• CELESTIAL SOUNDS

919 2nd Ave., New York, NY 10017

(212) 355-4825

Owner: Toni Pinelli and Celeste Pinelli.

Studio Manager: Toni Pinelli.

Engineers: Michael Jay, Peter Sobel.

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; Revox A-77 2 track; Aiwa 6900-II cassette 2 track.

Mixing Consoles: MCI 636-36, 36 in x 24 out.

Monitor Amplifiers: BGW 750-B, strapped in mono, for 950 watts on each UREI 813, a third 750 B on the Big Reds. SAE 2200 on the Tannoy Golds, JBL's and other small speakers.

Monitor Speakers: UREI 813 Time Aligned; Big Reds with Mastering Lab crossover and Time Sync crossover forthcoming; ADS 300, Tannoy Gold monitors; JBL 4311, Auratones.

Echo, Reverb, and Delay Systems: EMT 250 digital reverb, Lexicon Prime Time, Eventide Harmonizer, Phaser, Flanger.

Other Outboard Equipment: dbx 165 and (2) 160 comp/limiters, UREI LA4 compressors, Audioarts, Orban, UREI parametrics; White and UREI graphic EQ, Symetrix noise gates, Orban stereo synthesizer.

Microphones: Neumann U-87; U-89, KM-84; AKG 414, D224-E; E-V RE-20; Sennheiser 421, 441; Shure SM-57's; Nakamichi CP-1.

Instruments Available: Steinway B 7, Hammond B-3 w/Leslie, Prophet 5 polyphonic synthesizer, other synthesizers include: Emu modular 5-voice, Mini Moog, Moog modular, Roland 100 Series 4-voice; Fender Rhodes, Pearl drums w/roto toms, MESA/Boogie, Sunn Beta bass amp, Fender Princeton amp, Fender Stratocaster, Precision bass, Martin, Guild acoustic guitars. All synthesizers are provided free, as are the other instruments and outboard gear. Programming is our specialty, and pleasure.

Rates: \$150/hr, block booking available, \$75/hr for editing/assembly, \$50/hr dubbing.

Direction: Everyone involved at Celestial is a musician, producer, composer, and engineer. We feel that this is the only way to provide personal attention for every phase of production, and achieve a truly special sound. This is true of the basic tracks as well as the specialized productions of clients such as Brian Eno. Our philosophy includes having every instrument miked and routed before the session starts. Our console incorporates the outboard gear from its sends, and returns them to faders 25-up, for patchless, easy manipulation. The 636 is also the first console to feature JH-50 Automation as standard, for easiest operation. We are very proud of the control room, which requires no EQ correction for the monitors. And with 2000 watts on our UREI 813's, clients find this a very nice room in which to create sounds.

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•••• **CHELSEA SOUND STUDIOS, INC.**

135 West 14th St., New York, NY 10011
(212) 242-7328

Owner: Mark Freeh.

Studio Manager: Philip Bulla.

Engineers: Robert Clifford, Philip Bulla, Bradshaw Leigh, Robert Miller, Mark Freeh, (misc. free lance.)

Dimensions of Studios: 40' long x 23' wide x 12' ceiling.

Dimensions of Control Rooms: 12' wide x 18' deep x 12' ceilings.

Tape Recorders: MCI JH 114-24 24 track; Scully 280-B 2 track; Ampex 440-B 2 track; TEAC/Tascam 40-4 4 track; Tandberg cassette machine.

Mixing Consoles: MCI 428, 28 in x 24 out.

Monitor Amplifiers: Crown 300A, Crown 150A, McIntosh 250.

Monitor Speakers: UREI Time Align 813, Altec 604E, Auratones.

Echo, Reverb, and Delay Systems: EMT (stereo plate), AKG BX-20, Lexicon Prime Time, Harmonizer.

Other Outboard Equipment: Scamprack, 4 Pultecs, 5 graphic EQ's, IIT parametric EQ's, 6 Kepex's, 2 Roger Mayer noise gates, UREI digital metronome, 2 dbx 160 limiters, 2 UREI LA3A limiters, UREI LA2A limiter, MXR D'Esser, digital clock.

Microphones: Neumann U-47's, U-67's, U-87's, KM-86; AKG 414 EB's, D-1000E's; Sennheiser 421's, 441's; Electro-Voice RE-20's, RE-16's; E-V 635A's; RCA 44DX's, 77DX's; Shure SM-57's, SM-58's.

Instruments Available: Custom double headed Slingerland drums w/Pearl hardware, Yamaha C-3 conservatory grand piano, Hammond B-3 organ, Fender Rhodes piano, marimba, ARP String Ensemble, misc. small Latin percussion.

Extras: Fender Twin Reverb amp, Music Man amp, Fender Tremolux amp, Yamaha 410 amp, Ampeg Gemini amp, Pignose amp, Ampeg B18 amp.

Rates: 24 track \$145/hr, 16 track: \$120/hr, 8 track: \$85/hr, 2 track: \$50/hr.

•••• **COMPACT LOCATION RECORDERS**

REMOTE RECORDING

11 Messina Ave., Methuen, MA 01844

(617) 685-1832

Owner: Pat Costa.

Studio Manager: Phil Adler.

Engineers: Phil Adler.

Dimensions of Studios: Location service only.

Tape Recorders: Ampex ATR 102 2 track; Ampex MM 1200 24 track.

Mixing Consoles: Tangent 3216, 24 in x 24 out.

Monitor Amplifiers: Crown.

Monitor Speakers: Altec 604E, Auratones.

Echo, Reverb, and Delay Systems: AKG BX-10, Loft delay line flanger, Ashly parametric EQ.

Other Outboard Equipment: UREI LA3's, LA4's, Eventide DDL, Harmonizer.

Microphones: AKG 451, RE-20; Neumann U-87; Shure SM-57, SM-58; Sennheiser 441, 421; E-V RE-15; Beyers M-500.

Extras: Noise reduction (available on request).

Rates: Negotiable.

Direction: Tower of Power, Tom Petty and The Heartbreakers, WBCN Live Broadcast, Maria Muldaur, Warner Bros, The Cars, Midnight Special, Boston-Epic Records, N.R.B.O. AC Records, Live at the Rat, Rat Records, Live at CBGB's New York, Sinceros WAAF Live Broadcast, 38 Special WAAF Live Broadcast.

•••• **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: Chief Engineer Thom Foley, Engineers Peter Doell and Klare Hollender.

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 synchronizer, Altec hi and lo pass filters, Spectra Sonics 610 Comp-limiters.

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.

24 TRACK

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.

Direction: George Thorogood, Pat Metheny, John Hammond, JFK Library, Baltimore Aquarium, WGBH, and "Where's Boston?" (a multi-media show).

•••• **EASTERN SOUND RECORDING STUDIOS**

also REMOTE RECORDING

11 Messina Avenue, Methuen, MA 01844

(617) 685-1832

Owner: Patrick Costa.

Studio Manager: Ron Messina.

Engineers: Patrick Costa, Ron Messina, Bob Schotts, Phil Adler.

Dimensions of Studios: 20' x 30'.

Dimensions of Control Rooms: 20' x 15'.

Tape Recorders: Ampex MM1200 24 track; Ampex ATR-102 2 track; Ampex 440C 2 track.

Mixing Consoles: Syn-con, 28 in x 24 out.

Monitor Amplifiers: Crown DC-300.

Monitor Speakers: Altec 604-BG, JBL 4311, Auratone Sound Cubes.

Echo, Reverb, and Delay Systems: The Audi-Con plate system, AKG BX-10, Eventide Digital Delay, Loft digital delay.

Other Outboard Equipment: Eventide Harmonizer, UREI LA3A's, UREI LA4A's, Omni-Craft noise gates, Ashly parametric EQ's, Loft delay line flanger, Eventide Phaser, UREI graphic EQ.

Microphones: Neumann U-87's, U-47's; AKG 451's, C-60's, D-24E's, D-200, D-160, D-100E's, 190; Sennheiser 441's, 421's; E-V RE-15's, RE-20's, RE-11; Shure SM-57's, SM-58's, SM-53; E-V 667A, 665; Beyers M-500.

Instruments Available: Yamaha grand piano, Fender Rhodes, Ludwig 5-piece drum set with cymbals and hardware, Latin percussion congas, Fender amps.

Extras: dbx 216 noise reduction, AKG K-140 headsets, Helpinstill piano pickups.

Rates: Negotiable custom project rates.

Direction: In the 80's Eastern Sound will continue to provide the artist/producer/engineer with the most creative relaxed environment and state-of-the-art equipment available. It's the total studio concept your imagination's been waiting for.

•••• **ELECTRIC LADY STUDIOS**

52 West 8th St., New York, NY 10011

(212) 677-4700

Owner: Alan Selby.

Studio Manager: Alan Selby.

Engineers: Chief Engineer, Joe Blaney; engineers: Dave Wittman, Tom Bush, Mike Frondelli, Jim Gallante.

Dimensions of Studios: A: 42' x 37'; B: 22' x 32'; C: 25' x 20'.

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

Tape Recorders: Studer A800 24 track; full track stereo 1/2" mastering machine; (2) 3M M79 24 track; MCI JH114 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.

Echo, Reverb, and Delay Systems: (5) EMT 140. (4) Eventide, (3) Lexicon.

Other Outboard Equipment: (3) Pultec PEQ, (3) MEQ, (3) LA2A, (2) 1176LN, (2) dbx 160, (6) Kepex phaser, flanger, Klark-Teknik graphic EQ, Orban/Parasound in each room.

Microphones: Neumann U-87, SM-69, 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.

Rates: \$185/hr 24 track.

•••• **DON ELLIOTT PRODUCTIONS**

15 Bridge Rd., Weston, CT 06883

(203) 228-4200

Owner: Don Elliott.

Studio Manager: Liz Gallagher.

Engineers: Ron Bacchiocchi, Peter Levin.

Tape Recorders: MCI JH100, Scully.

Mixing Consoles: Syncon.

Monitor Amplifiers: BGW, McIntosh.

Monitor Speakers: Big Reds, Auratones.

Echo, Reverb, and Delay Systems: EMT 140, Space Station digital reverb.

Other Outboard Equipment: Harmonizer, Marshall Time Modulator, Eventide Flanger, Roger Mayer noise gate, LA3A, 1176 UREI, Omnipressors.

Microphones: AKG, Sony, Neumann, Electro-Voice, Shure, Sennheiser.

Instruments Available: Baldwin grand piano, Hammond organ, Fender Rhodes, Pearl drum set, ARP Odyssey synthesizer, ARP String Ensemble.

•••• **FIST-O-FUNK STUDIO**

90 Collyer Ave., New City, NY 10958

(212) 543-7778, (914) 634-2446

Owner: Kevin Misevis.

Studio Manager: Gary Hill.

Engineers: Gary Hill.

Dimensions of Studios: 20' x 30' main room; 8' x 18' separate from main room; 15' x 20' separate.

Dimensions of Control Rooms: 15' wide by 25' long.

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 cassette.

Mixing Consoles: MCI JH-528, 28 in x 24 out.

Monitor Amplifiers: McIntosh, Crown.

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

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

Other Outboard Equipment: UREI 1176 limiters, filters, leveling amplifiers, Pultec mid EQ's, Roger Mayer limiter, Teletronix LA2A, Kepex Gain Brain, Eventide Omnipressor, Flanger, Harmonizer, Orban D'Esser, digital metronome, Dolby 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; Beyers 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, percussion: Slingerland drums and cymbals, timbales.

Extras: Full kitchen facilities, swimming pool (in season), video monitoring, 3 fireplaces, four landscaped acres, Harlequin Great Dane lap dog.

Rates: Special block rates for advanced booking.

Direction: Primarily designed as a luxury in-house production recording studio.

•••• **GENERATION**

1650 Broadway, New York, NY 10019

(212) 765-7400

Owner: Alan Mirchin.

Studio Manager: Ben Stern.

Engineers: Anthony Stanislawski, Tony May, Hayoen Harris.

Dimensions of Studios: A: 60' x 50'; C: 50' x 40'.

Dimensions of Control Rooms: A: 50' x 15'; C: 35' x 20'.

Tape Recorders: MCI 24 track; MCI 16 track.

Mixing Consoles: Audio Design, 36 in x 24 out.

Monitor Amplifiers: McIntosh 2100.

Monitor Speakers: Big Red 604E.

Echo, Reverb, and Delay Systems: EMT, Lexicon digital delay, time cube delay.

Other Outboard Equipment: Eventide Harmonizer, Kepex, UREI and dbx limiters, Lexicon Prime Time, Eventide Flanger.

Microphones: Neumann, Sennheiser, AKG, E-V RE-20.

Instruments Available: Baldwin grand, tack piano, Leslie organ, Fender Rhodes, drum kit.

Extras: Dolby dbx.

Rates: On request.

Direction: Generation 80% record dates, 20% advertising.

•••• **GRENADIER**

also REMOTE RECORDING

3 Lille Lane, Cheektowaga, NY 14227

1814 Crittenden Rd., Rochester, NY 14623

(716) 668-1133, Cheektowaga; (716) 275-3821, Rochester.

Owner: Tom Greene.

Studio Manager: Tom Greene.

Engineers: Tom Greene, outside independent engineers.

Dimensions of Studios: 25' x 22', 30' x 40'.

Dimensions of Control Rooms: 10' x 16', 18' x 22'.

Tape Recorders: MCI JH 16 24-16 track; Scully 280 4 track; Crown CX 822 2 track; Ampex 440 4 track/2 track; Revox A-77 2 track; Sony TC-377 1/4 track.

Mixing Consoles: MCI JH-416, 24 in x 24 out.

Monitor Amplifiers: Bi-Amp with McIntosh 275 tube amps, UREI modified electronic x-over (improved), Phase Linear 400 bottom amp, also (2) SAE 2200, Dynaco 150, Koss 1A, other McIntosh 275's.

Monitor Speakers: JBL 4333A's, JBL 4311's, 5" cubes, Altec A-7's for studio.

Echo, Reverb, and Delay Systems: MICMIX III reverb, Fairchild 658, Sennheiser.

Other Outboard Equipment: UREI 1176N (3), UREI LA3A's (2), Dynaco graphic EQ, Soundcraftsmen EQ (modified), Delta Graph EQ (modified) 4, custom parametrics (2), Ashly parametrics (2), outboard mixers, dbx.

Microphones: Various by Neumann, AKG, Sennheiser, Schoeps, Electro-Voice, Shure, Altec, Sony, Beyer, etc., 40 total, some tube condensers.

Instruments Available: Steinway piano.

Extras: Complete tape duplication facilities available, high speed and 1:1 studio quality.

Rates: 24 track \$125/hr, 16 track \$80/hr.

Direction: 24 track remote now under construction, digital reverb (Lexicon) to arrive soon. Emphasis to be on remote situation.

•••• INTERMEDIA RECORDING STUDIO

331 Newbury St., Boston, MA 02115

(617) 267-2440

Studio Manager: Tom Crosthwaite, General Manager.

Engineers: Fred Torchio, Chief.

Dimensions of Studios: 20' x 30'.

Dimensions of Control Rooms: 20' x 20'.

Tape Recorders: MCI JH 116/24 24 track; Studer B67 2 track; Ampex B440 4 track; Ampex B440 2 track; Revox B77 ¼ track; Yamaha TC 1000 cassette.

Mixing Consoles: MCI 600/32-32-32.

Monitor Amplifiers: BGW 750B, Crown DC-300A, Crown DC-150, 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, Eventide DDL.

Other Outboard Equipment: Dolby 24 tracks, Eventide Harmonizer, 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 EQ's, SAE Mark XVII EQ's, UREI room EQ's, assorted flangers, etc.

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

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

Extras: 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: Rick O'Casek, New England, Dick Wagner, Sha Na Na, Genya Ravan, ABC Country Greats In Concert featuring Waylon Jennings, Lynn 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 Production, Eastwind Production, Alpha Ent's., Mike Stone Ent's., Back Stage Ltd., Positive Prod., Aucoin Mgmt., Summer Knights, Rock-Steady Prod.

•••• JAC RECORDING

45 W. 57th St., New York, NY 10019

(212) 753-6446

Owner: Charles Leighton.

Studio Manager: Kyle Davis.

Engineers: Charles Leighton, John Hawkins.

Dimensions of Studios: A: 42' x 28' x 12'; B: isolation.

Dimensions of Control Rooms: A: 14' x 20'; B: 13' x 17'.

Tape Recorders: Auto-Tec 624 24 track; Ampex 351 2 track.

Mixing Consoles: Custom, 32 in x 24 out.

Monitor Amplifiers: Crown B1-amp.

Monitor Speakers: Altec Hybrid A-19.

Echo, Reverb, and Delay Systems: EMT, MXR digital delay.

Other Outboard Equipment: 5 dbx and Allison limiters, Kepex, Orban Parametric EQ, Click Track, Eventide Phase Shifter, Grafic EQ.

Microphones: Neumann, E-V, RCA, Sennheiser, AKG, Beyer.

Instruments Available: Steinway "B", Fender Rhodes, drum kit, vibes, Hammond B3.

Rates: 24 track \$150/hr; 16 track \$110/hr.

Direction: All phases of recording; specializes in industrial shows; philosophy: to do anything that has to be done.

•••• KINGDOM SOUND STUDIOS, INC.

6801 Jericho Turnpike, Syosset, NY 11791

(516) 364-8666

24 TRACK

Owner: Bill Civitella, Clay Hutchinson, Andy Matranga.

Studio Manager: Nancy Sirianni, studio mgr.; John Devlin, technical mgr.

Engineers: Clay Hutchinson, John Devlin, Scott Powers.

Dimensions of Studios: 26' x 32'.

Dimensions of Control Rooms: 16' x 26'.

Tape Recorders: 3M MK79 24 track; 3M MK79 2 track; Studer A80 2 track; Ampex 440 2 track.

Mixing Consoles: Harrison 4032C, 40 in x 32 out.

Monitor Amplifiers: 2 Crown 300's, Crown 150, Phase Linear 150 (selectable).

Monitor Speakers: Altec 604-EZ Big Reds, JBL 4311's, The New Advent loudspeaker, Auratones (selectable).

Echo, Reverb, and Delay Systems: EMT 140TS, EMT 240 Gold Foil, AKG BX20, Lexicon 224 digital reverb, Marshall Time Modulator, (2) Lexicon Prime Time digital delays.



KINGDOM SOUND STUDIOS, INC.
Syosset, N.Y.

Other Outboard Equipment: 2 dbx compressor/limiters; UREI LA3A, LA-4 compressors; (4) 1176's; 2 stereo A&D Compex limiters; Orban D'Esser; 2 Allison Kepex's; 2 Allison Gain Brains; 24 API 560 graphic EQs; 4 Orban parametric EQs; Eventide Flanger, Phaser, and two Harmonizers; MXR flanger; Lexicon Prime Time digital delay, 24 tracks Dolby noise reduction; custom 4-way headphone monitoring system; digital metronome; Vari-speed (all machines).

Microphones: Over 50 microphones, all major manufacturers.

Instruments Available: 7' 1915 rebuilt Steinway grand, Hammond A with Leslie, 88 key Fender Rhodes with custom built Dyno-My-Piano percussion pedal and stereo tremelo, Oberheim polyphonic synthesizer, Mini Moog, clavinet, stereo harpsichord, full drum set and plenty of guitar amps.

Extras: We believe in being a complete service. We will make hotel reservations and arrange limousine service, recommend restaurants and rent equipment. Best of all, there's always fresh coffee and a smile on our faces.

Rates: Please call for rates.

Direction: Our credits include: Rainbow, the Good Rats, Alessie Brothers, Duke Jupiter, Shakin Street, Touch, Jimmy Ruffin, Meco Monardo. When serving today's recording industry, a studio must be both versatile and cooperative. KSS is one of the major recording studios serving the industry today. Ground breaks for our new room in April of this year.

•••• LATIN RECORDING SOUND STUDIOS

1733 Broadway 3rd Floor, New York, NY 10019

(212) 541-6072

Owner: Raul Alarcon.

Studio Manager: Alfredo Li.

Engineers: Jon Fausty, Alfredo Li, David Rodriguez, Fred Weinberg, Willy Lopez, Kevin Zambrana.

Dimensions of Studios: A: 40' x 20'; B: 10' x 7'; C: 10' x 10'.

Dimensions of Control Rooms: A: 20' x 30'; B: 20' x 40'; C: 10' x 15'.

Tape Recorders: (2) Ampex MM1200 24 track; Ampex ATR 102 4 track; MCI 4 track; MCI 2 track; (4) Scully 280 2 track; Advent 2 track; Roberts 2 track.

Mixing Consoles: Harrison, 32 in x 24 out; Auditratics, 28 in x 24 out; TEAC 100, 10 in x 4 out.

Monitor Amplifiers: McIntosh, Crown.

Monitor Speakers: A-13 Time Aligned UREI's with White passive Eq's; Altec 604E's, JBL 4311's, ADS mini speakers, Big Reds.

Echo, Reverb, and Delay Systems: EMT 240 Gold Foil echo plate; AKG BX-20; BX-10; Quad/Eight RV-10.

Other Outboard Equipment: Eventide stereo DDL.

Microphones: Neumann U-87's, U-47's, Sennheiser, AKG, Sony.

Instruments Available: Steinway and Son piano, Gibson electric bass guitar, Gretsch drum set, Road bass amps, Hammond B-3 organs, full line of Latin percussion instruments.

Extras: Gates cartridge system, Technics turntables, Nakamichi cassette deck, 24 track dbx noise reduction, Dolby noise reduction, complete sound effects library.

Rates: Available upon request. Please call; (212) 541-6072.

Direction: Latin Sound has been serving the Latin recording industry for over 5 years. Our long list of prominent clients include Johnny Ventura, El Gran Combo, Roberto Torres, Jose Mangual Jr., and Oscar de Leon among others. To our completely remodeled B Room we have added a new 24 track Harrison board, UREI Time Aligned speakers, EMT 240 echo unit and a brand new Ampex 24 track MM1200. Specially designed by Thomas Jahelka, this room is considered by many to be one of the three best mixing rooms in the city. Our Studio C has for years been the first and foremost promotional spot recording studio for the Hispanic market.

•••• 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: Randall Barbera.

Engineers: Jesse Henderson, Chief; Geoff Myers, Gil Markle, Randall Barbera.

Dimensions of Studios: A: L-shaped 26' x 26' outside legs, 19' wide at control room end, 12' wide at "dead end" with 8' x 6' x 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 cassette 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, HH.

Monitor Speakers: Altec Big Reds 604E's, JBL Century 100's, JBL 4311's, Auratones.

Echo, Reverb, and Delay Systems: EMT stereo plate, acoustic live chamber, AKG BX-20, BX-10, Eventide Harmonizer, Eventide DDL, Eventide Instant Phaser, Loft flanger/delay line, DeltaLab DL-2 Acousticcomputer, DeltaLab DL-4 delay line.

Other Outboard Equipment: Orban/Parasound stereo matrix, UREI digital metronome, Roge: Mayer noise gates, Kepex, Gain Brain, Map parametrics, Aengus graphics, dbx 187 noise reduction, 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 piano, Steinway grand piano, Baldwin grand piano, upright tack piano, Ampeg bass amps, Fender and Marshall guitar amps, 2 complete drum kits.

Extras: Horses to ride, pinball machines, pool tables, sauna and Jacuzzi, masseuse, fresh milk and eggs, well stocked cookie jar, woodstoves and fireplaces, sleigh rides, 150 acres of unspoiled acreage, Long View Farms is a resort.

Rates: City-competitive, flexible.

Direction: Credits: Arlo Guthrie, Pat Metheny, The Blend, Rupert Holmes, Tim Curry, Stuff, Don McClean, the I. 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.

•••• MEDIASOUND INC.

311 W. 57th St., New York, NY 10019

(212) 765-4700

Owner: Joel Rosenman, John Roberts.

Studio Manager: Susan Plauer.

Engineers: Fred Christie, Alec Head, Harvey Goldberg, Doug Epstein, Mike Barbiero, Michael Brauer, Bill Stein, Phil Shrago.

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 Recorders: 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, Gram-phon, 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, Beyer, Pressure Zone.
Instruments Available: Vibes, xylophone, Celeste, Hammond organ, Fender Rhodes, clavinet.
Rates: Upon request.

•••• MINOT SOUND

also REMOTE RECORDING
 19 South Broadway, White Plains, NY 10601
 (914) 428-8080, (212) 628-1218
Owner: Ron Carran.

Studio Manager: Thom Cimillo.
Engineers: Ron Carran, Ray Bardani.
Dimensions of Studios: 40' x 25'.
Dimensions of Control Rooms: 22' x 18'.
Tape Recorders: MCI JH 114 24 track; MCI JH 110 2 track; Ampex 440A 2 track; Scully 280B 2 track; Ampex 351 2 track.
Mixing Consoles: MCI 428, 28 in x 28 out.
Monitor Amplifiers: McIntosh 2300, H/H TPA 50's, BGW 100s.
Monitor Speakers: Big Reds.
Echo, Reverb, and Delay Systems: EMT 140 stereo, AKG BX-20E; Eventide Harmonizer, Cooper Time Cube, Lexicon Prime Time.
Other Outboard Equipment: Kepex, Pultec and other parametric EQ's (Orban), API EQ's, phaser, flanger, Scamp Rack, auto panner, limiters: UREI, dbx, API; digital metronome, 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 Available: Rhodes, Steinway, clavinet, Hammond organ, Fender and Marshall amps, bass amp, drums, congas, vibes, timpani, misc. perc. equip., synthesizers.
Extras: Storage, production, arranging.
Rates: \$125/hr, 24 and 16 track; \$50/hr, 2 track.
Direction: Tasha Thomas, Atlantic; Nils Lofgren, A&M; Harry Chapin, Electra; Country Joe, Fantasy; Laura Nyro, Atlantic; Dave Sanborn, W.B.; Duke Jupiter, Mercury; James Last, Polydor.

•••• MOBILE RECORDERS LTD.

REMOTE RECORDING
 Southbury, CN 06488
 (203) 284-2659

Owner: George Rothar.
Engineers: Many free lancers.
Dimensions of Control Rooms: 8' x 8' x 20' truck body.
Mixing Consoles: Custom desk, 24 in x 24 out.
Monitor Speakers: 604E.
Extras: 2 color CCTV systems, BTX synchronizer, 2" Ampex video recorders, living accommodations available.
Rates: \$750/day, \$3500/week, BTX 46 track rates upon request.

•••• MUSKRAT STUDIOS

241 White Pond Rd., Hudson, MA 01749
 (617) 588-1910

Owner: Jeff Hill, Dave Marsh, Roger Christie.
Studio Manager: Dave Marsh.
Engineers: Chief: Roger Christie; Ed Habib, Bill Ferd.
Dimensions of Studios: 32' x 22' x 16'.
Tape Recorders: 3M M79 Series 24 track; Scully 2 track.
Mixing Consoles: Harrison 28/24, 28 in x 24 out.
Monitor Amplifiers: McIntosh, BGW.
Monitor Speakers: UREI 813 Time Aligned, Auratones.
Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb, Loft analog delay, AKG BX-10 reverb, Lexicon Prime Time.
Other Outboard Equipment: Eventide Harmonizer, DeltaLab DL-2 Acousticcomputer, UREI and LA4 comp/limiters, Kepex, Gain Brain, 24 tracks of Dolby.
Microphones: Neumann, AKG, Sony, Electro-Voice, Sennheiser.
Instruments Available: Yamaha C-5 grand piano, Slingerland

24 TRACK

drums, Rogers drums, Ludwig drums, flute, Les Paul, Lab Series amps, ARP synthesizers.

Extras: Warm-up rooms, lounges, bottled water, all air conditioned.
Rates: \$65/hr, packages available and negotiable.
Direction: Creative musicians come to Muskrat because they can acquire the sound they want, at a very affordable price, and be away from the frenzy of the city. A warm comfortable country-like atmosphere, at the same time maintaining the standard of state-of-the-art technology that they are used to receiving (and paying for) in New York City. Engineers are very dedicated and sincerely care about what goes to the mastering lab. Credits include: the Fringe, Luna, the Elevators, Fredrick Martin Band.

•••• THE NINETEEN RECORDING STUDIO

also REMOTE RECORDING
 19 Water St., South Glastonbury, CN 06073
 (203) 833-3288, 833-8634

Owner: Jonathan Freed, Ronny Scalise.
Studio Manager: Jonathan Freed, Ronny Scalise.
Engineers: Ronny Scalise, Jonathan Freed, Wesley Talbot.
Dimensions of Studios: 42' x 42' includes semi-open drum both and isolation booth, isolation booth overlooks beautiful trout stream. Total studio building is 4000 sq. ft.
Dimensions of Control Rooms: 22' x 24' also overlooks trout stream.
Tape Recorders: All recorders equipped with dbx noise reduction. MCI JH 114 16/24 track; Tascam 90-16 1" 16 track; Otari MX 5050 2 track; Tascam Series 70 8 track; Tascam Series 70 2 track; (2) Revox A-77 2 track; Technics, TEAC, Nakamichi cassettes.
Mixing Consoles: Sound Workshop 1600/automated, 24 in x 24 out.
Monitor Amplifiers: Epicure 2 x 125W; SAE 2 x 300W.
Monitor Speakers: JBL 4315; M&K reference system, Auratones.
Echo, Reverb, and Delay Systems: Stereo plate reverb (Proprietary Design); MXR digital delay; others available by request.
Other Outboard Equipment: dbx and UREI compressor/limiters; Eventide Omnipressor; SAE 2-channel 1/2-octave graphic EQ; parametric EQ's; Phase Linear Autocorrelator; MXR delay w/flange/phase effects; 44 channels dbx noise reduction; others available by request.

Microphones: Neumann U-87, U-47, KM-84/83; Sony C-37 tube mics, ECM 33P; AKG C-451, D-1000E; Sennheiser 421, 441; Beyer M-500, M-260; Synchron; Shure; E-V.
Instruments Available: Full set of drums, 1919 Knabe baby grand piano, Hammond B-3 with Leslie, Fender Rhodes piano, Mellotron, synthesizers, Yamaha CP-70 electric grand, Gibson Les Paul guitar, Alembic, Fender, Rickenbacker and Gibson bass guitars, Fender and Acoustic amplifiers, full assortment of percussion instruments.

Extras: Any other equipment or instruments available by request (rental basis). Full service in-house record company (Nineteen Records); record manufacturing including graphics, mastering, pressing, etc.; in-house production, musicians, writers, arrangers, music business consultation, complete remote recording, 2-8-16 track; video, film and slide production services; tape duplication, recording tape and supplies, automated mixdown, equipment repair and calibration.
Rates: 2 track \$35/hr; 8 track \$45/hr; 16 track, 1" \$55/hr; 16 track, 2" \$65/hr; 24 track \$70/hr. Remote recording: 8 track \$450/day plus tape plus mixdown; 16 track \$900/day plus tape plus mixdown.
Direction: Over 20 records released; 7 years in business; remote recording credits include: Joe Cocker, Aztec 2-Step, Commander Cody, Pousette-Dart Band, Andy Pratt, Kenny Rankin, Tom Waites, David Bromberg, Janis Ian, Jimmy Speheris, Wendy Waldman, Roger McGuinn—(all live radio concerts). Our studio is owned and operated by us personally, we are musicians as well as engineers and technicians. We offer a dedication to and personal involvement with the creative ideas and needs of every client to insure a final product that is not only technically superlative and at least up to industry standards, but that also accurately reflects and represents the individual sound, ideas, and creative objectives of each client that comes to us. We are also dedicated to maintaining the most reasonable prices possible at all times.

•••• NORMANDY SOUND

25 Market St., Warren, RI 02885
 (401) 247-0218

Owner: Bob Shuman, Arnold Freedman, Phil Greene.
Studio Manager: Arnold Freedman.
Engineers: Phil Greene, Bob Winsor, Donna Soares.
Dimensions of Studios: 45' x 28', 2000 cubic foot isolation booth.
Dimensions of Control Rooms: 15' x 19'.
Tape Recorders: MCI JH 114 24 track; Scully 280-B 2 track; Tascam 70 2 track; TEAC 3300 1/4 track; Pioneer CF 1000 cassette.
Mixing Consoles: APSI 2000, 30 in x 24 out.
Monitor Amplifiers: Crown, Spectro Acoustics.
Monitor Speakers: Altec 604-8H, Auratones, 4311's.
Echo, Reverb, and Delay Systems: Audicon stereo plate, MICMIX Super C, Lexicon Prime Time, Loft delay line/flanger, MXR digital delay, tape echo.
Other Outboard Equipment: UREI LA4's, Ashly comp/limiters, Orban D'Esser, Ashly parametric EQ, MXR auto flanger, MXR auto phaser, graphic EQ, MXR mini limiters, Roger Mayer noise gates.
Microphones: Neumann U-47 tube, U-48 tube, U-87, KM-84; AKG 414 EB's, 451's; Sennheiser 441's, 421's; Beyer 160's, 260's, 500's; Shure SM-53's, SM-57's; E-V RE-20, and many more.
Instruments Available: Steinway grand piano, Hammond organ, Fender Rhodes, Stratocaster, Jazz bass, various percussion.
Extras: 24 tracks of dbx noise reduction at no extra cost.
Rates: \$40/hr 24 track recording and mixdown.
Direction: Our recent clients have included Andy Pratt, Tavares, Grant Smith, Beaver Brown, Jim Cretecos, Bill Chinock, CBS, Atlantic, Concord Jazz. Our current plan is to build another 24 track room in Boston as this one is booked 24 hours a day. Normandy Sound is dedicated to bringing New England artists the high-quality recording they have always deserved.

•••• NORTHERN RECORDING STUDIOS

also REMOTE RECORDING
 63 Main St., Maynard, MA 01754
 (617) 897-3276

Owner: William Riseman.
Studio Manager: Jean Woodward.
Engineers: William Riseman.
Dimensions of Studios: 30' x 60' x 20' ceilings.
Dimensions of Control Rooms: 14' x 25'.
Tape Recorders: MCI JH 24 24 track; Ampex (2) 440-B 2 track.
Mixing Consoles: Aengus 3224, 32 in x 24 out.
Monitor Amplifiers: Phase Linear 400 and McIntosh MC 2505.
Monitor Speakers: Altec 604 8G, Auratones.
Echo, Reverb, and Delay Systems: EMT plates, Lexicon digital delay, Loft flanger, Marshall Time Modulator, Eventide Harmonizer.
Other Outboard Equipment: Eventide Phaser, Orban stereo synthesizer, UREI 1176 limiters, Spectra Sonics Complimiters, Kepex's, Allison Gain Brains, Pultec EQ's, LA3A limiters, UREI Little Dipper.
Microphones: Neumann U-87, U-47 and various AKG, E-V, Sennheiser, Beyer, Sony.
Instruments Available: Yamaha C-7 concert grand piano.
Extras: 20' ceiling in studio, dbx noise reduction.
Rates: Negotiable.
Direction: Credits include the groups: the Cars, Boston, Andy Pratt, Jonathan Edwards, Maurice Starr, Randy Roos, Stormin' Norman and Suzy, Private Lightning, the Road Apples, John Lincoln Wright, Duke and the Drivers, Reddy Teddy, "Live At The Rat" album, the Blend, Johnny Barnes.

•••• NORTH LAKE SOUND, INC.

3 Lakewiew Drive, North White Plains, NY 10603
 (914) 682-0842, 682-0843

Owner: Joe Renda, Chip Taylor, Jon Voight.
Studio Manager: Joe Renda.
Engineers: Chris Cassone, Ed Sprigg, Eddie Solan, Jim Reeves.
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 110A 2 track; Otari MX 5050 2 track; Revox A-77 1/4 track; Aiwa AD6900U cassette deck.
Mixing Consoles: MCI JH 428B, 28 in x 28 out.
Monitor Amplifiers: Crown DC 300A control room; Crown D-150 studio; Crown D-150 cue; Crown D-75 alternates.
Monitor Speakers: Altec 604E control room; Mastering Lab crossover 604/5; Altec Little Reds studio; Auratone 5C, JBL 4311, Altec Model 9.
Echo, Reverb, and Delay Systems: AKG BX-20, Lexicon Prime Time; Scamp ADR Module; Orban/Parasound dual reverberation.
Other Outboard Equipment: (2) UREI compressor/limiter LA4, dbx 162 stereo compressor limiter, (4) dbx 160 compressor limiters, Scamp dual gates S100, Roland Rhythm 77 Rhythm Ace.

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 piano, Hammond B-3 with Leslie, ARP String Ensemble, Fender Rhodes 73, Wurlitzer electric piano, various Fender amplifiers and guitars.
Extras: Mike and cue lines for entire house, video monitoring of entire house, live-in facilities available, located in small country community next to reservoir and pine forest but only 35 minutes from midtown Manhattan.
Rates: Upon request.
Direction: Experts in dealing with mad people. Recent clients include: Ace Frehley, Peter Frampton group, Carillo, Chip Taylor and L. Russell Brown.

•••• OPAL STUDIOS INC.

254 West 54th St., 8th Floor, New York, NY 10019
 (212) 489-8097

Owner: John Gomez and Elliot Rosoff.
Studio Manager: Terry L. Rodie.
Engineers: Llew Horowitz, Chief Engineer; Terry L. Rodie, First Engineer; James T. Cordon, Maintenance Engineer.
Dimensions of Studios: 125' x 75'.
Dimensions of Control Rooms: 25' x 15'.
Tape Recorders: MCI JH-16 24 track.
Mixing Consoles: MCI automated JH400. 28 in x 24 out; Audio Design, 20 in x 16 out.
Monitor Amplifiers: Crown D 150s, McIntosh 60s.
Monitor Speakers: Big Reds, Auratones.
Echo, Reverb, and Delay Systems: EMT Plate (stereo), Fairchild Spring.
Other Outboard Equipment: Marshall time delay, UREI, APSI, API, Kepex, Lang, Pultec.
Microphones: Neumann 47s, 67s; Sennheiser 421s, 211s; Shure; E-V RE-15s.
Instruments Available: Steinway 6½' grand piano, Wurlitzer tack piano, Hammond C-3 w/Leslie, Fender reverb amp, Fender Bassman amp, Fender Twin amps, drum kit.
Extras: Hat collection.
Rates: \$165/hr, no charge for set up.
Directions: Sex, drugs, and rock and roll.

•••• POWER STATION

441 W. 53rd. New York, NY 10019
 (212) 246-2900

Owner: Bob Walters, Tony Bougioui.
Studio Manager: Lourdes Keane.

•••• RECORD PLANT STUDIOS LTD.

also REMOTE RECORDING
 321 W. 44th St., New York, NY 10036
 (212) 581-8505

Owner: Roy Cicala.
Studio Manager: Lila Wassenaar.
Engineers: Jay Messina, Shelly Yakus, Dave Thoerner, Rod O'Brien, Sam Ginsburg, Jay Krugman, Tom Panunzio, David Hewitt, Joe Ferla.
Dimensions of Studios: A: 24' x 40' x 11½'; plus 2 isolation booths; B: 29' x 36' x 11'; C: 28' x 18' x 9½'; Mix: 9½' x 16' x 9½'; Remote: 8' x 35' x 13'1".
Tape Recorders: Ampex MM 1200 24 track; Ampex ATR-100 2 track; Ampex 440 2 and 4 track; Ampex 350 2 and 4 track; Ampex 300 2 track.
Mixing Consoles: API 3232, 40 in x 32 out; Spectra Sonics Custom, 40 in x 32 out; Remote Black Truck: API Custom, 44/88 in x 44 out; Remote White Truck: DeMedio custom 24 plus 15 x 24 out.
Monitor Amplifiers: Crown.
Monitor Speakers: Hidley.
Echo, Reverb, and Delay Systems: Extensive.
Other Outboard Equipment: Extensive.
Microphones: Please call for info. We have all types.
Instruments Available: All types.
Extras: SMPTE (48 track).
Rates: \$200/hr.
Direction: Credits: J. Geils Band, "Monkey Island," "Sanctuary," "Love Stinks," Blue Oyster Cult, "Nosferatu," Stanley Clarke, "Slow Dance," Bruce Springsteen, "Darkness On The Edge Of Town," Wet Willie, "Which One Is Willie," Orleans, "Forever," Garland Jeffreys, "American Boy & Girl," Richie Havens, "Connections," Aerosmith, "Rocks," "Toys In The Attic," "Get Your Wings," "Night In The Ruts," David Bowie, "Lodger," Talking Heads, "Fear Of Music," Hall & Oates, "Live," Lou Reed, "Live," Gilda Radner, "Live From New York," Neil Young, "Rust Never Sleeps," Meatloaf, "Bat Out Of Hell."

•••• REGENT SOUND STUDIOS

also REMOTE RECORDING
 25 W. 58th St., New York, NY 10019
 (212) 245-2630

24 TRACK

Owner: Robert Liftin.
Studio Manager: Ken Hahn.
Engineers: Chief engineer Bill Marino; Bob Liftin, Ken Hahn.
Dimensions of Studios: A: 46' x 32'; B: 16' x 20'.
Dimensions of Control Rooms: A: 16' x 20'; B: 16' x 20'.
Tape Recorders: 4 Ampex MM1200 24 track; 2 Ampex ATR 104 4 track; 2 Ampex ATR 102 2 track; 2 Ampex 440 2 track; 2 Ampex 440 4 track; Ampex VPR 2, 1" video.
Mixing Consoles: 2 MCI 528, 56 in x 24 out.
Monitor Amplifiers: Crown.
Monitor Speakers: JBL 4311, Altec 604E's, Auratone.
Echo, Reverb, and Delay Systems: Live V shaped plaster, Master-Room, Lexicon 224.
Other Outboard Equipment: Marshall Time Modulator, Scamp effects rack, Auto-Fade, various proprietary, custom designs.
Microphones: Neumann KM-89s, U-87s, U-84s, U-49s; RCA 77-DXs; Sennheiser 421s; E-V RE-16s, CS-15s; AKG 451s; Sony ECM 50s; Neumann Binoual head (Fritz).
Instruments Available: Steinway or Yamaha grand piano, Hammond organ, tympani, drums, amps, Fender Rhodes, vibes, Celeste, percussion.
Extras: Transfers and mixing to and from 2", 1", and ¾" video tape. Resolving time code, 60Hz, 59.94Hz, 14KHz sync, sound effects.
Rates: On request.
Direction: Computer controlled recording, sweetening, and mixing to picture (video or film). We can synchronize a virtually unlimited number of tracks for TV, film, and record production. Credits: Tony Awards, Miss Universe, Mondo Video, WNET Great Performances, Gilda Radner Live, Robert Klein TV Special, Kinks, Talking Heads, Todd Rundgren, Sesame Street, CBS Sports Spectacular, etc.

•••• RIGHT TRACK RECORDING

49 N. 24th St., New York, NY 10010
 (212) 243-4782

Owner: Simon Andrews.
Studio Manager: Kip Kaplan.
Engineers: David Stone, Josh Hill, Frank Filippetti.
Dimensions of Studios: 30' x 30'.
Dimensions of Control Rooms: 16' x 16'.
Tape Recorders: MCI JH14 24/16/8 track; Ampex ATR 102 2 track; Scully 280B 2 track; Otari 5050 4 track.
Mixing Consoles: Audiotronics 501, 32 in x 24 out.
Monitor Amplifiers: BGW and Crown.
Monitor Speakers: JBL 4330, Auratones, Big Reds.
Echo, Reverb, and Delay Systems: EMT, AKG, Eventide, DeltaLab.
Other Outboard Equipment: Harmonizer, Marshall Time Modulator, Kepex, RM parametric EQ Orban and SAE; limiters: UREI 1176, LA4, LA2, dbx 160, flanging etc., dbx noise reduction.
Microphones: Neumann U-87, U-47; Sennheiser 421, 441; AKG; Shure, RCA, etc.
Instruments Available: Yamaha conservatory grand, Fender Rhodes, ARP String, Mini Moog, Syn-Drums, Hammond B3.
Extras: No extra charges.
Rates: 24 track \$125/hr with automation; 16 track \$75/hr, 8 track \$50/hr.

•••• RPM SOUND STUDIOS

12 East 12th St., New York, NY 10003
 (212) 242-2100

Owner: Robert Mason.
Studio Manager: Helene Greenspan.
Engineers: Neal Teeman, Hugh Dwyer, Dominick Maita.
Dimensions of Studios: 40' x 20'.
Dimensions of Control Rooms: 15' x 20'.
Tape Recorders: Studer B67 2 track; Studer A80 RC 2 track; Studer A80 Mark 2 24 track; Scully 280-4 4 track; Studer Revox A77 ¼ track Akai and Pioneer cassettes.
Mixing Consoles: Neve with Necam 8068, 36 in x 32 out.

Monitor Amplifiers: Crown PSA-2, Crown DC300A, 2 Crown AC150, McIntosh 250.
Monitor Speakers: UREI Time Aligned 811's, JBL 4311's, ROR's, Auratones.
Echo, Reverb, and Delay Systems: EMT 250, 2 EMT 140's, Eventide Digital Delay, Lexicon digital delay.
Other Outboard Equipment: 2 LA2A's; 3 1176 LN, Eventide Digital Delay, Harmonizers, 8 Kepex, 4 Gain Brains, flanger, MXR phaser, 6 Pultec.
Microphones: Neumann U-87's, U-47's, U-48's, U-67; AKG 414's, 451's; Sennheiser 421's, 441's; Shure 57's, 58's 54's; Beyer 180's; RCA 77's; E-V RE-15's, RE-20's.
Instruments Available: Fender Rhodes, Steinway B, clavinet, full set drums, Hammond B3, various percussion.
Extras: Guitar amp, MESA/Boogie, Music Man 212HD, Fender Deluxe, Ampex B15.
Rates: \$150/hr.
Direction: Album oriented. Credits: Talking Heads, The Ramones, Ronnie Spector, Alda Reserve, Janis Ian, Phoebe Snow, Stan Getz, Brian Eno and Robert Fripp, Trigger, Christy Minstrels and Joy Rider.

•••• HOWARD M. SCHWARTZ RECORDING, INC.

420 Lexington Ave., Suite 1934, New York, NY 10017
 (212) 687-4180

Owner: Howard M. Schwartz.
Studio Manager: Vivien Delugg.
Engineers: Tom Jung, Roy Latham, Bob DeFranco, Paul Lynch, Tony Little John, Tom Cahill, Dan Zellman, Arnie Rosen.
Dimensions of Studios: A: 18' x 14'; B: 20' x 12'; D: 38' x 36'; F: 36' x 18'.
Dimensions of Control Rooms: A: 18' x 14'; B: 25' x 24'; C: 14' x 18'; D: 26' x 24'; F: 26; x 24'.
Tape Recorders: 6 MCI JH-114 24 track; 4 MCI JH-114 4 track; 8 MCI JH-114 2 track; 5 MCI JH-114 1 track.
Mixing Consoles: MCI 556, 56 in x 56 out; MCI 542, 38 in x 32 out; MCI 428, 28 in x 28 out; MCI 428, 28 in x 28 out.
Monitor Amplifiers: Many Crown 300/150/75, Sound 80 (6), Yamaha, Southwest Technical, H&H, McIntosh 2300 and Home Brew.
Monitor Speakers: UREI 813, A/T Big Red, Home Brew, Tannoy, JBL, ROR, Altec.
Echo, Reverb, and Delay Systems: EMT 250, EMT 240, Lexicon 224 (3), Audicons (2), AKG, MICMIX, Prime Time, Delta T., Eventide, Marshall.
Other Outboard Equipment: 2 ADR Scamp racks, 2 ADR Compex limiters, ADR vocal stresser, Orban Parametrics, Orban D'Esser, Trident EQ's and compressors, UREI 1176, LA 2's, etc., Dolby, dbx, etc.
Microphones: All models and all manufacturers.
Instruments Available: Steinway 9', 7' and 6', Fender Rhodes, drums, amps.
Extras: Video EECO/SMPTE, mags, cassettes, high speed duplication.
Rates: Upon request.

•••• SECRET SOUND STUDIO, INC.

147 West 24 Street, New York, NY 10011
 (212) 691-7674

Owner: Jack Malken.
Studio Manager: Gene Chamian.
Engineers: Jack Malken, Gus Skinas, Michael Barry, Ed Sullivan.
Dimensions of Studios: 25' x 33'.
Dimensions of Control Rooms: 15' x 18'.
Tape Recorders: Studer A-80 24/16 track; Studer B-67 2 track; Ampex ATR-100 2 track.
Mixing Consoles: MCI JH-416, 32 in x 24 out.
Monitor Amplifiers: McIntosh Citation, Crown.
Monitor Speakers: 2 Klipschorns, 2 Klipsch LaScalas, 2 Secret Sound Cubes, 2 JBL 4311's.
Echo, Reverb, and Delay Systems: EMT 240, EMT 140, Eventide Digital Delay, Cooper Time Cube, Eventide Harmonizer.
Other Outboard Equipment: dbx, Dolby noise reduction, compressor/limiters, UREI, Roger Mayer, Bell Electronics flanger, Eventide Instant Flanger, API Graphic, Pultec, Lang equalizers.
Microphones: Neumann, Beyer, AKG, Shure, Sennheiser, Sony, Phillips, etc. Approx. 40 mics available.
Instruments Available: Fender Rhodes, Moog, Yamaha grand piano, Mellotron, full drum set, MESA/Boogie amp, Fender Twin reverb amp, Sunn Twin 15 amp.
Extras: JVC 6300 video cassette recorder, full video recording and editing available.
Rates: 24 track \$150/hr; 16 track \$120/hr.
Direction: Southside Johnny and the Jukes, "Hearts of Stone," Spyro Gyra, "Morning Dance," and "Catching The Sun," Evelyn 'Champagne' King, "Music Box," Tony Williams, "Joy of Flying," Harry Chapin, "Legend Of The Lost And Found," "Living Room Suite," "Dance Band on the Titanic," Todd Rundgren, "Wizard," "Todd," "Faithful," Brecker Brothers, "Brecker Brothers".

****** SELECT SOUND STUDIO**

also REMOTE RECORDING

1585 Kenmore Ave., Kenmore, NY 14217

(716) 873-2717

Owner: William A. and Peggy K. Kothen.

Studio Manager: Richard G. Bauerle, Sales Manager: Chuck Mandrell.

Engineers: Bill Kothen, Dick Bauerle, Assistants: Joe Puma, Tom Bauerle.

Dimensions of Studios: 24' x 29'

Dimensions of Control Rooms: 16' x 20'

Tape Recorders: MCI JH-114-24 with Autolocator III, 24 and 8 track; MCI JH-110A w/5 memories, 2 track; Ampex ATR 700 2 track; TEAC A3340S 4 track.

Mixing Consoles: Allen & Heath Brenell Syncon mixing console with parametric EQ and 6 monitor sends w/unlimited subrouting, 28 in x 28 out; Stevenson Interface Series 300, 12 in x 8 out.

Monitor Amplifiers: Crown PSA 2 with Altec 729A 1/3-octave EQ.

Monitor Speakers: Altec 604 8G.

Echo, Reverb, and Delay Systems: AKG BX-10E reverb, Lexicon digital delay, misc. tape echoes also available.

Other Outboard Equipment: UREI comp/limiters, Pandora peak limiters, Lexicon flangers, Moog phase shifters, EXR Exciter System, other signal processing equipment is available on request.

Microphones: AKG D-1000E's, 224E's, 451E's; Neumann U-87's; Sennheiser 421's, 441's; Shure SM-57's; Sony C 37P; Shure direct lines; custom direct lines.

Instruments Available: A vintage Marshall and Wendell grand piano; most other instruments can be supplied upon request.

Extras: We offer a comprehensive 10 week recording workshop which includes topics such as: the proper uses and applications of microphones and direct lines, the acoustical values of the studio and how to deal with them, the functions and applications of signal processing equipment, basic production techniques, and the experience of assisting a 24 track session from start to finish. Musicians lounge with food and beverages and color TV, ground level loading area.

Rates: 24 track recording and mixing \$80/hr; 8 track record and mix \$50/hr; 2 track record (spot assembly) \$40/hr. Bulk rates available upon request.

Direction: To provide our region (Western New York, Southern Ontario, Canada) with the very best in contemporary, state of the art 24 track recording. Our area is blessed with talent in all styles of music—ranging from jazz to country/western and all in between — and we will continue to faithfully capture all of the performances to their maximum, regardless of the particular style of the artist. Select Sound's fine reputation has evolved not only because of our versatility and our cognizance of all musical styles, but also because of our convenient location and the low key creative environment which we've created especially for our patrons. We also will continue to meet the needs and demands of area advertising agencies and other industries who require the very best in the recording arts.

****** SIGMA SOUND STUDIOS OF NEW YORK INC.**

1697 Broadway, New York, NY 10019

(212) 582-5055

Owner: Joseph D. Tarsia.

Studio Manager: Barbara Tiese, Jay Mark.

Engineers: Jay Mark, Chief Engineer; Andy Abrams, Jim Dougherty, Mike Hutchinson, Carla Bandini, John Potoker, Steven Tose.

Dimensions of Studios: Studio 5: 26' x 40'; Studio 7: 23' x 35'; Studio 8: 22' x 18' (48 track mix room).

Dimensions of Control Rooms: Studio 5: 17' x 17'; Studio 6: 12' x 12' (production room); Studio 7: 19' x 20'; Studio 8: 18' x 22' (48-track mix room).

Tape Recorders: 4 3M M79 24 track; 4 Ampex ATR 100 2 track; 2 3M M79 2 track; 2 3M M64 2 track; Scully 280 4 track; 2 Revox A700 1/4 track; 4 Nakamichi 700 Mark 2 cassette decks.

Mixing Consoles: 2 MCI Custom, 32 in x 16 out; consoles with Allison 65K automation and Allison knobless digital faders; MCI Custom, 48 in x 16 out with Allison 65K automation and Allison knobless digital faders; Sigma custom 12 in x 2 out production console.

Monitor Amplifiers: 6 Crown PSA-2; 6 Marantz 250, 3 Marantz 500, 3 Phase Linear 400, Crown DC 300.

Monitor Speakers: UREI 813's, Big Reds with Audiotechniques Time/Sync crossover and Altec 411A sub-woofers; Audiotechniques Little Reds; Big Reds with Mastering Lab crossover; ROR's; Visonik 803's, JBL 4311's.

Echo, Reverb, and Delay Systems: EMT 140's, EMT 240's, Lexicon 224 digital reverbs, Denon tape delay system.

Other Outboard Equipment: Marshall Time Modulator, UREI, Teletronix, DeltaLab DDL limiters; Lexicon Prime Time, Roland Boss Chorus, Lexicon Delta-T, Allison Gain Brains, dbx limiter, Compex limiter, Orban D'Esser, Eventide Phaser, Eventide Flanger, MXR flangers, Orban parametric equalizer, API 550's, Pultec equalizers, EXR Exciter, Apex, Eventide Harmonizer, Dolby, dbx noise reduction; Kepex, Scamp Auto-panner,

24 TRACK

Publicon DHM 89 B-2 stereo digital audio computer.

Microphones: AKG D224, C-451, C-452, C-34, 414, D-200; Beyer 160, 260, M500; Sony ECM 22; E-V RE-15, RE-20, 635A, 666; Shure SM-56, SM-57; Neumann KM-87, 84, 86, U-47 tube, Y-47 FET; RCA BK-5A, DX77; Altec 663; Sennheiser 421, 816, MKH-816P48 shotgun mic.

SIGMA SOUND STUDIOS
New York, N.Y.

Instruments Available: Steinway 7' grand pianos, Hammond B-3 organ with Leslie tone cabinet, Hohner clavinet, mono and stereo Fender Rhodes pianos; MESA/Boogie, Music Man, Ampeg, Marshall and Fender amplifiers; Ludwig, Hayman and Sonar drums, percussion equipment, Wurlitzer electric piano.

Extras: Private client's lounge for each studio with color TV and refrigerator; the best coffee maker in New York. (Please note: there is no charge for these extras.)

Rates: 24 track \$170/hr; 48 track mixing \$250/hr; 2 track production \$85/hr; 2 track assembling, editing, dubbing (client not present) \$55/hr; Weekend rate: add \$30/hr.

Direction: Sigma's goal continues to be that of providing our clients with the most creative and relaxing state of the art environment possible. Our high operating standards have enabled us to attract clients with as diverse musical backgrounds as Steely Dan and Eubie Blake, as well as a host of today's top pop and disco acts. We invite any interested readers to call for a tour of our facilities.

****** SKYLINE STUDIOS, INC.**

also REMOTE RECORDING

36 West 37th Street, New York, NY 10018

(212) 594-7484

Owner: Paul Wickliffe, Paul Blank.

Studio Manager: Lloyd P. Donnelly.

Engineers: Paul Wickliffe, chief engineer; Dave Lichtenstein, asst. eng.; various independents.

Dimensions of Studios: 30' x 30' x 13' plus 90 sq. ft. iso booth.

Dimensions of Control Rooms: 25' x 20' x 10'.

Tape Recorders: Ampex MM 1200 24 track; Ampex MM1000 16 track; Ampex 440C 2 track; Otari MX 5050 2 track; Otari MX 5050 8 track; Ampex 350 mono.

Mixing Consoles: Tangent 3216, modified 28 in x 24 out.

Monitor Amplifiers: Yamaha P 2200, McIntosh 2100.

Monitor Speakers: UREI 813 "time-aligned", JBL 4311's, Auratones.

Echo, Reverb, and Delay Systems: EMT plate, AKG BX20E, Lexicon Prime Time delay, 10 story marble staircase (night use only).

Other Outboard Equipment: 28 channels of Dolby A; 14 outboard EQ's: Pultec, Lang, Orban, Delta-Graph; 8 compressors: Teletronix, UREI and dbx; 4 noise gate: Roger Mayer, Kepex; Eventide Flanger, Eventide Harmonizer, UREI digital metronome.

Microphones: Neumann U-47's tube, U-47's FET, U-87's, KM-84's; Sony C-37A tube; AKG 414's, 451's; Sennheiser 421's, 441's; Electro-Voice RE-15's, RE-20's; RCA 77-DX; Altec

Saltshaker; Shure SM-57'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.

Extras: Large artist's lounge with kitchen, observation booth overlooking studio, pinball.

Rates: Available upon request.

Direction: Our clients include: Meatloaf Productions, Pat Benetar, John Hammond Jr., Peter Rowan, Artie Traum/Pat Alger, MCA Music, ATV Music, Savoy Records, the Entertainment Co., Peer-Southern Music, Chrysalis Records, Rounder Records.

***** SOUND HEIGHTS RECORDING STUDIO, LTD.**

124 Montague St. (entrance on Henry St.), Brooklyn Heights, NY 11201

(212) 237-0250

Owner: Vince Traina.

Studio Manager: Bob Motta; studio bookings: Marcelle Bodian.

Engineers: Vince Traina, Questar Welsh.

Dimensions of Studios: 25' x 30'.

Dimensions of Control Rooms: 12' x 15'.

Tape Recorders: MCI JH-114 24/16/8 track.

Mixing Consoles: MCI 461, 24 in x 24 out.

Monitor Amplifiers: Phase Linear, Crown.

Monitor Speakers: Big Reds with Mastering Lab crossovers.

Echo, Reverb, and Delay Systems: EMT echo chamber, Lexicon Delay, Harmonizer.

Other Outboard Equipment: Lexicon Prime Time, Eventide Harmonizer, Allison Kepex, UREI limiters and compressors, Pultec outboard EQ's and filters, digital metronome, variable speed oscillators.

Microphones: Neumann U-67's, U-47's, KM-84's; Sennheiser 441's; Synchron S10's; AKG 224E's, D-170E's; Sony ECM 377's, ECM-23's; E-V RE-15's, 666's; Beyer 201; Shure SM-57's.

Instruments Available: Steinway Model A (1914) 7' grand piano, Hammond B3 organ, Fender Rhodes, drums, percussion devices (at no extra charge).

Extras: Instrument amplifiers, Fender, Ampeg, (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 Handazzo, Pete Fornatale, Elektra-Asylum Records, Dawnbreaker Music, Fantasy Records, Roadshow Records, Ron Haffkine-Bob Heller, Wright & Forrest, WKTU-FM Radio, Brook Benton/Polydor Records, Bob W. Motta/West End Records, Bruce Kapler/Mercury Records, Bob Gallo/CBS, Jayne County/Attic Records, Baby Records, IBC Records, Mike Nock.

****** SOUND IDEAS STUDIOS**

151 West 46th St., New York, NY 10036

(212) 575-1711, 245-8221

Owner: George Klabin.

Studio Manager: Bob Schaffner.

Engineers: Jim McCurdy, George Klabin, Kathy Dennis, 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: 2 MCI JH 114-24 24 track; MCI 110B 2 track; MCI JH-110 4 track; Scully 280 2 track; Ampex ATR 100 2 track; 3M M-81 4 track digital mastering system.

Mixing Consoles: API 32/32, 28 in x 24 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 100's, 99's; Auratones.

Echo, Reverb, and Delay Systems: 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.

Microphones: Neumann U-87, U-47, M-49, KM-84, KM-86; AKG 451, 414, D-224E, D-202, D-1000E; Sennheiser MD 421, 441; E-V RE-20, 666, 654, 654A; Beyer M-160, M-500; RCA 77; Sony ECM-50.

Instruments Available: Yamaha 7' grand piano, Steinway grand pianos, Hammond B-3 organ w/Leslie, full drum sets, bass amps, Fender guitar amps, Roland, Yamaha, misc. percussion.

Extras: Fender Rhodes piano, Hohner D-6 clavinet, Musser vibes, Roto Toms, LP conga & tumba, Roland string synthesizer, Syndrum, full coat and mag stripe 35 mm, color video projector, Allison Fadex automation, Dolby noise reduction, pilot tone, dbx noise reduction.

Direction: Service oriented, no hype; commercials and film scores as well as records. Credits: "A Fifth of Beethoven," album, Walter Murphy; "You Are My Starship," album, Norman Connors; "Brass Construction III," Meat Loaf, "Bat Out of Hell," mix; Dexter Gordon, "Sophisticated Giant," album; James Brown, "Hot," "Hell," "Reality," Albums; "Quazar," Artista album; film scores: "Coffy," "The American Game," "Cold River," "Summer

Dog, "Jeff Conaway" album, OD and mix; Aquarian Dream, "Chance To Dance," mix; Noel Pointer "Feel It," overdubs; Bootsy's Rubber Band "This Boot Is Made For Funkin'," album.

•••• SOUNDMIXERS

1819 Broadway, New York, NY 10019
(212) 245-3100

Owner: Harry Hirsh.

Studio Manager: Paul Sloman.

Engineers: Bill Wittman, Ed Trananco, John Pace, Tim Bomba.
Tape Recorders: 4 MCI JH-114 24 track; 12 MCI JH-110A 2 and 4 track.

Mixing Consoles: Trident TSM, 40 in x 32 out; MCI JH-528, 28 in x 32 out; 2 MCI JH-538, 38 in x 32 out; MCI JH-428, 28 in x 24 out.

Monitor Amplifiers: Phase Linear 700B.

Monitor Speakers: Sierra Eastlake (Hidley), Super Reds, Big Reds, JBL 4311, JBL 4333, ROR's.

Echo, Reverb, and Delay Systems: EMT 140, Audicon "The Plate"; AKG BX-20, BX-10; Lexicon digital reverb 224, Lexicon Delta T 102S, Eventide Digital Delay, Harmonizer, Marshall Time Modulator.

Other Outboard Equipment: ADR Compex limiters, dbx 160 limiters, Trident limiters, Trident EQ, Pultec EQ, Kepex, Gain Brain, LA-2A limiters, Eventide Phaser, MXR phasers and flangers, Symetrix flanger, full Dolby or dbx noise reduction.

Microphones: Neumann U-87, U-47, KM86, KM84; AKG 414, D202, C451, D224; Sony F-660, C-37; E-V RE-20; Beyers M160; Sennheiser MD421, 441; RCA 77DX, 44BX.

Instruments Available: Fender guitar amps, Hammond B-3 organs, 3 drum sets, 3 grand pianos, vibes, percussion, tymps, Rhodes clavinet, Poly Tone and Ampeg bass amps, xylophone.

Extras: MCI Auto-Loc, BTX SMPTE Lock-up, projection video, video, film transfer, automated mix down, 3 studios.

Direction: Credits include: Kenny Loggins, John McLaughlin, Meat Loaf, Baby Grand, Fotomaker, Average White Band, Wotii, the A's, Larry Coryell, Machine, Peter Brown, Bee Gees, Peter Allen, Bob James, Gregg Diamond, Ohio Players, Paul Winter, Blues Brothers.

•••• SQUIRES PRODUCTIONS INC.

also REMOTE RECORDING

196 Maple Avenue, White Plains, NY 10601
(914) 997-1803

Owner: Gregory K. Squires.

Engineers: Gregory K. Squires, Alan Van Achte.

Dimensions of Studios: 1,200 square feet.

Dimensions of Control Rooms: 400 square feet.

Tape Recorders: MCI JH24 24-16-8; Scully 28 4 track; Tascam 80-8 8 track; Tascam 40-4 4 track; Tascam 25-2 2 track.

Mixing Consoles: Custom Datamix, 36 in x 24 out; Tascam 5A, 8 in x 4 out.

Monitor Amplifiers: BGW.

Monitor Speakers: E-V Sentry V.

Echo, Reverb, and Delay Systems: Lexicon, Loft, E-V.

Other Outboard Equipment: dbx noise reduction for all tape machines, dbx compressors and limiters, AVL Eagle optosonics and 3M pulsing equipment. 3/4" video recorder and 15 projector slide system.

Microphones: AKG D-1000E's, 451's, 454's; E-V RE-20's; Sony ECM 54's.

Instruments Available: Chickering baby grand, RMI electric piano, harpsichord, Rhodes, drums.

Extras: No extra charge for instruments.

Rates: Upon request.

Direction: Credits: production of major slide show and movie sound tracks; production of weekly music program for WRNW-FM; commercial production.

•••• STARFLEET STUDIOS, INC.

REMOTE RECORDING

520 Harrison Ave., Boston, MA 02118
(617) 482-4881

Owner: Sam Kopper, Jim Slattery.

Studio Manager: Harriet Bellush.

Engineers: Robert L. Demuth, Steven Canavan.

Dimensions of Studios: 35' GMC Motor Coach, 8' x 16' control room, forward lounge and kitchen, bath, aft bedroom.

Dimensions of Control Rooms: 8' x 16'.

Tape Recorders: (2) Ampex MM 1200 24 track with Vari-speed and search to cue; (2) Ampex 440-B 2 track; Aiwa 6550 cassette; Sony 152 cassette.

Mixing Consoles: Tangent 3216, 24 in x 24 out; Tangent 1602 auxiliary extender 16 in.

Monitor Amplifiers: 400 watt Bryston monitor amp.

Monitor Speakers: JBL 4311, Auratone.

Echo, Reverb, and Delay Systems: Lexicon Prime Time DDL, AKG BX-10 reverb.

Other Outboard Equipment: Kepexes, 4 Gain Brains, 2 Roger Mayer Gates, 2 dbx 161 compressor/limiters, 2 UREI LA4 com-

24 TRACK

pressor/limiter, Eventide Clockworks Phaser, Orban stereo limiter, Spotmaster 8-channel radio production board, 50-input transformer splitter w/dual ground lifts for each input, Low Light Nuvison TV stage camera, video monitoring, Chaos intercom, microwave transmitters and receivers, 8-output stereo distribution amp.

Microphones: Neumann U-87, U-47; Sennheiser 421; Beyers 260, 160, M-88, 500, 310; AKG D-202E, Shure SM-58; Electro-Voice 666, etc.

Instruments Available: Hammond Organ.

Extras: See above.

Rates: \$2000/day multi-track, \$650/day 2 track; single station and network broadcast rates upon request.

Direction: Through not only location recording, but radio and television broadcast (live hook-ups and taped syndication). Starfleet aspires to bring music of all types to the most people at a time, bring quality audio to video production, provide exciting promotional programming, in the most exciting way—Live!

•••• SUNDRAGON PRODUCTIONS, INC.

9 West 20th St., New York, NY 10011
(212) 243-9000

Owner: Michael Ewing and Ned Liben.

Studio Manager: Michael Ewing.

Engineers: Michael Ewing, Ned Liben, Tom Duffy.

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 A-80VU 2 track; Studer B-62 2 track; Studer A-67 2 track.

Mixing Consoles: Roger Mayer Custom English design, 28 in x 24 out; 5 mix busses.

Monitor Amplifiers: Studer, Crown DC 300A; Crown D-60's (Cue).

Monitor Speakers: JBL L-200's, Tannoy, Auratones, ROR's, ADS.

Echo, Reverb, and Delay Systems: EMT stereo, AKG stereo.

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.

Microphones: Neumann U-87, U-86; AKG C-414, D-12; Sennheiser 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, extensive synthesizer and guitar synthesizer equipment upon request (extra cost).

Rates: \$75/hr.

Direction: "Talking Heads '77," "Ramones Leave Home," Andrea True "More More More" album, Lewis Furey for RCA, The Rivets "Multiplay."

•••• SUNTREADER

Sharon, Vermont 05085
(802) 763-7714

Owner: Ambience, Inc.

Studio Manager: Terice Bergstrom.

Engineers: David Baldwin, Jonathan Heins, John Sanford.

Dimensions of Studios: 28' x 32' x 17'.

Tape Recorders: Studer A800 24 track; Studer 16 track; Studer 2 track (2); 3M M79 4 track.

Mixing Consoles: API custom, 36 in x 24 out.

Monitor Amplifiers: TVA, Studer, BGW, Crown, McIntosh.

Monitor Speakers: Altec triamp custom w/JBL super tweeter, UREI Time Aligned.

Echo, Reverb, and Delay Systems: Lexicon, EMT, AKG, Eventide.

Other Outboard Equipment: UREI, Neve, Sontec, dbx, Dolby, Kepex, Roger Mayer, Eventide.

Microphones: Neumann, AKG, Electro-Voice, Sony, Studer, Sennheiser, RCA, Shure, 40+ in all.

Instruments Available: Steinway 9' concert grand, assorted drums, percussion, strings, brass, amps, etc.

Extras: Studio house, catered sessions, snow, very good staff.

Rates: \$9000/week.

Direction: Randy VanWarmer, Brian Briggs, Foghat, Moon Martin, June Millington, Arlo Guthrie, Gino Soccio. Intend to continue our high standards; looking toward additional gold and platinum, entering video field.

•••• TRITON PRODUCTIONS

38 Brooks St., Boston, MA 02135
(617) 767-2220

Owner: Jay Mandel.

Studio Manager: Marty Feldman.

Engineers: Mike Golub, Mike Macrides.

Dimensions of Studios: 40' x 30' approx (trapezoid shaped), large drum and vocal booths.

Dimensions of Control Rooms: 20' x 17'.

Tape Recorders: MCI 114 24 track; Studer A-80 2 track; Scully 280B 2 track; Revox A77 2 track.

Mixing Consoles: Custom 40/24 w/parametric EQ.

Monitor Amplifiers: Futterman, Crown, BGW.

Monitor Speakers: UREI, JBL.

Echo, Reverb, and Delay Systems: EMT stereo plate, Eventide 1745M digital delay, 949 Harmonizers, Marshall Time Modulator, other reverb and delay systems available on request.

Other Outboard Equipment: Teletronix LA2A's, Fairchild 670 stereo, Universal Audio 175, 176, 1176's, UREI LA4's, dbx 160, 162, Eventide Phaser, flangers, parametric expander/gates, variable Exciters, RCA BA-6A, various filters and EQ's.

Microphones: Telefunken 251's, U-47's; Neumann U-47's, M-49's; U-67's, KM-56's, KM-54's, KM-64's, U-87's; AKG C-12's, C-12A; Sony C-500, ECM 377, ECM 22's; RCA 77-DX's, 44BX; Sennheiser, Electro-Voice, Beyers.

Instruments Available: Yamana 7' grand, Hammond B-3, various Fender amps, steel drum.

Rates: Generally too low.

Direction: The facility and staff are geared towards specialization, rather than a "something for everybody" approach. We maintain the East Coast's largest tube microphone array. There is a comprehensive automation system under development directed towards total console fuction control, as well as peripherals. We will continue to produce and develop the many Boston-based bands whose careers are beginning to shape the international market. Credits include albums for CBS, WEA, and A&M, live WBCN/WCOZ Broadcasts, and national spots produced by our creative staff. Can a team of NY Jews find happiness (& cheese blintzes at 5AM) in the backwoods home of the Pilgrims?

•••• WAREHOUSE RECORDING

320 W. 46th, New York, NY 10038
(212) 265-8060

Owner: Lucas/McFaul Inc.

Studio Manager: Bill Barton.

Engineers: Bill Robertson, Dave Immer, Dave Marx.

Dimensions of Studios: A: 25' x 28'; B: 20' x 24'.

Dimensions of Control Rooms: A: 19' x 17'; B: 15' x 18'.

Tape Recorders: Ampex MM 1200 24 track; Ampex ATR 104 4 track; (2) Ampex ATR 102 2 track; Ampex ATR 101 mono; MCI JH 10 24 track; Scully 288-16 16 track; 2 Scully 280 2 track; Scully 280 mono.

Mixing Consoles: Trident w/Alison Fadex and programmer, Series 80, 32 in x 24 out; Martin custom, 16 in x 16 out; Tapco, 12 in x 4 out.

Monitor Amplifiers: Crown DC-300's, McIntosh 2120, Crown D-150, API/Holman.

Monitor Speakers: Hidley/Sierra SM-3, Big Reds, JBL 4311, Auratone.

Echo, Reverb, and Delay Systems: EMT 140's (2), Ursa Major Space Station, RCL/Sennheiser, Marshall Time Modulator.

Other Outboard Equipment: UREI LA3A's, 1176, Eventide Omnipressor, Orban/Parasound parametrics, UREI 527's, UREI 529, MXR 1/2's, Kepex, Click.

Microphones: Neumann 67's, 37's, 47's, 84, 86; AKG 414, 1000, D-12, D-200, D-202; Sennheiser 405, 421's; Beyers M-88's, 260's; E-V RE-20; Shure, Nakamichi CM-300, Sony ECM 22, 33, PZM's.

Instruments Available: Steinway 9' grand, drums, amps, B-3 and Leslie, Fender Rhodes, Hohner clavinet, Prophet 5 synthesizer.

Extras: Video synch playback w/BVU-200A, EECO synchro-nizer, SMPTE time code, video synch.

Rates: \$200/hr Studio A; Studic B: \$150/hr.

Direction: AT&T, GE, Pepsi, Ford, music composition and production.

•••• FRED WEINBERG PRODUCTIONS—

WORLDWIDE AUDIO ENTERPRISES
also REMOTE RECORDING

16 Dundee Rd., Stamford, CN 06903
(203) 322-5776

Owner: Fred Weinberg.

Studio Manager: J.R. Weinberg.

Engineers: Fred Weinberg, J.R. Weinberg.

Dimensions of Studios: 20' x 20' Studio I; plus 20' x 30'—II.
Dimensions of Control Rooms: 14' x 12'.
Tape Recorders: 3M M79 8 track; MCI JH-24 24/16 track; Ampex 2 track; TEAC 7030 2 track; Otari 7030 SL 2 track.
Mixing Consoles: Roger Mayer custom, 20 in x 24 out.
Monitor Amplifiers: McIntosh.
Monitor Speakers: Tannoy Monitor Gold, Dynaco A35's, Auratones.
Echo, Reverb, and Delay Systems: AKG BX-20, live rooms, MXR delay.
Other Outboard Equipment: Parametric EQ's (Orban), digital equipment, digital metronome, flangers, phasers.
Microphones: Sony's, E-V, RCA, Neumann's.
Instruments Available: Yamaha piano, acoustic bass, drums, Harmonium, Orchestron, synthesizers, percussion box, guitars, amps, Gibson, Poly P Korg synth sequencers, Vocoders, Laser VAC recuperator, etc.
Extras: Sfx library, video facilities, 1" color Ampex, 3/4" U-matic, VHS 1/2" all color, video camera Sony, and 1/2" b/w reel to reel, staff musicians, quadraphonic.
Rates: In-house production, outside by appointment only, rates starting at \$200/hr.
Direction: Commercials, TV shows, motion pictures, soundtracks, records. Worldwide consultation services and engineering and production. Produced for NBC, ABC, Columbia, etc. Research facilities are incorporated within studio facility. In the recording industry since 1968.

•••• WIZARD RECORDING STUDIOS
 P.O. Box 25, Briarcliff Manor, NY 10510
 (914) 941-9642, (914) 762-3015

Owner: Wizard Sound Inc.
Studio Manager: Mike Scott, Dave Marsac.
Engineers: Mike Scott, Dave Marsac, KC Scott.
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".
Tape Recorders: Lyrec TR 532 24 track; Studer A80 2 track; Nakamichi 582 cassette; Sansui 5100 cassette.

Mixing Consoles: Tangent 3216 (heavily modified), 24 in x 24 out.
Monitor Amplifiers: (2) BGW 750, BGW 500, (2) BGW 250, (3) BGW 100.
Monitor Speakers: UREI's, Altec Big Red, Auratones. Custom designed house system (monitor EQ by White).
Echo, Reverb, and Delay Systems: AKG BX-20.
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 LA175 limiters, (2) Universal Audio 500-A EQ's.
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.
Instruments Available: Steinway grand piano, Baldwin harp-sichord, Hammond B-3 organ w/Leslie, Steinway upright grand piano, Fender Rhodes, ARP String Ensemble, Fender, Marshall and Lab amps, Mini-Korg synthesizer, Ludwig drums, roto-toms.
Extras: Chef on premises, lounge with TV-FM-cassette, soda machine, free coffee and tea, private parking area, we can arrange lodging.
Rates: Available on request.
Direction: We are currently undergoing extensive renovations. Equipment additions are imminent (new console, new outboard equipment, new speaker systems, etc.). Expected completion date for renovations, equipment acquisitions, etc., is early March. Call for details.

•••• THE WORKSHOPPE RECORDING STUDIOS
 40-35 235th St., Douglaston, New York 11363
 (212) 631-1547

Owner: Kevin M. Kelly and John J. Kracke.
Engineers: Jeff Kracke, Kevin Kelly, Rob Bengston.
Dimensions of Studios: A: 35' x 18'; Voice Over B: 10' x 12'.
Dimensions of Control Rooms: A: 18' x 12'.
Tape Recorders: MCI JH 24 24/16/8 track; Scully 280 2 track; Sony 850-2 2 track (1/2 & 1/2 track); Sony 850-4 4 track.
Mixing Consoles: Sound Workshop Series 30, 28 in x 8 out; Sound Workshop 1280-8 EQ, 12 in x 8 out.
Monitor Amplifiers: Phase Linear 400, Dyna 400.
Monitor Speakers: Altec 604 E and woofers, JBL 4311,

Auratones.
Echo, Reverb, and Delay Systems: Sound Workshop 262, 242A, Gramplan.
Other Outboard Equipment: UREI 1176's, Gately 1800's, Spectra Sonics 510, Kepex, etc.
Microphones: Neumann U-67; E-V RE-20, RE-15, RE-55, 666; Sennheiser 421, AKG C-451; Sennheiser ME-40, 421; Sony ECM 22; RCA 77DX; Shure, etc.
Instruments Available: 8 pc Pearl drums, 6'4" grand, Hammond C-3, ARP Strings, Multivox solo synth, assorted vintage Ampeg and Fender amps.
Extras: 20 minutes from NY Penn station at the Douglaston railroad station. Country village atmosphere. Studio B specifically designed for complex commercial spot production and voice overs; Studio A full facility, multi-track recording.
Rates: Per hour and block time rates available on request.
Direction: Producer/engineers for the WLIR-FM Live Concert series. Very personalized service in the studio. Clientele ranges from record companies and ad agencies to local groups.



WORKSHOPPE RECORDING STUDIOS
 Douglaston, N.Y.

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DATE: MONDAY, MAY 5 & TUESDAY, MAY 6

PLACE: LOS ANGELES, CALIFORNIA

If you earn your living in the audio recording industry — or would like to — **REGISTER NOW** for this exciting, in-depth program.

Some of the world's leading studio owners, management and financial professionals, audio/visual experts and studio acousticians will be featured. In one and one-half days you can acquire information and knowledge it took these experts a professional lifetime to accumulate. Registrants will have ample opportunity to ask questions of these leading personalities.

MONDAY, MAY 5/SEMINARS

CONCEPT TO GOLD: Studio owners with engineering roots relate their philosophies and methods in building a successful audio recording business.

BASIC BUSINESS OF RECORDING STUDIOS: Encompasses legal, accounting, financial, insurance aspects, plus management and client relations.

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TAPE TO DISC... THE PROBLEMS: Disc mastering experts describe the perplexities of transferring master tapes to disc. Discussion of what mastering studios expect from recording studios.

ECONOMY: The economic outlook and its impact upon the entertainment industry, and in particular the audio recording business.

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TUESDAY, MAY 6/STUDIO TOURS

GUIDED TOUR: A half day guided tour of four leading Los Angeles recording studios.

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feedback

Dear Mix,

I have just read your article in the Feb. issue entitled: "Regional Record Companies." This piece by Larry Blakely could be the biggest boost in history for small record companies, such as ours. I am extremely enthused over it, and would like to use it in some of our promotion in the Florida area.

Would you please send us fifty copies of this issue. You may bill us if there is a charge.

I cannot tell you how timely this article is to our end of the industry. I hope it is widely read all over the country.

Thank you for your progressive periodical, and your attention to us "small people" who actually contribute much to the overall record industry.

Jack Flowers
Today Record Productions
Sarasota, Florida

Dear Mix,

Regarding the article on Motown Studios in your February issue, I'd like to make one correction, if I may. Guy Costa states that the only digital facilities currently available for both recording and mixing in the area are A&M, Record Plant, and Warners. We admittedly keep a rather low profile and do not employ any PR persons, but it really should be

known that Westlake does in fact have both the 32-track and the 4-track 3M digital machines. These are both available for use on the premises as well as for outside use. If a man with Guy Costa's prominence wasn't aware that we have these machines, then perhaps it's time we promoted ourselves a bit above a whisper!

Keep up the good work.
Maggie Welch
Studio Manager
Westlake Audio

Dear Mix,

I just filled out your questionnaire from the January issue and almost dropped it into the mail without any further comment. But there has been something running around in my mind lately about this matter of professionalism. I was turned on by an article about SPARS, the studio association, and called to find out what was going on. Everything was real cheery until she asked how many tracks we had. I was then informed that unless I was 24 tracks or had a disc lathe I should forget it.

Now, it is no doubt necessary to find some kind of way to qualify the members of a professional association, but I am not sure that the number of tracks, or money spent, is valid. There are many studios that

have any number of tracks that are top notch professional studios. It seems, too, that not all 24 track studios are really capable of excellent recording, just listen to some of the product around.

In short, there is a definite need for some kind of professional association with standards that mean something and some voice for professional recording. I would appreciate any information that you or anyone there might have about such a group and I would like to hear from any other studios that are of like mind.

Bruce Brunson
Radiant Star Enterprises
P.O. Box 192, Loveland, CO 80537
303/667-1765

Dear Folks at the Mix/M.I.,

Just a note of congratulation on 2 fine publications... Retail customers at my showroom, and private guitar students snap up both M.I./Mix as new issues come in. People even make special trips to the showroom just for their copy. Thanks and keep up the good work.

Andy Widders-Ellis
The Stick® Showroom
Nashville, Tennessee

ROBERT BOTH—ENGINEER

18 Hlawatha Pass, West Milford, NJ 07480
(201) 697-7540

Experience: 8 years. Have done sessions at Criteria, Miami; Wally Henders, San Fran.; Sound Ideas, NY; ATR, NY; Record Plant, NY; Delta, NY; Quadrasonic, NY. Artists: James Brown, Hank Ballard, Tito Rodriguez, Jr., Lyn Collins, The J.B.'s, Ivory Coast, Charanga 76 and more.
Direction: LP projects and 45's, R&B on rock and jazz.

ARTHUR BRAUN—PRODUCER

Dick James Music Inc.
119 W. 57th St., Suite 400, New York, NY 10019
(212) 581-3420

Experience: The Rockspurs (for Phonogram), Peter Noone (CBS/Sony), American Productions for Yamaha Music Foundation.
Direction: New wave, rock, Top 40, more. Six years as general manager of Dick James Music, Inc.

CLYDE BROOKS—ENGINEER/PRODUCER

Brolly Music, Inc.
1650 Broadway, New York, NY 10019
(212) 757-9622

Experience: Producer of Hank Ballard's latest album. Sam Rivers, jazz; Mitchell Ryders 1st album; NY Sym.; gospel music, Detroit TOK Records.
Direction: Opening my fourth studio in 2 months and am looking to do something different in terms of recording deals.

ELVIN CAMPBELL—ENGINEER

3 East 85th St., New York, NY 10028
(212) 988-8487

Experience: Have recorded everything from classical to rock, with emphasis on jazz. Examples: symphony orchestras, chamber music ensembles, soloists: Duke Ellington, McCoy Tyner, Brubeck, Sonny Rollins, Joe Venuti. TV and radio spots, TV specials, films.
Direction: To capture an artists or group's total performance and total sound in a recording. 2. To contribute, through my engineering ability, to making the music "happen" in every sense of the word. 3. When the above takes place, sit back and enjoy satisfaction.

DON CASALE—ENGINEER/PRODUCER

377 Plainfield St., Westbury, Long Island, NY 11590
(516) 333-7898

Experience: (14 yrs.) Decca Records, Scepter Records, Independent studios. Engineered for Iron Butterfly "In-A-Gadda-Da-Vida", Aretha Franklin, Four Seasons, Dionne Warwick, Delaney & Bonnie, many others. All major labels. Gold & Platinum Records, Grammy nomination.
Direction: Free-lance engineering and production. Will give the "Un-Rich" a chance to record in my own, state of the art 24 track studio. Will help new song writers and artists get started. Associated with BMI.

CHRIS CASSONE—ENGINEER

135 Lakeview Ave., Valhalla, New York, NY 10595
(914) 946-6539

Experience: Ace Frehley, Bob Mayo (Peter Frampton Band); Chip Taylor; Harvey Brooks, Dennis Davis (Bowie); Marcus Miller (Saturday Nite Live, Dave Grusin); Larry Brown; Trade Martin; The Mumbo's; Chief engineer at North Lake Sound, North White Plains, NY; graduate MCI technical training school and Institute of Audio Research.
Direction: To be a peer among my heroes: George Martin and Phil Spector.

MICHAEL D. COUTURE—ENGINEER

The Barn
No. Ferrisbury, Vt. 05473
(802) 425-2111

Experience: Mary McCaslin for Phonogram and Philo, Keith Jarrett, Tom Rush, Jim Ringer over thirty album credits.
Direction: The right one.

FLOYD FISHER/AURAL VISION—PRODUCER

1619 Broadway No. 602, New York, N.Y. 10019
(212) 247-2904

Experience: As a keyboardist doing occasional production to the present: a full time production company. Studios from Houston to N.Y. to Toronto. Incl. Hit Factory, Sound-Stage, Right Track, Soundmixers.
Direction: To develop and produce artists of the next generation, from demos to masters. To help shape the future...

SUSAN GIFFIN—ENGINEER

29 Ronaldo Ct., Rutland, Vt 05701
(802) 773-3743

Experience: Part time engineer & assistant maintenance engineer for Green Mountain Records, Northfield, Vt. Album credits: Ricky Gee, "Christian Rock" Fredonia Woodwind Quintet; Tom Barone, Pop Rock & Melodeers; John Fritsch, "The Video Band".
Direction: I am willing to relocate and am comfortable with any type of music. I have a classical background so can read scores yet I have done extensive punk & new wave demos. I hope to work in a well-respected multi-track studio as an assistant and work my way up. Also I am currently working with video. Video is THE direction!

BRUCE GREENHUT—PRODUCER

2363 Garfield St., North Bellmore, NY 11710
(516) 221-5497

Experience: Engineer and producer 7 years. worked at A&R, Record Plant and other N.Y. studios. Also independent sound mixer and engineer for several bands, and mixed for theater. Asst. eng. on John Lennon "Walls and Bridge", Judy Collins "Judith", also Rick Derringer, B.O.C., Patti Smith
Direction: Strong Rock & Roll and R&B background but with experience to work with any artist where I feel I can

help bring the best out of them. I've produced many bands & singers for demo's & records. I love music as my life and career and if I feel good about an artist I'll work with them.

FRANK GRITANI—ENGINEER/PRODUCER

2910 Clubhouse Rd., S. Merrick, Long Island, NY 11566
(516) 781-7576

Experience: I am the president of Golden Fleece Record Prod. Inc. I've worked with members of Tito Puente, Sal Soul, and 1st Choice, on records which I've produced. I have 15 years experience. I have just produced, arranged, and written a new album (disc) entitled "My Greatest Love" sung by my artist Donna Marie Feltman.
Direction: My direction is to build up my record co. (Golden Fleece Record Productions Inc.) and to be a major producer/eng., and to interject my ideas of future music, since not only am I a producer/eng., but also a musician for 25 years, specializing in organ, Moog, piano and the Chamberlin which I used and played on this up coming album, also in past I've written and directed for off Broadway plays and in the future would love to get into that part of the field again.

KEITH A. GUTSCHWAGER—ENGINEER/PRODUCER

77 Bayshore Rd., Bayshore, NY 11708
(516) 586-6436

Experience: 16 years as a studio Drummer and writer for Percussion and 8 years as an engineer 3 years as a producer.
Direction: To have one of the biggest studios on Long Island. Soon to be 16 track. (See us first to be first). We also have our own record (label) on Kewall Records.

STEVE HAMMER—ENGINEER/PRODUCER

Serious Business Production
2625 East 13th St., Brooklyn, NY 11235
(212) 934-9147

Experience: Have total experience from both sides of the board. Have performed with and produced many N.Y. "new wave" bands, including "Blindates" and "Cheex".
Direction: To provide pre-production engineering, production and marketing service to the vanguard of N.Y. artists involved in the creation of modern music for the modern world.

DICK HAMMOND—ENGINEER

71 Clarrington St., Rochester, NY 14609
(716) 288-1460

Experience: Albums; Ricky Gee, "Christian Rock" The Times, "Contemporary Rock N' Roll" "Sawmill Run", C&W, John Pritch, "The Video Band", Experimental Rock, Todd McCleahan - 45, "Every X-mas Eve".
Direction: I am comfortable working with most any type of music. I also arrange and play saxophones. I would like to get work as an engineer's assistant in a well-respected 24 track studio and work my way up. Am willing to relocate.

BOB "JESSE" HENDERSON—ENGINEER

8 Walker St., Southboro, MA 01772
(617) 481-5993, 867-7862

Experience: Stuff, J. Gells, Andy Pratt, Arlo, Oregon, Cat Stevens, J. Ferguson, The Cars demos, Rupert Holmes, Don MacLean, etc. 15 years pop drummer and engineering experience.
Direction: Drum sounds are my specialty. A 1st and 2nd engineer willing to try anything once. I listen to musicians as well as their music. Tape is always rolling. References on request.

EDWIN & MARCELLE HOBGOOD—ENGINEER/PRODUCER

48 East 70th St., New York, NY 10021

Experience: Studio: Studio In The Country, Bogalusa, LA; Hit Factory, NYC; A-1 Recording, NYC; RPM, NYC; Ritchway Publishing, Nashville, Tennessee. Artist worked with: Stevie Wonder, Doc & Merle Watson, Kansas, Willie Nelson, Hall & Oates. Live sound reinforcement: New Orleans Jazz & Heritage Festival 1977; Palomino Club, N. Hollywood, CA; Lone Star Cafe, NYC; Opyland U.S.A.
Direction: Record and produce platinum records. "Have Assistant Will Travel."

M. KLARE HOLLENDER—ENGINEER

38 Royal St., Watertown, MA 02172
(617) 926-4813

Experience: Currently working at Dimension Sound Studios in Boston.

DON HUNERBERG—ENGINEER

Radio City Recording Studio
1260 Avenue of the Americas, New York, NY 10020
(212) 248-4600

Experience: Studio Manager: Debbie Ross.

CHUCK IRWIN—ENGINEER/PRODUCER

461 Park Ave., South, New York, NY 10016
(212) 686-2929

Experience: Recorded Music for "Hair" film. Chuck Mangione Quartet Album (Mercury). Mixed music for Today Show & recorded theme for NBC Grandstand. Recorded Morgana King for Muse Records, Produced "Tequila—Mockingbird Chamber Ensemble" for Island Records.

Direction: Branching off into more production and hopefully more soundtracks. Working on both coasts. Do not believe that "what's happening" is confined to one location or format.

PAUL KRIEDEMANN—ENGINEER

32 Beverly Dr., Depew, NY 14043
(716) 684-6307

Experience: For the past 2 years I have been taping high school choirs and operas in the Buffalo area. I have also done live recordings of local bands. (2 track).
Direction: I plan on building a home 8-track studio for making demos and jingles.

JIMMY KRONDES—ENGINEER/PRODUCER

2 Musket Lane, Darien, CN 06820
(203) 655-3660

Experience: 25 years. RKO, RCA, Metromedia, ABC Records plus Epic and CBS Records.
Direction: Country, MOR, jazz, R&B, gospel, ethnic.

BOBBI MARZEC—ENGINEER

130 W. 44th St., New York, NY 10036
(212) 221-9127

Experience: Private training with a studio engineer. Many hours of critical listening to live and recorded music. Five years in sound reinforcement; mixing engineer for top bands.
Direction: Concert tour mixing and studio consultations.

BOB MILLER—ENGINEER/PRODUCER

246 Crestwood Dr., Milltown, NJ 08850
(201) 828-2236

Experience: Records, jingles, movie sound tracks; everything from 2 track to 48 to digital. Also direct to disc experience.
Direction: Keeping state of the art quality and very happy clients. New York based but will travel anywhere.

FRED MILLER—ENGINEER/PRODUCER

c/o Studio Registry
119 W. 57th St., New York, NY 10019
(212) 247-1322, 625-1594

Experience: Over 300 albums, Earl Hines to Cecil Taylor, Astrud Gilberto, G. Mulligan, Hildegarde, Zoot Sims, many classical and digital albums recently for MHS, Sonet, CBS, RCA, Pablo, others. Jingles too at A&R Automated.
Direction: Upward.

SCOTT MINER—ENGINEER/PRODUCER

C/O Minot Sound
19 S. Broadway, White Plains, NY 10601
(212) 828-1216, (914) 428-8080

Experience: As a working studio musician/arranger with 10 years exp. I have a unique understanding of the recording process. I have been engineering and producing professionally for the last 4 years. Currently freelancing at Minot Studios and Fist "O" Funk Studios (NYC). 24 track recording is my present medium.

Direction: Rock and roll, funk, punk, progressive jazz (engineering and/or producing). Current projects: The Majors, Bob Korman, Laurie Records 45: "Love Is Like A Merry-Go-Round" (a Billboard pick); Vinyl Virgins (Reflection Records); Chris Adams (RCA Records); various special projects. As a producer, I have become friendly and have formed working relationships with many New York based record labels.

RALPH F. MOSS—ENGINEER/PRODUCER

143-30 38th Ave., Flushing, NY 11354
(212) 445-2915

Experience: Actively involved in the music business for the past ten years, beginning in 1967 in the Cincinnati area at age 18. Working as an independent producer and engineer for seven years, working mainly out of Electric Lady Studios in New York.

Direction: Seeking new record production and engineering projects, working towards the goal of incorporating audio projects with video production.

CYRIL NALIS—ENGINEER

67 N. Clinton Ave., Apt. 3, Bay Shore, NY 11706
(516) 668-7554

Experience: Engineer at 516 Recording and Production (8 track), Farmingdale, NY. Have done live sound for Sun Sound Inc., Stamford Conn. Editing and mastering at P&P Studios, Stamford. Second engineer at Bakersville Sound (8 track), N. Hollywood, CA. An A Degree in Music from L.A. Valley College. Able to read charts.

Direction: To acquire a position in a 16, or 24 track studio as a second and be able to prove my talents behind the board. (I have good & creative ideas in different mixing techniques). Also want to do some independent work on my own projects where I can engineer and co-produce.

BARNEY BLAIR PERRY—PRODUCER

1373 Fullmore Ave., Buffalo, New York, 14211
(716) 892-2982

Experience: Arranger and producer of Blair-Nightlife Record Products released on Solar Sound Records & Tapes. Original member of Blackbyrds. Composer of "Walking in Rhythm," Grammy award nominee, pop music award winner—best songwriter composer. Performing artist: guitarist, vocalist.
Direction: Jazz fusion, disco, pop, funk and rhythm & blues.

DOUG POMEROY—ENGINEER

193 Baltic St., Brooklyn, NY 11201
(212) 852-3673

Experience: Recording/mixing all types music at Columbia Recording Studios for seven years. Since 1976, freelance work in many NYC studios and some teaching (I.A.R.). Currently record work and radio and TV commercials at the Celebration Studios, NYC.

Direction: Multi-track engineering and co-production of new artists and new wave bands (eg., Jack Hardy and the Coolies). Also purist techniques applied to jazz and contemporary music recording (supervision of the new Stan Getz Studio).

STEVE PRINIANS—ENGINEER/PRODUCER

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

Experience: I'm experienced in remote recording and broadcasting. Have worked with PBS-TV, BBC-TV, WPIX-FM, WNEV-FM. Mixed many broadcasts like The Police,

Jerry Lee Lewis, Sam & Dave, Otis Blackwell, Moon Martin, and Wreckless Eric to name a few. I engineered Chris Rush's live second LP on Midsong Records.

Direction: Live recorded dates and live sounding masters are my direction at the moment. To me it's important to develop a powerful sound, clean and uncluttered. After you accomplish that your ideas can be endless. I'm interested in new wave form music with total consciousness of sound, mind and visuals.

LARRY QUINN—PRODUCER

LQ Productions
2311-15th St., Troy, NY 12180
(518) 274-3249

Experience: Singer, songwriter, performer. Producer of Tree Fox "Rough Road" album and "15/20" single for Fraternity Records. I have produced sessions at Counterpart Creative Studios, Cincinnati, Ohio; Allen-Martin Studios, Louisville, KY; Arabellum Studios, Albany, NY; and Dondisound Studios, Red Hook, NY. I have released 2 singles and 1 album. I am a member of ASCAP and The Audio Engineering Society. I am a graduate of The Center For Audio Studies/SUNY, Fredonia, certificate in Sound Recording Technology.
Direction: Currently doing freelance production work through Counterpart Creative Studios' new 32 track automated facility. My company features full record production services that include recording, pressing, publishing and promotion. We have plans to start our own record label sometime in 1980.

JONATHAN ROSE—PRODUCER

P.O. Box 2772, Grand Central Station, New York, NY 10017
(212) 674-1562

Experience: B.A. Yale U. Run my own record label, Gramavision Inc.; film soundtracks, jazz, classical, country/western and rock and roll production and publishing.

NEAL ROSENBERG—ENGINEER

2149 Baylis Ave., Elmont, NY 11003
(516) 437-3585

Experience: I have mixed sound for a local band and have also almost completed a course at a local recording studio.

Direction: Since I am only 21 years old, I would be willing to accept any job that would lead to increased responsibility while I was learning. I would be willing to relocate to accomplish my goal.

ALAN SILVERMAN—ENGINEER/PRODUCER

34 Hudson Ave., Ridgefield Park, NJ 07660
(201) 440-5089

Experience: Over 15 years as a musician, engineer, and producer. Recent NY area credits include Zach Sanders, Christian Cooper, Leslie Pearl, Keith Loving, and over 500 radio and TV commercial soundtracks. Styles encompass rock, R&B, jazz, and classical.

Direction: As an engineer/producer I never try to impose a sound on an artist, but rather to provide an atmosphere for creativity. I stay on top of the latest technology and make it work for my artists. The trend of the 80's will bring a broader eclecticism and sophistication in music, and the marriage of sound and video. Video discs will open a new realm of potential for the performers of the decade.

VINCE TRAINA—ENGINEER/PRODUCER

124 Montague St., Brooklyn Heights, NY 11201
(212) 237-0250

Experience: Engineering: Chapin Brothers, B.T. Express, WKTU-FM, Pete Fornatale, Bo Diddly, The Manhattan, Ben E. King, James Brown, Brook Benton. Production: CBS, Mandala, Henry St.

Direction: Independent productions for major labels. Albums and single oriented material.

FRED WEINBERG—ENGINEER/PRODUCER

16 Dundee Road, Stamford, CT 06903
(203) 322-5778

Experience: Since 1965 engineered and/or produced 90% of top Latin artists worldwide, also: Telly Salvalas, John Cacavas, Archie, Bob Crosby, Melanie, Jeff Barry, Andy Kim, The Archies, Count Basie, Bob Crave, Don Costa, Salsoul, own LP's.

Direction: Own studio facilities and freelance. Producing for television, films, commercials and labels. Audio consultant, speak Spanish, German, English. Member NARAS, AES, AFM, Altra, Grammy Awards election Committee member, Clio winner (5), Grammy, composer.

MARK WELLMAN—ENGINEER/PRODUCER

247 14th St., Bangor, Maine 04401
(207) 947-8585

Experience: Numerous record albums, rock, country, gospel. Publishing affiliation BMI. Many jingle productions in Maine. Fifteen years musician, 3 years eng. and production exp. I own my own 8 track studio.

Direction: Continually looking for talented artists to produce and record. Have recently started Blast Records which will be heard on many stations with the advent of the musical group Dogs. I hope to eventually get nat'l distribution with major label for my talent. I intend to succeed.

BEN ZANDER—PRODUCER

Zander Productions
218 State Hwy. 18, East Brunswick, NJ 08816
(201) 249-8973

Experience: Commercials, jingles, musical beds, A/V presentations, Subaru, Freshold Raceway, Magnoloid Films, Industrial Soundtracks, Pontiac Rosenbloom & and the Attorneys, Stutz.

Direction: We are a complete production facility—our specialty is beating the clock. That is, we can take a jingle from a raw idea to a finished product, broadcast ready, within two days if need be. Complete and total satisfaction.

Expression through time delay.

Time delay has become increasingly important to musicians and engineers as a way to color musical sounds and create spatial illusions. MXR's Flanger/Doubler and Digital Delay have proven to be effective tools for the musically creative professional who requires a wide range of performance possibilities from a precise and cost effective time delay unit.

Both the MXR Flanger/Doubler and Digital Delay offer a flexible system of controls which provide ultimate freedom for creative expression. They feature frequency sweep and width controls, a mix control (between the dry and the delayed signals), a regeneration control for additional intensity and multiple repeats on doubling and echoes, and a delay bypass jack which enables the user to employ a footswitch to bypass the unit entirely for instantaneous cut-offs of time delay effects. Both units represent an expandable system, and can be easily ganged together or interfaced with other instruments and recording gear.

The MXR Flanger/Doubler provides a manual control over delay time, and rear panel connections offering full remote delay time adjustments and a VCA output suitable for stereo ganging of two units. The MXR Flanger/Doubler can switch easily between flanging and doubling modes, and two LED indicators are provided for easy visual monitoring of sweep speed and range.

The Flanger/Doubler is capable of producing infinite varieties of flanging, hard reverberation, vibrato, and numerous doubling effects including subtle chorus sounds. It offers a time delay range of .25 to 5 milliseconds in the flanging mode and 17.5 to 70 milliseconds in the doubling mode.

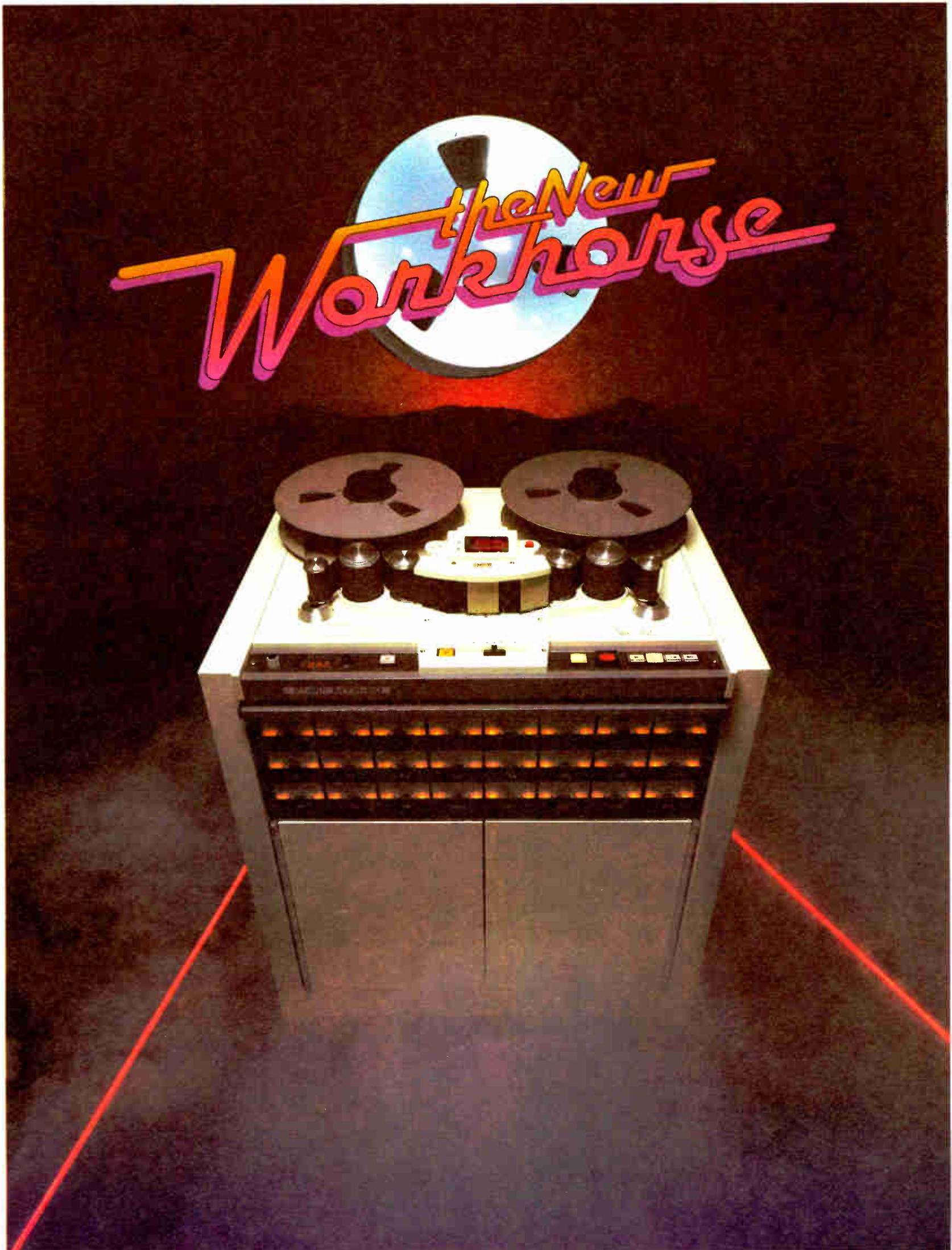
The MXR Digital Delay offers a continuous range of delay times from .08 to 320 milliseconds. This range of delay times is expandable with three optional memory cards, in 320 millisecond increments to 1280 milliseconds, with full bandwidth (20Hz to 20kHz) capability to 160 milliseconds. The Digital Delay features push button controls for varying delay ranges. A level control regulates the input signal to prevent overloading of the unit's circuitry, and LEDs monitor the input level and indicate whether the effect is in or out.

At fixed delay times the Digital Delay is perfectly suited for "traditional" delay applications such as "slap echo," discrete echoes, and synchronization of speakers in PA applications. By adjusting sweep frequency, mix, regeneration, and level controls, the Digital Delay offers additional effects which include doubling flanging, pitch alteration (vibrato, pitch bending), frequency modulating, and infinite (non-deteriorating) repeat hold.

The MXR Flanger/Doubler and Digital Delay are designed for use in the studio and on stage, with line or instrument levels. They're reliable, delivering a clean signal consistently, with a dynamic range exceeding 80 dB. And as with all MXR Pro Group products, optional road cases are available. For the serious artist, the MXR Flanger/Doubler and Digital Delay are the versatile tools which provide the key that will unlock his creative musical imagination.

MXR Innovations, Inc., 740 Driving Park Ave., Rochester, New York 14613, (716) 254-2910





MTR-90: The Machine You Helped Design.

After extensive consultation with you, the people who depend on professional audio machinery for their livelihood, we found that a new generation of two-inch master recorder was required to meet your demands. You wanted better tape handling, increased performance, greater creative flexibility; you needed adaptation to multi-machine interlock, compact design, better serviceability and the number one priority—greater reliability. You felt that contemporary technology could be incorporated into an affordable machine. We felt the same way.

Here is the result of a collective vision—our engineering and your current and future needs—THE OTARI MTR-90.

The OTARI Optimal Tape Guidance System

Research has proven that impeccable tape handling can be achieved by a servo-controlled, symmetrical, and uniformly distributed constant tension tape path utilizing a wide diameter (60 mm) pinch-rollerless capstan. This elegantly simple method of controlling tape movement eliminates the problems of stretch and wear, which are generic to many conventionally designed 2" pinch-roller type transports. With the MTR-90 the only tape drive contact is on the tougher tape backing, thus allowing for the first time, virtually unlimited safe passes with your valuable 2" master tape.

The OTARI Unitized Transport

The integrity of the entire tape machine is dependent on the long-term stability of the top plate, its supporting frame and the integration of its head assembly. OTARI engineers felt it essential

to mate a super-rugged, precision top plate directly to a unitized, welded steel chassis to make it strong enough to withstand the most rigorous studio or remote work.

Electronics

By engineering single card circuitry, OTARI has refined "state-of-the-art" electronics by reducing the complexity and expense of multiple card assemblies. Active mixing of audio and bias in the record circuitry and proper utilization of high slew rate integrated op-amps and discrete components at critical stages are your best assurance of aural success.

The modular approach of the MTR-90's digitally controlled transport logic achieves a higher level of reliability along with the "real world" considerations for rapid diagnosis and serviceability.

The Man/Machine Interface

Included with every MTR-90 is the CB-104 Remote Session Controller. Offering total flexibility while pro-

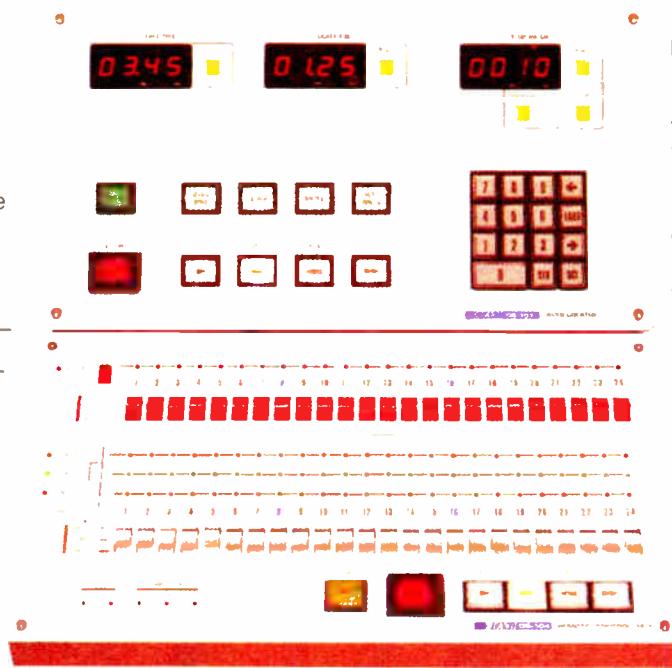
viding immediate understanding on your first session, the CB-104 accomplishes mode selection faster than any other remote available. There's "positive feel" switching—important under session pressure; flexible standby mode monitoring, master switching, single control simulated punch in/out and more.

The optional CB-107 Memory Locator, which physically mates with the CB-104 Session Controller maximizes your efficiency and creativity with your clients' time. It features ten keyboard assignable memories, shuttle function, and independent, built-in stopwatch.

Factory support through a large domestic parts inventory, thorough documentation and communicative personnel versed in all aspects of studio equipment, are integral parts of the MTR-90's presentation to the professional. A network of the finest and most experienced audio dealerships is the final link in your assurance of OTARI's comprehensive approach to the professional recording community.

The OTARI machine has become *The New Workhorse*. And now, the advanced MTR-90: *The New Workhorse* for two-inch, multi-track 16/24 channel audio production.

Contact your nearest dealer for a demo and detailed color brochure. Get your ears on the tape machine you helped design!



The CB-107 Memory Locator and the CB-104 Remote Session Controller.

CALIFORNIA

Express Sound
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Los Angeles

TENNESSEE

Valley Audio
Nashville

TEXAS

Westbrook Audio
Dallas

NEW YORK

Martin Audio
New York

The New Workhorse



Otari Corporation, 1559 Industrial Road, San Carlos, CA 94070. (415) 592-8311
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IF YOU THINK DIGITAL IS JUST AROUND THE CORNER, YOU'RE ALREADY A STEP BEHIND.

Nearly everyone in the recording industry agrees that digital is the technology of the future. Unfortunately, they're also under the impression that it won't be available until then.

There are, however, some notable exceptions to that philosophy. Like A & M Records, Warner Bros. Records, Record Plant, Westlake Audio, Audio-Video Rents and Sound 80. You see, they've all installed the multi-track digital system that's available right now.

3M's 32-track Digital Mastering System.

The reasons are obvious. Because digital captures all the pure, full-range highs and lows and surrounds them with clean, no-hiss silence. The result is transparent, distortion-free sound itself. Whether it's the first generation or the twentieth.

But there's one other reason why so many outstanding studios are using 3M's Digital Mastering System for the entire recording process.

They like to stay a step ahead.

For more information, write: Digital Mastering/3M, Building 223-5S/3M Center, St. Paul, MN 55101.

3M DIGITAL MASTERING. WE DIDN'T INVENT SOUND. JUST THE PUREST WAY TO RECREATE IT.

3M