#### JANUARY 1982 \$1.50

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#### THE RECORDING INDUSTRY MAGAZINE



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## Listings: Northwest Studios

## Special Report: Mixing Consoles

## Grateful Dead's Recording Studio

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**Record Reviews** 

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### THE RECORDING INDUSTRY MAGAZINE

#### JANUARY 1982



#### Cover:

Fantasy's Studio D in Berkeley, California, has been opened for a little more than a year and has already scored a number one album with Journey's 'Escape'. The room is part of a four-studio, plus mastering room complex owned by Fantasy Records.

**Photo by:** Phil Bray

#### VOLUME SIX, NUMBER ONE

The Mix is published at 2608 Ninth St., Berkeley, CA. 94710 and is ©1982, by Mix Publications, Inc. This is Volume Six, Number One, January, 1962. The Mix (ISSN-0164-9957) is published monthly. Subscriptions are available for \$18.00 per year. Sindle or back issue price is \$2.50. Subscriptors outside U.S.A. are \$22-50.

Please address all correspondence and changes of address to the MIX, P.O. Box 6395, Albany Station, Berkeley, CA 94706 (415) 843-7901

Controlled circulation postage paid at San Francisco, CA (USPS 473.870), and at Berkeley, CA (USPS 445.070) The Mix is distributed in recording studies, pro-audio stores, music stores and other related businesses. If you have a recording or music related business and would like to distribute the Mix, please give us a call

Display advertising rates, specs and closing dates are available upon request

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TYPESETTING



We've done a little rearranging to get the new year off to a fresh start. We hope you like the changes. One new touch is a record review column, in which several staff writers will share their views on some of their favorite recent releases. Rather than 'rate' records or take potshots at easy musical targets, we will concentrate on recognizing the quality work, musically and technically, that is currently being recorded.

You may have also noticed that we've been gradually adding more features for professionally oriented musicians. There is a growing awareness by musicians to the technical and business aspects of the recording industry and we will do our best to keep you up to date on the recent developments.

Of special interest in this issue is our console manufacturers forum, where makers of mixing consoles tell us about their top of the line products and design philosophies. This is the longest feature that we have run in Mix, but we think that you will agree it is well worth the space.

Other highlights of the issue include David Gans' interview with the multitalented Lindsey Buckingham, as well as a rundown of the Grateful Dead's personal recording studio.

All of us at the Mix wish you a happy, healthy and prosperous new year.





#### "Engineers, Who Needs Them Anyway?"

Ever since I heard Angela Bofill at the Circle Star theatre in San Carlos, I have been a fan of hers. Last week I was fortunate enough to receive a copy of her latest record, "Something About You", recorded at the Automatt studios in San Francisco by two excellent engineers, Leslie Ann Jones and Ken Kessie

To my surprise, Ken and Leslie (who, by the way, made it possible for us to hear Angela on this record) did not receive any engineering oredits anywhere on the package, and yet, the hair stylist the makeup artist and the fashion designer all got ample recognition in the credits

I've been informed that the producer did in fact submit a complete list of album credits to Arista, the record company headed by Clive Davis, yet someone chose to omit the engineering from the final credits. I believe a great injustice has been done to these two hard working and talented engineers.

They, like other creative artists behind the scenes, rely heavily on their credits for the ad vancement of their careers. Whoever is responsible for this insult has demonstrated a great indit ference and lack of understanding. To think that this person considered the contribution of the hair dresser and the makeup artist more important than that of the engineers reveals an ignorance that cannot be excused.

I have fought for fair representation for engineers on record packages for twenty years now I admit that it is no longer the rule but rather the exception Still I can't help being appalled at the lack of respect shown Leslie and Ken by Arista, who ultimately is responsible for the entire package. Let us hope that this type of practice will soon be a thing of the past.

Fred Catero

Fred Catero Productions San Francisco, CA

#### **North Central Listings**

Your article on Chicago area tacilities was very well written, but your information was in complete. Your article failed to include P.S. Studios, Inc., which houses two 24 track facilities, a mastering lathe, and an Engineering Institute. We pioneered 24 track recording in Chicago and led the pack with automation in 1975.

"Chicago's Greatest Hits" quotes Carl Davis of ChiSound Records live cut Natalie Cole's bid gest record in this city (Chicago), as well as Peobo Bryson." Both albums were recorded at our factlity. In fact we boast more cold records than any facility in Chicago. (e.g. "Flowers"—The

World Radio History

Emotions, "Sun Goddess"—Ramsey Lewis, "Leaving Me"—The Independence )

We would really appreciate equal exposure in future issues as your publication is a vital industry venue. Please let us know how we can help you in this, or any of your endeavors.

Don Burnside Vice President P.S. Recording Studios 323 E. 23rd St., Chicago, IL

#### Dear Mix,

I am sure that we submitted your questionnaire last July. It really upsets me that we were not included in your October issue. We are the biggest, oldest and best studio in this area—ask anyone. All the rinky-dinks got free publicity but we were strangely missed! Is there some way we could be mentioned in a future magazine to somewhat equalize the exposure? I know it could be the post office that goofed, but the omission could have a bad effect on our business. Seems this problem needs to be handled better in the future.

Sincerely, Bud Herzog Audiocraft Recording Co. Cincinnati Ohio

#### Ed note:

We list approximately 1500 recording studios throughout the United States during the course of a year and, as we all know, many things can happen between here and there. We urge all studios who are concerned about their listings to contact us as soon as possible to make sure that they are on our list to receive the listing questionnaire. As a double check, we welcome studio calls to verify that we have received their questionnaires.

#### Re: Mr. Winer's Letter

The low-noise Current Source Summing system described by Mr. Winer in his July '81 letter is proprietary and a U.S. Patent has been applied for

The circuitry shown by Mr. Winer is not correct, but close enough that someone skilled in the art might be able to replicate it. His discussion within the body of his letter to connect outputs of current ratioing VCAs to a summing bus will result in large bus capacitance and instability.

I will be glad to publish real, working circuits, after the patent issues and I'm assured protection. Until then I must keep such information confidential

John H. Roberts President Phoenix Audio Laboratory Inc Manchester, CT 06040

#### Technical Information Series



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knows that loudspeaker array-

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World Radio History

#### Modular Design

Meyer Sound reinforcement loudspeakers are designed as modular systems: full-range building blocks which offer the flexibility to meet a wide variety of demands. This means. for example, that the same product which serves for live music reinforcement in a 500-seat club can be used to make a large array for voice reinforcement in a 15,000seat sports arena. Finally, since the array retains the performance of the modular unit with which it is made. its characteristics are predictable.

#### **User Orientation**

For the professional in the field, dependable real-world performance is the ultimate goal. At Meyer Sound, we direct our efforts in system design and documentation toward making that goal more achievable. If you would like more information on the theory behind our arrayable systems, and how these systems can be made to work for you, call or write us today.

CONFIGURATION

AIM INNER UNITS TO CENTER OF BACK WALL



#### Harrison Marketing Reorganization

Dave Harrison, president of Harrison Systems, Inc., the Nashville-based manufacturer of audio mixing consoles, has announced a reorganization of Harrison's domestic marketing which will affect all of their product sales and support within the United States. The new arrangement will shift console sales from distributors and dealers to factory direct. Says Harrison, "In most parts of the United States, our customers will continue to do business with the same people as before. The difference is that now these people are factory representatives rather than dealers."

To provide a closer customer-manufacturer relationship, Harrison Systems has expanded its marketing staff, which will be headed by Claude Hill, newly appointed vice-president of marketing. Hill comes to Harrison Systems with over seventeen years of experience in audio equipment sales and marketing.

Two additional marketing representatives, Brad Harrison and Eric Johnson, round out the factory-resident marketing staff.

#### Sony Announces New Operating Structure

Sony Corporation of America has restructured its organization here and announced a series of senior management promotions and appointments.

Akio Morita, chairman and co-founder, Sony Corporation, Tokyo, said, "Sony's presence in the United States has expanded rapidly during the past several years. We have been actively building our business in many areas, adding top calibre executives to manage our various operations. We will now structure our U.S. company into five operating groups, each with a great deal of autonomy."

The new structure will be divided into the following functions: marketing and sales, manufacturing, service, engineering laboratories and diversified operation.

The Sony Communications Products Company, with Koichi Tsunoda as president and chief executive officer, will be responsible for sales of industrial video, office products, data products, professional audio and special projects.

"Under the new operating structure, Sony Corporation of America becomes the umbrella for its various divisions and subsidiaries, each having a great deal of autonomy," explained Mr. Morita.

#### American Satellite Signs Contract With Home Music Store

American Satellite Company has announced that it will provide all-digital satellite transmission service for the Home Music Store<sup>TM</sup>, a new home recording service offered by Digital Music Company (DMC), a Washington, D.C.—based firm. The service will provide cable TV subscribers with master tape quality music for listening and licensed recording.

The service, scheduled for operation in July 1982, will be distributed to subscribers via satellite using American Satellite digital transmission technology.

American Satellite will provide a 10-meter earth station at DMC's Los Angeles studio where transmission signals for the Home Music Store will originate. Full receive-only earth stations will be installed by ASC where necessary. Once operational, the Home Music Store will be the first all-digital direct broadcast service of its kind.

Five listening channels will be available for operation once the signal has been cabled from receive points to the subscriber's home, each with its own format (rock, country and western, pop/easy listening, jazz/rhythm and blues and classical/opera). Two additional channels will be available for licensed taping of studio master tapes supplied by participating record companies. One preview channel will transmit new releases and other material, and will also be available for recording. It is estimated that subscribers will save from 20% to 60% over list price.

GESI of Berkeley, CA, is hosting its Bay Area Video Showcase February 3-5, featuring a full line of the latest video products. Workshop and seminar subjects will include the film/video interface, teleconferencing, interactive response, and computer graphics. For more information, call Meredith Moraine at 415/527-7700... Lake Systems Corp. of Newton, MA, has announced the opening of their Connecticut branch office to serve Metro New York and Southern New England, at 127 Washington Ave., in New Haven... Stephen F. Temmer, President of the Gotham Organization, has announced the appointments of Russell O. Hamm to the position of Vice President and National Sales Manager of Gotham Audio Corp. and Paul Goldstein to the post of Vice President, Gotham Export Corp... On January 30th Bananas at Large, in San Rafael, CA, will sponsor a personal multitrack seminar featuring Mark Cohen and Barry Thornton of Fostex. For more information call J.D. Sharp or John McKindle at 415/457-7600... At Fuji's Magnetic Tape Division, John Bermingham has been named marketing manager and Al Bedross has been appointed national sales manager... New England Digital Corp. has announced the appointment of several new distributors for its line of Synclavier II Digital Music Systems. They are: for Georgia and Florida, Stan Solomon, 305/758-5950; Maryland, Virginia and D.C., Nick Koumoutseas, 202/363-1223; and Texas, Peter Spoecker, 512/346-2754... From February 1-3, Audiotechniques, in conjunction with MCI Corp., will present a three day seminar

#### notes

covering aspects of the operation and main." tenance of MCI tape recorders and conscles, to be held at the New York Hilton in New York City. For further information, contact Bob Berliner at 800/243-2598... Harrison Industrial Developments Ltd. of Cambridge, England, has recently announced the formation of H.H. Electronic Inc., an independent sales and marketing firm representing the British firm's broad line of pro audio products. Thomas A. O'Donnell has been named President of H.H. Inc., which is located at 2500 E. Fender Ave., Fullerton, CA, 92631. 714/680-4293... Family Light Music Camp, 31/2 days of workshops, music playing and performance, will take place February 12-15, at the Point Bonita Outdoor Center, near Sausalito, CA. It will be the 18th music camp to be produced by Jan Tangen, guitarist, singer and founder of Family Light Music School. For more information, contact FLMC, P.O. Box 683, Kentfield, CA 94914, 415/459-2862... Spoolie Tunes has been formed to offer music industry career guidance for artists and songwriters. Contact them at 16770 Glastonbury, Detroit, MI 48219 for more information... Malcolm Hill Associates and Hill Audio, a European-based mixing console, amplifier and speaker systems manufacturing company, has appointed Dave Ash to coordinate all the company's American activities. Dave can be contacted in Anaheim, CA at 714/971-3306... Fostex Electro Acoustic Systems, a division of Interlake Audio Inc., has announced the appointment of Paul M. Gardocki as Vice President of Marketing and Development.



### Ed Greene chose Auditronics' stretch 750 for his mobile TV production center ... here's why!

"First, in addition to all the features I need for multi-track recording, I felt this console was the only one properly equipped for TV production."

"Second, Auditronics' transformer circuit design with state-ofthe-art transformer-less specs has the transient response and distortionfree sound I need for the digital decade of the eighties."

"Third, when I'm working live, there's no second chance. With Auditronics reliability, I know everything's going to be right the first time."

If you'd like to know more about why Ed Greene and other world-class mixers prefer Auditronics consoles for recording and postproduction, circle reader service number or contact us at

3750 Old Getwell Rood: Memphis Tennessee 38118 • (901) 362-3750





#### NORTHEAST

The 19 Recording Studio of S. Glastonbury, CT, has recently completed recording and mixdown of New England's hottest "Jitter-bop" group, Eight to the Bar. "This Joint is Jumpin" was recorded live at Toad's Place in New Haven, CT, by the 19's mobile unit. Engineering and production was done by Ron Scalise. Assistants were Jeff McHugh, Jon Freed, Norm Campbell and Steve Fanelli.

At Trod Nossel Recording Studios, in Wallingford, CT, The Actuals were in for a few days recording original songs for their EP; Dennis Most and friends came down from Springfield, MA, to record several songs for release on three singles. Jim Martin, Kevin Read and Tami Gooding were in doing demos. All sessions engineered by Richard P. Robinson.

At Music Designers Inc., Hudson, MA, Randall Barbera is mixing the Scott Folsom LP with Jeff Gilman for Longview Records. Rodger Salloom, whose last release "Out of Worcester" was a regional hit, is recording his new album with Jeff Gilman producing and Fred Mueller engineering.

#### SOUTHEAST

Sweetsong Productions in Parkersburg, W. VA, has just finished a contemporary gospel single for Virginia Pryor and a gospel album for Light.

At Trusty's Tune Shop in Nebo, KY, Hardstreet about to complete 6 songs from which they will pull two of the best for an immediate single release. Jean Meadows finished a single produced by Rodney Richardson and has the master at the pressing plant, United Record Pressing Plant in Nashville, TN. House engineer Michael Cain doing the engineering on both sessions.

Kenny Rogers, who as you may remember recorded all his hits from "Lucille" (1976) to "Coward Of The Country" (1980) at Sound Emporium Studios in Nashville, returned to the studio in November to record some new tunes. The upcoming release will involve a variety of studios and producers. At Sound Emporium, Kenny worked with producer Larry Butler and engineer Billy Sherrill.

From The Bennett House in Franklin, TN, Jimmy Buffett recorded his new MCA album "Somewhere Over China" with Norbert Putnam producing and Elliot Scheiner engineering with Jon Putnam assisting. Current activity at Miami Sound Studio in Miami, FL, include singer Norma Stills working on her latest LP with arranger and pianist Eddy Martinez. Tania Records along with producer Tani Gil, just finished a charanga LP recorded by the group Pata with engineers C. Granados, Juan Covas and Clyde Pender.

At Ardent Recording, Inc., Memphis, TN, Kwick has completed a new album, "To the Point," for EMI records. Producer is Allen Jones with Henry Bush, engineer. The Blackwood Brothers are cutting a new album for Skylight records. The session was produced by Mark Blackwood and engineered by Jack Holder.

#### NORTH CENTRAL

Recent recording activity at Pinebrook Studios in Alexandria, IN, includes: The Bill Gaither Trio and Ronn Huff recording vocals for the new Trio album. Also, Buryl Red—orchestral recording for the Baptist Sunday School Board: are John Bolt, Bob Whyley, Toby Foster, and Jim Shefler.

At Super-Lyc's Recording Studio in Warren, MI, Alux is just finishing tracks for their album following the release of their single with producers Beau Williams and John Jaszcz. Writer/arranger Bugs Bedow is producing a new project utilizing musicians Earl Klugh and Ralph Armstrong with Beau Williams and Greg Riley engineering.

Recent recording activity at Solid Sound, Inc. in Ann Arbor, MI, includes **R**ick Davis completing his latest LP, Dave **Barrett** finishing up his demo and **Jack Mollette** laying down tracks for his new single. All sessions were engineered by Will **Spencer** and **Rob Martens**.

Recording activity at Studio Å, Dearborn Heights, MI. Cut Glass, featuring vocalists Orthea Barnes and Mildred Fayne, laying down tracks for Locust Productions; Jeff Parsons, Jeff Steinburg, and Eric Morgeson producing. Bruce Nazarian teaching a class on recording for Wayne State University. Morgeson at the board for all projects.

#### SOUTHWEST

Pop/rocker/songwriter Bruce Moody is recording his EP at Wooden Studios in Houston, TX. The project includes Richard Morant, Rick Ritchards and Dan Christiansen.

At Goodnight Dallas, in Dallas, TX, Pat Benatar recently completed mixing live performances for The King Biscuit Flour Hour radio program. Engineering the session was Tom Rampart Studio in Houston, TX, has just completed singles for J.W. Weir, Wilson Jay, and E.P. for Z-Rocks. Engineering was Dan Yeaney. The Noise is in mixing their new release with recordist Steve Ames

At Omega Audio, Dallas, TX, the 24 track mobile facility was used recently in a video shoot at Nick's Uptown in Dallas. The showcase club was the site of a cable music pilot produced by Uptown Productions principals John Kenyon, Bruce Jaggers and Steve Moss. The show featured cult rockabilly star Carl Perkins and Joe Ely. Video facilities were provided by Clearwater Teleproductions of Dallas. Director was Giles McCreary.

#### NORTHWEST

At TransMedia, Inc. in San Francisco, recent sessions include radio, TV and AV work for Intel Corporation, a special Warner Bros. records promotion, Pilgram Airlines and the Radio Latino Radio Network. Recent music work includes demo sessions for Mike Fender and Barbara Diggs with Dave Adams engineering and producing both.

At The Winery Recording Studio on Maui, HI, guitarist/composer Bob Bangerter of "Street Talk" just finished his newest song. Violinist Steven Kindler doing tracks for Fantasea (band's name!) for a single.

Recent activity with the Bodacious Audio (San Mateo, CA) remote truck includes Bruce Cockburn recorded "Live" direct to the Sony PCM digital mastering system at the Old Waldorf in San Francisco for a radio special in conjunction with RCA Records and KTIM-FM. Herb Pallant, producer, Paul Stubblebine, engineer, with Lewis Fielder, Robbie Taylor, and Kent Zimmerman assisting.

Mobius Music Recording in San Francisco reports recent album projects completed for Alex DeGrassi on Windham Hill Records, The Dead Kennedys EP, the Menwell Simmons LP on Cherrie Records and Steve Miller's album on Hip Pocket Records produced by Steve Miller.

Activity at Fane Productions, Santa Cruz, CA, includes Bob Cagle mixing upcoming release on Pegasus Records. Engineered by Fred Catero; Gene Barnholdt overdubbing keyboards and mixing a 45 single release, Ken Kraft of Snail Producing, Steve Malcolm engineering.

First week openers at Tres Virgos Studios in San Rafael, CA, were Randy Thornton and Hot Feet. Gordon Mogden engineering with Studio Manager Robin Yeager and staffer Robert

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to withstand the abuse of session to session punishment.

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4 songs for Fogelsong Records, Nashville, Robin Yeager engineering with Bob Missbach assisting

#### SOUTHERN CALIFORNIA

At Skip Saylor Recording, in Los Angeles, CA. L.A. locals The Burgers tracking for S.E.G. Records and Tapes, with producer/bassist Skipper Wise; David Nielsen-guitar, Craig Mesco-drums, and Ed Cohen-keyboards The LP will be released as a collector picture disc

At Group IV Recording, in Hollywood, CA, Dennis Sands and Greg Orloff at the board with Lalo Schifrin scoring MGM film "A Stranger Is Watching"; Dana Kaproff scoring Thursday Production's film "Pandemonium"

At LA M. Studios in Irvine, CA, Denny Correll currently recording his 2nd LP for Myrrh/Word Records with Bill Maxwell producing and Willie Harlan at the board

Recent activities at Pranava Recording Studios, in Hollywood, CA, include the Fowler Brothers doing horn overdubs for the new Plugz album. the Angry Samoans tracking a side of their upcoming album, the Flameouts mixing a single with Richard Sanford of Great Buildings behind the heard

Activity at Gold Star Studios in Hollywood included Herb Alpert working in Studio A. Herb is familiar with Studio A; it's the same room in which he recorded "A Taste Of Honey" and his earliest hits with the Tijuana Brass.

Producer Sam Brown III is currently mixing with

Missbach assisting, California Zephyr in doing , engineer Steve Pouliot the vocal duo Gemini's debut album for M&M Records entitled "Rising" at The Mom & Pops Company Store in North Hollywood, CA. Freddie Perren is Executive Producer



Iren Koster and Teddy Randazzo are the new owners of Overland Recording Studio, Costa Mesa, CA. Iren and Teddy have written, produced and arranged songs for such artists as; Linda Ronstadt, Frankie Valli, The Stylistics, The Temptations, Peter Noone and The Tremblers, The Manhattans, The Clocks, Joe Simon, Jack Jones, Frank Sinatra, and many more. They are now working out of their new fully automated 24 track recording studio Overland With a total concept in helping acts with all of the steps from musicians, arrangements, material and production

Mushroom Studios in Vancouver, Canada, is pleased to announce that they have now completed installation of their new custom built board. This console utilizes all of the tube amps from the previous board, has 48 up-to-date mixing channels as well as a 40 track monitor panel. They have also completed the construction of a new temperature controlled, acoustically adjustable plano room. This new plano room houses both a Yamaha C-7 grand and a Fuehr & Stemmer upright grand

David Rubinson, owner of The Automatt in San Francisco, has named Michelle Zarin as Studio Manager of the Automatt complex. Ms. Zarin has a wide and varied background in recording studio administration, including Studio Manager of the Sausalito Record Plant from its opening in 1973 until 1976; special consultant to Bill Szymczk on the opening of his Bayshore Studio in Coconut Grove; Studio Manager of the Los Angeles Record Plant for three years; consultant to Tower of Power; plus most recently. General Manager of the Sausalito Record Plant.

Sound Patterns DXM, Farmington Hills, MI has recently added a new Eventide Harmonizer along with an Eventide Flanger and Phaser. Loft Delay Flanger, Orban Reverb and de'esser, EXR exciters, Kepex Gain Brains, and EMT 140-S plate reverb. Also installed was a new video system for video demo tapes. The system features <sup>3</sup>4" Umatic, VHS, and Sony Beta formats

Joe Bees has been appointed media services engineer for Sigma Sound Studios, Philadelphia and New York, it was announced by president Joseph D. Tarsia. As media services engineer, Bees will be working directly with Wally Hayman, recently appointed director of media serv ices, in the expanding advertising services of fered by Sigma Sound. His former eight-year association with Baker Sound, Philadelphia, PA, as recording engineer providing full service to advertising agencies and producers, expertly equips Bees for commercial productions, voiceovers for radio, TV and audio/visual utilization. casting, recording, editing and mixing for Sigma's broadening advertising horizons



The Orban 111B Dual Spring Reverb is ideal for

small studios, because it offers the ideal combination of fully professional

sound and affordable price. Orban's unique signal processing, flexible equalization, low noise,

and heavy-duty construction make the difference. Unlike cheaper reverbs, the 111B is a reverb you'll want to live with after the honeymoon's over.

Judge for yourself. If you test the 111B the right way — in a real mixdown situation (not listening to the echo return only) --- you'll find that the 111B's bright, clean sound complements the music, instead of muddying it as even higher-priced reverbs can do.

There are cheaper reverbs — with noise, flutter, "twang" sounds on transients, and questionable construction. There are more expensive reverbs - some of which are disappointing in "real world" situations. And there is the proven 111B - the right sound at the right price for the professional on a budget.

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Need a deluxe broadcast remote mixer? The M267 is ideal for live broadcasts of sports. conventions, other remotes.

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#### Want to expand your sound system?

The M268 is great as an independent mixer or for adding inputs to existing sound systems.

- Built-in simplex power for condenser microphones
- Quieter operation than competing models

#### Need a low cost, versatile PA mixer?

The lightweight. portable M68 is a great buy as a basic mixer.

#### What if input levels vary?

The SE30 is the only combination mixer/gated compressor unit with an adjustable response rate that prevents "pumping."

- Automatic gain riding keeps levels constant
- Lowers background music automatically in paging systems

#### Need an 8-channel mixer, but short on space?

The SR109 is popular in large hotel paging systems, as well as small post-production rooms.

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Manufacturer of high fidelity components, microphones, loudspeakers, sound systems and related circuitry.

# PROGRESSIONS SOUNDSTREAM Looking Into a

Those who have followed the progression of digital tape recording have probably been aware of a small and dedicated company in Salt Lake City called Soundstream. The company was founded by Dr. Tom Stockham, who has been working on the development of various aspects of digital tape recording since 1962. Dr. Stockham is a graduate of the Massachusetts Institute of Technology and has also worked or taught at numerous other universities. Some of the notable achievements of Dr. Stockham and others of the Soundstream staff have been:

- 1962 Study of the practical limits of digital audio.
- 1969 Development of the first high quality digital audio recorder in the world.
- 1971 Development and demonstration of a high quality digital recording system.
- 1972 Demonstrated the mixing of digital audio signals.
- 1975 Demonstrated a 16 channel digital mixing system.
- 1976 Made the first 16-bit digital recordings on tape (uniformly quantized).
- 1976 Developed a "stereo", all digital editing system.
- 1977 Soundstream digital recording services offered commercially.
- 1978 The world's first high quality digital recording that was specifically intended for commercial release from a digital master tape was recorded and edited by Soundstream (disk was released in May of 1978).

Soundstream features digital recording and electronic editing services



which have been a critical element in the production of hundreds of high quality "audiophile" digital to disk recordings. One thing that separates Soundstream from other digital recording services is that the recording and editing equipment is of their own design and manufacture. Soundstream will send their proprietary digital recording equipment and an experienced digital recording engineer to any recording facility or "on location" site in the world.

The Soundstream digital tape recorders will record in 2, 4, or 8 track formats. The Soundstream recorders are not designed to do over-dub type recordings but will record multiple channels in "real time". The Soundstream recording services have found a "niche" in three basic areas: the recording of high quality "audiophile" digital to disk recordings, mixdown of analog multi-track master tapes to digital stereo master tapes and an electronic editing service.

The proprietary Soundstream editing system warrants a special mention as it is unique, more versatile and faster than any other available method of electronic editing. Due to the complexities of digital tape recording most manufacturers do not recommend the splicing or editing by the usual method of cutting the tape with scissors or a razor blade. Instead, editing is done by an electronic process. All of the commercially available electronic editing systems utilize a process of tape copying to perform this editing function. One must manually locate each of the desired takes then record it onto a copy machine with the aid of the electronic editor. This becomes a time consuming and tedious process of winding, rewinding and changing reels of tape. Soundstream features a system that utilizes full computer technology which they call "Instant Access Editing.". It is claimed that edits can be made in onefifth the time of the conventional tape copy method of electronic editing.

All of the desired takes are first digitally recorded into the editing system's memory so that any take can be accessed immediately. Edits can be made in *any* sequence and stored for later use. Edit points can be determined manually or visually by looking at the actual waveform on a screen. A variety of edits are available such as butt, cross, fade, etc. Level changes can be made in or around the edit point. Various types of digital signal processing is available from the editing system, all of this without handling or winding the tape. Edits can be easily auditioned or changed. When all the edits are approved, the master tape is recorded from the editor's memory, all together and all at once.

To utilize the Soundstream editing system, one must go to one of their editing centers. Many feel that this is a worthwhile investment because of the time that is saved and the ease and creativity with which the editing can be performed. There are currently three such editing centers in operation: Los Angeles, Salt Lake City and Gutersloh, West Germany. Additional editing centers are planned for New York City and London, England. The Soundstream editing system will currently edit tapes recorded in the Soundstream, 3M and Sony formats, as well as all analog

formats that are tranferred to digital for processing. In the near future Mitsubishi and JVC tapes may be edited in the Soundstream editing centers. The editing system can be adapted to accommodate any currently available digital recording format regardless of the sampling frequency, number of bits, etc. The actual tape recorder is only used to transfer the recording into the editing system and to record the edited version from the system. Soundstream claims that this process introduces no distortions or degradation to the recorded signal.

In October of 1980 there was a corporate merger of Soundstream and Digital Recording Corporation of Connecticut. At the same time there was also a stock issue. It seems that the efforts and talents of both companies were combined to maximize their potential in the burgeoning digital audio business.

#### CARD STORAGE

Digital Recording Corporation has developed and owns patents on a recorder, player and process for manufacturing a new format for digital audio recordings. It is a system that uses a plastic card of approximately 3" x 5" and the thickness of a credit card. The digital information is placed on the card by a photo-optical process. The card is inserted into a player and remains stationary as a laser scans the card from above. The card will accommodate 45 minutes of "stereo" recorded material per side, a mono signal 90 minutes or a .4 channel signal 22½ minutes per side. In addition, it is possible to have recorded material placed at 10 different levels on each side of the card. This means that it would be possible to make players that could play ten 45 minute 'stereo" recorded progams per side which could be selected and played on an individual basis or simultaneously for more specialized applications.

The card can be warped or scratched and provide no degradation to the recorded signal. To operate, the card is inserted into a slot in the player and pushed up against a glass plate (which will make the card flat) as the card is scanned from above. The laser scanner is sealed. This is an important feature for such a consumer device, (i.e., it is not possible to damage the scanning device by accidentally spilling something on it). As the card itself does not move, this system avails itself easily to a card changer (i.e. no center holes, spindles or rotating disks).

Photo processing equipment is currently available that can be adapted to manufacture these digital playback cards. It is estimated that the manufacturing cost of the cards would be approximately 5 cents each in quantities of 10,000. A mastering machine is being developed by Digital Recording Corporation which will make the original photo negative. This mastering machine is estimated to cost approximately \$10,000 and can be installed in any disk mastering room that has a digital tape recorder. The photo negative will produce an almost endless number of photo positives (cards) with no audible degradation as the number of copies increase. In addition, any number of copy negatives can be made to send to other manufacturing locations with no difference in audible quality to the original. This photo process has no generation losses.

Digital Recording Corporation and Soundstream have plans to show and demonstrate this unit at a press conference which is planned to be held yet this winter. It is claimed that the audible quality of this consumer digital card player will be comparable to that of Soundstream digital master tapes. They expect to have 6 additional prototypes available in the spring. This technology will allow players to be sold to consumers at a retail price range from the low hundreds of dollars to over one thousand dollars. The price of each model will be determined by its available features, audio quality, etc. It is expected that the initial models of

these players will be on the market by mid 1983.

I was informed that the technology exists to allow digital "recording" to be done on these photo-optic cards with a home type recorder/player that would be in the price range comparable to that of a good cassette tape recorder.

At a later date, there are plans to do a videocard player. This card is approximately  $3'' \ge 7''$  and will have onehalf hour of video per side in addition to a "stereo" sound track. There would also be such features as search and find, freeze-frame and repeatable playing between two pre-determined points. A whole new and fresh approach to home video.

Needless to say, it appears that Digital Recording Corporation and Soundstream have a bright future ahead of them. Upon an initial investigation, all elements of the digital player make sense; the performance, features, desirability, ease of operation, storage, flexibility, cost of manufacturing cards, cost of mastering equipment, and so on. If the performance meets its claims and if the equipment and product can be delivered for the prices that are estimated, there is no question that Digital Recording Corporation and Soundstream may indeed have a tiger by the tail.



dbx, Incorporated, Professional Products Division, 71 Chapel St., Newton, Mass. 02195 U.S.A. Tel. (617) 964-3210, Telex: 92-2522. Distributed in Canada by BSR (Canada) Ltd., Rexdale, Ontario.



## **Technical Books Books Overview**

#### by Dennis Buss and Chris Haseleu

There is an old joke about the student coming out of one of those fly-bynight technical schools. When asked about what was involved in his training he replied, "Last week I couldn't even spell engineer and today I are one!" What is not a joke is the fact that today's rapidly changing recording industry requires that the manager, engineer, and would-be engineer acquire a solid basic understanding of the many components of audio production. Fortunately, there are many fine books available to help both the novice and the battle hardened engineer. In this month's column, we are going to review a few of the better ones which might aid the new engineer or studio manager in getting a better handle on the important basics.

Audio in Media by Stanlew R. Alten, Wadsworth Publishing Co., Belmont, CA, 1981, \$18.95. The topics covered include: Sound and Hearing, Sound Studios, Consoles, Turntables, Microphones, Miking Speech, Miking Music, Monitor Loudspeakers, Tape and Film, Tape Recorders, Signal Processing, Location Production, Editing, Production, Techniques and Sound Mixing. This is one of the newest books to be published in this area. It is designed to be used as a text book with lots of illustrations and graphics. Each chapter is summarized. The book is easy to read and takes a nontechnical approach to its subject. Its drawback is that although it covers a broad range of topics; it doesn't get very deep into any of them.

Sound Recording Practice, edited by John Borwick, Oxford University Press, New York, 1976, \$45.00. The topics covered include: Programme Chain, Acoustics, Micro-

phone Circuits, Communication Circuits, Mixing Consoles, Extra Facilities, Monitoring Systems, Magnetic Tape, Tape Machines, Mobil Recording, Equipment Alignment, Maintenance, Speech and Drama, Classical Music, Synthesized Music, Popular Music, Disk Cutting, Disk Manufacture, Tape Duplicating, Sound Broadcasting, Television and Film. This book was put together under the auspices of the Association of Professional Recording Studios. With each topic covered by a different writer, the style, complexity, and guality vary. The terminology used throughout is British. In all, it is one of the most complete of the basic books.

Sound Recording by John Eargle, Van Nostrand Reinhold Co., New York, 1976, \$21.95. The topics covered in-clude: Sound, Psychoaoustics, Stereophonic Sound, Quadraphonic Sound, Microphones, Monitor Speakers and Environment, Audio Control, Magnetic Recording, Signal Processing Devices. and Disk Recording and Reproduction. This book does a good job covering all of the basic topics. It is not afraid to introduce some of the more technical and mathematical aspects of the subjects. Each chapter includes a bibliography. It is, however, one of the older books and some of the examples of equipment systems are dated.

Modern Recording Techniques by Robert E. Runstein, Howard W. Sams & Co., Indianapolis, 1974, \$10.50. The topics covered include: Recording Chain, Sound and Hearing, Microphones, Magnetic Recording, Signal Processing, Consoles, Noise Reductions, Speakers, Session Procedures, Interlocking Tape Machines, Automated Mixdown, Disk Cutting,

and Quadraphonic Disks. This is one of the most popular of the basic books. The style is easy to read and the book is well illustrated. Each chapter has a list of references for further reading. It is also an older text and does include references and pictures of dated equipment. Yet, it remains one of the best of the basic books.

The Recording Studio Handbook by John M. Woram, Sagamore Publishing Co., Plainview, New York, 1976, \$37.50. The topics covered in-clude: The Decibel, Sound, Micro-phone Design, Microphone Techniques, Loudspeakers, Echo and Reverberation, Equalizers, Compressors and Expanders. Phasing and Flanging, Magnetic Fundamentals, Magnetic Tape, Magnetic Recording, Recorder Alignment, Noise and Noise Reduction, Consoles, Recording Session, and the Mixdown Session. This is our favorite from among the basic books. It is very well written and illustrated. It has an excellent bibliography and glossary. It includes a great deal of useful information in its appendices. The only weakness is its failure to cover the subjects of digital recording and automated mixdown.

There are three other books that were not available for review, but which we would like to mention. Handbook of Multichannel Recording, Alton Everest, Tab Book, New York, 1975, \$10.95. The Technique of the Sound Studio, Alec Nisbett, Focal/ Hastings House, New York, 1962, \$17.50. Practical Techniques For the Recording Engineer, Sherman Keene, Op Amp Technical Books, Los Angeles, 1981, \$29.95. This last book is brand new. If it lives up to its prepublication literature, it should be one of the best of the basic books. (See Mix Review November 1981.) Before leaving the area of basic texts, one other very important book should be mentioned. The Audio Cyclopedia, Howard M. Tremain, Howard W. Sams & Co., New York, 1974, \$39.95. This all inclusive book should be in ever engineer's library.

That just about covers it for the basic books. We will be reviewing books on various particular subjects, such as Microphones, Acoustics, Digital Recording, etc., some time in the future. Next month its *Diversifying: Options for the Small Studio.* 

Spectra Sound 1000B, a new industry standard in graphic equalizer performance, reliability, and versatility. To be an audio industry standard requires unequaled performance, reliability and versatility. The Spectra Sound 1000B 10 band graphic equalizer excels in these realms with improvements not previously available to the professional audio industry. The unmeasurable distortion and extremely low noise of the 1000B did not happen by accident, but are the result of design and manufacturing techniques developed over the years.

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\*Specification unweighted, 20 Hz to 20kHz.

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## MIX SPECIAL REPORT

even more crucial one, we felt the time was right to survey many of the manufacturers directly and get their most recent opinions on the topic. Specifically, we wanted to know what features they are designing into their top end systems, and why.

Following are the responses of those manufacturers who elected to participate in our forum. Please realize that this is only a sampling and not a conclusive listing. The order that we have used is according to price range, often a broad range depending on configurations and options.

We hope this forum is useful for those of you contemplating this important purchase. We have included names and addresses for each manufacturer, and encourage you to contact them directly for additional information, or answers to specific questions.

#### Studiomixer II Totally Modular Mixing Consoles Price range: \$3,000 - \$8,500

Studiomixer offers a popularly priced, futuristically designed "Totally Modular" mixer. Being "Totally Modular", Studiomixer affords the user the ability to expand a console from an originally small mixer such as a 4x2 to as much as a 35x8x4x2, simply by purchasing a mainframe at first to accomodate the projected growth requirements of the user, and then by the user's subsequent addition of modules as he needs to... or as finances permit.

Studiomixer is also the only mixer on the market which can be expanded at both the input section **and** output section... the input section up to 44 modules (as dictated by the number of output modules selected) and the three separate output sections up to: 8 independent submasters, 4 independent monitors, and two masters.

Standard features of every Studiomixer II console are:

MIC Module—input & output channel patching, XLR balanced and ¼" phone jack unbalanced inputs, HI Z/Lo Z select switch, phantom power on (per channel) switch, pad switch, gain attenuator and LED overload indicator, 5-control EQ section with continuously variable mid and bass, 2 effects sends, 4 monitor sends, panner, pre-EQ select for the monitor, channel cueing button, 100 mm fader, and up to 8 routing switches per module, depending on the number of submasters chosen. This is an input module, for line or mic use.

TAP (sub) Module—¼" tape send jack, panner, master send control, cueing button, and 100 mm fader. This module is a subgrouping module.

OPM (output) Module—Input & output channel patching, XLR balanced and ¼" phone jack unbalanced outputs, 5-control EQ section as in the MIC module, cueing button, and 100 mm fader. This module, as pre-determined and internally assigned at the factory, is either the monitor module 1-4 or the master module L or R.

Eff (effects) Module—The effects module possesses the assign buttons to route effects to any of the submasters or the L&R house or control room mix, as well as send and return level controls and cueing buttons for monitoring the levels both in and out of effects 1 & 2. Also provided is a 1 kHz lineup oscillator, a pink noise generator, and a headphone level control.

Studiomixer II consoles have full, active metering for every output channel so that the operator can read all output levels simultaneously, as well as a self-analyzing power supply which warns the operator in case of malfunction.

For more information, contact: Amerimex Co., Inc. 10700 Katella Avenue Anaheim, CA 92804 (714) 636-6220

#### Studiomaster 16 x 8 Mixing Console Price: \$6,295

The Studiomaster  $16 \times 8$  mixing console is the most versatile and complex recording mixer in the Studiomaster product line.

The 16 x 8 features electronically balanced inputs utilizing XLR connectors feeding the discrete differential first stage pre-amp controlled by a continuosly variable gain circuit. The  $16 \times 8$ , like all Studiomaster mixers, features a 3 band semi-parametric equalization network with sweepable mid and bass center frequencies. Additionally, each input can be routed to any or all of 3 auxillary busses, 1 pre-fader and 2 post. Input-to-output matrixing is handled by a series of Schadow switches and the pan control. Each channel also features a latching pre-fade monitor switch, post-EQ overload indicator and seperate effects patching.

The 8 independent outputs each are capable of delivering a level of either +4 or -10, depending on the transport used. Each output features dual controls for stereo control room monitoring as well as a mono foldback send. The most unique feature of the 16 x 8 is the console's re-mix patching and routing circuitry. Multi-track masters can be routed back through the mixer without the usual re-patching. All 8 track sends & returns, as well as the 2 track remix sends and playback lines can be connected simultaneously while the mixer's function is selected via 2 mode switches per channel. This allows the multi-track signal to be remixed through the first 8 input channels, leaving the remaining 8 inputs free for overdubbing. During remixing, the final signals can be monitored wet **and** dry allowing the engineer to select the most effective mix.

The 16 x 8 uses extremely low noise components for an overall input noise level of less than -125 dBm and a signal to noise level of less then -90 dBm. Overall distortion is .015%.

For more information, contact: Studiomaster, Inc. 1365-C Dynamics St. No. Anaheim, CA 92806 (714) 528-4930

#### Speck Electronics 800-D Series Recording Console Price range: \$9,700 - \$25,800

During the preliminary stages of research and design for a recording console, all design engineers at some time consider two major points. First is to design and market a console with the basic necessities that the professional audio industry expects, and second, to discover a feature that is so dissimilar and unique that a potential customer couldn't possible consider buying any other console.

Unfortunately it doesn't always work that way because each and every manufacturer has their special innovation that soon becomes a "garden variety" feature in these days of rampant technology.

One undertaking console manufacturers have in common is trying to keep the costs of their standard features and novel inventions in line with today's (and probably tomorrow's) fluctuating economy.

In our quest to design a great console at a manageable price, our research and customer feedback continued to lead us to one simple conclusion... the basic reason a console requires more input channels than your studio's tape tracks is for the return of effects and processing equipment. The Speck Electronics 800-D series console has two complete line inputs per module. The primary input is the same as most consoles, but we've added a second line input section with a second slide fader, 2 band equalizer, pan, and channel mute. This keeps your "mixdown" very organized by returning the processed signal (delay, etc.) right back to the module from which it was sent. With our "in place" solo you can solo the original track on the primary line and the processed signal on the second



line in simultaneously, while maintaining stereo perspective and relative volumes. The possibilities with this dual input module are many, considering that a second multi-track recorder can be permanently interfaced to the recording console.

The 800-D series consoles are available from 8 input positions up to 28 input positions (that's 56 mixable inputs). Each input/output module contains it's own buss output in addition to track monitor level and pan controls. An 800-D I/O module can be thought of as a 1 in x 1 out miniconsole. In other words, if you have 8 input positions, you have an 8 in x 8 out console. 28 input positions will give you a 28 in x 28 out console.

The mainframe is the same on all models; a very sturdy pedestal base with light oak side panels. A 384 point Bantam patch panel is standard and is designed to accommodate 32 tape tracks in any combination. All input/output terminations are made via 8 Elco multipin connector blocks. This allows all console connections to be prewired prior to the delivery and installation of the console.

Prices for the 800-D series start at \$9,700 for 8 input/output, with a com-

plete 28 input/output selling for only \$25,800.

For more information, contact: Speck Electronics 12455 Branford Street, Unit 2 Arleta, CA 91331 (213) 897-4188

#### Tascam Model 16 Mixing Console Price: \$10,500

Designed to meet the critical requirements of professional recording studios, commercial ad production houses, radio broadcast production studios, as well as television and film soundtrack production, the M16 is a practical, highly flexible console. The user can exercise total control over every facet of the multi-track recording and mixing process, thanks to multiple buss assignment possibilities via switches, continuously variable controls and numerous patch points.

For outstanding audio quality, we use discrete high-impedance FET mic pre-amps and high-speed, low noise IC line amps. Hum, buzz, and crosstalk are minimized due to carefully engineered internal grounding, a steel ground plane/support between each module, and a metal "shell" that shields all the circuitry.

The M16 is a full 16 track console with 24 positions and a 16 track mon-



## MIX SPECIAL REPORT

itor section for rough mixes while cutting tracks. Up to three independent stereo mixes (or 6 mono mixes) can be done simultaneously, so there is plenty of capability for performer headphone cue and effects send mixing. (In fact, there is enough flexibility that, without too much effort, 24 track tapes can be recorded, monitored and remixed). You can add echo and other effects to the monitor but not to the actual recording, or vice-versa. To check levels, there are input and buss overload LEDs plus 16 large VU meters with peak LEDs that are switchable to monitor the mixing busses or external meter inputs (such as the output of your tape machine).

The M16 has four band parametric type sweep EQ on every input position, so you can dial in the required boost or cut at precisely the right frequencies. There are also switchable high and low pass filters, as well as phase reverse switches, separate mic and line trim pots, a mic attenuator, and a mic-lineremix switch. On input positions 1-16, "remix" assigns the 16 track tape machine return from the monitor to the input channel, so you don't have to repatch cables for mixdown when overdubs are completed.

The M16's solo system is highly sophisticated, offering both post-fader solo and pre-fader listen (PFL) on the inputs, as well as solo on the 16 track monitor and the 8 effects returns. Solo is stereo, and tracks the pan pots. A feature which had, until now, been reserved for much more costly consoles is the special solo remix mode. When an input is soloed, the effects sends from other inputs normally continue to feed the reverb (or other effects device). Solo remix mode switches the solo logic so you can press an input solo to hear the "original" signal, press an effects solo and hear only the effect derived from the "original" input, or press both solos to hear the combined input program with its effects contribution; because all other effects sends are muted, solo remix mode allows onebutton "A-B" "Wet-Dry" comparisons.

A built-in stereo headphone circuit can be switched to either of the two stereo master modules. The stereo master modules are typically used for discrete control room and studio monitor outputs, but may be used to feed 2 track tape machines, a broadcast transmit point or remote, etc.

Overall, the M16 mixing console is the most advanced Tascam console ever built. It comes with a uniquely formatted, easy to read manual that is packed with useful information.

For more information, contact: Tascam 7733 Telegraph Road Montebello, CA 90640 (213) 726-0303

#### Allen and Heath Syncon Series B Price Range: \$10,690 - \$44,585

The Allen and Heath Syncon Series B is modular in terms of frame size. In its most basic format, Series B is ideal for small 8 and 16 track studios. Yet with no factory modification, the unit can readily be expanded to a 44/24 fully automated console with patchbay.

A compact unit, all the controls of the SB12 input/output module are logically located and grouped for ease of operation by first time clients. Metering is provided by two-colour light column meters at the head of the module. Full facilities are provided for all recording situations—record, overdub, subgroup and remix, with inputs for mike, line and effects return.

The routing section provides 24 assignable outputs for multi-track use, as well as an independent stereo send to the master machine and monitors. It also offers the facility of grouping echo sends and cue mixes.

The P&G channel fader and monitor slide fader are both capable of control during record, overdub and remix. Both have PFL facility and auxiliary outputs to four mixes for effects, overdub and cue mixing.

A comprehensive EQ section on every SB12 module is developed from the highly praised Syncon A series. Two sweep equalizers cover a range of six octaves with an octave of overlap in the midrange. The low-cut filter can be tuned from sub-audio to the lower mid range for deliberate effect on bass sounds. The bass and treble shelf tone controls each have a choice of turnover frequency.

Channel muting is achieved with high reliability solid state control. Post fader design allows continuation of cue mixing while the mike or track is muted.

Solo 'in place', now a standard feature of AHB design, is combined with a master control. This allows selective muting of mikes and groups during record and of tracks plus effects in remix. The solo feature is included in the channel circuit rather than the monitor circuit, allowing more effective and creative control during remix.

The monitor circuit has a secondary priority as an echo return input fader, allowing all echo returns to be included in the soloed mix and eliminating the need for solo pre-selection of each mute section.

The SB21 aux. master and SB31 monitor master are built to the same high standard as the SB12. These two units complete the current system. Like the SB12 they are both fully self-contained of all wiring, electronics and terminations. Service access is of the easiest possible and replacements can

be made in a matter of seconds.

The monitor master houses the main stereo output to the master recorder and has full facilities for controlling studio playback circuits and control room monitors. Master metering is provided, as on the SB12, by an independent pair of two-colour light columns, whose response has been carefully tailored to match the familiar VU standard characteristic.

Talkback is assignable to all console outputs independently, with a level adjust for cue talkback. Activation for all destinations is achieved by a oneshot illuminated button, allowing trouble-free communication with the whole recording team.

Automation systems for recording mix data are under continuous development and changing rapidly. Series B does not tie you to any one system—either now or in the future. Instead, it offers you the choice of the automation package that most suits your budget, your needs and those of your clients. Series B can be supplied to order with the Allison Fadex system or any of the other currently available packages. Alternatively, such systems may be fitted at a later date, by any competent on-site studio engineer.

For more information, contact: Allen & Heath Bronnel, U.S. 652 Glenbrook Road Stamford, CT 06906 (203) 359-2312

#### Hill J-2 Audio Mixing Console Price: \$12,200

J-2 is a result of two years development from the J and K series consoles, exploiting the latest advances in semiconductor and aluminum technology. Facilities include: phantom power, 30 dB pad, line level input, 6 auxiliary sends, 8 band EQ, EQ defeat, channel mute, pre-fade listen, P and G 100 mm faders, 8 independent line outputs with 3 band EQ, A/B switching and independent stereo monitoring, transformerless inputs and a user expandable mainframe.

The mainframe, constructed of custom built aluminum extrusion, is supplied as an 8 group console but not all groups need be fitted initially. Expansion is possible through the use of extension frames connecting to the mainframe via an armoured ribbon cable and a multi-socket fitted as standard. Any size is available, but standard sizes are: 16 x 8, 24 x 8, 32 x 8.

All function switches have status LED indicators, all integrated circuits are of the 5534/1034 family and all modules have a 12-way LED display to indicate signal level. Insert, 3 pole jacks are provided on all input, group and output modules.

A fully regulated, rack mountable

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remote power supply capable of powering up to 48 x 8, is supplied with every mainframe. Extension frames receive their power via the link to the mainframe.

Specifications; Level: max +25 dBm, 0 dB (desk) +6 dBm; Headroom: input stage 39 dB, all other stages 19 dB; Gain: input module -30 dB to +70 dB, overall gain +80 dB; Noise: -130 dB (A) EIN, transformer input; -119 dB (A) EIN electronic input; -70 dB (A) residual; Distortion: typic- 15 k.; Phantom power: 15 volt 1%;

ally less than 0.01% midband THD. 0.04% wideband THD, 0.01% IMD SMPTE; Frequency response:  $\pm 0.2 \text{ dB}$ 20 Hz - 20 kHz EQ out,  $\pm 1 \text{ dB}$  20 Hz -20 kHz EQ in.; Power response: -0.5 dB 20 Hz - 20 kHz; Input Z: 1.2 k mic (100 - 600 ohm balanced), 30 k line (600 - 10 k unbalanced); Output Z: 1.2 k mic. (100 - 600 ohm balanced); Equalization: 8 band fixed bandwidth,  $\pm 15$  dB on centres 40 Hz, 100 Hz, 250 Hz, 700 Hz, 1.75 k, 3.75 k, 7.5 k,



Options: Duncan or carbon track faders, isolating transformer per channel; Price: 32 x 8, Penny and Giles faders, \$12,200.

For more information, contact: Malcolm Hill Associates 2175 Mallul Dr., Suite 256 Anaheim, CA 92802 (714) 971-3306

#### **Toa Electronics** RX-7-328 Mixing Console Price range: \$12,700 - \$20,000

The Toa Electronics RX-7-328 Mixing Console is designed to meet various requirements in concert sound reinforcement and recording applications. "The 7" includes; 4 dual program modules, 32 input modules, 2 group/foldback modules, 2 group/echo modules, 1 talkback module, 1 phones module, and 1 power supply module. "The 7" is built with a frame case that is exclusively designed for this model.

"The 7" input module consists of (on the back); an input connector (XLR) with a ground lift switch, accessory send/receive jacks and a direct output jack. The front of the input module includes; a phantom power supply switch, phase switch, input level switch, trim knob, high/mid/low equalization control, equalizer in/out switch, high pass filter, foldback controls, echo controls, pan pot for the group assign buttons, group assign push buttons, peak LED indicator, fader control and cue push button.

"The 7's" group foldback and echo modules consist of (on the back panel); an auxiliary input with a ground lift switch, accessory send and receive jacks and a sub input connector with a ground lift switch. The front of the group foldback module consists of; a foldback master with peak LED indicator, and equalization for aux. inputs, an EQ in/out switch, group assign buttons, aux. input master, cue for the aux. master, group on/off switch, peak LED indicator, fader control and cue push button. The group echo modules front section consists of: an echo send master with a peak LED indicator, an equalizer for the echo return, EQ in/out, group assign buttons for the echo return, echo return master, cue for pre-echo return in, group on/off switch, peak LED, fader control and cue control.

The program module of "The 7" has on the back panel of the module; program outputs with ground lift switches. The front of the module consists of two identical output sections. Each section consists of; group pick up controls, program master, program on/off switch with peak LED indicator and phones selection switches (L/R).

The phones module has on the

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For a demonstration contact your nearest Pro Audio Dealer or Will Eggleston, National Sales Manager, Wright Microphones, 2093 Faulkner Rd., N.E., Atlanta, Ga., 404/321-3886.



## MIX SPECIAL REPORT



TOA RX-7

back panel; 2 air monitor microphone input connectors and phone out jacks. The front of the module has; a phantom power switch for the air monitor microphones, 2 air monitor trim pots (L/R), push button selectors for monitoring different busses, a phones level control, cue indicator LED and phone output jacks (stereo).

"The 7's" talkback module has on the back a talkback out connector and a ground lift switch. The front of the module has a cluster of buttons to select different test signals (pink noise, 10 kHz, 1 kHz and 400 Hz), and a cluster of buttons to select desired mixing busses. which can be used singly or in combination to route the test signal into the board. Also included is an OSC level control, and OSC LED indicator, a talkback input connector, talkback level control and a press to talk button.

The general specifications of the Toa Electronics "7" are Frequency response: +0 dB, -.5 dB at 50 Hz to 20 kHz; +0 dB, -2.0 dB at 20 Hz to 30 kHz. The total harmonic distortion is less than 0.5% at +4 dB output at 1 kHz; Equalization: low, 100 Hz; Shelving: mid, 200 Hz to 5 kHz variable peaking; and high, 10 kHz shelving. The high pass filter is 12 dB/octave rolloff, switchable for 3 dB down at 60 Hz or 120 Hz. Crosstalk: -70 dB at 1 kHz, input to output. "The 7" has 8 large illuminated VU meters, 4 are for group, and 4 are for program (switchable). "The 7" also has 6 small illuminated VU meters for FB, echo, cue, and TB. The peak LED indicators are built into each module and light up when the output level reaches 10 dB above nominal. Phantom power is 48 V DC and applied to balanced input transformers. The finish is black with Rosewood trim and a padded arm rest.

The Toa Electronics RX-7-328 is an ideal mixing console for either the road or studio use. The modular construction

not only allows ease of servicing, but also allows flexibility in board size. "The 7" has handles for ease of handling, and is shipped in a case for maximum protection.

For more information, contact: Toa Electronics, Inc. 1023 Grandview Drive South San Francisco, CA 94080 (415) 588-2538

#### The Sound Workshop Series 40

Price range: \$13,000 - \$45,000

The Series 40 is the latest link in the evolution of progressive recording consoles from Sound Workshop. The Series 40 offers, in a fully modular format and at a highly competitive price, the sonic excellence, flexibility and wide range of options expected in a true world-class board; and provides the ability to add features such as high resolution metering, adjustable angle pedestal base, choice of 3 EQ formats, VCA input subgrouping, ARMS automation and DISKMIX.

The Series 40 employs a modular design philosophy, allowing numerous initial configurations and the ability to add to the console as need dictates. A clear uncluttered layout insures a quick and thorough understanding of control location and purpose. Signal flow is straightforward and easy to follow, however extensive switching and patching facilities permit modification of the signal flow so that the console may be tailored to the unique or special requirements of any specific session. These facilities also allow the console to be used in many applications other than multi-track recording, such as sound reinforcement and broadcast, video and film post production.

The design of the Series 40 is based on the input/output (I/O) or inline type of console construction. The I/O module is actually an input module with a removable output module, allowing for different metering and output design options. The control room/studio (CR/Studio) module contains the summing and output circuitry for the cue, echo, and stereo mix busses, as well as other essential functions.

The Series 40's electronics are a culmination of previous designs and the latest technology. The Series 40 microphone pre-amp is a fully optimized state-of-the-art design which incorporates the TRANS-AMP LZ (tm Valley People, Nashville, TN), as its main gain stage. Three different equalizer formats are offered. These may be intermixed within a console, to provide maximum flexibility. The MIXX switch offers tremendous flexibility by creating an additional line level return on each input module to be used simultaneously with the standard line input. By depressing the MIXX switch during mixdown, the patch return jack is switched to feed its signal to the monitor level pot, which feeds the track assign matrix. The signal flow created provides for either a line level return to the mix bus or additional pre or post channel sends.

The flexibility of the Series 40 auxiliary send system underlines Sound Workshop's belief that a recording console should in no way be restricted by design to perform in only a limited variety of configurations. The auxiliary send system consists of eight send busses (four mono and 2 stereo) with extensive source and output switch matrices.

The VCA input subgrouping package gives the Series 40 true DC control via external group master faders. The VCA package utilizes the EGC-101 Gain Cell (manufactured by Valley People, Nashville, TN), as its primary element, yielding superior VCA performance.

ARMS automation is a computer controlled "Automation System" designed to interface with the Series 40. While the specific purpose of ARMS is to aid the recording engineer during complex mixdown situations, in reality ARMS functions throughout the recording process providing computer control (and/or aid) to numerous mechanical operations that previously were done manually; or perhaps not at all. ARMS includes Super-Group programs that put all grouping structures and functions under full computer control.

DISKMIX, the automation storage system, furthers the flexibility of ARMS by providing mass storage of mix data on DSDD floppy disks, as well as allowing off-line editing and merging of mixes. DISKMIX operates via SMPTE time code and includes the time code generator and reader.

Specifications: (dBu = dBv ref.

# "What's Your Budget"

Knowing your budget is your first step. At Westbrook Audio, Inc. we design and equip full audio facilities within your budget requirements. In a sea of audio confusion, consult with a company second to none in complete services. Large facility or small, you get the most for your money at Westbrook Audio.

Pictured: Star Track Recording Studio, Tulsa, Oklahoma.

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Electronic design by Deane Jensen, Jensen Transformers Packaging and production design by John Hardy, Hardy Co.

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LOW DISTORTION: .005% THD (20kHz, +24dBv, gain = 20dB, RL = 600 ohms)

HiGH SLEW RATE: 18v/uS,  $R_L = 150$  ohms 16v/uS,  $R_L = 75$  ohms

HIGH OUTPUT: +24dBv, RL = 75 ohms

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41 components on a 1" square pc board

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THE HARDY CO. P.O. Box AA631 Evanston, Illinois 60204 (312) 864-8060 .775 volts rms); Frequency response: +0, -.25 (20 Hz - 20 kHz); Maximum output level: less than +27 dBu; Slew rate: less than 8 Volts/micro-second; Nominal output level: +4 dBu (track, stereo mix); Microphone EIN: greater than -130 dBu (200 ohm source); Distortion (THD & IM): greater than .1% (maximum), greater than .01% (typical); Signal to noise ratio: less than 88 dB.

For more information, contact: Sound Workshop Professional Audio Products 1324 Motor Parkway Hauppauge, NY 11788 (516) 582-6210

#### Auditronics 700 Series Mixing Console Price range: \$30,000 - \$60,000

Addressing the growing demand for the highest quality mixing consoles for television remote truck and production use, Auditronics, Inc. has developed the 700 Series, a line-up of five consoles tailored to meet the increasing synthesis of studio recording and video production technology. All models feature transformerless mic inputs, sweepable 3 band EQ, VCA input control with external control capability, four effects sends and Penny and Giles linear faders. Six channels of input subgrouping are standard, with three more channels available optionally. Group muting is also included

Direct outputs are available on the first 16 or 24 input channels, depending on output configuration, and all models feature two separate mono outputs, a stereo mix output and two foldback outputs. Complete stereo monitoring and talkback facilities are also included, along with a multifrequency calibrated tone oscillator.

All 700 Series consoles are supplied with a new, proprietary output circuit, performing to transformerless specifications while retaining the transformer. Distortion at 20 Hz has been slashed from .4% to .02%—at +24 dBm, phase shift an average 6°, while distortion levels from 50 Hz to 20 kHz are .005% or below, again at +24 dBm.

Mainframe design has been optimized for mobile remote use, with a 14 gauge welded tubular steel frame forming the foundation of a mechanical system of heavy extrusions, 1/4" aluminum plate and 1/8" glass epoxy motherboards. Due to the requirement for small size in remote truck audio consoles, a compact mainframe version is available which offers no compromise in operational features. A Model 750C (32 x 24 with remote patch bay) recently delivered for remote truck use to Unitel Mobile Video in New York contained all standard features in a package only three feet deep and less than five feet long.

The 700 Series was developed with heavy input from professionals working in the audio for wideo wideo in field, and a stretched 48 input model 750C was chosen as the main audio console for a state of the art remote truck finished last fall for Greene-Crowe Co. of Los Angeles. Seventy-five percent of all 700 Series consoles delivered thus far have been placed in the video remote truck and production market, with the remaining twenty-five percent placed in recording studios. To date, 700 Series remote truck consoles have logged over 500,000 miles with a complete absence of any maintenance problems.

Auditronics' recently developed Model 1200 automation system is applicable to all models in the 700 Series. Designed around the Allison 65K Programmer, the automation system encodes all input channels and group masters into automation individually. The 1200 system offers two distinct advantages over conventional automation packages; primarily, input channels and group masters may be muted during automation READ without damaging or altering automation data already encoded on those channels. Secondly, the Model 1200-AC Automation control module allows the console operator to switch from MODIFY (update) mode to READ and back again without touching any of the controls on the individual faders. This means that the operator may complete and update passes on several channels and then place the 1200-AC into the READ mode to review his work along with all other non-muted channels. After the review, the 1200-AC is returned to the MODIFY mode, and all input channels revert to the status held at the end of the previous update pass. This enables sessions to progress very rapidly and with a minimum of effort.

Models available in the 700 Series are the Model 710 (24 in x 16 out, with integral reduced-size patch bay), the Model 720 (36 in x 16 out, with full size integral patch bay), the Model 730 (36 in x 16 out, with remote rack-mounting patch bay), the Model 740 (36 in x 24 out, with integral patch bay) and the Model 750 (36 in x 24 out, with remote rack-mounting patch bay). Models 730C and 750C (compact mainframe) are also available.

For more information, contact: Auditronics, Inc.

3750 Old Getwell Rd. Memphis, TN 38118 (901) 362-1350

#### Neotek Series IIIC Recording Consoles Price: \$37,435

The IIIC are multi-track consoles in 24 track, in-line format. Like all Neotek consoles, they are completely transformerless. Signal flow begins at a proprietary transformerless mic pre-amp whose sonic performance reflects the years of refinement when Neoteks were the only transformerless consoles available. The four-band state-variable multimode equalizer is another Neotek first. Each plug-in input module offers



six auxilliary sends, including a stereo pair, for cue or echo, and the signal flow is such that the multi-track buses provide an additional two dozen echo sends during mixdown.

The Series III was the first console to offer a 3-way solo system: mono solo of each mic channel, stereo solo of every stereo function, and in-place solo. The logic controlled mute function actually removes a channel from the stereo buses, one reason Neoteks are the quietest consoles in actual use. There are two mute groups which function independently or in concert to turn groups of channels on or off, or to allow channels being used as echo returns to remain unaffected by in-place solos. Another function allows an infinite number of mute/unmute operations to be preprogrammed and then executed with the tap of a master switch. These and other logic functions of the IIIC operate without an automation system; for those for whom the additional cost and complexity is justifiable, Neotek consoles may be fitted at the factory or in the field with any of the popular automation systems.

Each multi-track channel and the stereo buses are fitted with a unique high-resolution light-column meter. These are switchable individually or simultaneously to VU or peak response; the stereo outputs are also provided with conventional analog meters.

Input module signal flow and metering is routed by logic-controlled FET switches designed for optimum sonic performance. Three master switches instantly reconfigure the entire console for recording, overdubbing, or mixdown. Although the IIIC offers a multitude of features and functions, the ergonometric design is such that users report an unusually short familiarization period and quickly make the console a creative instrument.

All the bells and whistles would be pointless if the sonic performance were not superlative. In fact, Neotek consoles are known for their sonic superiority; they have been directly compared by the most critical listeners to every other make of console without regard to price and in each case have proven to be quieter and cleaner. This is due to innovative circuit topologies, far fewer amplifiers and literally hundreds of dB's less wasted gain than typical consoles, and, of course, the complete absence of transformers. With open highs, solid low end, finely detailed midrange, and an overall lack of coloration and grit, Neotek consoles represent the audible state of the art in analog circuit performance. The price of 28x24 Series IIIC is \$37,435.

For more information, contact: Neotek Corporation 1154 W. Belmont Chicago, IL 60657 (312) 929-6699

#### Soundcraft Series 2400 Mixing Console Price range: \$38,700 - \$55,500

The Series 2400 is the "top-of-theline" Soundcraft console sold in the U.S. It is a split design modular console which allows maximum flexibility. The Series 2400 is available in a 16 buss, 24 track monitoring version or a full 24 buss design. All monitor/output channels feature full four band equalization, high and low frequency shelving with sweepable high and low mid-range. EQ may be switched in or out, independent of the high pass filter. The same EQ is used on all input modules. With this combination, monitor/output modules may be used to build the final mix or they can even be used as extra inputs when using two tape machines.

All MIC inputs are transformerless, electronically balanced to insure the lowest possible level of noise, excellent transient response and high frequency common mode rejection. A MIC phase reversal switch corrects for out of phase mic pickup in multi-microphone situations. Phantom power is available with the push of a switch.

All potentiometers are 41 position detented, except for pan and amplitude which are center detented. All switches are pushbuttons. Long-travel Penny & Giles conductive plastic faders are standard. And, high resolution bargraph metering (which includes a 27 band  $\frac{1}{3}$  octave spectrum analyzer) is available. The Series 2400 is ready for optional Soundcraft automation which will be available in early 1982.

For more information, contact: Soundcraft Electronics U.S.A., 20610 Manhattan Place, Torrance, CA 90501. (213) 328-2595



## MIX SPECIAL REPORT



#### Harrison MR2/MR3 Series Consoles U.S. price range: \$60,000 -\$200,000

When Harrison Systems introduced its sophisticated digital-analog MR-1 console in 1980, it was intentionally designed to fill the needs of only a select few. From that initial, peerless design, however, has sprung the complete MR (music recording) Series—a range of consoles broad enough, yet specific enough, to fit any studio's needs. First came MR-2 with its wide choice of options and features, allowing a user to "specialize" his console to his own functional and budgeting requirements. Then, in 1981, came MR-3, the most efficient console ever offered by Harrison for complete 24 track recording. Acceptance of the MR Series consoles has already more than paralleled that of their predecessor, the widely acclaimed 32 Series.

In order to offer more usable console for the money, Harrison design engineers identified and eliminated many traditional console inefficiencies in the design of MR-2 and MR-3. Printed-circuit boards were made smaller (thus, less expensive) through the use of double-sided artwork and a more meticulous, time-consuming design process. Seldom-used features (like quad) have been eliminated and replaced with more desirable and useful features. Module width has been reduced to 40.6 mm (1 6 inches), thus reducing metal-work cost for a given console size.

MR-2 is available in frame sizes to accommodate up to 56 input modules; and MR-3, up to 36. Master modules include communications (with groupmaster fader), mix, and monitor.

Each MR-2 input module has 48 assignment buses; MR-3 input modules,

24. MR-2 has four bands of parametric EQ; and MR-3, three. Each band is capable of 10 dB boost or cut at selected frequencies. With MR-2, variable bandwidth is standard on all four bands; with MR-3, it is standard in the mid band and available as an option for the high and low bands.

Major console status changes are executed with one-button ease. Both MR-2 and MR-3 feature six console statuses, including two new ones for broadcasting and for video post-production. With the use of the PING switch, these 6 states can be expanded to 12. Logical switching of the audio is accomplished with dielectrically isolated, high-threshold analogswitching devices (solid state).

MR Series consoles have been specifically designed to meet or exceed the performance of digital recorders. This is achieved, in large measure, through a new multiple grounding system which separates reference, audio, power, logic, and safety grounds. As a result of this multipoint system, the noise floor in the consoles is 3 to 6 dB better than in previous Harrison consoles, and cross talk is typically below the broadband noise floor.

VCA faders, with nine grouping buses, enable the operator to establish VCA groups when recording or mixing. (An alternate, manual-fader version of the input module is also available.) Because all necessary interface harnessing is included, installation of console automation is rapidly accomplished by merely plugging in the system, via rearpanel connectors. The consoles will accept three proven automation systems— Melkuist, Allison, and Harrison's own AUTO-SET.

Much of the efficiency of the MR Series consoles is due to design of the frame. As all active circuitry is contained on the plug-in modules, the frame functions only to house and interconnect modules with each other and the outside world. The frame will accept several different metering systems, including LED, plasma display, or moving coil. MR Series consoles can also be supplied with Harrison's new graphics CRT meter system.

With MR-2, the user may elect to build his own patch bay or choose from Harrison's integral, modular patch bays. In addition, expansion frames are available for all MR Series consoles.

Each MR-2 input module contains eight echo sends; MR-3 input modules, four. Both consoles are equipped with "easy-set" stereo cue sends for varying individual levels to the foldback system. With MR-2, cue sends may be used to double the number of line inputs during mixdown. Also, a sigma-cue overdub monitor is available in MR-2 for cuing



performers in an overdub situation.

Patch points in both MR-2 and MR-3 operate at full line level (+4 dB or +6 dB, as ordered) and are isolated and balanced. EQ insertion can be into either the main or monitor chain. Patchpoint insertion can be either pre- or post-EQ into the main chain, or pre-EQ into the monitor.

These are just some of the features available in the MR Series consoles. For more information, contact:

Harrison Systems, Inc. P.O. Box 22964 Nashville, TN 37202 (615) 834-1184

#### Trident T.S.M. Series Consoles Price range: \$90,000 - \$170,000

The Trident T.S.M. series of consoles was designed some four years ago as a direct replacement for the legendary "A" range which was the original Trident board.

The main criteria to be fulfilled were primarily based on building a console that used integrated circuits and still maintained that sound beloved by "A" range users. The console also had to offer:

(A) Maximum flexibility in complex and constantly changing signal routing requirements.

(B) Comprehensive equalization.(C) High returns on investment to



studio owners as studio rate-cards were not keeping up with inflating console prices.

The company had made its first step into I.C. console design some year or so earlier with the "Fleximix" range and sonically this had proven highly successful as hundreds of existing owners will verify. Rapid improvement in chip technology also offered availability of higher slew rate devices and the company took advantage of such super chips.

Fully modular in design, T.S.M. utilizes three modules to each input thereby allowing a channel to still be used even if a major section of the input, such as an equalizer, goes down. The Trident T.S.M. Series Console

Although T.S.M. is configured in standard format as a split console with separate monitors, it has recently been modified for in-line operation, notably at Record Plant in New York. A number of potential U.S. customers are put off by the separate monitor despite its numerous advantages. T.S.M. is, however, designed such that it can be fairly readibly adapted to an in-line style configuration.

However most studios having made the change soon see for themselves the flexibility of T.S.M.'s separate independent monitor section with full EQ on the monitors.



## MIX SPECIAL REPORT

No sharing of EQ on aux. sends between inputs and monitors. No crossing of each other as producer and engineer set separate and often conflicting mixes.

One of the major innovations is that by utilizing the monitor section of a 32/24 console in mixdown it becomes a 56 channel mixdown board with full throw faders, EQ and auxilliary sends on all 24 extra inputs.

With the advent of automation Trident has worked together with companies specializing in that field and offers two basic systems as standard or retrofit packages—Allison Fadex which has been installed on numerous T.S.M. and Series 80 consoles and the Melkuist GT800 floppy disk based system which is installed on three Trident consoles at this time.

The equalizer on T.S.M. has been cited by almost all T.S.M. owners as the single biggest reason for making the choice. It offers four band graphic EQ on slide faders with variable hi and lo pass filters in addition to switchable bandwidth controls.

General construction on T.S.M. is of the highest standard with full anodised wear-proof nomenclature, circuit identification of all major sections on the P.C.B.'s, 4" x 2" cross members giving aeroplane type strength to the mainframes.

T.S.M. is priced on individual orders against the English pound but at time of writing a 32 input version with 24 buss outputs is priced at around \$98,000

For more information, contact: Trident (USA) Inc. 652 Glenbrook Rd. Stamford, CT 06906 (203) 357-8337

#### Quad-Eight Coronado Console Base price: \$91,000

The Coronado is the top of the line of a range of quality consoles in standard production at Quad-Eight. These units are equal in every performance aspect to the company's finest custom consoles; however, through standardization of design and manufacturing economics it has been possible to achieve highly significant cost reductions.

The Coronado is a 40 input automated console (tape or disk\*) with 24 mixing busses, six automated subgroups and quad mixdown and monitoring facilities. A 32 out version is available. Each channel provides two independent monitor cue mix buss sends, along with four separate mix buss sends, usable for echo send or foldback (input cue). An additional

single or dual stereo cue system may be installed.

The four echo send/return modules feature complete equalization, solo, monitoring, echo chamber, and delay device handling. Each echo channel is also provided with a microphone preamplifier and can serve as an additional input module for line level sources.

Complete, separate control room and studio monitoring facilities are provided. An extremely flexible communication system, capable of serving the complex needs of broadcast, live recording, and sound reinforcement, is also standard.

In addition to complete patching facilities, space is provided on the console top panel for up to 15 auxiliary devices. Bipolar 15 and 28 volt terminals provide power. (Quad-Eight manufacturers a complete line of compressor/limiter/expanders, noise gates, and parametric EQs.)

The console consists of a rugged metal frame with solid hardwood trim, and uses "mother board" construction to increase reliability and assure many years of top-quality performance.

Electronically, the console features a discrete component audio operational amplifier circuit, designed to produce a very high slew rate and extremely low noise. This circuit is used throughout the console in the main signal paths, and is supplemented by the use of IC amplifiers in those stages where ICs provide a clear design advantage. These features, plus the +28 dBm output level capability and +24 dB minimum headroom, make the Coronado one of the cleanest, quietest consoles ever built.

The Coronado incorporates a computer assisted mixing system as an integral feature of the console design. Individual automation controls are provided for each channel fader, channel mute, group fader, and group mute. Mute status and fader positional data are independently stored by the computer, enabling instant return of the channel level after unmuting. Mutes are also assignable to the "Auto Mute" buss for multiple channel muting, unmuting, or any combination of both functions. GROUP SOLO automation may be independently enabled or disabled.

A unique feature of the automation system is the "Auto X" function. This new mode allows the operator to change from one automation mode selection to another without regard to the new or previous fader position. When "AUTO-X" is enabled, the computer sees the present, actual mechanical fader position electrically as 0 dB, producing automatic nulling. This permits subsequent updating of recorded levels without need for prior resetting of fader positions. Also, when returning from UPDATE to READ, or from WRITE to READ, pressing AUTO-X prior to READ will enable a ramping function. This gently brings the VCAs back to the READ level at the ramp rate, if there is a difference between the new and old levels. The ramping rate is factory adjusted for 10 dB/second.

The mechanical layout of the console emphasizes logic and convenience of use throughout. The panels are designed to be far less cluttered than many consoles of lesser capability. There are no miniature knobs or switches and no high profile controls to introduce viewing parallax and confusion.

The logical grouping of colorcoded controls makes it easy for the engineer to disregard those functions which are not required in a particular application. Labeling of controls adheres to concise, standard terminology to make learning the console a simple process. Control labels which pertain only to a specific application have been avoided in favor of more general terms which suggest the full capability of the console's many functions.

Prices start at about \$91,000. For more information, contact: Quad-Eight 11929 Vose St., N. Hollywood, CA 91605 (213) 764-1516

A SMPTE based, dual floppy-disk automated mixdown and editing system is available for installation in any Coronado, either at the time of purchase or as a retrofit later.

#### Studer 900 Series Consoles Base price: \$100,000 (24 channel)

The new Studer 900 Series mixing consoles are designed around an advanced modular concept to allow exceptional flexibility in available options and user applications. Versions of the 900 Series may be built to suit a wide range of recording, sound reinforcement, and broadcasting applications.

The 900 Series features new input modules with more sophisticated, 4-section parametric equalizers. High and low sections are switchable for bell and shelf, and mid-frequency sections are switchable for Q=1 or Q=3. Input modules may also be ordered with either transformer or transformerless microphone inputs, and either transformer or transformerless microphone inputs, and either standard or VCA faders may be specified.

The VCA used in the 900 Series was developed in the Studer laboratories. It exhibits excellent long-term

## Before you invest in new studio monitors, consider all the angles. Typical horizontal

No one has to tell you how important flat frequency response is in a studio monitor. But if you judge a monitor's performance by its on-axis response curve, you're only getting part of the story.

Most conventional monitors tend to narrow their dispersion as frequency increases. So while their on-axis response may be flat, their off-axis response can roll off dramatically, literally locking you into the on-axis "sweet spot." Even worse, drastic changes in the horn's directivity contribute significantly to horn colorations.

#### Introducing the **JBL Bi-Radial** Studio Monitors.

At IBL, we've been investigating the relationship between on and off axis frequency response for several years. The result is a new generation of studio monitors that provide flat response over an exceptionally wide range of horizontal and vertical angles. The sweet spot and its traditional restrictions are essentially eliminated.

The key to this improved performance lies in the unique geometry of the monitors' Bi-Radial horn1 Developed with the aid of the latest computer design and analysis techniques, the horn provides constant coverage from its crossover point of 1000 Hz to beyond 16 kHz. The Bi-Radial compound flare configuration maintains precise control of the horn's wide  $100^{\circ} \times 100^{\circ}$  coverage angle.

1. Patent applied for.



Professional Products Division





And the Bi-Radial horn's performance advantages aren't limited to just beamwidth control. The horn's rapid flare rate, for instance, dramatically reduces second harmonic distortion and its shallow depth allows for optimal acoustic alignment of the drivers. This alignment lets the monitors fall well below the Blauert and Laws criteria for minimum audible time delay discrepancies.

But while the Bi-Radial horn offers outstanding performance, it's only part of the total package. The new monitors also incorporate JBL's most advanced high and low frequency transducers and dividing networks. Working together, these

Polar response comparison of a typical twoway coaxial studio monitor and JBL's new 4430 Bi-Radial studio monitor from 1 k11z to 10 kHz.



JBL 4430 horizontal



JBL 4430 vertical

components provide exceptionally smooth response, high power capacity, extended bandwidth, and extremely low distortion.

#### Judge For Yourself

Of course, the only way to really judge a studio monitor is to listen for yourself. So before you invest in new monitors, ask your local JBL professional products dealer for a Bi-Radial monitor demonstration. And consider all the angles.

James B. Lansing Sound, Inc. 8500 Balboa Boulevard P.O. Box 2200 Northridge, California 91329 U.S.A.



Available in Canada through Gould Marketing, Montreal, Quebec

## **1IX SPECIAL REPOF**

temperature stability, and it achieves use API modules by Datatronix to exoptimum operation between class A and class AB by responding to the input signal level. In addition to level control from an external automation unit (Allison/Valley People compatible), the VCA can also be used for flexible grouping or serve as a built-in limiter/compressor for the input channel.

Studer 900 Series consoles may be ordered with either VU/PPM meters or a bar graph display. Stereo mic and line inputs, monitor mix modules, and line and balancing amplifiers may be added to customer specifications.

The standard Studer 901 design incorporates up to 13 inputs and 4 master units; the 902 has up to 28 inputs and 4 master units. Special versions may be ordered with up to approximately 50 inputs and 24 master units.

The Studer 900 Series will be available for delivery in early 1982.

For more information, contact: Studer Revox America, Inc. 1425 Elm Hill Pike Nashville, TN 37210 (615) 254-5651

#### **API Consoles By** Datatronix, Inc.

Price range: \$100,000 - \$175,000 For more than a decade API audio

consoles have been known for innovative design, simplicity of operation, and reliable performance. Now, through an exclusive licensing agreement, Datatronix is continuing that tradition by furnishing an expanded line of API modular components and consoles.

Rather than being boxed into a stock console with inflexable channel strip design, the API totally modular concept provides virtually unlimited functional flexability and choice of physical location.

Modular design also permits more compact console layouts in which front panels are angled for better visability and all controls may be operated by an average size person while seated. Another advantage of this time proven modular design is the additional strength of the associated egg crate construction. Compactness as well as resistance to shock, torsional stress and sagging make these consoles ideal for use in remote trucks and other portable applications.

An array of input and auxiliary modules is available to configure a system as simple or as complex as desired. For example, Datatronix provides systems as small as a two in by one out portable film mixer, and as large as a 60 in by 48 out automated music mixing console, all made from available modules. Many studios also

pand or upgrade existing consoles, and to build custom systems.

There are electrically and physically compatable modules to provide all console functions including multi-track mix matrix, effects send matrix, masters, etc. There are six different interchangeable plug-in channel equalizers to choose from including the popular three band Model 550A and the new Model 560A ten band graphic. Consoles can be configured for in line monitor or for a separate independent multi-track monitor. Line level patching at all intermediate points permits easy access for cross patching and outboard equipment inserts.

Since each module is designed for optimum performance as a stand-alone unit, stable overall system performance is assured. Typical console specs are: -129 dBm equivalent input noise, 100 dB dynamic range, at least 20 dB headroom, outputs to +26 dBv, distortion less than .05% T.H.D. and frequency response down less than 1 dB at 30 Hz and 20 kHz.

Console mainframes are normally wired for expansion, and add-on input sections may be wired into the system at a later date. Several standard designs are available which combine simplicity and functional flexibility with expansion capability at a reasonable price.

Each console is furnished with complete tip-ring-sleeve patch bays, modular power supply, test oscillator, and VU meters in all outputs. Optional equipment includes producer's desk, tape controls, compressor/limiters, transformerless mic inputs, balanced transformerless outputs, phantom power, VCA grouping, and automation.

For more information, contact: Datatronix, Inc. 2100 Reston Ave. Reston, VA 22091 (703) 620-5300

#### MCI JH-652 Console Base price: \$112,546

The MCI JH-652 console was designed to provide a reasonably priced unit for use with dual synchronized multi-track recorders or in those applications requiring a splitmonitor configuration. Utilizing the same independent module design of the very successful JH-600 Series of mixers, this console provides high quality, solid specifications, and extreme versatility at a comparably low cost.

The JH-652 includes up to 52 totally transformerless input/output modules, physically located as 26 on either side of the central master control section. Each I/O includes 24 track assigns, a 3 band equalizer (parametric optional), HP/LP filters, 6 effects/ foldback sends, stereo image control, and automated level and mute functions. MCI's patented Plasma Display bargraph meters are included for each channel and the mix outputs. Additional VU meters are included for stereo and mono mix. Other standard features included are five echo returns, built-in oscillator/noise generator, complete communications and monitoring facilities, and integral patch bay.

Several features distinguish the JH-652 from any other console presently available. The console functions can be selectively split, allowing creation of separate mix or send systems from either side of the board. Additionally, each channel can be reconfigured during a mixdown situation to allow 24 additional post monitor fader sends via an independent level control, utilizing the channel assignments and what would ordinarly be the channel fader. Six "Wild" automated faders allow automation of pan, sends, or virtually any level or mute function. Inclusion of MCI's "BC" option allows simplified use of the console for direct-to-disk or live mix applications.

Interfacing a JH-652 into either a new or existing studio is also simplified by MCI's use of Tuchel® connectors. Studios may be totally prewired in advance of the console's arrival and troubleshooting system problems are made far easier due to this quick connect/disconnect feature.

Base price for the MCI JH-652-52 including Plasma Display Metering, and level and mute automation is \$112,546 FOB Ft. Lauderdale, FL.

For more information, contact: MCI

1400 West Commercial Blvd. Fort Lauderdale, FL 33309 (305) 491-0825

#### **AMEK Systems** & Controls Model M4000 Cinema Post **Production Console** Price range: from \$160,000

AMEK's M4000 Cinema Post Production Console has been custom designed to general specifications provided by Motion Picture Recording Inc. of Hollywood. The console presented a series of design and development problems and required intensive research over a considerable period of time, by both AMEK and Everything Audio, into industry requirements.

In a market dominated by traditional approach we decided to introduce a level of current technology but not so much as to overwhelm and con-

## TDK SUPER AVILYN NOW MAKES OPEN REEL GO TWICE AS FAR.

No doubt you've heard of Super Avilyn before. It's the remarkable formulation that goes into TDK's outstanding SA and SA-X audio cassettes and Super Avilyn videocassettes. Now TDK's advanced Super Avilyn technology has been applied to open reel.

AG TRIS METAL REEL

It's called Super Avilyn EE (Extra Efficiency) open reel. SA was specially developed for use with the new open reel decks with the Extra Efficiency EQ/bias setting. On these decks, this brand new formulation actually lets you record and play back at half the normal speed. And keep all the full, brilliant sound the finest open reel delivers. Which means that you get twice as much music from a single reel of tape as you could before.

This is due to the Super Avilyn high density formulation. It offers higher MOL and lower bias noise; virtually double the coercivity of standard ferric oxide tapes.

TDK, the company that's redefined the standards of recording tape, now brings you twice as much as you expected. You'd expect nothing less from TDK.



\* 1981 TDK Electronics Corp

## ИIX SPECIAL REPOR

fuse the operator. We have also placed extreme emphasis on ergonomics and useability

We had to strike a balance between new techniques such as use of 24 track machines, single man operation and computer-assistance, and the more traditional ideas of 3-man operation and rock n' roll of multiple mag machines. We have also tried to look forward to use of the desk for video dubbing and stereo TV in the future.

The console is built in a one piece tubular steel chassis with an overall length of 12.5 ft., incremented to 16 ft. by addition of two hardwood furniture producer's wings.

The desk is configured in 3 sections denoted 'dialogue', with 8 inputs; 'music', with 12 inputs; and 'effects', with 16 inputs. The desk may broadly be described as a 36 into 24/8/1 which allows use of a 24 track machine, while giving final stripe dubdowns of up to 8 with a composite to mono optical. Thus, the desk handles such typical formats as 3 stripe, 4 stripe and 6 track Dolby stereo.

Each input module has 3-way divergence panning and 4 band fully parametric EQ with swept hi and lopass filters. All EQ pots have click stops for resetability, and knobs are as large as possible without being inelegant.

Modules are automation ready with VCA faders and DC grouping controls. Each section has 10 DC groups and these can be linked section to section across the desk or used seperately according to operational technique. The channel also gives separate mute encode information.

Input modules also have both solo and PFL controls, and overall the desk has a check (fully positional) solo mode, so that in multistripe formats the exact panning of selected inputs can be followed across the speaker spread. Provision is made for grouping of several inputs into a check solo or, conversely, into a group mute.

The 3 sections have a fully interconnected communications system through speakers mounted in the meter hood. Comms, solo and PFL can be routed to the screen speakers.

Each section has monitor controls from the 8-stripe machine both with master override control from the center (music) section. Located in the center are also master motion remotes for mag machines. Also fitted are many secondary facilities such as clash test, academy filter, oscillator, spreaders, etc., etc...

The desk is equipped with both manual and VCA-controlled graphic EQ's and VCA-assisted automationready guadpots, as well as a number of transfer and 3-stripe keys, some of

which are automation capable. Insert mainframe sizes and metering are points on all input channels have in/out switches.

The console has comprehensive metering. The 8 output busses are displayed on moving-coil VU's duplicated in front of each operator with a single composite VU in the center section. Furthermore, each input has an LED ramp in the meter hood reading channel output or fader DC level as selected from a master switch. Also fitted in each section are PFL, solo and auxiliary busses LED ramps, switchable VU/PPM ballistics with peak overload LED.

The desk has a large jackfield on an umbilical designed for mounting behind the operators. Located in the rack are foley amps and bridging transformers.

We would like to conclude by saying that we maintain a very flexible attitude towards custom requirement in this type of console and in no way wish to impose a set design on the market. Our assumption is that dubbing technique has many personel requirements and AMEK intends to cater exactly to your needs.

For more information, contact: Everything Audio 16055 Ventura Blvd. Suite 1001 Encino, CA 91436 (213) 995-4175

#### Solid State Logic Price range: \$175,00 - \$400,000

While Solid State Logic's SSL4000 E Series Master Studio System performs many tasks and incorporates numerous features not found in other recording consoles, these diverse elements have all resulted from only three fundamental changes in design concept. It is these three advances which distinguish the SSL.

First, all audio and tape machine functions and indicators are logically and physically integrated into a common control surface. Second, this comprehensive network is augmented by micro and mini-computer technology wherever this can improve human/ machine interactions without imposing creative restraints or impairing technical performance. Third, the system is extensively software based, and all hardware design is modularly structured to promote longevity rather than obsolescence, and to permit retrofit rather than large-scale replacement.

The system consists of two main units: the SSL 4000 E console mainframe, and the SSL Studio Computer. Standard mainframe sizes are 40, 48 and 56 I/O module versions, available with either VU, peak, or 200 segment plasma bargraph metering. Custom available to special order. The extensive integral patch bay may be optionally remoted.

The SL611E I/O module has mic, line, group and tape inputs available to the voltage-controlled channel fader and the manually-controlled monitor fader. 32 group outputs and guad, stereo and mono mix busses are provided. Each strip also includes six cue/auxiliary sends, a four band true parametric equalizer plus high and low pass filters, and a dynamics section consisting of an expander/gate and compressor/limiter. All of these units can be switch-selected to either the channel or monitor signal paths in various configurations.

During the remix, the monitor fader can be routed to the mix bus to double the number of line inputs available. It can derive its source pre or post the channel fader (or pre-channel fader, post-channel signal processing), and feed any of the group busses, enabling up to 32 additional echo/effects send busses to be created at will.

Either fader in any I/O module can become an audio subgroup master for any combination of other faders. Additionally, eight DC groups are selectable with a thumbwheel switch recessed into all channel faders, and controlled by eight separate full-width faders located at the console center. These group faders may also be grouped between themselves.

The SSL Total Recall Studio Computer™ is thoroughly integrated with all system elements. Designed to be useful all of the time, rather than only for automated mixing, the SSL System handles all tape machine locating, drop-in procedures, and session data management. It stores the static positions of all I/O module pots and switches in a matter of seconds, and uses a unique realtime colour graphics display to compare stored settings against current status, enabling the most detailed set-ups to be recreated with total accuracy in a matter of minutes. All of this is accomplished independant of the audio chain. The system also provides extensive computer-assisted dynamic mixing of all channel, group and master faders and mutes as well as external effects and events.

Prices range from about \$175,000 to \$400,000, depending on the number of I/O modules, mainframe size and metering and computer complement.

For more information, contact: Musicworks International Inc. 2352 Wisconsin Ave. N.W. Washington, D.C. 20007 (202) 333-1500

The Rolling Stones, Stevie Wonder, J. Geils, Aerosmith, Johnny Winter, Cat Stevens, Larry Coryell, Arlo Guthrie, Don McLean, Gary Wright. What do they all have in common?

#### Long View Farm Countryside Recording Studio North Brookfield, MA Gil Markle—Owner

### and who does Long View Farm look to for Pro Audio...



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LAKE SYSTEMS CORPORATION, 55 Chapel Street, Newton, MA O2160 (617)244-6881 TWX: 710 335-1639



#### by Lindy Barrett

For years, we've been hearing that Seattle would become the next recording Mecca in the country. Whoever made this statement I'm sure had all the best intentions. I: made sense to me. One only had to look up at the expanding Seattle skyline to attest to this fact. Seattle was growing at a faster rate than any other area in the country. The last I'd heard, sixty thousand people were moving here every year. Any way you look at it, that's a lot of folks to entertain, woo with advertising, not to mention the growth that meant to the local record buying populace... in other words, the emergence of a large, growing market.

So it seemed only natural that as California filled up, Seattle would spread its sometimes soggy wings and fly. Seattle has everything. Market considerations aside, Seattle is a beautiful place. With the Olympic mountain range to the west and the snow capped Cascades to the east (skiing within an hour's drive), Puget Sound and the lakes (lots of lakes), this combination of natural playgrounds and panoramic landscapes is unbeatable.

Secondly, Seattle has a very willing population. This area is made up of people who steadfastly refuse to move away. People here have a genuine stake in the area's economic health and growth.

But most importantly, Seattle has had a taste of success in the music business and has been hungering for another mouthful. During the late 50's and early 60's, there were three local record labels in town who had some national success. Dolton Records, which

was distributed nationally by Liberty Records, had the Fleetwoods and the Ventures signed to the label. Both groups had numerous gold records. Another label, Jerden Records, owned by Jerry Dennon (who is the current owner of First American Records here in town) had the Kingsmen signed to his label, as well as Don and the Goodtimes and Ian Whitcomb. The Whalers had a label of their own, Ettiquete, to which a group called The Sonics was also signed. More trivia: The Fleetwoods' first gold record was "Come Softly." They made another record which didn't do as well and then recorded "Mr. Blue" at Audio Recording with ownerengineer Kearney Barton. "Mr. Blue" went gold, too. Kearney, who today records the Seattle Opera, also record-ed "Louie, Louie" by the Kingsmen, and swore to me that there were no dirty words in the lyrics. Personally, I know there must be one somewhere or all those wee morning hours spent at slumber parties guessing the words were a waste.

Sound's good so far, right? Well... after many successes, Dolton Records was purchased by their distributor, Liberty and then moved their offices to L.A. Ettiquete also moved to Los Angeles, and the Kingsmen went through some personnel changes. For whatever reason, Seattle's scene started to disappear.

However, the promise of success remained throughout the sixties and into the seventies as the San Francisco

The Music Source, formerly The Music Farm, is in the process of major remodeling.

scene emerged. Locals say that Seattle started changing in 1974. Production companies were formed, studios sprung up and it began to look like Seattle was having a Renaissance. By the late 70's, however, the boom seemed to slow down as the music business lost its footing. Album sales were dropping, project budgets got smaller, label rosters were trimmed. and new acts were not being signed as readily. With less work available, Seattle's recording scene wasn't able to deliver on its fullest promises. In spite of this, Seattle continued to grow and develop into its current environment. perhaps more stable because it func-


tions independant of the major labels and the financial vagueries of the record market.

Seattle today has, within a sixty mile radius, about thirty studios. Each studio caters to its own clientele, and each has carved out its own niche in the market. For instance, Summit Studios, managed by Bud Tutmarc is a twenty four track room dedicated to the recording of Christian music, both local and regional. Telemation, Lew's Recording Place and Steve Lawson Productions specialize in commercial and voice-over work. Triangle Recording and Ironwood Studios, on the other hand, do general music recording. American Music's 8 track studios provides reasonable rates for original music and demo tapes. Holden Hamilton and Roberts provide high speed duplication facilities. Crow Recording has most recently been involved with sound track recording and post production sound for a locally produced PBS documentary.

What is most interesting is the expansion which has taken place in recent months. Undaunted by the gloomy economic forecasts, studios are upgrading and adding to their facilities both cosmetically and sonically. In some cases these improvements are being made to keep pace with their clients' needs or simply to remain competitive. In other cases, upgrades were made to seduce the advertising agencies into staying in Seattle, rather than running off to New York or Los Angeles. Seattle is aggressively seeking to keep this business at home, even if it takes major construction. It's not surprising... jingle work pays well and on time.





Just 25 minutes from Seattle, Bear Creek Studio offers their clients a unique setting.

One such determined studio, the Music Source, formerly The Music Farm, is in the process of major remodeling. The ceiling has been raised, walls resurfaced, and additional baffling installed with the addition of a live chamber. In the control room is a new MCI console and added UREI equipment. Owners Dave Raynor, Jim Wolfe and Bob Israel feel that these changes will broaden their share of the jingle business and strengthen their EP and album work. The Music Source looks quite attractive and, I'm told, sounds much better. They look forward to providing 24 track facilities at competitive rates.

Another recently upgraded facility, Bear Creek Studio offers their clients a unique setting. The studio is a much rebuilt barn situated out in the country, not more than 25 minutes from Seattle. Current improvements include new floor to ceiling treatment for the control room and the addition of a Trident console. Their equipment compliment makes them compatible with Los Angeles studios, while retaining the charms of a country setting. Owners Manny and Joe Hadlock feel that this has been the key to their success. Like others, Bear Creek supplements their album work with jingle production.

New and improved applies to several other local tracking rooms. The new 24 track Triad Studio, designed by Dick Maltby, has recently opened in Bellvue. The Recordatory, an 8 track operation in downtown Seattle specializing in music and commercial production, is also breaking in their new room. And very soon to open, as of this writing, is Kerry Leimer's Tactical Sound, an 8 track room in Seattle that will promote electronic music as well as commercial production.

Tailoring one's studio to fit the

changing market seems to characterize the eighties. Kaye Smith Studios, owned by none other than Danny Kaye and Lester Smith recently remodeled Studio A to the taste of producer Mike Flicker (Heart) who brings much of his work to the studio. Also of note, Steve Lawson of Steve Lawson Productions is in the process of adding a Jeff Cooper designed room which will feature a ground up approach tailored to the studio's clients and their needs. These commitments illustrate the strong faith in the future that is typical of Seattle's recording studios. For a more complete list of Puget Sound area facilities, please consult the Northwest listings in this month's Mix.

While the recording industry in Seattle is still young, it is also becoming more active. On the plus side, it's beginning to blossom into a stronger local market for commercial and jingle work and EP and album projects. Although the total scene does not rival the larger centers to the south, it is now possible to produce a high quality product locally and to do it with the reduced costs inherent in staying home. Seattle also offers reasonable and attractive facilities for guests in town who wish to sample the city's charms and enjoy the advantages of a competitive studio environment. And, if Seattle does become Mecca to the industry in the years to come, nobody's likely to be shocked or disappointed, as we've all been working really hard to make our dreams come true. Like Mom used to say: "It's great to play in the rain, just don't forget your galoshes."

A note of thanks to everybody who filled me in on Seattle's history and future prospects, and with apologies to those who didn't get mentioned.

World Radio History

# STUDIO LOCATION INDEX NOR ſHW

All studio information listed has been supplied to the Mix by studios responding to questionnaires mailed in October, 1981. People, equipment and locations change, so please verify critical information with the studios directly. The Mix does not take responsibility for the accuracy of the information supplied to us by the studios

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Parre

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4H

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# Exceptional reproduction. Without exception.

For mastering and duplicating applications, you need audio tapes that are capable of flawless and dependable reproduction—all the time, under all circumstances. Editing and recording sesions are very demanding on all tapes. Maxell is made to take this kind of punishment, and then some! Our tape is manufactured with the studio engineer in mind, providing all the advantages of our most advanced tape technology.

You can depend on our state-ofthe-art magnetic oxide formulas that can handle every signal with plenty of headroom to spare. And because of special calendering techniques, our tape finish is mirror-smooth, virtually eliminating dropouts.

The advantages of Maxell audio cassettes and professional open reel product don't end with our superior tape. Our cassette shells and take-up reels are manufactured to tolerances far exceeding industry standards. They silently and dependably transport the tape without stretching, jamming or breaking. Not only do you get a more faithfully reproduced signal with Maxell tape, you get to keep it longer, thanks to our advanced binder and mixing techniques. There are many other advantages to using Maxell. To discover more about Maxell's superior products, call one of our Regional Sales Offices: Eastern Office, Moonachie, NJ (201) 440-8020 Midwestern Office, Des Plaines, IL (312) 296-1010 Western Office, Los Gatos, CA (408) 395-1998.





### The Professional Advantage

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 ACCESS AUDIO also REMOTE RECORDING 71 Langton, San Francisco, CA 94103 (415) 543-6994, noon-5; 863-4908, evenings Owner: Perry Lancaster Studio Manager: Perry Lancaster

### ARTICHOKE PRODUCTIONS

(Formerly Extraneous Static Refinement Systems) 4114 Linden St., Oakland, CA 94608 (415) 655-1283. Please phone for appointment. Owner: Paul Kalbach Studio Manager: Paul Kalbach, synthesizer specialist

• BIG EAR RECORDING also REMOTE RECORDING 801 McClay Rd., Novato, CA 94947 (415) 892-5911 Owner: Mel Martin Studio Manager: Mel Martin

 BLUE NOTE STUDIO (New studio under construction.) Mailing address: 172 Bernardo St., Sunnyvale CA 94086 Owner: Brady Austin

 BODACIOUS AUDIO INC. ONLY REMOTE RECORING 4114 George Ave., Suite 1, San Mateo, CA 94403 (415) 573-5297 Owner: David Haynes, Herb Pallant, Roger Wong. Studio Manager: Herb Pallant Engineers: David Haynes, Brian Hauck, Paul Stubblebine, in

dependent engineers welcome

Dimensions of Studios: The world Dimensions of Control Room: 6' x 14'

Tape Recorders: Sony PCM Digital Audio System 2 track; Ampex ATR-104 4 track, Ampex ATR-102 2 track; Ampex ATR-700 2 track; Sony 850 2 track; Sony cassettes

Mixing Consoles: Sunn custom Magna 5000, 24 in x 4 out, Sunn 2216. 16 in x 2 out, Yamaha PM-108 Monitor Amplifiers: Threshold Stasis 2, Cas 2, Leach, Bodacious

Monitor Speakers: Dayton Wright XG-8 MK III, Rogers LS35A Auratones, Custom Bodacious.

Other Outboard Equipment: dbx 160 compressor/limiters, dbx 117, Dolby A, Dolby B, Soundcraftsmen EQ, 4 channel reverb, other equipment available upon request.

Microphones: Custom PZM, Schoeps, Shure, AKG, Electro-Voice, RCA, Sennheiser, other specific microphones available

upon request Instruments Available: On Request

Rates: Furnished upon request. Extras: Closed circuit TV system, set up for audio/video SMPTE locked recording, complete album and demo packages, "live" digital or analog mastering to disk pressing or tape duplication This includes arranging, post production editing, photography,

album cover design, and distribution.

Direction: Some of our recent clients include Johnny Van Zant (Polygram Records, KSJO), SVT/The Mutants (MSI Records), Martin Mull, John McEuen, The Casuals "Live" album, Back in the Saddle, Chuck Wagon & the Wheels, Townhouse Productions. and Laub & Cirimelli Come into the high quality world of Bodacious Audio where you can find tomorrow's technology today. Call us today for a free quotation

 CAE SOUND also REMOTE RECORDING 1150 E. Santa Inez, San Mateo, CA 94401 (415) 348-2737 Owner: Peter Miller Studio Manager: Michael Morales

Direction: CAE's main business is fast, professional service to the musician. We repair and customize most musical equipment, and perform factory authorized warranty service on most major lines We will fix your gear quickly and at reasonable cost, without all the hassles you've experienced at the "fix-factories" and little amateur shops. We're professionals who know how you want to be treated. We do not do tape decks, but we can solve most of your other equipment problems for you. When you need a specialist, call CAF

 CHONK MOONHUNTER also REMOTE RECORDING 2721 Bellaire Place, Oakland, CA 94601 (415) 436-6978 Owner: Curtis Choy Studio Manager: Curtis Choy.

• CHRISTIAN MUSIC INDUSTRIES (C-M-I) also REMOTE RECORDING Box 74, Renton, WA 98057 (206) 271-4554

Owner: Tom Thrasher Studio Manager: Tom Thrasher

CORY SOUND 310 Townsend, San Francisco, CA 94107 (415) 543-0440 Owner: Phil Markinsor Studio Manager: Phil Markinson

 FRED FOXX MUSIC CO./STUDIO IV also REMOTE RECORDING 406 Kehoe Ave., Half Moon Bay, CA 94019 (415) 726-3725 Owner: F.H. Nesbitt, Jr Studio Manager: V A Nesbitt

 HARBOR CENTER GUITARS 555 Francisco Blvd., San Rafael, CA 94901 (415) 459-0280 Owner: Bo Bryani

• HI SPEED TAPE also REMOTE RECORDING 940 Howard St., San Francisco, CA 94103 (415) 543-7393 Owner: Mieuli & Associates Studio Manager: Michael Baird

• IN WITHOUT KNOCKING also REMOTE RECORDING 14536 Eastern Ave., Guerneville, CA 95446 (707) 887-2328 Owner: Jack Ellis

 LEW'S RECORDING PLACE also REMOTE RECORDING 1219 Westlake Ave. No. #115, Seattle, WA 98109 (206) 285-7550 Owner: Lew J Lathrop Studio Manager: Cary R. Wakeley



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 MELON STUDIO P.O. Box 22504, San Francisco, CA 94112 (415) 665-6566

Owner: Bobin Woodland

Studio Manager: Robin Woodland Engineers: Robin Woodland Assistant Engineers: Linda

Stonestreet and Charlotte Seekamp

Dimensions of Studios: 20' x 20' x 8

Dimensions of Control Rooms: 8' x 16' Tape Recorders: TEAC 3440 4 track, (2) TEAC A334OS 4 track, TEAC 1230 14" track stereo, (4) Pioneer CT F500 stereo

classentes Mixing Consoles: TEAC/Tascam Model 3, 8 in x 4 out, TEAC Tascam Model 2 MB, 6 in x 4 out

Monitor Amplifiers: (2) NAD 3020 integrated amps, Dynaco SCA 80Q integrated amp Monitor Speakers: Dynaco A25-XL's, Auratones

Echo, Reverb, and Delay Systems: Hammond custom stereo

reverb tabe delay, MXB Stereo Chorus

Other Outboard Equipment: dbx 124 and 122 noise reduction, (10 channels), ADC graphic EQ, (12 channels), dbx 160 com pressor/limiter (2 channels), Pioneer PL 12D II turntable, Pioneer SE 405 headphones

Microphones: Sennheiser 421s' Shure SM-57s and SM-58s, AKG SE 5Es, direct boxes

Instruments Available: Krakauer 6' grand piano, Traynor Twin" amp, Klira bass guitar, Korg electric tuner, Morley Echoplex, congas

Rates: Recording, editing, mixing, dubbing \$14.50/hr, days \$16.50/hr, evenings and weekends: \$12.50/hr, 50 hours or more Hands-On-Recording Workshop, \$175 for 30 hour course Call for our special real-time cassette duplicating rates. Extras: Professional production consultation, including session

planning and budgeting, arranging, record manufacturing and distribution. Great discount price for blank tape. Referrals for top quality studio musicians

Direction: After 10 years, still double 4 track (did you know the Beatles Sgt. Pepper is a 4 track recording?)—and still making high quality albums, singles, radio spots, soundtracks and demos Come see and hear for yourself: One of San Francisco's first "cheapie" studios. Melon is a comfortable place providing quality tape production in a friendly, supportive and educational at mosphere Call for an appointment to inspect our facilities and plan your project. Also check out our super duper cassette duplicating and our Hands On Recording Workshops!

 PINE APPLE STUDIOS also REMOTE RECORDING P.O. Box 1192, Philomath, OR 97370 (503) 757-8702 Owner: Clayton Ashley Studio Manager: Henry Zellers



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• REAL TO REEL RECORDING 1135 Mill St., Eugene, OR 97401 (503) 485:5977 Owner: Chiff Nagler Studio Manager: Chiff Nagler

RECORD WEST
1424 Wikiup Dr., Santa Rosa, CA 95401
(707) 526-7361
Owner: Bruce Bond, Elvin Duncan, John Rudolph
Studio Manager: John Rudolph

### SILVER LABEL RECORDING also REMOTE RECORDING 305 Melville, Palo Alto, CA 94301 (415) 321-5776 Owner: Cherry Productions Studio Manager: John R. DiLoreto, M. Eng.

• SPEED OF LIGHT VIDEO PRODUCTIONS also REMOTE RECORDING 2430 JOnes St., San Francisco, CA 94133 (415) 441-7806 Owner: Joe Van Witsen Studio Manager: Joe Van Witsen

### • STEADY MONEY PRODUCTIONS also REMOTE RECORDING P.O. Box 2098, Kings Beach, CA 95719

(916) 546-2956 Owner: Eddie Lee, Chris Fitzhugh, Shirley Ord. Studio Manager: Eddie Lee Direction: Newly located on Tahoe's North Shore, our studio under construction since last fall is expected to be completed by midlanuary. In addition to the production of commercials and demos in our studio, we have recorded and provided sound for various groups in the Tahoe area. We have scheduled to upgrade our equipment in 1982 to provide 16/24 track service w/continuing emphases on "live" on location recording and television production.

STUDIO B PRODUCTIONS
 P.O. Box 715, Berkeley, CA 94701
 (415) 841-6342
 Owner: Studio B Productions
 Studio Manager: F X Windorski

### SUNSHINE WIZARD PRODUCTIONS also REMOTE RECORDING 7935 Fremont Ave., Ben Lomond, CA 95005

7935 Fremont Ave., Ben Lomond, CA 9500 (408) 336-2494 Owner: Errol G. Specter Studio Manager: Errol G. Specter

### TAKE A CHANCE PRODUCTIONS also REMOTE RECORDING P.O. Box 6, Orinda, CA 94563 (415) 524-5188 Owner: Michael Zeitsoff Studio Manager: Michael Zeitsoff Engineers: Michael Zeitsoff, Michael Gardner, Jack Clark Dimensions of Studios: 13' x 16' Dimensions of Control Room: 7 x 10 Tape Recorders: TEAC 3440 w/variable speed, TEAC 5300 (2 TEAC A103 casset Superscope C205 cassette Mixing Consoles: TEAC Model 2, 6 in x 4 out, Tascam Model 1, 8 in x 2 out Monitor Amplifiers: Marantz 140, Advent 300 Monitor Speakers: JBL 4311, Auratones, custon Echo, Reverb, and Delay Systems: Roland Space Echo (on re-Other Outboard Equipment: Intersound RV100 parametric EQ and reverb, Soundcraftsmen 20.12A 10-band EQ, Roland Rhythm Arranger, compressors, 4 channel dbx Microphones: SM-56, SM-58; AKG D-1000E, RE-20's; special mikes on request Instruments Available: Wonderful 1893 Whitney upright, Fender Rhodes 77 stage piano MKII; Guild F112 & (12-string). Rates: \$15/hr. block rates available • TAPE SERVICE UNLIMITED, (Dick Vance Studio) also REMOTE RECORDING 3249 Grand Ave., Oakland, CA 94610 (415) 834-6912 Owner: Walt Lee Studio Manager: Walt Lee

• THIRD EAR SOUND CO. also REMOTE RECORDING 1507 Hillcrest Rd., San Pablo, CA 94806 (415) 233.2920 Owner: John Hauschild Studio Manager: John Hauschild **TRACK** The Northwest

• 3-B PRODUCTIONS also REMOTE RECORDING 701-16B Kings Row, San Jose, CA 95112 (408) 298-1383 Owner: Kevin Boone Studio Manager: Alan Lyon

• TRANSMEDIA, INC. also REMOTE RECORDING 445 Bryant St., San Francisco, CA 94107 (415) 495-REEL Owner: TransMedia, Inc Studio Manager: David B. Adams Engineers: Dave Adams, Brian Zimmerman Dimensions of Studios: A: (vocal) 15' x 10', B. (music) 25' x

Dimensions of Control Room: A 25' x 15', B 12' x 30' Tape Recorders: Ampex/Inovonics 351.4 track, (2) Revox B 77 2 track, (3) Ampex PB 10 full track, TEAC 3300.2 track, Akai X 355-D 14' track, (4) Sparta MC 104 mono cartindge Mixing Consoles: Speck 800.C, 16 x 8 x 2, RCA 76-B2, 6 in x 2 citi

Monitor Amplifiers: Fisher 400 tube Monitor Speakers: JBL 4311, Fisher ST 750, Auratone SC

Echo, Reverb, and Delay Systems: Fairchild 668 reverb Cohe Outboard Equipment: CNS Audimax comp/limiter (modified) custom de esser, various outboard graphic EQs, turn tables, slide-chains, cassettes

Microphones: Sennheiser MD 421s, Electro Voice 668, Calrad 10.6s, and various others Rates: \$50/hr

Extras: Complete multiple "Real-Time" duplication facilities for reel to reel and cassette. Complete high speed cassette duplication. "Limo" service for ad agency personnel. Full commercial talent agency on premises for casting services. Two complete sound effects libraries and three complete music libraries. Direction: Directed exclusively at the advertising industry. We

Direction: The test exclusive an ine accellaring industry we have truly become the alternative source in San Francisco. From simple voice overs to complete jungle productions, we have won numerous awards for excellence in recording and production. Our remote music recordings are considered by many to be cleaner than many in studio recordings because our engineering practices, both in and out of the studio, are the highest in town. Regular clients include. Record Factory, Oakland Tribune, Cunn ingham & Walsh, Radio Latino Radio Network, Torree Wines and many more. At TransMedia, our unbelievably fast turn around and our imperciable record of client services has made us the alternative source for local, regional and national commercial production.

### • TRANSPARENT RECORDINGS ONLY REMOTE RECORDING 883 Golden Gate Ave., San Francisco, CA 94102 (415) 563-6164

Owner: Marian Lolly Lewis

Direction: Transparent Recordings is committed to the highest quality in live music remote recording Technical excellence (Studer mixing console, Technics 2 track master recorder), sup ports the recording of music in ensemble and in performance Experience in all styles credits include the San Francisco Percus sion Finsemble, Bidge String Quartet, and California Bach Society as well as local club bands and live broadcast engineering

### AL VERDO ASSOCIATES INC

also REMOTE RECORDING 725 Second St., San Francisco, CA 94107 (415) 957-1131 Owner: Al Verdo Studio Manager: Dave DeMont luzin

 WALKERSOUND also REMOTE RECORDING 1874 Carlotta Dr., Concord, CA 94519 (415) 686-4347 Owner: David I. Hodtwalker Studio Manager: David L. Hodtwalker

• THE WORKS also REMOTE RECORDING 2330 English Ct., Walnut Creek, CA 94598 (415) 933-8562 Owner: Thomas W. Size Studio Manager: Thomas W. Size

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•• AMERICAN MUSIC RECORDING STUDIO also REMOTE RECORDING 4450 Fremont Ave. No., Seattle, WA 98103 (206) 633-1776 Owner: Andy Aldrich and Reese Marin Studio Manager: Andy Aldrich and Reese Marin

### •• APPLEWOOD RECORDING STUDIOS 4542 49th S.W., Seattle, WA 98116 (206) 932-6348 Owner: Harlan Michael Studio Manager: Harlan Michael

### • APR STUDIOS

235 S. Oakdale, Medford, OR 97501 (503) 772-9748 or 773-3988 Owner: Skip Bessonette Studio Manager: Skip Bessonette

### •• ARCAL PRODUCTIONS

2732 Bay Road, Redwood City, CA 94063 (415) 369-7348 Owner: ARCAL, Inc Studio Manager: Sal Viola

### .. ARMY ST. STUDIO/BSU PRODUCTIONS also REMOTE RECORDING P.O. Box 31425, San Francisco, CA 94131 (415) 821-6962 Owner: J.A.K. Enterprises Studio Manager: Lester Gass

### ASTRAL SOUNDS RECORDING

482 Reynolds Circle, San Jose, CA 95112 (408) 294-5153 Owner: Jeff Tracy Studio Manager: Jeff Tracy

2747 Hillegass Ave., Berkeley, CA 94705 (415) 843-2049 Owner: John Mallinckrodt

### Studio Manager: John Mallinckrodt

Direction: Specializing in crystal clear demo production for songwriters and solo performers. We provide first class engineer ing and help with production, arrangements, and instrumentation at no extra charge

•• AUDIO PRODUCTION STUDIO 7404 Sand Lake Rd., Anchorage, AK 99502 (907) 243-4115 Owner: Creative Productions, Inc Studio Manager: Bruce Graham, Chief Engineer Engineers: Bruce Graham, Neal Thomas

### Dimensions of Studios: 19' x 24'

Dimensions of Control Rooms: A 19' x 14', B 111/2' x 10' Tape Recorders: Otari MX 5050-B 8 track; Otari MX-5050-B 2 track; Revox A 77 mono, Revox, Tascam, Technics, Sony dub bing machines, Sony TC-854-4 4 track

Mixing Consoles: Sound Workshop 1280-B. 12 in x 8 out, TEAC Model 5 8 in x 4 out Monitor Speakers: IBL, Advent, Altec

Echo, Reverb, and Delay Systems: Orban 111B reverb. MXR DDL, MXR flanger/doubler

Other Outboard Equipment: DBX Type I noise reduction, dbx 160 compressor/limiter, (2) UREI LA-3A, Kepex, Gain Brain, Or-ban 622B parametric EQ, Orban 516 EC sibilance controller, MXR pitch transposer, SAE stereo graphic EQ

Microphones: (2) Sony C-37P; (2) AKG 414, (2) Beyer M-500, and assorted Sony, Shure, E-V and Beyer Instruments Available: Bass guitar, 6' Steinway piano, most other instruments available on request at reasonable rates

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

### •• AUDIO RECORDING, INC. 4718 38th Ave. N.E., Seattle, WA 98105 (206) 623-2030 Owner: Kearney W Barton

### •• AUDIO TRANSFER RECORDERS also REMOTE RECORDING 3327 Mt. Diablo Blvd., Lafayette, CA 94549

(415) 283-4094 Owner: John, Peter and Duncan Rowe, John Christensen Engineers: Richie Moore (chief), John Rowe, Peter Rowe, Dun-

can Rowe (staff) Dimensions of Studios: 19' x 22'

Dimensions of Control Room: 17½ x 19 Tape Recorders: Scully 284 8 track, Scully 280 2 track, Pioneer TF 900 cassette

Mixing Consoles: Sound Workshop Series 308, 16 in x 20 out Monitor Amplifiers: Crown DC 300A, Symetrix HA-10 Monitor Speakers: UREI Time Align Model 811A

Echo, Reverb, and Delay Systems: MasterRoom XL 305 Fair-child spring, DeltaLab DL-1, MXR doubler/flanger

Other Outboard Equipment: UREI LA4 limiters, Furman parametric EQ, UREI 1176 limiter, Symetrix noise gate, and many others on request

Microphones: Neumann U-87, E V RE-20, DS 35; Shure SM-57, 53, 545, AKG 451-E, RCA DX.77, Sony C-22, C-37A, C-55 Instruments Available: Wurlitzer baby grand, bass, guitars, Fender Twin, Tremolux, Peavey Backstages, Dwarf, drums Rates: Call for rates

Extras: Nice quiet relaxed atmosphere for the artist to exercise creative freedom. You tell us what you need Direction: Since opening in June 1981, we have recorded such

diverse groups as The Tickets, Tattoo, Fryday, The Rayons, Metropolis, The Pork Swords, Our rates may be a little higher than other 8 tracks studios around the Bay Area, but when you record with the quality which major labels consider masters, it's worth it Our goal is to further your career and our reputation through quality recording

### • AUDISSEY SOUND ONLY REMOTE RECORDING

1020 Auahi St. Bldg. #6, Honolulu, HI 96814 (808) 521-6791 Owner: Gerald Luke, Rick Parlee Studio Manager: Rick Parlee

### .. BAY RECORDS

1516 Oak St., Suite 320, Alameda, CA 94501 (415) 865-2040

Owner: Michael Cogan

Studio Manager: Michael Cogan

Engineers: Michael Cogan

Dimensions of Studios: 30' x 40' Dimensions of Control Rooms: 18' x 12'

Tape Recorders: Ampex MM1000-8 8 track, Ampex AG350-2

2 track, Sony 854-45 4 track Mixing Consoles: Custom built

Monitor Amplifiers: McIntosh MC-60

Monitor Speakers: JBL 4311

### Echo, Reverb, and Delay Systems: MICMIX Super C Other Outboard Equipment: dbx 160 compressor, SAE

graphic, Metrotech graphic Microphones: Neumann U-87s, AKG D224E, C451E, Beyer M260, E-V RE-15, etc

### Instruments Available: Grand piano

Rates: \$25/hr plus tape in the studio. On location 8 track remotes \$800 per day, \$1500 for a weekend 1000 LPs from your tape and artwork for \$2600 including color covers, everything 1000 45s, \$650 total

### •• BAYSHORE STUDIOS

871 "F" Industrial Rd., San Carlos, CA 94070 (415) 591-3503

Owner: Keith Hatschek, D.K. Bancroft, Jap ii Singh Khalsa Studio Manager: Keith Hatschek

Engineers: Kent Bancroft, Keith Hatschek, Jap µ Singh Khalsa, Rainer Gembalczyk, Mark C. Bracewell, Cal Ball.

Dimensions of Studios: Studio: 32' x 26', Isolation Booth 10' r 8'

Dimensions of Control Booms: 20' x 18' Tape Recorders: Otari 5050 8 SD 8 track, Tascam 3340S 4

track, Otan 5050 2 track, Sansui cassettes Mixing Consoles: Tascam Model 5 (beeled-up), 16 in x 4 out, Tascam Model 3

Monitor Amplifiers: Crown, AB Systems, Marantz Monitor Speakers: JBL 4311 B, Auratones Echo, Reverb, and Delay Systems: DeltaLab DL 4 digital delay. MXR flanger/doubler, Orban 111 B stereo reverberation with EQ\_table\_delay

Other Outboard Equipment: UREI LA-4, Bi-Amp Quad limiter, Tapco 2200 stereo EQ, Delta-Graph EQ, dbx RM-155 noise reduction, Valley People Microphones: Sennheiser, MB, Shure, Electro-Voice, others

available

Instruments Available: Neumeyer grand plano, Hammond M-3 with Leslie, assorted drums and percussion, Ampeg bass amplifier and more

Rates: 8 track, \$25/hr. 4 or 2 track, \$18/hr; editing and dubbing, \$12/hr, rehearsals w/P A system, \$10/hr

Extras: We have: experienced staff, arrangers & producers, studio musicians, rehearsals and affordable prices<sup>111</sup> Direction: In 1982, Bayshore Studios will be upgrading and

remodeling Also, with the addition of Mr. Rainer Gembalczyk of Berlin, West Germany, we will have another expenenced profes-sional and SMPTE time lock, another 8 track for 14 track synchronization, Neumann and AKG microphones, 8 more channels of dbx, Dynacord DDL and stereo flanger, Revox A77, more UREI signal processing and other goodies. With lots of improvements (new board, tuned control room) for our growing list of clients, 1982 will be a very good year

### •• BAY SOUND REPRODUCTION

also REMOTE RECORDING

5 Yorkshire Drive, Oakland, CA 94618 (415) 655-4885

Owner: Glenn Oey, Gene Mick

Studio Manager: Gene Mick. Engineers: Glenn Oey (chief), Gene Mick (assistant)

Dimensions of Studios: 30' x 19'

Dimensions of Control Room: 16' x 14' Tape Recorders: Otan MX 5050 2, 4, 8 track; Sony TC-D5m

and Nakamichi 70011 cassette decks

Mixing Consoles: Soundcraft Series II, 16 in x 8 out

Monitor Amplifiers: Nakamichi 620 and 420, McIntosh 2105 Monitor Speakers: Ed Long TA-3 Time Align, JBL 4311, Auratone

Echo, Reverb, and Delay Systems: MICMIX MasterRoom Super C column reverb, MXR digital delay, Eventide Clockworks Instant Phaser, DeltaLab DL 2 Acousticomputer

Other Outboard Equipment: (2) UREI LA-4's, 1179, dbx 160 comp /limiters, ADR Scamp F300 expander, S04 parametric EQ, S 23 pan effect, F100 dual noise gates & (2) S01 comp /limiters; EXR exciter, dbx noise reduction, Orban 245E stereo synthesizer SAE 1800 parametric EQ, Nakamichi 610 control pre-amp, (2) UREI 539 1/3 octave graphic EQ, Ivie spectrum analyzer; Peterson strobe tuner

Electro-Voice, Sennheiser, Shure, Neumann, Microphones: Beyer, AKG, FRAP guitar pick up, Countryman and Uni-Sync

World Radio History

# • THE ATTIC

### direct boxes, Crown PZM's

Instruments Available: Yamaha C-5 conservatory grand piano 6'6'', Fender Precision bass, 5-piece old Camco drums w/Zildjiam cymbals. Roto toms. Synare sensor, various percussion instruments, Martin 000-18 guitar, MESA/Boogie amp w/JBL speaker, clavinet, Roland Boss Dr. Rhythm DR-55 Rates: 8 track \$25/hr. 4 track \$20/hr, 2 track \$20/hr, tape

Actes to track \$200th 4 track \$200th, by a duplication \$17/hr, all rates include everything but cost of tape. Also possible to rent tapes Special rates are available for block booking. Excellent facilities for recording and mixdown.

### •• BEAR CREEK RECORDING STUDIO 20711 Bear Creek Rd., Los Gatos, CA 95030 (408) 354-2351

Owner: Justin Mayer Denny Mayer Studio Manager: Justin Mayer Engineers: Justin Mayer Dimensions of Studios: 12' x 15'

Dimensions of Control Rooms: 10' x 15' Tape Recorders: Tascam 80 8 B track, TEAC A-3340-S 4 track, TEAC A-3300-SX 2 track (12 track), TEAC C3X 2 track (cassette) Mixing Consoles: Carvin MX 1608, 16 in x 8 out, TEAC 1, 8 in x 2 out

### Monitor Amplifiers: Bogen, SAE

Monitor Speakers: JBL 4311s, Auratones Echo, Reverb, and Delay Systems: Custom plate reverb, Orban spring reverb, Advent digital delay, custom analog delay

Other Outboard Equipment: (2) dbx 161 compressor/limiter. TEAC DX8 eight channel, dbx noise reduction, DeltaLab DL2 Acoustcomputer, Eventide Harmonizer (available for minimal extra charge), tape delay. Microphones: Electro-Voice PL-20, (2) Sennheiser MD-421s; (2)

Microphones: Electro-Voice PL-20, (2) Sennheiser MD-421s, (2) Sony ECM-22Ps, ECM-270, (4) Shure SM-57s, AKG D1000E Instruments Available: Chamberlin MI (with violins, cello, flute, pipe organ, obce, female voices, alto sax, tenor sax, trumpet, and trombone), Gibson guitars, Fender and Marshall amps, acoustic piano

Rates: \$15/hr Block rates available

•• BENT NAIL STUDIOS
2375 Cory Avenue, San Jose, CA 95128
(408) 244-0766
Owner: Dave Morns, Bill Morns
Studio Manager: Dave Morns

### •• BERKELEY MUSIC GROUP also REMOTE RECORDING 1442A Walnut #176, Berkeley, CA 94709 (415) 524-5188

Owner: Robert B. Marcus, Michael Zeitsoff Studio Manager: Robert B. Marcus, Michael Zeitsoff Direction: Berkeley Music Group is a resource organization focusing on the career needs of musicians, songwriters and performers in Northern California. Services include audio and video recording of songwriter vocalist and band demos. We produce complete artist promotion packages BMG also writes and produces ingles and music for film, video and commercials. A large free-lance staff of studio musicians, professional vocalists, photographers, cameramen, etc. are available through our facility. Bates begin at \$20/hr for 8 track audio. Call for information on the services you need. On location recording available

### •• BRANDT'S RECORDING STUDIOS 1030 48th St., Sacramento, CA 95819 (916) 451-3400

Owner: Charles M. & Edna M. Brandt Studio Manager: C.M. Brandt & Chief Engineer, Irvin L. Berth, Asst. Engineer

### •• A BROWN SOUN 23 Joseph Court, San Rafael, CA 94903 (415) 479-2124 Owner: Robert Brown

Owner: Robert Brown Studio Manager: Robert Brown Engineers: Berny Vincent, Peter Penhollow, John Laverne Dimensions of Studies: (63): 20' x 24', (59): 20' x 24', (75): 20' x 50', (101): 20' = 30' x 50'

Dimensions of Control Rooms: 12' x 15' Tape Recorders: Otan MX 5050-8X 8 track, TEAC 3440 4 track, Sony 4330 4 track

Mixing Consoles: Tangent 1602, 16 in x 2 out, Tangent (customized) 1602, 16 in x 2 out, Yamaha 6 in x 2 out Monitor Amplifiers: McIntosh, IBL Icecube, Dyna 70

Monitor Speakers: JBL, Auratone, Altec, E-V Echo, Reverb, and Delay Systems: Space station, SST 282. Ibanez AD-230, MXR, Fender tube, Echoplex, Moog Phaser, Space echo 150

Other Outboard Equipment: SAE 2700 graphic EQ, URFI limiter, Bi-Amp graphic EQ, IVP pre-amp, dbx noise reduction. Microphones: Sennheiser 409 421, 441, AKG, Sony, EV, Shure

 $Instruments \ensuremath{\textbf{Available}}\xspace$  Piano, synthesizer, drums, and other on request

 $R {\rm ates};$  \$20/hr and up. Block time available

Extras: A Brown Soun offers the studio musician, along with all Bay Area musicians a full service repair facility, repairing speakers, amps, and guitars. A Brown Soun also has P.A. equipment, lights and other professional equipment available and the



best musical and technical personnel to support you and your music

Direction: A Brown Soun has created a dynamic music community offering a wide range of support and technical services. Cur plans for a professional stage and light studio with PA and capable of complete video are being completed and should be ready early in 82. Additional planned services are a booking ŵ talent agency and further studio refinements. A Brown Soun invites you to come and see our facility and meet our friendly staff

•• CAPITOL CITY STUDIOS also REMOTE RECORDING 911 East Fourth Avenue, Olympia, WA 98506 (206) 352-9097 Owner: Allen P Giles Studio Manager: Allen P Giles

 CATRACS STUDIOS (formerly Ram Recording) also REMOTE RECORDING 727 Caliente Ave., Livermore, CA 94550 (415) 443-2205 Owner: Ram Recording Co Studio Manager: David Mac Millan. Extras: Presentation room with film and video projectors, six foot screen, graphic arts service, promo photography, and a multicamera video system available Direction: After recording strictly remote for the past several years, Ram Recording has gone into the studio forming Catracs. Our new goal is to provide complete service to un-discovered talent to produce high quality, creative "demos" at a reasonable cost. We provide free audio/visual consulting and have a full production staff available. We're also excited about our new video capability. We can now put your demo tape together with a video production in full stereo.

 RICK CHAISSE PRODUCTIONS also REMOTE RECORDING 11 Blake Lane, Scotts Valley, CA 95066 (408) 438-2331 Owner: Rick Chaisse Studio Manager: Rick Chaisse

•• CHAPELWOOD PRODUCTIONS P.O. Box 672, Broomfield, CO 80020 (303) 466-3619 Owner: Cliff Chapelwood Studio Manager: Cliff Chapelwood

 CREATIVE SOUND STUDIO 602 Cree Dr., San Jose, CA 95123 (408) 224-1777 Owner: Dick Dias Studio Manager: Dick Dias

•• DAN'S MUSIC DOOR also REMOTE RECORDING 1035 Surrey, Blackfoot, ID 83221 (208) 785-6445 Owner: Dan James Studio Manager: Dan James

BOBBY DEAN RECORDING STUDIO
 121 Ocean View Blvd., Pacific Grove, CA 93950
 (408) 372-TAPE
 Owner: Bobby Dean, Sharon Dean
 Studio Manager: Bobby Dean
 Ingineers: Bobby Dean, Jay Tolagson, independents
 Dimensions of Studios: 35' x 18'
 Dimensions of Control Room: 16' x 16'
 Tape Recorders: TEAC/Tascam 80:8 8 track, Tascam 25:2 2
 track; Sony 756-2 2 track, Nakamich: 482 cassette; NAD 6100



World Radio History

cassofte

Mixing Consoles: (2) TEAC/Tascam Model 5's, 8 in x 8 out Monitor Amplifiers: McIntosh 2100, Marantz 140, NAD 2140. Monitor Speakers: JBL 4311's, Auratones, Altec 604's

Echo, Reverb, and Delay Systems: Roland Studio System RV 800 (stereo), Echoplex, DeltaLab DL2 Acousticomputer Other Outboard Equipment: Analog delay (Ibanez), dbx 162 compressor/limiter, Bi-Amp EQ, Ashly parametric EQ SC-66A, (2) Model 1 Tascam (independent head cues), dbx noise reduction

Microphones: Sennheiser 441s, 421s, Beyer MC-711s, MC 101s, Shure SM-57s, 56s, Altec 201-As, Pearl DM-7000; direct boxes by Countryman Associates, Celsey, Sescom, etc. Instruments Available: Kimball grand piano, Hammond B-3 organ w/Leslie, synthesizers available on request Rates: \$25/hr (block rates available upon request).

Extras: Built on four levels, this cedar and redwood studio is both beautiful and efficient. Located directly across from the ocean off historic Cannery Row Highly experienced studio musicians available for most types of music. Color video monitoring; video tapes available on request Producers lounge with bar and panoramic views of Monterey Bay Direction: We've recorded over a hundred radio and TV jungles,

five record albums, and three American Song Festival winning songs. We maintain a close and comfortable relationship with our clients while providing a professional atmosphere. Recently released Monterey Rock 1981 on R.P.M. Records.



Bobby Dean Recording Pacific Grove, CA

### •• DEMO LAB

298 Arlington, San Francisco, CA 94131 (415) 641-1094

Owner: Jm Johnson

Studio Manager: Chantal Vachet Johnson.

Engineers: Jim Johnson, Jonathan Arthur, independents Dimensions of Studios: Main room: 15' x 20', live iso 8' x 8'; dead iso.. 6' x 8'; 12' ceiling throughout

Dimensions of Control Rooms: 9' x 15' x 10'

Tape Recorders: Otan MX-5050 8 track; TEAC A-3340S 4 track; TEAC 32-2B 2 track, Sansui and Technics cass Mixing Consoles: Bi Amp/modified 1642, 16 in x 8 out (2) TEAC Model 1s (for headphone mix); Tapco 6001R (w/expander for live sound reinforcement), 12 in x 1 out

Monitor Amplifiers: Bi-Amp TC120, Yamaha P2200, Sansur AV-217

Monitor Speakers: JBL 4313B, Altec Model 5s, Auratones, Gollehon and RAM P A

Echo, Reverb, and Delay Systems: DeltaLab and Yamaha E1010 delay, MasterBoom and Bi-Amp reverb

Other Outboard Equipment: Tapco 2202 FQ (graphic), dbx noise reduction, Bi-Amp guad limiter, dbx 160 compres-sortlimiter, Furman parametric EQ, Norelco coffee maker model #HBS140

Microphones: AKG 414s, D-1000E, Electro Voice RE 20s, PL-5s; Beyer M-500, M-88, Shure SM 81s, SM 57s, SM-58s; Sennheiser 421s; Audio-technica ATM-10s, ATM-813, Countryman direct boxes.

Instruments Available: Upright plano, Korg polyphonic ensemble, Sequential Circuits Pro One; studio drum set & percussion, Fender jazz bass; Stratocaster; Ovation acoustic; amps by Yamaha, Boogie and Randall, Fender Rhodes available on re-

set-up. Special 6 hr. day \$100.00 with free 1/2" tape use

Extras: Central San Francisco location, street level loading. Com tortable and professional studio atmosphere. P.A. rental s and coming soon, remote recording. All back issues of MIX Direction: Master quality demos on time, on budget. Demo Lab

offers full production on any project including: arrangements, musicians, writers and instruments. Credits include: Toni Smith and T.M., Stephens, Max Haskett (Rubicon: Cold Blood), Jimmy Knight and the Daze, Toaquin Lievano (Ion Luc Ponty: Warriors), No Excuse, Mark Rosengarden, T.K. Tony Kilbert, Berkeley Shakespeare Company, Community Action Service Theatre and High Wire Radio Choi



 DENTON PRODUCTIONS P.O. Box 1709, Alameda, CA 94501 (415) 521-0321 **Owner:** Michael Denton Studio Manager: Michael Denton

DOME STUDIOS

S.R. Box 40510, Fairbanks, AK 99701 (907) 456-1993, 456-2604 Owner: Jerry Rafson Studio Manager: Rif Rafson. Engineers: Jerry Rafson, Rif Rafson Dimensions of Studios: 375 sq. ft. irregular polygon. Dimensions of Control Rooms: 125 sq ft Tape Recorders: TEAC/Tascam 80.8.8 track; TEAC A33405.4 track; Technics RS 1500 US (½) 2 track; Pioneer RT 1050.2 track; (2) Kenwood cassettes, Pioneer cartrige 8 track Mixing Consoles: Peavey MC-24, 24 channel; Tascam Model 3, 8 channel; (2) Shure sub-mixers, 4 channel Monitor Speakers: JBL 4313.

Other Outboard Equipment: 8 channels dbx, DL-2 Acousticomputer, Furman LC-2 compressors Microphones: Beyer, Shure, Peavey, AKG, others on request.

Instruments Available: Plano, bass (acoustic and electric), drums cruitars

### Rates: Rates on request

Direction: Mellow woodsy atmosphere, out of town, with a nice view of the Alaska range. Comfortable lounge 1" Sitka spruce paneling throughout Musicians available. We invite all serious musicians/composers to check us out. Our orientation is toward promoting and developing Alaskan talent and outsiders here to get a new perspective. Studio is available on a rental basis or cost plus percentage, depending on the material.

### •• FOCUSED PRODUCTIONS INC 30 Berry St., San Francisco, CA 94107 (415) 777-3108

Owner: Jeff Roth

Extras: 16 mm projection for film scoring. Courtyard with 24 hour all weather basketball court

Direction: This 4 and 8 track (Otari) studio has unique acoustical properties due to the fact that the walls and ceiling of the entire 20' x 20' room consist of cork approximately 8" deep. This large ab sorbent room has been praised by musicians for it's comfort and "teel", and has proven ideal for the close-miking techniques of modern multi track recording. Of course the room can be made "livelier" with the addition of baffles. Complimenting the room is a 1914 Mason Hamlin grand, completely restored and perfectly maintained, which has won the heart of every planist to exper-ence it. Well versed in recording all styles of music, Focused Pro ductions has been especially fortunate to be the creative home base for some of America's top jazz artists, as well as world class musicians from Jamaica, Africa, and Brazil

Whatever the nature of the production, we realize we are working for you, and believe that the working relationship between the talent and the technician is of great importance. In addition to a professionally equipped studio we offer you the atmosphere, ex perience, and respect necessary to perform your best. We invite you to make an appointment to see the studio and hear our work

•• FOREST PRODUCTIONS also REMOTE RECORDING 16101 Neeley Rd., Guerneville, CA 95446 (707) 869-3458 Owner: Randy Vance Studio Manager: Bob Bisel

• FOXFUR STUDIO 4709 Guerneville Rd., Santa Rosa, CA 95401 (707) 823-9511

•• GRASS ROOTS RECORDING STUDIO also REMOTE RECORDING 2737 N.E. 25th St., Portland, OR 97212 (503) 281-5108 Owner: Michael O'Rourke Studio Manager: Michael O'Rourke

•• HART COMMERCIAL RECORDING also REMOTE RECORDING 5722 Swan Creek Dr. E., Tacoma, WA 98404 (206) 472-2740 Owner: Dean K. Hart Studio Manager: Dean K Hart

•• HIGH PLAINS AUDIO RECORDING STUDIOS also REMOTE RECORDING 1108 East 17th Ave., Denver, CO 80218 (303) 832-3999

Owner: Recording Associates of North America Corp

 HORIZON AUDIO RECORDING CO. also REMOTE RECORDING 10297 Bethel Burley Rd. S.E., Port Orchard, WA 98366 (206) 876-4972 Owner: Kerry L. Pilling Studio Manager: Kerry L. Pilling

### •• HOT TRACKS RECORDING

also REMOTE RECORDING 2217A The Alameda, Santa Clara, CA 95050 (408) 554-1117 Owner: Phil Iamison, Don Heinsen Studio Manager: Phil Jamison Engineers: Mark Weldon, Mark Boscacci, Don Heinsen, and

Phil Jamison.

Dimensions of Studios: 28' x 16' Dimensions of Control Rooms: 13' x 16'

Tape Recorders: Tascam 80-8 w/dbx 8 track, Tascam 35.2 w/dbx 2 track; Pioneer 2/2 2 and 4 track; TEAC 3340S 4 track Mixing Consoles: (2) Tascam super modified MOD 5AS, 16 in x 16 out, (2) TEAC Model 1s, for additional echo sends Monitor Amplifiers: Yamaha P2201, BGW 100

Monitor Speakers: IBL 4311s and Auratone

Echo, Reverb, and Delay Systems: AKG BX-10 reverb, Marshall Time Modulator, Loft 440 delay line flanger, MICMIX Dyna Flanger

Other Outboard Equipment: (2) dbx 161 compressor/limiters, Ashly dual parametric EQ, Orban dual parametric EQ, Tapco Catalina dual graphic EQ, MXR dual graphic, Orban triple de'esser

Microphones: AKG 414s; Electro Voice RE-20s, Sennheise MD-421s; Shure SM 57s and 58s

Instruments Available: 51/2' baby grand piano, Fender Rhodes piano, Fender Twin Reverb, Fender Precision bass guitar, Gibson Les Paul guitar Bates: \$25/br

### •• INFAL RECORDOS, CO.

also REMOTE RECORDING 2217 Champa St., Denver, CO 80205 (303) 892-7141 Owner: Victor M. Hernandez Studio Manager: Victor-Infat

### **•• NEIL JANKLOW STUDIO PRODUCTIONS**

also REMOTE RECORDING P.O. Box 51431, Palo Alto, CA 94303-0703 (415) 858-0132 **Owner**: Neil Janklow Studio Manager: Neil Janklow

•• JOYFUL SOUND 4324 Macey Dr., Sacramento, CA 95841 (916) 482-9113 Owner: Robbie & Rosina Robertson Studio Manager: Robbie Robertson

•• JUDE PRODUCTIONS P.O. Box 90, Dutch Flat, CA 95714 (916) 389-2326 Owner: Russell Brian Brooker Studio Manager: Russell and Vicky Brooker

•• KEZR STUDIOS 777 No. First St., 7th Fl., San Jose, CA 95112

(408) 287-5775 Owner: Alta Broadcasting Inc Studio Manager: David Perez

•• LION TRACKS STUDIO/CREATIVE ENTERPRISES also REMOTE RECORDING Box 846, Cotati, CA 94928 (707) 823-6834 Owner: Mario Lewin Studio Manager: Mano Lewin.

•• LITTLE BIRD PRODUCTIONS also REMOTE RECORDING 4416 S.E. Hwy 101, Lincoln City, OR 97367 (503) 996-2575 continued

# There Isn't a Better System

Take the Otari MX5050 Mark III half inch eight track with features like dynamic braking and microprocessor controlled transport logic, negative and positive zero search with real time L.E.D. display, automatic monitor switching, single button noiseless punch-ins, a complete session controller that lets you tuck the machine away,\* and the reliability and consistency that have made Otari famous.

\* The CB-110 Session Controller is optional.

Now match it with the WR-8816 by RAMSA (Panasonic's professional division). Unlike any other console in its class the 8816 has plastic conductive faders for greater reliability and smooth low noise operation, fully modular construction, two independent stereo monitors-

one for musicians' headphones and one for control room monitors—low noise electronically balanced mic inputs with new high speed I.C.s, 16 switchable post fader, solo controls, a powerful E.Q. section, stereo echo send, peak reading L.E.D.s that let you monitor any of 24 signals at the touch of a button, phantom powering, echo to cue, and more.

So before you spend more money for a system that does less, come see "The System" at Bananas At Large. Dollars for dB, there's none better



802 Fourth Street (4th & Lincoln), San Rafael (415) 457-7600 Hours: 11–6:30 Tuesday–Friday, 11–5 Saturday, Closed Sunday, Monday by Appointment Only

World Radio History

### Owner: Harbinger Northwest

Studio Manager: Leon Forrest Caulkins Engineers: L.F. Caulkins.

Dimensions of Studios: 15' x 12' x 10', drum room: 13' x 10' x 7'

Dimensions of Control Rooms: 8½' x 11½' Tape Recorders: Otari MX-5050 8 track; Technics 1500US 2

Mixing Consoles: (2) independent FV Tapco C-12 II, 24 x 8 x 4

x 2; Bi-Amp 1282, 12 in x 2 out Monitor Amplifiers: Bi-Amp TC-225, Bi-Amp TC-120, Eddor

HA-100 (headphones) Monitor Speakers: Ed Long's MDM-4s & Culver cubes (control room), Community Light & Sound PBLs (main room), (8) AKG 240 (headphones).

Becko, Reverb, and Delay Systems: A/DA STD-I (stereo tapped delay), MXR digital delay, Great British Spring (reverb), Electro-Harmonix Memory Man & Echo Flanger.

Other Outboard Equipment: Bi-Amp quad limiter, Bi-Amp X-over, 12 channels dbx 155, MXR dual 15 graphic EQ. Microphones: AKG C-414EB, D-1000; Sennheiser MD-441-U;

(4) Sony FCM-22, (4) FCM-21, (4) Shure SM-57s; E-V 1776, etc. Instruments Available: Rhodes 88, ARP odyssey w/EMC poly box, Casiotone 301, Fender Jazz bass, custom Leslie 147, Yamaha electric grand and ARP string ensemble available on reminest

### Rates: \$20/hr

Extras: We're in an area of the NW known as "Ecotopia", the Pacific Ocean is a 3 minute walk away. Kitchen facilities are standard. Lodging is optional

Direction: Having produced or co-produced 5 albums in the last 9 months has confirmed my initiative leads producer and has qualified me to call myself engineer—aside from that I've sold an on-the-air original jingle package to a major account. Overall it is good to know once again an independent "little guy" can still sucosed. "Fly on Little Brd"

### •• MADMAN STUDIOS

also REMOTE RECORDING 3266 Adeline St., Berkeley, CA 94611 (415) 654-1564 Owner: Bill Thompson Studio Manager: Bill Thompson

•• PETER MILLER RECORDING STUDIO P.O. Box 11013, San Francisco, CA 94109 (415) 567-7040 Owner: Peter Miller Studio Manager: Peter Miller

### •• MIX-MASTER RECORDING

olso REMOTE RECORDING 4096 North Branam, Merced, CA 95340 (209) 383-1718 Owmer: Im Schnber Studio Manager: Beth Andren

### •• NEW AGE MEDIA

olso REMOTE RECORDING 11111 Second St., San Rafael, CA 94901 (415) 457-5247 Owner: Pete Slauson, Alan Ventura, Peggy Monaghan Studio Manager: Peggy Monaghan Engineers: Pete Slauson Dimensions of Studios: 17' x 20' x 8' Dimensions of Control Rooms: 12' x 18' x 8' Tape Recorders: TEAC 80-8 8 track; TEAC 3340S 4 track Mixing Consoles: Tangent 1202 Monitor Amplifiers: Yamaha 100 watt Monitor Speakers: Altec 604E Echo, Reverb, and Delay Systems: Reverb capabilities; natural echo chamber Microphones: Neumann, Sony, Shure, Altec Instruments Available: Upright grand plano, acoustic 6 and 12 string guitars, electric bass, assorted percussion instruments Rates: \$25/hr block time (20 hours or more)

### •• NORTHWEST SOUNDTRACK RECORDING STUDIO P.O. Box 7822, Eugene, OR 97401

(503) 683-8663 Owner: Cindy McManus Studio Manager: Cindy McManus.

•• NOVA RECORDING SERVICES
 also REMOTE RECORDING
 1001 4th Ave., Suite 3618, Seattle, WA 98154
 (206) 447-1696
 Owner: The Nova Music Group.
 Studio Manager: Paul Speer
 Day Lanz, and independents
 Dimensions of Studios: 12' x 20'
 Dimensions of Control Rooms: 12' x 15'
 Tape Recordens: MCI III-110C 8 track, Ampex AG-500 2 track;
 Sony TC-D5M cassette, Sony TC-153SD cassette.
 Mixing Consoles: Tascam 3 (modified), 8 in x 8 out, Fostex
 2050, 10 in x 2 out
 Monitor Amplifiers: Crown D-150A.



### Monitor Speakers: JBL L-26, Auratone

Echo, Reverb, and Delay Systems: AKG BX-10, Tapco 4400. Other Outboard Equipment: SMPTE Time Code by BTX (Shadow System) for locking to video, Symetrix parametric EQ, Ashly compressors, custom Tranz-Amp mic pre-amp system, Orban sibilance controller.

Microphones: Neumann U-87, AKG 414; Sony C-37; E-V RE-20; Sennheiser 421, 441; Shure; Beyer; (matched pair B&K, and AKG C-24 also available by special arrangement) Instruments Available: 8 voice Oberheim synthesizer, Fender

Instruments Available: 6 voice Operneim synthesizer, render Rhodes, Roland drum machine Rates: \$35/hr (audio production), \$65/hr (syncronized video

 OCEAN BREEZE RECORDING olso REMOTE RECORDING 2021 Bluebell Dr., Santa Rosa, CA 95401 (707) 527-9131 Owner: Theresa and Ben Rothenburg, Bob Williams, Denis Hulett.

Studio Manager: Denis Hulett

### •• PEARL'S PLACE

Fremont, CA (415) 651-7187

sweetening)

Studio Manager: Joey Horten, Vickie Horten

Engineers: Dave Humnck Dimensions of Studios: 23' x 16', booth: 8½' x 7½'. Dimensions of Control Rooms: 15' x 14' x 12' Tape Recorders: Tascam 80:8-8 track, TEAC 3440-4 track,

Tape Recorders: Tascam 80-8 8 track, TEAC 3440 4 track, TEAC 3340 4 track; Akai 706D cassette, Kenwood 920 cassette. Other formats available on request

Other formats available on request Mixing Consoles: Tascam Model 5, Model 3, 8 in x 4 out; Tascam Model 2, 6 in x 4 out; Tascam 20 meter bridge, 22 inputs mic

or line; 3 cue mixes; stereo echo sends Monitor Amplifiers: Kustom 130 watts x 2.

Monitor Speakers: IBI, 4311, Auratone C. 5, Advent I Echo, Reverb, and Delay Systems: Tapco stereo reverb, Ibanez chorus, companded analog delay, tape loops, and other effects Other Outboard Equipment: Valley People dynamic proces-

Other Outboard Equipment: Valley People dynamic processors, all functions, compression, limiters, de essing, gating and sidechains; 14 channels of dbx noise reduction; 2 channels Dolby (An-60) noise reduction, graphic equalizers. Microphones: Electro-Voice RE-20, CS-15P condensers; Senn-

heiser 421s; Shure SM-57s, PE-54s; AKG D-1000s; Audiotechnica AT-801 condenser.

Instruments Available: Steinberg piano, guitars, Gibson Hummingbird, Ovation 6-string, Takamine 12-string, Ibanez (Les Paul) electric, Fender bass, Gretch drums w/Zidjuan nde and high hat, Camber crash, Ibanez mandolin, Iida banjo, all sorts of hand percussion, Fender guitar amp, Altair attenuator.

Rates: \$15/hr plus block rates, includes set-up time and experienced engineer.

### PEEKABOO MOUNTAIN STUDIOS

117 Palmyra St., Auburn, CA 95603 (916) 885-1708 Owner: leffrey R Hester, S. Charles Hester Studio Manager: leffrey R Hester

•• PUGET SOUND 8924 Ravenna Ave., N.E., Seattle, WA 98115 (206) 523-9933 Owner: Image Records Studio Manager: Pat Hewitt.

•• QUARTER MOON RECORDING
 130-D Hamilton Dr., Box 1421, Novato, CA 94948
 (415) 883-4757
 Owner: Michael Ransom.
 Studio Manager: Michael Ransom

•• RAL-RECORDING olso REMOTE RECORDING 2851 Oleander, Merced, CA 95340 (209) 722-3220 Owner: Robert Laughton Studio Manager: Robert Laughton

 BILL RASE PRODUCTIONS, INC. (Since 1965) also REMOTE RECORDING 955 Venture Ct., Sacramento, CA 95825 (916) 929-9181 Owner: Rill Rase. Studio Manager; Bill Rase

•• REAL TO REEL RECORDING & DUPLICATION olso REMOTE RECORDING 3064 D½ Road, Grand Junction, CO 81501 (303) 434-3102 Owner: Bill and Kay Yorty Studio Manager: Bill and Kay Yorty

### **•• RHYTHMIC RIVER PRODUCTIONS**

250 H. Napoleon St., San Francisco, CA 94124 (415) 285-3348 Owner: Robert L. Richman Studio Manager: Bobby Richman

•• R.O. STUDIOS

3359 Walnut Ave., Concord, CA 94519 (415) 676-2651 Owner: Rick, Ralph & Scott Henry. Studio Manager: Rick Henry, house engineer; Dr. Richie Moore; independents welcome.

•• RUBBER PARK PRODUCTIONS

olso REMOTE RECORDING P.O. Box 120, Tahoma, CA 95733 (Lake Tahoe) (916) 525-6554 Owner: Steve Teshara. Studio Manager: Steve Teshara

### •• RANDALL SCHILLER PRODUCTIONS o/so REMOTE RECORDING

1207 Fifth Ave., San Francisco, CA 94122 (415) 661-7553

Owner: Randall Schiller.

Studio Manager: Bandall Schiller Engineers: Bandall Schiller Michael Miller

Engineers: Randall Schiller, Michael Miller Dimensions of Studios: 12% x 15', drum room 9' x 9' Dimensions of Control Rooms: 12% x 15'

Tape Recorders: TEAC/Tascam 80.8.8 track; Otan 50508.2 track; Sony TC-854.45.4 track; Sony TC 850-2T.2 track, Proneer BT 207.2 track: Sony TC/851.2 track

BT 707 2 track; Sony TCK-B1 2 track Mixing Consoles: TEAC/Tascam Model 5B, 8 in x 4 out; TEAC/Tascam Model 1, 8 in x 2 out; Tapro Panjo 7416, 16 in x 2 out.

Monitor Amplifiers: SAE 2201, 24001, BGW Model 100-01 Monitor Speakers: IBL 4311B, Auratone 5C, Altec A7-500 (modified and bi-amplified), and Pioneer CS 88

Echo, Reverb, and Delay Systems: DeltaLab DL 2 Acousticomputer stereo digital delay. Sound Workshop 242 stereo reverberation unit.

Other Outboard Equipment: MXR dual fifteen band graphic EQ, dbx 154 decilinear noise reduction, dbx 161 compressor/limiter, Crown VFX-2A dual channel electronic crossover/filter, SAE 5000 impulse noise reduction unit and assorted patch bays, switching systems and necessary support equipment.

Microphones: Electro-Voice RE-15s, Shure SM-81s, SM-57s, SM-58s, SM-78s, Sony ECM-33P, ECM-16, ECM-19B; and Sennheiser MD-421

Instruments Available: Story & Clark console piano. Rates: Studio recording: 8 track \$25/hr; 4 track \$20/hr; 2 track

Rates: Studio recording: 8 track \$25/hr; 4 track \$20/hr; 2 track \$20/hr Location recording: prices available upon request Extras: Kitchen facilities; all the comforts of home!

Direction: We are a multi-faceted company providing facilities and services in the areas of audio, video, film and theatre. We are dedicated to providing the highest quality in a relaxed but professional environment. Immediate expansion plans call for complete sixteen track facilities. In addition to recording studio services, we provide sound reinforcement, audio design and installation, film and video production and lighting services. We recorded David Reighn at the Great American Music Hall for his upcoming album and will soon be releasing David Kelsey and Pure Trash, Live at the Boarding House. Also, Live! at the I-Bean should be out by early 1982.

•• SEISMIC PRODUCTIONS also REMOTE RECORDING San Francisco, CA (415) 566-8207 Owner: Seismic Productions.

•• 1750 ARCH STUDIOS olso REMOTE RECORDING 1750 Arch St., Berkeley, CA 94709 (415) 841-0216 or 841-0232

continued

# Personal Multitrack

Recording gear designed specifically for musicians and songwriters—that's what Fostex is all about.

Equipment that's easy to use and easy on your wallet; but sophisticated enough to produce first rate recordings, and versatile enough to give you the creative edge you need when composing. In fact we've only had one prolem with Fostex equipment— Keeping it in stock. It seems to come in one door and go out the other.

So we've asked Fostex to help us out. We've placed a massive order and called in the experts. On Saturday, January 30th Mark Cohen & Barry Thornton of Fostex will be on hand to demo their equipment, discuss recording techniques for musicians, and help you solve your individual problems. It's a rare opportunity to talk directly to the people who manufacture the gear.

Space is limited so don't miss out. Use the coupon to make your reservation, or call Bananas today.

(415) 457-7600



### Owner: 1750 Arch Inc

Engineers: Bob Shumaker

Dimensions of Studios: Dead studio 23' x 13' x 8', live recording room 36' x 17' x 11', many other interesting small rooms Dimensions of Control Rooms: 17' x 12' x 8

Tape Recorders: 3M Model M23 8 track, Ampex Model AG 440 B 4 and 2 track, Studer Model B-67 2 track, Revox Model A 77.2 track, Sony Model 366-4.4 and 2 track, Nakamichi Model 600 cassette

Mixing Consoles: MC1 Model 416, 16 in x 16 and guad out, Tapco Model 6201, 6 in x 2 out

Monitor Amplifiers: Mark Levinson ML3, Phase Linear 400, Marantz 250, Dyna 70 JBL SE 400 Monitor Speakers: JBL 4310, 4315, 4320

Other Outboard Equipment: Automatic Dolby A301's for 8 track, 4 track and 2 track. UBEI 1176 LN limiters, dbx 160 limiter, Furman PEQ 3 parametric EQ; Countryman 150X direct box, portable equipment for high quality stereo location record

Microphones: Neumann SM 69, KM-84, KM 86, KM-74, U-87 Sony C500, MB-C520, F.V. RE 16, 666, 1776, Sennheiser 421, Shure SM-57, Countryman condenser, Sennheiser 405, E-V 635 Instruments Available: Steinway B grand, Baldwin grand, Knabe baby grand

Extras: Tennis court, kitchen, lounge, view of Golden Gate, win dows in all rooms, large maintained garden, back issues of Man dolin World News

Rates: \$45/hr for 8 track, \$40/hr for 4 track, \$30/hr for 2 track, \$25/hr editing, \$20/hr copying Stereo remote recording at the same rate, door to door 8 track and 4 track remote rates by re quest Block rates by request

Direction: We make clean recordings of any type of music Classical, avant garde, jazz and bluegrass are specialties. We are affiliated with 1750 Arch Records, producers of early music, classical, avant garde and contemporary jazz

### •• SHOWCASE SOUND

3090 S. Bascom Ave., San Jose, CA 95124 (408) 371-1897; 377-5864 (message) Owner: hm Bruno Jack Van Breen Studio Manager: Bandy Widen Engineers: Bandy Widen, Chief, James Patton, Dan Lynch Dimensions of Studios: 19, x 19, x 10, Dimensions of Control Rooms: 12' x 9' x 8' Tape Recorders: TEAC Tascam 80.8.8 track, TEAC Tascam 3000SX 2 (12) track. TEAC Tascam A 500 cassette Mixing Consoles: TEAC Tascam Model 15, 24 in x 8 out Monitor Amplifiers: GMT 1000S, Dynaco 100



Monitor Speakers: JBL 4311, Auratones 5W Echo, Reverb, and Delay Systems: Tapco 4400 reverb, Korg stage echo, Lexicon Prime Time, MXR flanger/doubler

Other Outboard Equipment: dbx 161 compressors, Bi Amp graphic EQ, Moog C1100 parametric EQ. Symetrix compressors and noise dates, MXR pitch transposer, dbx noise reduction

Microphones: AKG C 414EB, Sennheiser 421's, EV RE 20, RE 10's, DS 35's, Shure SM-57's, 58's, Beyer X1 N's, Sony ECM 23F, Sescom SMTA direct boxes

Instruments Available: Upright piano, studio drum kit, various guitar and bass amps. Korg string ensemble Rates: Please call for rates

•• SHYNE SOUND also REMOTE RECORDING 40 Woodland, San Rafael, CA 94901 (415) 459-2833 Owner: Leroy Shyne Studio Manager: Leroy Shyne Engineers: Leroy Shyne Dimensions of Studios: 50' x 50' Dimensions of Control Rooms: 20' x 15 Tape Recorders: TEAC 80-8.8 track, Pioneer 4022.4 track, MC1 track

Mixing Consoles: Allen & Heath 12.2, 12 in x 12 out Monitor Amplifiers, BGW 750 Sweet C Monitor Speakers: Shyne Studio Echo, Reverb, and Delay Systems: Orban dual reverb, Delta

# To save you time and money we've just spent over 546 hours training your next employee!

When money and time are tight, you can't afford to train an employee from scratch. Our graduates have spent a full year in an intensive study of Audio Engineering, Music Production, Studio Electronics, Music Business and Finance, Copyright Laws and Entertainment Contracts. They're young, knowledgeable, and-because they're well trained-effective from the start. Graduates and referrals among the Majors!

If you are in need of someone already possessing the basic knowledge and skills of the industry, we might just have the person to fit your situation.



So call or

write us at: College for Recording Arts 665 Harrison Street, San Francisco, California 94107 Phone: (415) 781-6306

P.S. If you know a promising and talented person that you'd like to help along, why not let us train them for you!

The school is accredited by the Accrediting Commission of the National Association of Trade and Technical Schools (NATTS), approved by the Calif. Superintendent of Public Instruction, approved for Veteran training, and is authorized under Federal law to enroll non-immigrant alien students. It is also endorsed by the National Academy for Recording Arts and Sciences Training Institute.

Lab DL 2 echo, UBEL & MXR equalizers Other Outboard Equipment: dbx 165 comp /lumiters

Microphones: Shure SM 57s, Electro Voice RE 15, RE 20, Senn heiser 421 (Trown PZMs Instruments Available: Upright plano, drums, Fender electric bass, Ovation quitar, assorted pre CBS Fender amps Rates: \$30/hr or \$35/hr remote

### •• THE SOUND BOARD

also REMOTE RECORDING 402 5th Avenue, Redwood City, CA 94063 (4)5) 364-3484

Owner: Steven Lawson

Studio Manager: Anton Privitera, Asst. Studio Mgr. Peter Novak

Engineers: Anton Privitera, Steve Lawson

Dimensions of Studios: (2) 9' x 12' rooms Dimensions of Control Rooms; 8' x 14'

Tape Recorders: Ampex 4408-8, (2) Ampex 300 master 2 track, Marantz 5030 cassette 2 track Mixing Consoles: Tangent 802A, 8 in x 8 out, 14 track studio

capacity

Monitor Amplifiers: Gallien Krueger 1000S SB power amp. Crown D 150 power ami

Monitor Speakers: JBL 4311, Mitchell wooters, Gauss speakers, horns Alte

Echo, Reverb, and Delay Systems: Tangent reverb in board, noise reduction, DeltaLabs DL 2 digital delay

Other Outboard Equipment: Mutron Biphase, MXB 6 band graphic EQ, MXB distortion, Pignose, Peavey 200, Silver Tone vac tube 1.346 w/twin 12's, Franz I.M.FB-4 elect metronome, dual limitors

Microphones: Neumann, Teletunken U.47, Sennheiser, AKG Shure, etc

Instruments Available: Sequential Circuits Prophet 5 synthesizer Fender Bhodes, Mark I. Model 73. Ludwig drums Rogers snare, Guild F12 12 string, 1969 Martin D18 acoustic guitars, acoustic piano, Roto-snare Rates: \$30 hr bulk rates negotiable

•• SOUND CONSCIOUSNESS STUDIO also REMOTE RECORDING 725 Loma Verde, Palo Alto, CA 94303 (415) 493-1365 Owner: Phillip Greck Studio Manager: Phillip Greck

•• SOUND ON SOUND (S.O.S.) 43 Gilbert St., San Francisco, CA 94103 (415) 863-3475 Owner: James Warner Studio Manager: George & Gracie

•• STARTSONG 3218 E. LaSalle, Colorado Springs, CO 80909 (303) 634-2045 Owner: Tom Gregor

+ STUDIO N

10115 South DeAnza, Cupertino, CA 95014 (408) 996-2055 Owner: Brian Job

Studio Manager: Dave Nodiff

Engineers: Dave Nodiff, Bob Higgins, independents Dimensions of Studios: 24' x 18' x 15'

Dimensions of Control Rooms: 24 x 18 x 15 Tape Recorders: (Modified) TEAC Tascam 80.8 w tull dbx; Revox A77 1 track, Sony Hitachi Pioneer cassettes Video Computer graphic & animation system, 127, 347 & 17 capabilities specializing in video graphics and animatics Mixing Consoles: (Modified) TEAC Tascam M-5 w M 1's for

itereo cues reverb, effects sends returns

Monitor Amplifiers: Marantz

Monitor Speakers: IBL Magnaplanar, Bose, Electro Voice, others vailable

Echo, Reverb, and Delay Systems: MXR DDL, Orban 1118 stereo reverb

Other Outboard Equipment: Roland SBF-325 stereo flanger chorus: A.D.A. flanger: w.V.C. pedal, dbx compressor custom compressor graphic EQ other outboards available Microphones: BCA 77's, FV RE 20's, 664, Shure SM 53, SM-81, SM 57 others available

Instruments Available: Prophet 5 rev. III w cassette memory, Korg MS 20, F.H. synthesizers, Bhodes 73 and Yamaha electric pianos, Fender Tele (mod) and Tele Deluxe plus various acous autars, Fender "Tweed," Champ, Polytone "Mini-brite," Dwart amps, PAIA programmable drumkit, Markley mouth-tube various percussion other toys and instruments available

Rates: \$20 hr plus materials (introductory rates), \$45 hr (post-Mar 1) Please call for video rates

Extras: Services include custom pressings, 816 and 824 transfers, editing, leadering, timing, copies. Pro audio rentals sales specialty electronics, rhythm section available. Pool, TV, coffee

Direction: Originally specializing in audio remotes, Studio N is developing into a full-service audio video facility with an eve to the future. Recent LP credits include. Rounder (Eckerworks), Ear-



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### 16 and 8 track recording Full production, pressing, and packaging Oasis Recording Studio • 415 587-3564 • San Francisco

ful, Aqua Records and a Levi-Strauss & Co. soundtrack, and 30 second animated TV commercials. We can provide broadcast quality video production and computer animation. We look forward to serving you in 1982

•• SUNSHINE RECORDING 327 Del Sur, Vallejo, CA 94590 (707) 552-5210

Owner: Lyman White

Studio Manager: Lyman White

Engineers: Lyman White, graduate of the Recording Institute of America, member of the Audio Engineering Society

Dimensions of Studios: 20' x 20' Dimensions of Control Rooms: 10' x 20'

Tape Recorders: Tascam 80-8 w/dbx 8 tack, Tascam 35-2 w/dbx (1/2 track) 2 track, TEAC 2300-s 2 track, Technics BM M85 cassette, Technics RS-M65 cassette; Pioneer H-R99 8 track car tridae

Mixing Consoles: Sound Workshop Series 30, 20 in x 16 out Monitor Amplifiers: Yamaha CA 1010, McIntosh MC-40 and

50 (stereo headset) Monitor Speakers: Studio: JBI, 4311s, control room, JBL 1, 16s and Auratones

Echo, Reverb, and Delay Systems: URSA Major Space Station, Pioneer SR-202W reverb, Univox EC 80 tape echo

Other Outboard Equipment: dbx 162 stereo com pressor/limiter, UREI 4 band stereo parametric EQ, Countryman, Sescom and Trouper direct boxes

Microphones: AKG C 414EB, Sennheiser 421s, Beyer M 260, M 160; Sony ECM-23F; Teledyn EC-430s, Shure 556 EQs, 588 SA

Instruments Available: At \$15 per session Fender Malibu acoustic 6 string, Gibson Les Paul, Wurlitzer spinet piano, Peavey 400 amp, Roland SR-202 string ensemble, Cat synthesizer, Peavey Roadster bass guitar

Rates: Recording and mixing: \$25/hr, editing: \$16/hr

### •• TRANSIENT SOUNDS

ONLY REMOTE RECORDING 441 Pennsylvania Ave., Santa Cruz, CA 95062 (408) 423-7957 Owner: David B. Green

Studio Manager: David B. Green

Direction: We have a fully equipped road cased 8 track system (Tascam), that is available to be moved anywhere the sounds are We specialize in doing remotes and location work, and are available from 1/2 day to by the week Call for rates



•• TRULLION STUDIO P.O. Box 23051, Sacramento, CA 95823 (916) 391-9691 Owner: Kurt & Nancy Bischoff Studio Manager: Kurt Buchoff

•• TWILIGHT STUDIO 642 Palm Ave., Watsonville, CA 95076 1-408-722-7819 or 1-408-724-7140 **Owner**: Steve Loveless Studio Manager: Steve Loveless

•• ULTRA SOUND STUDIOS 1751-B Villa Stone Dr., San Jose, CA 95125 Mail P.O. Box 1346, Campbell, CA 95009 (408) 286-3721 **Owner**: Derek Jones Studio Manager: Vickie fones

Direction: After servicing the Bay Area for the past five years in remote recording. Ultra Lound Studios have now reoved to our new 'ocation in San Iose, Calif. Our new two-story facility will soon be opening in late January, which will include a "Live" studio design concept with the added comforts of louncie, fast food kitchen, and shower room

Like most studios, we aimito have a relaxed and creative environment. In addition, we intend to offer the talent, experience, understanding, and savings unequal in most eight track studios. Come join in the fun and lets make great music-Your Music

 UNREGULATED RECORDING STUDIO P.O. Box 81485, College, (Fairbanks) AK 99708 (907) 456-3419 Owner: The Unregulated Record Co , Inc Studio Manager: Michael States

 WESTMONT RECORDING COMPANY alsc REMOTE RECORDING 6034 Shawn Ave. S.W., Olympia, WA 98502 (206) 943-6328 Owner, Richard E. Ouick Studio Manager: Richard E. Quick



Xandor Recording Studios Orinda, CA

• XANDOR RECORDING STUDIOS also REMOTE RECORDING 407 Camino Sobrante, Orinda, CA 94563 (415) 254-9077 Owner: Bill Mitchell, Lee Payne, Jim Weyeneth Studio Manager: Im Weyeneth

World Radio History



••• ACE TUNEL SOUND CO. also REMOTE RECORDING 9944 S.W. 37th Ave., Portland, OR 97219 (503) 246-5046 Owner: Seth Stager, Greg Zaccana. Studio Manager: Zack Zaccaria

### ••• JOHN ALTMANN RECORDING

1310-20th Ave., San Francisco, CA 94122 (415) 564-4910, 4911 Owner: John Altmann.

Studio Manager: Colette Salaun

Engineers: John Altmann, Mike Shamus, Steve O'Hara, Woody Simmons, Michael Raskovsky, Stephen Hart.

Dimensions of Studios: 23' x 15' x 111/2' high, including vocal booth, piano booth and drum booth.

Dimensions of Control Rooms: 15' x 15' x 111/2'

Tape Recorders: MCI JH-16/24 16/24 track, Ampex MM-1000 8/16 track; MCI JH-110 2 track; Otari MX-5050 2 track; Revox A-77 2 track; (2) Aiwa 6900 cassettes

Mixing Consoles: Neotek Series III, 28 in x 24 out Monitor Amplifiers: BGW 250

Monitor Speakers: (2) Ed Long's MDM4s, IBL 4313s, Auratones,

Bi-Amp third octave room equalization Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb. Parasound III reverb, Lexicon Prime Time digital delay, Marshall Time Modulator analog delay

Other Outboard Equipment: SAE, Soundcraftsmen and Bi-Amp equalizers, UREI LA-4 compressors, Conn Strobotuner, UREI 1176 limiters, ADR Vocal Stresser, Symetrix noise gates, Symetrix D'Esser, ADR spectrum analyzer.

Microphones: Neumann U.87s; E-V RE-20s, RE-15s, Shure SM-58s, SM-56s, 566s; AKG D-50s, C-451s, D-202; Sony 33-Ps; Beyer 101; Sennheiser MD-421; RCA 44-BX.

Instruments Available: Steinway upright grand-1905 (a great instrument, very popular) Bates: Please call for rates. Discounts available and vary with job.

Extras: Kitchen, delicious and free coffee, easy parking

Direction: We are perfectionists in our art, honest, and we love our work. We sincerely care about your work as well. Our continued success depends on it. We've put together a completely professional yet relaxed and comfortable studio. We've tried to create an environment where musical creativity is encouraged, not stilled. We invite you to give us a call to discuss your recording needs, or stop by to check us out. We specialize in working with groups on a continuing basis throughout their development, ie demos to albums. We offer full production service and assistance as well Look for us to be 24 track by March, 1982

### ••• AMERICAN RECORDING STUDIO

also REMOTE RECORDING 400 So. Lipan, Denver, CO 80223 (303) 777-1693 Owner: Celesta Records, Inc. Studio Manager: Dan Diamond, Steve Avedis

**\*\*\*** AUGUSTWOLF RECORDING FACILITY 1250 Pine St. No. 102, Walnut Creek, CA 94596 (415) 933-2617 Owner: Augustwolf, Inc Studio Manager: Doug Reid

Engineers: Doug Reid, Pete Adams Dimensions of Studios: 20' x 20'

Dimensions of Control Rooms: 12' x 15', iso booths: 8' x 8' and 10' x 10'

Tape Recorders: Tascam 85-16 16 track w/dbx; Tascam 80-8 8 track w/dbx; Technics 1520 2 track

Mixing Consoles: Tascam Model 15, 16 in x 16 out w/260 point patch bay

Monitor Amplifiers: BGW, custom Opamp headphone system. Monitor Speakers: JBL 4311's in control room & studio, Technics SB-F2 and Altec A-7s, Auratones.

Echo, Reverb, and Delay Systems: Lexicon Prime Time digital delay, DeltaLabs DL1 digital delay, (2) MXR flanger-doublers, Sound Workshop 262 stereo reverb

Other Outboard Equipment: AudioArts 4200A parametric EQ, Bi Amp EQ 270A (1/3 octave EQ), UREI LA4 compressor, (2) dbx 163 compressor; dbx 155 noise reduction, Bi-Amp EQ 110, Eq 210, Countryman direct boxes, Roland chorus, MXR analog

delay, MXR pitch transposer Microphones: Shure SM-56, SM-57, SM-58, SM-81 (con-densers), AKG C-452EB (condenser), Electro-Voice Phantom Power, RE-20, (2) Neumann KM-84s, plus large assortment.

Instruments Available: Crumar T1 organ, Crumar Performer (strings), Yamaha electric grand piano, ARP Omni, ARP Axxe, Moog-Micro, Wurlitzer electric piano, drum set w/8 mounted toms, assor. stage effects, Leslie 860 speaker system, much more Rates: \$20/hr for 8 track; \$30/hr for 16 track. All jobs are quoted prices by appointment only Extras: Full production capabilities, lounge, coffee, refingerator,

cassette duplication, studio musicians, pinball machines

Direction: With 3 successful independent album releases on the "Augustwolf" label, 5 quality albums completed for clients and countless demos, 1981 speaks for itself and our commitment

### ••• BEGGARS BANQUET RECORDING STUDIO also REMOTE RECORDING

7736 Elphick Rd., Sebastopol, CA 95472

(707) 823-7185 Owner: Warren Dennis

Studio Manager: Warren Dennis

Engineers: Warren Dennis

Dimensions of Studios: Studio A: 600 sq. ft.

Dimensions of Control Room: Control Rm. A: 400 sq. ft. Tape Recorders: Tascam 85-16 w/dbx 16 track; Tascam 40-4 w/dbx 4 track, Technics 1500U (isolated loop) 2 track, Tascam 25-2 w/dbx 2 track, (2) Aiwa 6550 cassettes; Sony TC-K75 cassette

Mixing Consoles: Sound Workshop (w/super EQ 20 inputs), 24 in x 16 out.

Monitor Amplifiers: Nikko Alpha I 350 watts/channel, Symetrix HA-10 headphone amplifier, Accuphase C-200 pre-amp, Sony

direct drive turntable w/Stanton cartridge Monitor Speakers: JBL L112, JBL L100, Auratones, (12) AKG 140 headphones, (6) Sony headphones, (4) Sennheiser head-

Echo, Reverb, and Delay Systems: Eventide H949 Harmonizer/Digital Delay, MasterRoom SL-305 reverb chamber, Korg stage echo, Multiple t<mark>ape delay ta</mark>p

Other Outboard Equipment: UREI LA-4 compressor/limiter, dbx 162 stereo compressor/limiter Eventide Flanger, Ashly parametric EQ, Roland Dr. Rhythm programmable drum machine, Peterson strobe tuner, Bi-Amp graphic EQ. (2) Countryman direct boxes, (2) Symetrix direct boxes, MXR phaser

Microphones: (2) AKG 414. (2) AKG 451. AKG D-224E. (2) AKG D-200E, (2) Sony ECM-23F, Sennheiser 441, (4) Shure SM-57; PZM microphones

Instruments Available: Yamaha C-3 conservatory grand plano, Shingerland, Ludwig, Zilduan, Paiste drum kit, Gibson Les Paul guitar, Gibson Ripper L9-S bass guitar, Roland Bolt 60 studio amp, Tama Timbales, Fender Rhodes piano, Korg 3100 poly phonic synthesizer (extra charge/day), full array percussion instruments

Rates: \$28/hr (incl engineer). Special bulk and spintual/nonprofit music rates. Call for quotes

Extras: Beautiful country environment, fully air-conditioned Would you believe indoor basketball. Good coffee! Included in the rate, is Warren Dennis as engineer, and as a musician at no extra charge

Direction: Warren Dennis (owner/engineer) has over 15 years music expenence as a performer, published songwriter (Screen Gems, EMI), instructor at Sonoma State University, and over 200 projects to his production credit. His philosophy is based on honesty, professionalism, and attention to detail from preproduction to final pressings. Beggars Banquet delivers a great sounding product, in a clean and relaxed environment, and for the most reasonable rate possible. Call and arrange a casual appointment to look things over, and hear some of the quality work this studio is putting out!

### ••• ROBERT BERKE RECORDING San Francisco, CA

(415) 661-6316

Owner: Robert Berke

Studio Manager: Mark Escott

Engineers: Robert Berke, Mark Escott, Joe Hunter Dimensions of Studios: 10' x 16'

Dimensions of Control Rooms: 15' x 12'

Tape Recorders: Otari MTR-10 16 track, Ampex ATR-100 2 track; Scully 280B 2 track; Otan, Sony, TEAC 4 tracks Mixing Consoles: Auditronics 110-8, 16 in x 8 out.

Monitor Amplifiers: BGW

Monitor Speakers: UREL Auratopes

Echo, Reverb, and Delay Systems: MasterRoom reverb, Eventide Harmoniz

Other Outboard Equipment: Inovonics noise gates, Orban 522 EQ, Orban sibilance limiters, ADR Vocal Stressors, UREI LA-4s, UREI 565T filter set, Phone patch system, BTX Shadow System w/SMPTE Time Code gen. and VTR.

Microphones: Neumann, Sony, Shure, E-V Rates: SMPTE syncronization including Shadow System, 34" VTR, color monitor and complete 16 track production facility-\$80/hr Production and mixing: \$45/hr.

Direction: The studio specializes in radio, TV, and multi-media sound track production, and features a complete sound FX and music library. Over the years we have serviced a wide variety of media production companies and ad agencies with a reputation for quality work, last turnover, and reasonable prices. The recent addition of television synchronization equipment allows us to expand our services

### ••• BIG PINK WEST

507 Browning St., Mill Valley, CA 94941

(415) 388-2987

Owner: Dr Dick Darling, DDS

Studio Manager: Michael Rosen Engineers: Michael Rosen.

Dimensions of Studios: 30' x 24', drum booth: 15' x 7'

Dimensions of Control Rooms: 18' x 12

Tape Recorders: TEAC 85-16 16 track; Otan MX-5050 2 track, Aiwa 6900 MKII 2 track

Mixing Consoles: (2) Speck (in tandem) SP 800B's, 32 in x 16 out

Monitor Amplifiers: Yamaha P-2100, Crown D-150, Crown D-60.

Monitor Speakers: JBL 4311

Echo, Reverb, and Delay Systems: DeltaLab DL-2, Eventide

H910, AKG BX-10, Time Machine EEM-2000 Other Outboard Equipment: UREI LA-4, UREI LN-1176 compressor/limiters

Microphones: Neumann U-87, KM-84, Beyer M-500N, E-V RE-15, RE-20, RE-11, RE-1751; Shure SM-57; AKG D-200E; Sennheiser D-421, Sony 33-P

Instruments Available: Baldwin upright piano, Yamaha syn-thesizer, Rogers drum kit, 1970 Gibson Les Paul custom, 1966 Guild Aragon acoustic guitar, timbales, numerous hand-held per-

cussion devices, rhythm machine.

Rates: \$19/hr includes engineer, all outboard gear and musical Instruments

**•••** BROWN BAG PRODUCTIONS 482 S. Jasmine, Denver, CO 80224 (303) 388-9245

Owner: Michael Lee, Robert Lee Studio Manager: Robert Lee

••• BUFFETT SOUND San Francisco, CA (415) 929-8085 Owner: Peter Buffett, Mary Buffett. Studio Manager: Mary Buffett Engineers: Peter and Mary Buffett Dimensions of Control Rooms: 15' x 30' (all keyboards in control room)

Tape Recorders: TEAC 85-16 16 track; Otan 5050B 2 track; Sony TCD5M cassette 2 track, TEAC X-3 2 track. Mixing Consoles: Sound Workshop Series 30 w/VCA subgroups, 20 in x 16 out

Monitor Amplifiers: BGW 750

Monitor Speakers: MDM 4's, Auratones

Echo, Reverb, and Delay Systems: Lexicon 93, Harmonizer H949, MICMIX XC-305

Other Outboard Equipment: Scamp rack including: parametric EQ, compressors, expander/gates, auto panner Microphones: Beyer M-500.

Instruments Available: LM-1 digital drums, CS-80 modified,

Prophet 10, ARP 2600, Yamaha CP-70, Rhodes. Rates: \$45-\$85/hr depending on instruments used

Extras: Comfortable home atmosphere and helpful engineers! Directions: Obviously with no studio dimensions and one micro phone, this is a keyboard studio. Perfect for soundtracks and beautiful keyboard demos. Use of the finest outboard equipment at no extra charge insures high quality recordings for any sized budget The LM-1 digital drums give any demo the dynamics of a big-budget production.

### ••• COPPERWOOD LOCATION RECORDING STUDIOS also REMOTE RECORDING

2616 Garfield Ave., Carmichael (Sacramento), CA 95608 (916) 485-7999, 972-1694 Owner: Im Hibbard, Scott Welch

Studio Manager: Scott Welch

Engineers: Jim Hibbard, Scott Welch, Marty Monson

Dimensions of Studios: Main room: 17' x 21', drum room: 8' x 5', vocal room 6' x 1

Dimensions of Control Rooms: 131/2' x 181/2' Tape Recorders: Otan MTR 90 24 track, Ampex MM1100 16

track, Otari MX 5050 8 track; 3M 79 2 track, TEAC 25-2 2 track; Dokorder 1140 2 track; (2) Sansui SC110 cassettes. Mixing Consoles: Tangent modulied 3216, 20 in x 20 out, solo in

place, group muting, custom 2 bus pre set effects and muting. 16 effects returns and sends

Monitor Amplifiers: Yamaha, Crown, Phase Linear

Monitor Speakers: IBL 4313, IBL 4311's, Auratones

Echo, Reverb, and Delay Systems: DeltaLab Acousticomputer, modified Orban stereo reverb 1-11B. [banez analog delay/flanger AD230, Eventide Omnipressor, Echoplex

Other Outboard Equipment: (2) UREI LA4 compressor/ limiters, dbx 160 limiter, dbx 154 limiter, dbx noise reduction 4 channels, Furman parametric, Neptune 27 band EQ, TEAC effects mixer, noise gates

Microphones: AKG 414; Beyer M-500; E-V RE-20's; Sennheis 441, 421, Shure SM-58, SM-56, SM-57, SM-76; RCA DX77, Crown PZM

Instruments Available: Baby grand piano, custom studio Rickenbacker bass, Moog and Prophet synthesizers. Rates: 16 track \$40/hr, \$35 block rate

### **\*\*\*** CORASOUND RECORDING 122 Paul Drive, San Rafael, CA 94903 (415) 472-3745

Owner: Stephen Hart, I.D. Sharp

Studio Manager: Stephen Hart

Engineers: Michael Raskovsky, J.D. Sharp, Stephen Hart.

Dimensions of Studios: 26' x 16' Dimensions of Control Rooms: 9' x 12'

Tape Recorders: Ampex MM-1000 16 track; Otan MX-5050 MKII 8 track; Otan MX-5050B 2 track, TEAC A3340S 4 track; Aiwa cassette 800.

Mixing Consoles: Neotek Series 2, 20 in x 16 out

Monitor Amplifiers: McIntosh, Crown Monitor Speakers: JBL 4311, Auratones

Echo, Reverb, and Delay Systems: DeltaLab DL-4. Ibanez AD230, Sound Workshop 262 stereo reverb, Roland Space Echo

Other Outboard Equipment: ADR stereo comp./limiter, dbx compressors, Ashly parametrics, EXR exciter, dbx noise reduction, 1/3 octave room EQ, Symetrix signal gates, Countryman direct boxes

Microphones: AKG, Beyer, E-V, Neumann, Shure, Schoeps, Sennheiser

Instruments Available: Drum sets, upright grand plano, string synthesizer, percussion instruments

Rates: 16 track \$45/hr; 8 track \$32/hr; block rates: 16 track, 50 hrs or more 10% discount; 8 track, 10 hrs or more 10% discount; 10% discount is available off any rate for full payment in advance Extras: Good sounding room, expenenced engineers. Direction: For six years, Corasound has been recording LPs and

singles, radio, television and film soundtracks. We also offer complete production service, from arranging to pressing. Corasound product has received national airplay, and recent product is being distributed internationally

••• DESITREK STUDIOS 3415 S.E. Hawthorne Blvd., Portland, OR 97214 (503) 232-8606 Owner: Joe A. Perez, David B. Harrison, Michael Demmers, Douglas Durbrow

Studio Manager: Michael Demmers



••• EAST BAY RECORDERS also REMOTE RECORDING **Bichmond** CA (415) 527-4941, 525-6289 Owner: Randy Rood. Studio Manager: Randy Rood

Engineers: Randy Rood, Gama Contreres Dimensions of Studios: 22' x 18', iso booth. 8' x 5', rehearsal room: 17' x 18'

Dimensions of Control Room: 12' x 13' Tape Recorders: Ampex MM-1000 16/8 track; Otan MX-5050 4 track, Ampex 440/351 2 track, TEAC CX210 cassette; Revox A77HS 2 track

Mixing Consoles: Ramsa 8816, 16 in x 4 out; Tangent 802, 8 in x 2 out

Monitor Amplifiers: Dynaco, McMartin, JBL, Symetrix headphone amp

Monitor Speakers: JBL 4311, Altec 604E, Auratones Echo, Reverb, and Delay Systems: Orban Parasound 106, Great British Spring, Lexicon Prime Time and analog delays

Other Outboard Equipment: Teletronix LA-2A, UREI LA-4, Eventide Omnipressor, dbx 161 comp /limiters, Symetrix signal gates, Furman parametrics.

Microphones: Neumann, AKG, RCA, Sony, Shure, Electro-Voice, Beyer, Sennheiser, (includes a vintage ribbon mic and several tube-type condensers).

Instruments Available: Upright piano, Fartisa organ, pre-CBS Fender amps, acoustic and electric guitars, other instruments available

Ratee: 16 track: \$25/hr (block); 8 track: \$17.50/hr; 4 and 2 track: \$15/hr. Remote prices on request. Rehearsal room: \$6.50/hr.

### ••• PHIL EDWARDS RECORDING also REMOTE RECORDING

1338 Mission St., San Francisco, CA 94103 (415) 861-4439

**Owner:** Phil Edwards

Studio Manager: Cecily Gardner Engineers: Phil Edwards, Ron Davis, Phil DeLancie, Bill Steele Dimensions of Control Rooms: Mixdown A: 13' x 14' x 7'

Mixdown B: 12' x 10' x 7', remote truck: 21' x 8' x 7' Tape Recorders: (2) 3M 79 16 track; 3M 70 8 track; (3) MCI JH-110B 2 track; Ampex 440-C servo 2 track; (2) Ampex/Inovonics 300/355 2 track

Mixing Consoles: Mixdown A API 1604, 16 in x 4 out; Mix down B: Langevin custom, 10 in x 4 out: remote truck. DeMedia (API) 2416 24 in x 16 out

Monitor Amplifiers: Muxdown A Crown DC 300A; Mixdown B McIntosh MC 250, remote truck McIntosh MC 2100

Monitor Speakers: Mixdown A: Altec 9845A, Auratone 5C; Mixdown B. JBL 4315, remote truck: Altec 604-8G, Auratone

Echo, Reverb, and Delay Systems: EMT 140 ST stereo plate reverb, AKG BX 10 reverb.

Other Outboard Equipment: UREI limiters, 1176 LN, LA-3A: Orban 621B Parametric EQ; Orban 516EC D'Esser, Dolby M16 noise reduction, 301 noise reduction (16 channels); ITC cart machine, three deck; assorted 1/4 track cassette and eleaset nachines

Microphones: Neumann U-87, U-47, KM-84; AKG 414, 451; Sennheiser 421, Shure SM-85, SM-58, SM-56, SM-53; Electro-Voice RE-15, 1751, RCA 77-DX

Rates: 16 track mix: \$75/hr; 8 track mix: \$60/hr; all other work (4 track, 2 track, etc.) \$40/hr Please call for remote rates

Direction: PER is experienced in providing complete on-location audio services and facilities for all types of projects. For example: Live Recording: Woody Herman, Dave Brubeck, Stan Getz, Tjader, Carla Bley, etc.; Live Broadcast: S.F. International KJAZ al (live telecast in Japan via satellite). Jefferson Starship (KMEL), Opera In The Park (KQED); Video Production: Home Box Office, KPIX, Video Tunes; Radio Production: Monterey and Concord Jazz Festivals for National Public Radio; Film Soundtracks: Wilhe Nelson at the Cow Palace for Baytide Films, "Partners" for Hurncane Gulch Productions Complete packages for simultaneous recording and broadcast are available, as are our fine multitrack mixdown and post-production facilities

••• FEATHERSTONE RECORDING STUDIO also REMOTE RECORDING 8996 Fruitridge Rd., Sacramento, CA (916) 381-5243 Owner: Featherstone Recording Studios, Inc. Studio Manager: Tom Conrad

### \*\*\* FREEWAY RECORDING INC. also REMOTE RECORDING 2248 E. 14th St., Oakland, CA 94606

(415) 532-3700

Owner: Freeway Recording Inc.; Bernie Rivera, President, Studio Manager: Beecher Rintoul III, Booking: Deborah Rich Engineers: Beecher Rintoul III, Jan Waling, David Hartzhiern, independents welcome

Dimensions of Studios: Studio A: 16 track w/isolation booth and drum booth 46' x 37' x 12', Studio B: 4 track 20' x 30' x 16', rehearsal: 22' x 32' x 16'.

Dimensions of Control Rooms: Control A: 24' x 15' x 10', Control B: 15' x 17' x 12'

Tape Recorders: 3M M-56 16 track; 3M M-64 2 track; TEAC 3340-A 4 track; Pioneer CTF-900 cassette

Mixing Consoles: RCA custom (Studio A) 8900 24 in x 16 out; Yamaha (Studio B) PM-700 12 in x 4 out Monitor Amplifiers: McIntosh 2300s, 2100s; Crown DC-300s

D-40s

Monitor Speakers: Custom bi-amp JBL and Gauss (Studio A), Alter 604-E (Studio B), Quad Electronics, cubes and asst. headphones

Echo, Reverb, and Delay Systems: Acoustic chamber. Orban Parasound Spring, Lexicon Prime Time, others by special request Other Outboard Equipment: 16 channel dbx noise reduction ADR Vocal Stresser, dbx 160 & 260 compressors, UREI 1176LN stereo limiters, Spectra Sonics complimiters, UREI digital metronome, Technics quartz drive turntable w/Audio-Technica AT-15 cartridge.

Microphones: Neumann U-47s, U-87s; Sennheiser 441s, 413; AKG D-2000E; Sony C-37A & ECM Series; assl. Shure & E.V Instruments Available: ARP 2600 synthesizer, string synthesizer, Baldwin grand piano, Hammond B-3 organ, Fender Rhodes piano, Hohner D-6 clavinet, Celeste, Fender Jazz & Precision bass. Sound systems for rehearsal and performance: Bi-Amp/Tri-Amp Community Light & Sound speakers, JBL and Altec, powered by McIntosh and Crown amps, w/Yamaha mix boards. Rates: \$50/hr - \$70/hr. Discount rates for block booking. Call for rates and availability

Extras: Two large rehearsal studios, comfortable studio lounge, storage space, in house music store includes accessories, specialty instruments & equipment available for sale/rent, sound reinforcement, remote recording, record cutting & pressing available, complimentary coffee, refreshment center, kitchen facilities, airport service, studio musicians available

Direction: We are a spacious, (13,600 sq. ft.), full service, musician owned & operated, professional one-stop-shopping opera-tion. Our clients include but are not limited to Eddie Money, Maze, Two Tons Of Fun, Tower of Power, Esencia, Benny Velar di, The Hawkins Family & Y&T. Plans of having our record label and production company are in the works for the future

••• HOLDEN HAMILTON & ROBERTS INC. also REMOTE RECORDING 2227 N. 56th Ave., Seattle, WA 98103 (206) 632-8300 Studio Manager: Herb Hamilton, Jr

### •• IRONWOOD STUDIO

20816-23rd Ave. W., Alderwood Manor, WA 98036 (206) 775-7905

Owner: Paul Scoles, Susan Ashby

Studio Manager: Paul Scoles

Engineers: Paul Scoles, Gene Darlung; assistants: Kim Kearns, Eric Ashby

Dimensions of Studios: 15' x 22' plus (2) isolation rooms

Dimensions of Control Rooms: 11' x 15'. Tape Recorders: Studer A-80 16 track; Otari 5050 8 track; Otari 5050 2 track; Akai GX630 1/4 track; Sankyo STD1800 cassette.

Mixing Consoles: Spectra Sonics custom, 16 in x 16 out. Monitor Amplifiers: Marantz, Optonica.

Monitor Speakers: JBL 4311, Auratones

Echo, Reverb, and Delay Systems: MasterRoom 305 reverb.

Dehalab DL-2 stereo digital delay. Other Outboard Equipment: Symetrix compressors (2), Symetrix signal gates (2), custom stereo synthesizer, AudioArts parametric EQ, Neptune graphic EQ (2), dbx 155 8 channel noise reduction, Symetrix headphone amps (2), Real Time analyzer, strobe tuner, and assorted effects.

Microphonee: Neumann U.87s, U.47s, KM-84s; Sennheiser 441s; E-V RE-20; Beyer M-500; Shure SM-58s, SM-57s, 545, 546; AKG C-12; Nakamichi CM-300s.

Instruments Available: Grand piano, Hammond M-3 w/Leslie, Fender Rhodes, Roland String Ensemble, Hohner clavinet, conga drums, Guild Starfire guitar, Ovation bass, Music Man amp, Pearl drums

Rates: \$45/hr 16 track recording & mixing; \$30/hr 8 track recording & muxing; tape extra

### ••• ISOLATION STUDIOS 24 Geriola Court, Pleasant Hill, CA 94523 (415) 937-6552 Owner: David Denny

Studio Manager: David Denny. Engineers: David Denny Dimensions of Studios: 15' x 20'

Dimensions of Control Rooms: 10' x 15', iso booth: 4' x 4', B: 6' x 5

Tape Recorders: Ampex MM-1000 16 track; Tascam 80-8 w/dbx 8 track; TEAC 2 track; TEAC 4 track; Sony K-81 metal

Mixing Consoles: Sound Workshop Super EQ, 24 in x 16 out. Monitor Amplifiers: Kenwood 881, QSC 150

Monitor Speakers: IBL 4311s, Auratones, Infinity 4000s Echo, Reverb, and Delay Systems: DeltaLab stereo digital delay, (2) Steiner plate reverbs, Roland chorus echo. Other Outboard Equipment: Stereo & mono headphone sys-

tems, 300 point patchbay, Ashly compressor, Roland guitar preamp, SAE parametrics, noise gates, Shure level lock

Microphones: Sony, Sennheiser, Shure, AKG, tube mics available by prior request

Instruments Available: Yamaha electric grand, lots of guitar gadgets, Roland synthesizer, 12 string ovation guitar Rates: \$20/hr

### ••• IUNIPER STUDIOS

P.O. Box 1405, Evergreen, CO 80439 (303) 333 8326 or 838-5526 Owner: Tom Little, John Macy Studio Manager: John Macy

### ••• ROB KINGDOM MOBILE RECORDING

ONLY REMOTE RECORDING 120 Remington #415, Sunnyvale, CA 94087 (408) 732-5305 Owner: Rob Kingdom

Studio Manager: Rob Kingdom. Engineers: Rob Kingdom, Doug Hopping.

Dimensions of Studios: The Western World

Dimensions of Control Rooms: 7' x 12', enclosed in a step

Tape Recorders: Tascam 85-16 16 track; Otan MX-5050B 2

track; Revox A-77 2 track Mixing Consoles: Studiomaster 20 x 4, 20 in x 20 out Monitor Amplifiers: Uni-Sync model 50, Kenwood 7002

Monitor Speakers: IBL 1-100, Auratones Echo, Reverb, and Delay Systems: AKG BX-10, Lexicon Prime Time 93, Lexicon 92 DDL.

Other Outboard Equipment: EXR Exciter, dbx 160 compressors, Delta Graph 10 band EQ, Symetrix signal gate, custom mic splitter

Microphones: Neumann U-87, KM-86, KM 84; Beyer 500-C; E-V RE-20; RCA 77D; Shure SM-57; Sony ECM 33P; Sennheiser 421, K2U, Countryman direct box

Instruments Available: Moog Micromoog, many others on reauest

Rates: 16 track \$28/hr (overdubs, mixing, etc.); 2 track \$18/hr; 16 track \$275/day; 18,/mile travel charge over 15 miles Extras: Video interface available.

Direction: Demo clients included, Uncle Rainbow, The Pace, Wayne Sloan, Chanter, Mersey's Cadillac, Deep Sky, Electric Wood, Joe Shanno, Ted Sanchez, Cobra and others, Album clients included: Tim Abbott, Michael Silversher, Joe Ferrara, Larry Vanucci, The Contraction. Video clients include Tim Ab-bott and the Santa Clara County Transit Authority. We specialize in quality location recording at reasonable rates

### ••• KLASS TRAX

also REMOTE RECORDINGS 2502 E. Pikes Peak Ave., Colorado Springs, CO 80909

(303) 630-8687 Owner: Klass Traz

54

Studio Manager: Bruce Thompson Engineers: Dave Kint, Neil Simolke

Dimensions of Studios: A: 20' x 16' x 8', B 6' x 7' 8', C. 11' x 13' x 8.

Dimensions of Control Rooms: 20 x 11' x 8

Tape Recorders: Ampex MM-1100 16 track; Ampex AG-440 C 2 track; Revox A-77 2 track, Onkyo TA-2060 cassette. Mixing Consoles: Custom modified Bi-Amp 1642 (w/260 point

patchbay), 20 in x 25 out

Monitor Amplifiers: Rowland Reasearch Class "A" amps, Row land Reasearch Class "A" headphone amps Monitor Speakers: Tri-amped JBL 4313B with constant voltage

crossovers, Auratone cubes, Infinity Qs Echo, Reverb, and Delay Systems: Lexicon 224, Eventide 1745M

Other Outboard Equipment: Symetrix CL-100, Symetrix SG-200, UREI 1176LN, EXR Exciter, Orban 622B, dbx noise reduction, Rowland Research phase meter, RR turntable pre-amp, Thorens turntable, tape VSO.

Microphones: Neumann U-67, U-47, KM-84; AKG C-414EB, C-451E; Shure SM-57; Sennheiser MD441, Crown PZM; E-V RE-20, RE-10; Beyer M-500, M-260, M-101; UREI 325; Country

man type 85; Dietz direct; Frap F-350. Instruments Available: Mason & Hamlin grand piano, Fender Rhodes 88, Yamaha YC450 organ, ARP Odyssey with interface and freq. follower. Rates: \$40/hr



### ••• LIKEWISE PRODUCTIONS P.O. Box 5447, Berkeley, CA 94705 (415) 654-3112

Owner: Likewise Production Studio Manager: Jeffry O. Holt Engineers: Jeffry O. Holt, Matt Brady, Greg Spinos, Randy

Stadtman

Dimensions of Studios: A 16' x 24', B: 12' x 22' lounge, C: 6' x 12' isolation boot Dimensions of Control Rooms: 10' x 14', comfortable at

mosphere

Tape Recorders: Tascam 85-16 w/dbx 16 track: (2) Otan 5050B 2 track; TEAC A2340-SX 4 track

Mixing Consoles: Sound Workshop Series 20, 20 in x 16 out. Monitor Amplifiers: Gruenhagen, Yamaha P-2100.

Monitor Speakers: Tannoy SRM 12B, Gauss/JBL, Electro Voice. Echo, Reverb, and Delay Systems: Lexicon DDL, Prime Time M93, stereo chorus, MasterRoom reverb XL 305, MXR analog delav

Other Outboard Equipment: Peak limiter, 16 dbx, Countryman direct box DS-1, AKG K14Ds, headphones. Microphones: Sony ECM-56; Sennheiser MD-421; Shure SM-56, SM-58; AKG C-452EB.

Instruments Available: Phophet 5, Yamaha CP-70 electric baby grand, Oberheim TVS-1, Fender Rhodes, Hohner clavinet, strings, Gretsch drum set w'Paiste hi hats, acoustic guitar

Rates: \$19.95/hr days: \$24.95/hr after 6:00 pm, includes engineer

Extras: Production, color video

Direction: Teresa Trull KMEL 106 FM, Sheila E. Souedo, June Millington, Metropolis, Dave Margen, Bill Church, Holly Near, Revin Carter, Ray Obiedo, Billy Satelitte, Bill Foster, Jesse Bradman, Meg Christian, Dan Chancey, Robbie Dunbar, Rings, Malcolm Kain, Larry Batiste, Stoneground, Mary Watkins, Mark Russo, Robert Grace, Hillary Thompson, Debra Von Lewis, Don Cardoza, Jeff Brain, Peter Bachner, Paul Van Wagingen, Clay Toven Thanks

### ••• MAGIC SOUND

olso REMOTE RECORDING

1780 Chanticleer Ave., Santa Cruz, CA 95062 (408) 475-7505

Owner: Allan Goldwater

Engineers: Alan Goldwater Merle Sparks

Dimensions of Studios: 16 x 20' x 12' (asymmetrical wedge ceiling), 12' x 14' isolated drum room; 5' x 6' x 7' booth Dimensions of Control Rooms: 12' x 14' x 16

Tape Recorders: MCI/Inovonics JH 10-16 15/30 ips 16/8 track; Rockwell computer auto locater; Ampex AG 444B 15/30 ups 2 track, Electrosound 505 2 track, (2) Kenwood KX 1060 cassette.

Mixing Consoles: Custom 20 input 8 buss, separate 16 track fully equalized monitor, section, full patchbay Monitor Amplifiers: Dynace 150 and Phase Linear 400.

Monitor Speakers: Altec/UFEI 811, White EQ 4100, Sennheiser & AKG headphones Echo, Reverb, and Delay Systems: Ecoplate II, Multi-Track

reverb, Marshall Time Modulator, Roland Space Echo Outboard Equipment: (2) MXR flanger, (2) MXR 3/3 octave

graphic EQ, UREI LA4 limiter, (2) Universal Audio 175B tube amiters, Allison Gain Brain, Mayer noise gates

Microphones: Neumann KM-54a, U-67, AKG (2) 414-EB, C-451, D-190, D-160, D-12, C28-A (tube); Beyer M-260, X1N (2); Sennheiser MD-421 (2); Shure SM-57, 58, 81 (several each); Sony C377, C22, C-37A (tube); Altec M30's (tube); RCA BK5 (ribbon)

Instruments Available: Cable upright piano, ARP Odyssey, Hohner D6 clavinette, Apple computer 16 voice synthesizer system; Guild F30, Danelectro and Rickenbacker 12-string guitars; Fender Princeton and Deluxe amps, Polytone amps; CB drums w/Zıldjian cymbals

Rates: \$35/hr 16 track: \$25/hr block (10 hrs or more) \$20/hr 8 track; 1 hour free set-up and rehearsal with 3 hours or more session, free pot (of coffee).

World Radio History

••• MARZ (MUSIC & ARTIST RECORDING ZONE) olso REMOTE RECORDING 750 North 9th, San Jose, CA 95112 (408) 294-6176 Owner: James Oldham

Studio Manager: Paul Zele

Engineers: James Oldham, Rob Harrison, Paul Zele, Howard. Dimensions of Studios: A: 18' x 20', B: 12' x 20', remote truck: 18' x 8'

Dimensions of Control Rooms: A&B: 10' x 12'

Tape Recorders: TEAC 88 w/dbx 16 track; TEAC 30.2 ½ track; TEAC A3340S 4 track; Video: Sony LV1800 ¾"; Sony LVO7000 ¾"; NEC ¾"; assorted VTRs and 2 speed cassette decks

Mixing Consoles: Tangent Series 4, 20 x 4 x 20; Remote: Peavey, 16 in x 4 out; Tapco, 14 in x 2 out. Monitor Amplifiers: Yamaha, Phase Linear.

Monitor Speakers: JBL 4311s.

Echo, Reverb, and Delay Systems: Lexicon Prime Time, Yamaha analog, Roland Chorus & Space Echos, Tapco reverb, Ashly reverb.

Other Outboard Equipment: ACL 1/2 octaves, ADC 12 graphics, DOD 15-band stereos, Ashly parametrics, Sescom headphone system w/EQ

Microphones: 52 assorted types Instruments Available: Anything from Yamaha grand to any

sythesizer etc. Rates: 16 track: \$250/day w/dbx; 8 track: \$150/day: Mobile: \$250/day; Video: call for rates

### ••• MOBIUS MUSIC RECORDING

1583 Sanchez, San Francisco, CA 94131 (415) 285-7888

Owner: Oliver DiCicco.

Studio Manager: Annette Olesen. Engineers: Oliver DiCicco, Ken Kessie, Andy Narell, Annette

Dimensions of Studios: 25' x 15'.

Tape Recorders: 3M 56 16 track; MCI JH-110 2 track; Ampex MR-70 4 track; Revox A77-HS 2 track; Nakamichi 600 2 track. Mixing Consoles: Audiotronics 501, 26 in x 24 out

Monitor Amplifiers: Crown D-150, D-60.

Monitor Speakers: UREI 811 Time Aligned, Auratones, EPI 100, Sennheiser HD-414, Altec 604 w/mastering lab crossovers. Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb,

MasterRoom MRIII reverb, Lexicon 92 DDL, DeltaLab DL-4. Other Outboard Equipment: Orban 622B parametric EQ. UREI 530 graphic EQ, UREI LA-4 limiters, dbx 160 limiters, Allison

kepex, dbx noise reduction, Moog Model 12 synthesizer Microphones: Neumann U-87s, KM-84s, KM-85s; Sennheiser 421s, 402; Beyer M-500; Electro-Voice RE-15, RE-11; Shure

SM-57; AKG D-200E, D-160; Sescom direct boxes.

Instruments Available: Yamaha C-3 grand piano, Slingerland radio king drums, Givson and Guild electric guitars, Fender P-bass, Fender amps.

Rates: 16 track \$50/hr; 4 track \$35/hr; 2 track \$25/hr. Block booking discount available

Dimensions of Control Rooms: 14' x 15'. Tape Recorders: Ampex MM-1100 16 track; Tascam 80-8

w/dbx 8 track; TEAC 3340S 4 track; Tascam 252 2 track; Sony

Echo, Reverb, and Delay Systems: Sound Workshop 242

Other Outboard Equipment: 12 channels dbx, MXR limiters, MXR phaser, Soundcraftsmen 10 band EQ, ADR expander gates,

Microphones: Neumann, AKG, Sennheiser, Sony, Shure,

••• MUSIC ART RECORDING STUDIO, M.A.R.S. 5944 Freedom Blvd., Aptos, CA 95003 Phone for directions

(408) 688-8435 or leave message: 425-5211

TC756-2.2 track; Sony TC-K81 cassette 2 track

Mixing Consoles: Tangent 3216, 16 in x 16 out

Monitor Amplifiers: Crown DC-300A, (2) DC-75.

reverb, ADR S24 time shape module and flanger

ADR compressor/limiters, ADR parametric EQ.

489½ Cavour St., N. Oakland, CA 94618

Dimensions of Studios: 23' x 20' x 12'. Dimensions of Control Rooms: 23' x 10' x 10'

Monitor Ampliliers: BGW 250-C, Bi-Amp TC-60.

Monitor Speakers: JBL 4311, 4301; Auratones; Dynaco

Rates: 16 track \$40/hr: 8 track \$25/hr

••• OUTBACK STUDIOS

Studio Manager: Wilson Dyer.

Instruments Available: Piano, amps, ARP Omni-2.

Engineers: Wilson Dyer, Dave Marcus, Steve Berryman.

Tape Recorders: Ampex MM-1200 16 track; Otari MX-5050 2

track; Tascam 35-2 2 track; Pioneer RT-701 2 track; (10) TEAC

Mixing Consoles:Bi-Amp 1642, 16 x 16 x 4 x 2; (3) Tascam

Echo, Reverb, and Delay Systems: MasterRoom XL-305, Furman RV-1, Lexicon Prime Time, Yamaha E-1010, MXR flanger/doubler, DOD flanger/doubler.

Other Outboard Equipment: Symetrix signal gates, Furman

parametrics, Bi-Amp graphic EQ, dbx compressors, noise reduc-

THE MIX VOL. 6, NO. 1

Electro-Voice, Beyer

(415) 655-2110

CX-210 cassette

Model 1, 8 in x 2 out

Owner: Wilson Dye

Monitor Speakers: JBL 4315, 4301, 4313-B; Auratones

Owner: Ken Capitanich.

Studio Manager: Ken Capitanich Engineers: Ken Capitanich or Will Holt. Dimensions of Studios: 14' x 18'.



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JACK LEAHY RUSSIAN HILL RECORDING

### **RUSSIAN HILL RECORDING**

San Francisco 28x24 Series III September 1981

THE PRO'S CHOSE

### LIZARD ROCK STUDIOS

Owned by Keith Knudsen & John McFee of the Doobie Brothers 28x24 Series III, September 1981

### CORASOUND RECORDING

Sephen Hart 20x28 Series II November 1981

### JOHN ALTMANN RECORDING

San Francisco 28x24 Series III-C February 1982

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The cost effective step up for growing studios-available in 16 or 24 track prewired mainframes. It is an I/O configuration (as MCI Series 600) and outperforms Sound Workshop Series 30 or Soundcraft 800.

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World Radio History

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802 Fourth Street (4th & Lincoln), San Rafael (415) 457-7600 Hours: 11-6:30 Tuesday-Friday, 11-5 Saturday, Closed Sunday, Monday by Appointment Only

### tion. MXR limiters

Microphones: AKG 414, 160, 190, 1000; Beyer M-500; Neumann KM-85, U-87, Sennheiser 441, 421; Sony C-37A (tube), ECM 377, 56, 22, 19b; Shure SM-P57, 58; direct boxes. Instrumente Available: Wurlitzer studio acoustic piano, Gibson J-4S, ES-335; Fender Strat; jazz bass; Deluxe amps. Rentals: Gretsch studio tuned drums w/Yamaha wood snare; Prophet 5; Rhodes w/Dyno-my EQ; Hohner D-6 clavinet.

Rates: As low as \$30/hr w/engineer and goodies. (Block rate.) Call for duplication rates.

Extras: Real Time cassette duplication, AGFA/TDK tape, One block from Hwy 24. Leo's Music, The King Fish & Soul Brothers Kitchen. Production service, studio musicians, and leadsheet serv-

Direction: Outback Studios goes "Sweet 16" and continues it's commitment to the highest quality at the lowest possible rate Throughout 1982 we will be updating as fast as we can so you'll see some of your project investment return in the form of "goodies" to make you sound even better! Special thanks to: The Nancy Wenstrom Band, Joe Goldmark, Texas Chainsaw, Golden Gate Jumpers, The Rakes, Hot Face Lines, Lip Service, The Bammie Awards, Little Roger, Dick Bright, Stu Cook, The Ironics, Tom Donald, The Bandits, Amadeo Barrios... We love ya!



Oasis Recording Studio San Francisco, CA

••• OASIS RECORDING STUDIO 395 Sussex St., San Francisco, CA 94131 (415) 587-3564

Owner: Greg Goodwin

Studio Manager: Debbie Slutsky

Engineers: Greg Goodwin, Mike Joseph Dimensions of Studios: 16' x 32'; 10' x 12 iso booth for plano (January '82).

Dimensions of Control Rooms: 12' x 16'.

Tape Recorders: Ampex MM-1100 w/search to cue, 16 track; Tascam 80-8 8 track; TEAC 3340 4 track; Ampex AG 440B 2 track; Revox A77 2 track; Ampex PR-10 2 track; TEAC C-3 cassette; (3) Sony TC-FX2 cassettes; Aiwa AD-1250 cassette.

Mixing Consoles: Soundcraft Series, w/sub-grouping and 4 band/2 sweep EQ section. Monitor Amplifiers: Yamaha, BGW, Symetrix

Monitor Speakers: IBL 4311s acoustically balanced, Electro-

Voice Sentry 100As, Auratones Echo, Reverb, and Delay Systems: MasterRoom, Orban, Loft

450 delay, Loft 440 delay, Roland SRE-555 chorus/echo tape delay, Aural excite

Other Outboard Equipment: dbx noise reduction, (4) UREI compressor/limiters, Orban parametric EQ, 8 channels/noise gates, Orban 525A de'esser, graphic EQ

Microphones: We have a full selection of condensers, dynamics and ribbon mics including: Neumann, Sennheiser, AKG, Beyer, Electro-Voice, Sony, Shure, Audio-Tochnica.

Instruments Available: Kawai grand piano, octave synthesizer Gallien Krueger 112SC (boogie type amp), Fender pre-CBS bandmaster (vintage), timbales and various percussion, custom Gibson Les Paul Jr., Gibson ES-335, Martin D-18 (vintage), Fender Rhodes

Rates: \$45/hr for 16 track, \$30/hr for 8, 4 or 2 track, block rates and discounts available and vary with projects. Extras: Production assistance available; conveniently located in

San Francisco but away from the downtown madness. Studio musicians. Comfortable lounge and plenty of parking.

Direction: We are experienced in all types and phases of recording, specializing in album projects, singles and demos. Oasis provides a comfortable, low-keyed, but professional atmophere. We have continued to expand and improve our facilities to meet your demands, we believe our reputation speaks for itself. Please don't hesitate to see Oasis and hear our work, we're proud of it! Call for an appointment.

### **•••** PARVIN STUDIOS P.O. Box 16191, San Francisco, CA 94116 (415) 359-1853 Owner: M.B. Eads Co. Engineers: Lee Parvin and Henry Parvin.



Dimensions of Studios: 22' x 16'. Dimensions of Control Rooms: 12' x 13'.

Tape Recorders: Ampex MM-1000 16 track; Ampex 440-B 8 track; Ampex 440-B 4/2 track; Ampex AG500 ½ track; Akai GX-630D stereo 1/4 track; Akai 950-B stereo cassette Mixing Consoles: Auditronics 501-26, 18 in x 16 out. Monitor Amplifiers: Marantz 15, Crown DC300.

Monitor Speakers: Altec 604-9G, UREJ Time Align, Auratone

5Cs, JBL 4311. Echo, Reverb, and Delay Systems: MasterRoom Stereo C

Series reverb, AKG Wien Stere Other Outboard Equipment: UREI Model 1176 LN limiters, UREI Model LA4 compressor/limiters, Orban/Parasound parametrics, UREI 530 EQ, dbx noise reduction, Eventide Har-

monizer, El-Tech take finder. Microphones: Neumann U-87, U-47, KM-86, KMS-85; Senn-

heiser 421, 441; AKG 1000, D-200; Shure SM-81, SM-58, MB-301 (ribbon), 549; Electro-Voice RE-20

Instruments Available: Emerson baby grand piano, Hammond B-3 organ, Fender Rhodes piano. Bates: Call for rates

### ••• PRUNE PRODUCTION & RECORDING 12 Locust Ave., Mill Valley, CA 94941

(415) 383-0230

Owner: Alan J. Rappoport Studio Manager: Sammy Piazza.

Engineers: Bob Olhsson, Chris Morris, Jerry Marquez

Dimensions of Studios: Main room is 300 sq. ft.; includes isolation booth.

Dimensions of Control Rooms: 250 sq ft.

Tape Recorders: TEAC 85-16 16 track; Ampex ATR100 2 track; Otari 50/50 2 track; TEAC A-3340-S 4 track; Awai cassette decks.

Mixing Consoles: (2) Sound Workshop 1280's linked together, 24 in x 16 out

Monitor Amplifiers: Phase Linear 1000, BGW 250, BGW 100, Bandell 250

Monitor Speakers: JBL L112s, JBL 4311s, Auratones Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb

(completely up-dated), MICMIX Spring reverb, DeltaLab DDL, plus tape delay. Other Outboard Equipment: Lexicon Prime Time, Marshal Time

Modulator, Eventide Harmonizer, Scamp rack with 4 noise gates, sweep EQ, stereo pan mod. and limiter, LA-2 limiter, stereo LA-4 limiters, Orban Paragraphic EQ, Furman parametric EQ, (2) UREI 530 monographic room EQs.

Microphones; Neumann 87s, 86s, 84s; Beyer M-88s, 201s; AKG 452, 414s; E-V RE-15; Shure 56s, 57s; Sennheiser 421s, 441s. Instruments Available: Yamaha up-right piano; Ludwig, Sonor, and Rogers drums; percussion equipment and anything pertaining to guitars via Prune Music Rates: \$40/hr with engineer; \$20/hr for tape copying.

### ••• PYRAMID RECORDING

(408) 370-3544 Owner: Hermie L. Mee Studio Manager: left Meek Engineers: Jeff Meek

Dimensions of Studios: 24' x 22'

Dimensions of Control Rooms: 16' x 14'.

Tape Recorders: Ampex MM1100 16 track; Ampex 351 2 track; Ampex 351/440 2 track.

Mixing Consoles: KJM Productions Series A, 20 in x 8 out

Monitor Amplifiers: Phase Linear

Monitor Speakers: Altec 604s.

Echo, Reverb, and Delay Systems: Custom reverb Other Outboard Equipment: (3) Spectra Sonics compresso Microphones: Neumann, AKG, Electro-Voice, Sony, Shure Instruments Available: Piano. Rates: Demos: \$25/hr, masters: \$40/hr

### ••• KELLY QUAN RECORDING

Studio: 12491/2 Green St., San Francisco, CA 94109 Office: 55 White St., San Francisco, CA 94109 Office Hours: 10am to 5pm, Monday to Friday. (415) 771-6716 **Owner:** Kelly Quan Studio Manager: D Marie Davalos

••• RAINBOW SOUND STUDIOS also REMOTE RECORDING 24289 Mission Blvd., Hayward, CA 94544 (415) 582-9980 or (415) 886-6048

Owner: Thomas Malcolm Rockwell. Studio Manager: Kenneth Massey

Engineers: Susie Foot (head engineer), Louie Neutrino, Dave Shantz, Michael Hersh, Paul "P.A." Allen (remote & live engineer), Ken Massey, B. Catcus (mouse coordination).

Dimensions of Studios: Studio A: 16' x 18', Studio B: (iso) 10' x 10'.

Dimensions of Control Rooms: 10' x 12'. Tape Recorders: Ampex MM1100 16 track; TEAC 80-8 8 track; TEAC A4400 2 track; TEAC cassette

Mixing Consoles: Quantum QM-168 (w/QM-120 expander modules), 20 in x 8 out; Yamaha (live to 2 track) PM700, 12 in x 2 out.

Monitor Amplifiers: Phase Linear 200 wat (PL 100), Peavey CS 400.

Monitor Speakers: (2) JBL 4311, Auratone 5Cs, Bogus 804X1s (2 ea.)

Echo, Reverb, and Delay Systems: GBS reverb unit-stereo, DeltaLab DL2 digital delay, live echo chamber 3' x 30' x 10 Other Outboard Equipment: dbx noise supression, Moog 3-band parametric EQ, (2) Furman PQ-3, SAE 2900 parametric (stereo), (2) dbx 160 compressor/limiters.

Microphones: Neumann, Sennheiser, Beyer, Shure, AKG.

Instrumente Available: Wurlitzer acoustic piano, IP Fender electric bass (per Stars Guitars), Ovation 6 & 12-string guitars, Yamaha CP-30 electric piano, Bobro guitar, synthesizers, full string/horn sections available by appointment

Rates: \$40/hr 16 track; \$35/hr 8 track; \$25/hr 2 track (live); \$15/hr edit/cassette dubs, spec rates; remote rates and block rates available by request.

**\*\*\*** RECORDING TECHNIQUES RECORDING STUDIO 4724 S.W. Vacuna St., Portland, OR 97219

(503) 246-6476 Owner: Alan S. Marston, Mark Kaltman Studio Manager: Mark Kaltman

••• REX RECORDING CO.

also REMOTE RECORDING 1931 S.E. Morrison, Portland, OR 97214

(503) 238-4525 **Owner:** Sunny Day Productions

Studio Manager: Rhiner Johnson Engineers: Russ Gorsline, Rhiner Johnson, Cal Scott, Greg Branson. continued

### ADVERTISEMENT

••• THE HYDE STREET STUDIOS 245 Hyde Street, San Francisco, CA 94102

(415) 441-8934

Owner: Tom Sharples, Dan Alexander, Michael Ward Studio Manager: Booking/Traffic Manager: Connie Laventurier, Ricky Lynd; Co-Manager: Dan Alexander and Tom Lubin

Engineers: John Cuntiburt: Gary Manken, Richard Van-Dorn, Mark Wallner Assistant Engineers' Gordon Lyon, Scott Chandler, Marc Perry

Dimensions of Studios: A: 21' x 39' x 12', C: 20' x 34' x 14'

Dimensions of Control Room: A: 18' x 20' x 12', C: 18'

x 15' x 12' Tape Recorders: A: Ampex MM1000 16 track, Otan 5050B Master Machine 2 track, C: 3M 56 w/Autolocator & remote 16 track; 3M M64 Mastering Machine 2 track. Mixing Consoles: A: Cetec Electrodyne Custom, 24 x 8

(plus directs) x 16, C: Helios 28 x 8 (plus directs) x 24, four echo sends & returns, two independent cue systems with 24 track monitoring.

Monitor Amplifiers: A BGW 750C with White 1/3 octave EQ, C: (Bi-amped with) BGW 750C/SAE 2200 with White 1/3 octave EO's.

Monitor Speakers: A. Tannoy Studio Gold, Auratone Cubes, C. IBL 4340 monitors, Auratone Cubes. Other Outboard Equipment: UREI 1176LN, LA-2; Valley

People Dynamite; RCA BA6A; Allison Gain Brain; UREI Parametric; assorted API Graphics 550A's; Ashly Audio Parameter; Trident Parametric; Lang PEQ-2, Lexicon Delta 102's (2 seperate stereo delays); Lexicon 92DDL; Eventide 1745M; Eventide H910 Harmonizer; Roger Mayer noise gates; MXR phasers, flangers; (in most cases several of each are available)

Microphones: Neumann KM-54, M-49, U-64, KM-64, U-67, M-269, KM-53, U-87; AKG C-12A, C-28, C-61, C-414-EB, D-12, C-451, D-202, D-30, D-15, C-24 stereo; Telefunken FLAM-251; Sony C-500, ECM-22P, ECM-377, C-17 FCM-51, C-55; Electro-Voice RE-20, 666, CS-15; Beyer M-88; Sennheiser 441, 421, MKH-405, MD-413, MD-211; Shure SM-56, SM-57, PE-545; and others Instruments Available: A: 1910 rebuilt Mason-Hamlin 9 grand, C: 5' baby grand.

Rates: A: \$25/hr including engineer, C: \$40/hr including engineer; price also includes the use of 4 live echo chambers, one of the largest collections on the west coast of warm sounding classic tube microphones

# Dimensions of Studios: 1 22; x 25; 2 7; x 12; Dimensions of Control Rooms: 1 22; x 17; 2; 12; x 16; Tape Recorders: 3M:79:16 track, 3M:23:4 track, Sony 854:4S:4

track, TEAC 40-4 widbx 4 track, Scully 280-B-2 track, Otan 5050-2 track, Scully 250-2 track, Sony 756-2 track, (2) Scully 250 full tracks, Technics 9900 cassette, Technics M85 MK2 cassete, Akai 8T-C guad/8 track cartridge, Nagra 4 full track single stripe recorder, Wollensak 25 AV Magnasync 16 mm, cassette, Wollensak 2770 H.S. cassette, Wollensak 2780 H.S. cassette

Mixing Consoles: Electrodyne (modified) 1604-16 x 16 x 4 TEAC 5 x 5 ex. 16 x 16 x 4

Monitor Amplifiers: Technics 9060 Monitor Speakers (4) Klein & Hummel H04 JBL 4301

Echo, Reverb, and Delay Systems: EMT 140, EMT 140ST m dual BBD, BiAmp MB140

Other Outboard Equipment: UREI 1176 LN, Spectra Sonics compressor/limiter, dbx 160, dbx 157, dbx 155, Countryman 968 phase shifter, SAE 5000 impulse noise reducer, Technic 9010 parametric EQ, Soundcraftsman 20.12 graphic EQ, Tech nics SP1200 MK2, EMT 930 ST, Audiscan A/V pulsar, Gramp Gotham, Presto mono disk lathe

Microphones: Neumann U 67, U 87, KM 88, Sony (2) C 500, C 37T, (2) ECM 377, (4) ECM 22P, ECM 64P, Shure (2) SM 57 (2) SM 81, Electro Voice (4) BE 15, CO 90, Sennheiser K2U MF 80

Instruments Available: Chickering  $7^{1}7$  piano. Hammond B.2 leslie, other instruments also available Rates: \$45 \$55 hr. Please call for specifics

**•••** ROCKIN "A" RANCH STUDIO Nelson Mountain Rd., Greenleaf, OR 97445 (503) 964-5355 Owner: Michael Ayling/engineer

\*\*\* ROSEWOOD RECORDING COMPANY 2288 West 300 North, Provo, UT 84601 (801) 375-5764

Owner: Guy & Kristen Randle Studio Manager: Kristen Randle

Engineers, Guy Bandle, Tony Larson, Chris Aaron, Jeff Carter Dimensions of Studios: 22' x 22' with drum/iso room Dimensions of Control Rooms: 20' x 14'

Tape Recorders: TFAC 85-16-16 track Otari MX 50508-2 ick, Technics M65 cassette

Mixing Consoles: Tangent Series 16, 24 in x 16 buss plus



directs, transformerless w full patchbay modified for wet monitor mix and extra effects returns

Monitor Amplifiers: Spectro Acoustics Sansui, MCS Monitor Speakers: IBL 4311, Auratones

Echo, Reverb, and Delay Systems: Steiner Parker stereo plate reverb (true stereo--two separate plates), Ibanez AD202 analog delay, MXR flanger/double

Other Outboard Equipment: Bi Amp 10 band graphic EQ (4 channels), dbx 161 compressor/limiter. Symetrix, limiter/de/esser AB turntable sixteen channels of dbx noise reduction

Microphones: Neumann U-64 (tube), AKG C 414 C 505, D190E, E V RE 20, RE 10, 1776, CS 15, Shure 545 (Various quantities of the above

Instruments Available: Baldwin 9° concert grand Fender Rhodes Catsynthesizer 1962 Martin D-28, Dobro, Fender Preci sion bass, Tweed Fender deluxe, Tricolor Shetland Sheepdog, Ludwig drums, Gon Bop congas available on request

Rates: Very reasonable including block rates and album produc tion packages. Please call

### ••• SENSA

1016 Morse Ave. #16, Sunnyvale, CA 94086 (408) 734-2438 Owner: Sensa Corp

Studio Manager: Steve Hall Engineers: Stan Cotey, Doug Hopping, Steve Hall Dimensions of Studios: Main studio 15' x 18', drum room 8'



10', vocal room, 8' x 6'

Dimensions of Control Rooms: Approx 12' x 15' Tape Recorders: Ampex MM-1000 16/8 track; Ampex 350 2 track, Aiwa cassette deck, Hitachi cassette decks (2) Mixing Consoles: Amerimex Studiomixer 11, 16 in x 8 out,

Ampex MX 10, 4 in x 2 out Monitor Amplifiers: BGW 250D BGW 50A headphone mplifier

Monitor Speakers: MDM 4s. Auratones

Echo, Reverb, and Delay Systems: Lott Series 440 delay line MXR fland r/doubler Furman RV 1 re

Other Outboard Equipment: UBELLA 4 compressor. Altect 1591 compressor, custom built stereo compressors, Boss stereo graphic EQ custom built parametric equalizers Microphones: Electro-Voice RE-15 RE-20, 635 A, 664-665

CS 15s; Shure SM-57s, SM-81s, Sennheiser 421, AKG D 1000s, Audio technica ATM 20s

Instruments Available: Packard 6' grand piano (built 1918), Fender Rhodes electric piano, ARP Odyssey synthesizer, Yamaha YC 30 organ

Rates: 8 track recording and mix time \$25/hr, 16 track recording and mix time \$35/hr. One hour free set up on sessions with drum set. Block rates, 10 hours and more discounts available Week long rates available

### ••• SIERRA SOUND LABS

1741 Alcatraz Ave., Berkeley, CA 94703 (415) 655-7636 Owner: R.C. de Sous Studio Manager: R.C. de Sousa

\*\*\* SMITHS STUDIOS OF MUSIC

also REMOTE RECORDING 3700 E. 12th St., Oakland, CA 94601 (415) 533-7382

Owner: Henrn Smith

Studio Manager: Phil Moore III Engineers: Geve Williams, Huggy Carter, Steve Yarbourgh Dimensions of Studios: 25' x 40'

Dimensions of Control Room: 15 x 20

Tape Recorders: TEAC 85.16.16 track. Otar: 5050D 2 track Pioneer RTU II 4 track, TEAC M 85 guartz cassette

Mixing Consoles: Sound Workshop Series 30 16 in x 16 out Monitor Amplifiers: AB Systems 105 405 410 Monitor Speakers: JBL I. 166

Echo, Reverb, and Delay Systems: MasterRoom echo. Acousti tor digital delay system

Other Outboard Equipment: URFI LA 4 compressor limiters 'ountryman direct boxes, dbx noise reduction system, UREI dual araphic EO, Phantom power supply Microphones: Neumann: U.89. Neumann: condensers: Senn

Shure Electronic

Instruments Available: Acoustic grand piono, Hammond B-3 w Leshe Hammond Porta B w Leshe Roland synthesizer, concras Rates: Call for rates

••• SOLAR TRACKS

also REMOTE RECORDING Box 181, Blue Lake, CA 95525

(707) 668-5810 Owner: Bert Pectol Mark Lyon

Studio Manager: Bert and Mark

Engineers: Bert, Mark and independents

Dimensions of Studios: 34' x 24' w/13' ceiling Dimensions of Control Rooms: 1717 x 16 w 13' ceiling, isola

ceiling Tape Recorders: TEAC 8516-16 track, TEAC 80.8.8 track, TEAC 3340S 4 track, Ampex 351 2 track, (4) Sony cassett

Mixing Consoles: Customized w 28 directs, 28 in x 12 out, (2) stereo earphone mixers, (4) mono, stereo effect sends Monitor Amplifiers: BGW main and earphone mixes Monitor Speakers: JBL 431 is, Auratones

Echo, Reverb, and Delay Systems: Lexicon Prime Time, Roland Space Echo 301 w/chorus, Orban parametric, Orban reverb dbx limiters and flangers, 16 channels dbx noise reduction 2 channels Dolby, various phasers, flangers and analog delays Microphones: Sennheiser, AKG, Shure, Electro Voice Audiotechniques

Instruments Available: Kanabe 1911 grand piano ARP Axe Oberheim synthesizer, many guitars, basses and drums. MESA/Boogie, Music Man, Polytone, Fender, Sun Rates: 16 track \$35/hr, 8 track \$25/hr 4 track, \$20/hr Block rates w/hotel rooms or without available. Please call

••• SOUND RECORDING COMPANY also REMOTE RECORDING 503 W. Indiana Ave., Spokane, WA 99205 (509) 326-0222 Owner: Corp Studio Manager: Irene Carter

••• SOUND COLUMN STUDIOS also REMOTE RECORDING 46 East Herbert Ave., Salt Lake City, UT 84111 (801) 355-5327 Owner: Music Central/The Sound Column Companies Studio Manager: Clive Romney



Soundtek Studios Campbell, CA ••• SOUNDTEK STUDIOS also REMOTE RECORDING 85 South Second St., Campbell, CA 95112 (408) 370-3313 Owner: Bob Berry

Studio Manager: John Enckson

Engineers: Bob Berry, John Enckson Dimensions of Studios: Main room 21' x 23', live room 9' x

### 20 Diversity of Control Brown Studies 14' 17'

Dimensions of Control Rooms: Studios 14' x 17' Tape Recorders: Ampex MM1200 16/wired for 24 track. Ampex ATR102.2 track; (2) TEAC V-3RX cassettes; TEAC X-7H 2 track

Mixing Consoles: Neotek Series III, 26 in x 24 out, Quantura (remote) QM8 w/expander, 16 in x 8 out

Monitor Amplifiers: Crown PS400, Crown PS200, Crown D75 phones

Monitor Speakers: UREI 813A, Auratones, Art Audio, Audio Spectrum

Echo, Reverb, and Delay Systems: EMT 240, AKG BX5, live chamber 30° x 4', Eventide Harmonizer, Lexicon Prime Tirse Other Outboard Equipment: dbx 900 Series limiters, hoise gates, UREL LA-4 limiters, Roland stereo flanger/chorus

Microphones: Neumann, AKG, Sony, Sennheiser, Shure, Countryman, Electro-Voice.

Instruments Available: Horugal 6' 8" grand piano, Fwnder Rhodes, Mini Moog, clavinet, Hammond B-3, vibes, ARP Omm, complete Ludwig drum set, vanous snare drums, Marshall 100 watt, Fender Princeton

Rates: \$50/hr

Extras: Kitchen facilities, 10 minutes from lodgeing and the San Jose Airport, 1 block from various entertainment nightclube, restaurants, shops and music stores. Soundtek Studios is nex#doct to a complete video production and editing facility.

Direction: Soundtek Studios is a complete audio production tacility Projects include album production, audio/video interface, commercial production, jungles and sound reinforcement. We have a complete staff of writers and musicians. Classes in recording techniques are offered in conjunction with San Jose State Unive, sity Al Soundtek Studios, we are dedicated to a complete, creative environment.

### ••• SPECTRUM STUDIOS, INC. 905 S.W. Alder St., Portland, OR 97205 (503) 248-0248

Owner: Michael Carter, Lindsey McGill Studio Manager: Michael Carter.

Engineers: Michael Carter, Lindsey McGill, Chris Douthitt, Dave Mathew, Mark Gottwig, Alan Phillips. Dimensions of Studios: A 19' x 34', B: 18' x 14', C: 14' x 16'

Dimensions of Studios: A 19 x 34; B: 18 x 14; C: 14 x 16 Dimensions of Control Rooms: A: 22' x 15', B 17' x 15', €, 12' x 16'

Tape Recorders: Ampex MM-1100 16 track, (2) Scully 260 B 4 4 track, (5) Scully 280 B-2 2 track, (8) Scully 280B mono; Nagra (2) 4 2 mono; Magnasync (5) Senes 2000, 1 each (in 16mm ii: terlock system)

Mixing Consoles: Custom (manufactured in-house) Spectrum 1616, 16 in x 16 out; (2) Custom Spectrum 1608, 16 in x 3 out Monitor Amplifiers: McIntosh, Crown

Monitor Speakers: E-V Sentry II, Auratone, Altec 604E's Echo, Reverb, and Delay Systems: EMT 140st, AKG BX-20E, Eventide Harmonizer.

Other Outboard Equipment: Dolby A noise reduction, dhx Iumiters and 187 noise reduction, Harmonizer, Eventide Flanger, UREI <sup>1</sup>/<sub>3</sub>-octave EQs, UREI notch filter, Orban D'Esser, Allison Kepex, Gain Brains, Roger Mayer gates, Jensen direct box, <sup>3</sup>-Ourtryman FET direct boxes, Eiki interlock projector, Magnasync interlock distributor, AVL Eagle computenzed programmer, AVL Doves.

Microphones: Neumann U-87, U-47 FET; E-V CS-15, FE-16, RE-50; AKG C-451E, D-1000E, D190, D200; Shure SM-54, Sennheiser 815, Sony ECM 50

Instruments Available: Yamaha G-3 6' grand piano Rates: \$55/hr for all formats.



••• STARSOUND AUDIO INC: 2679 Oddie Bivd., Reno, Nevada 89512 (702) 331-1010 Owner: Scott Bergstrom Studio Manager: Lee Taggart Binensions of Studios: 35 'x 30', 3 iso rooms 8' x 14', 7' x 10', 8' x 16' Dimensions of Control Rooms: 15' x 25' Tape Recorders: Tascam 85-16T, 80 8, 35-2, A 800, Nakamichi 1000 Mixing Consoles: Tascam Model 15 Monitor Amplifiers: Crown PSA-2, BGW 100's Monitor Speakers: IBL 4333, Altec 604's, Anchor 200 Echo, Reverb, and Delay Systems: MXR digital, loaded 4400A

Other Outboard Equipment: dbx on all channels available, dbx 157, 161, 162, 163, 164, 500 and 503, Moog and Audioartparametrics, Moog and Mutron stereo phasers, MXR pitch transposer

Microphones: E-V RF 10, 11, 15, 16, 18, 20, Sony ECM 23, 33 37, 56; Sennheiser 409, 416, 421, 431, 441, Beyer, Crowia PZM, CNI 101's, AKG, Shure

Instruments Available: Oberheim 8-voice w/Emu programs. Steinway upright, Hammond CV with percussion 8-6, (2) Rhodes (4) Moogs, Odyssey Performer, T-1 Orchestrator, drums Rates: \$30.\$45/hr depending on time and number of tracks

Extras: Over 2500 guitars and amps on premises. Almost any

type and year available Martin, Ovation, Boogies, Marshalls, Peavey Lounge with TV and games Repair and customizing facilities concert sound and live multi track available Direction: Primarily for the pleasure of staff and clients. Project success is more important than project cost. We encourage client participation in all phases of project. Experimenting optimized with \$1 million in instruments and gadgets. Available in the bizarre guitar StarSound complex.

### ••• STUDIO ONE

also REMOTE RECORDING 235 E. Third Ave., San Mateo, CA 94401 (415) 347-4811 Owner: Gary Ducos Studio Manager: Gary Ducos

Engineers: Chris Craig Dimensions of Studios: 12' x 20'

Dimensions of Control Rooms: 12' x 12'

Tape Recorders: Sixteen Track Machine to be Announced Ampex 4408 8 track, (3) Ampex, Stemco 4408 2 track, Otari 5050 4 track, TEAC 3440 4 track, (4) Sony TC K15 cassette Mixing Consoles: Tascam 15, 16 in x 8 out

Monitor Amplifiers: Crown DC 300, Kenwood, AB Systems

Monitor Speakers: Altec Model 9, Auratones

Echo, Reverb, and Delay Systems: Orban, Tapco stereo reverb tape echo, DDL and other effects available on request Other Outboard Equipment: Dolby A, (2) UREI 1176LN

Other Outboard Equipment: Dolby A. (2) UREL 1176LN limiter/compressor, Orban 516EC sibilance control, Orban para metric EQ 622B, Allison kepex, Gain Brain, Varispeed, Burwen and Kenwood noise reduction, Countryman phase shifter, 16mm B&H projector, (6) AF-2 projectors Microphones: Telefunken U 67s, Telefunken and Neumann

Microphones: Telefunken U 67s, Telefunken and Neumann U-47s, Sennheiser 421s, AKG C451s, E-V, Shure, Beyer, Audio technica

Instruments Available: Baldwin piano, Ludwig drums, Zildjian cymbals, percussion, various amps, guitars Rates: \$40/hr. Significant discount on block time

Direction: Studio One is in the process of expanding and up grading available services. By publication date we expect to have an enlarged sixteen track facility as well as our eight track room. We will also offer two 8 track remote recording services. Call for our introductory rates.

### ••• THUNDER OAK AUDIO also REMOTE RECORDING

23717 Bothell Way S.E., Bothell, WA 98011 (206) 483-1333 Owner: Thunder Oak Audio, Inc

Studio Manager: Vic Coupez



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World Radio History

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insurance, and handle other details for you. And if you're not sure which gear is right for you, call us for help. We'll gladly make recommendations tailored to your needs and budget.

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Also available: Rare TUBE microphones, mastering equipment, video, and support gear.





••• TIOGA RECORDING STUDIO P.O. Box 205, Allegany, OR 97407 (503) 267-2330 Owner: Jim Flanagar Studio Manager: Jim Flanagan

Engineers: Jim Flanagan

Dimensions of Studios: 25" x 23' with drum cage and isolation booth

Dimensions of Control Rooms: 13' x 17' Tape Recorders: Ampex MM1100 16 track, Ampex AG 440 4 2 track, Magnacord 1022 2 track, TEAC 2300 1/4 track, Nakamichi 500 cassette

Mixing Consoles: MCI JH 428, 18 in x 18 out Monitor Amplifiers: Crown DC 300A, D-150, (2) D-60's

Monitor Speakers: Altec 604E in Big Reds with Mastering Lab crossovers. IBL's and Auratones

Echo, Reverb, and Delay Systems: AKG BX-20E, Eventide Har

monizer digital delay Other Outboard Equipment: 18 channels dbx, Orban 2 channel parametric EQ, Omni Craft 4 channel noise gate, UREI 1176 LN comp/limiters

Microphones: Neumann, Sennheiser, Sony, Shure, Electro

Instruments Available: Knabe baby grand piano, Hammond B-3 organ with Leslie, Peavey guitar amp, Rickenbacker bass guitar, Fender Telecaster guitar, stand up double bass Rates: \$25/hr \$1500 00 for 6 days, unlimited hours

Extras: Band house available for rent \$20 per night per band 1 mile from studio

Direction: We are located 20 miles east of Coos Bay, Oregon, up in the coastal hills of Oregon. It's peaceful with the Millicoma River you can fish or swim in. If you lock at our price you'll see we are making recording your song(s) affor table but not giving up quality

### **•••** TRIANGLE RECORDING also REMOTE RECORDING 4230 Leary Way N.W., Seattle, WA 98107 (206) 783-3869

Owner: Jack Weaver, Wm C Stuber Studio Manager: Jack Weiver

Direction: Triangle Recording is a group of people dedicated to making great sounding tapes. We've completed well over 100 of the Northwest band's projects in 1981. We've seen over 250 songs come out on records. Why? Because we're there every step of the way, we've got the equipment it takes and the price is noht We're looking to 1982 to be the year that Triangle Recording becomes the only fully equipped 24 track studio with unbeatable prices

TRUTH & BEAUTY LABS

3018-22nd St., San Francisco, CA 94110 (415) 821-3065 Owner: M Kelley, J Schlesinger Studio Manager: Mike Sousa Dimensions of Studios: 17" x 19" Dimensions of Control Roams: 9' x 9' Tape Recorders: TEAC/Tascam 85-16 track; Otari MX5050B 1/2 track: Technics cassette Mixing Consoles: Neotek Series 2, 16 in x 16 out Monitor Amplifiers: McIntosh, Yamaha, Symetrix Monitor Speakers: JBL, UREI, Auratone, Sennheiser head Echo, Reverb, and Delay Systems: Eventide, MXR Other Outboard Equipment: UREI/Symetrix limiters, direct boxes Microphones: Neumann, PZM, Sennheiser, E-V AKG, Shure Rates: On request

••• WARTHOG STUDIO also REMOTE RECORDING P.O. Box 620, Enumclaw, WA 98022 Owner: Barbara Vetter & Samuel Longoria Studio Manager: Samuel Longoria



# **Sound Genesis.** We're geared to grassroots recording.

Sound Genesis sold Lyman White this Sound Workshop Series 30 Recording Console. We've sold him a lot of gear in the seven years we've known each other.

We wanted to tell you about Lyman because we think he represents something special happening in the audio industry. Something you might call grassroots recording.

Lyman White's an experienced performing musician. Plays these days with a band called Backstreet.

He's also a talented recording engineer. Owns and operates Sunshine Recording in Vallejo. Serving the working musician. And putting anybody's bright idea on tape. Without an outrageous price tag.

Now you can't sell a quy like Lyman just anything. You help him plan for his audio needs step by step. You make sure each investment really counts. And what he buys now will work for him in the future. So that's exactly what we do.

You see, Sound Genesis thinks it's just as important to keep the smaller recording studios sounding good, as it is to sell megabucks equipment to the big guys.

If you're part of the grassroots movement in



World Radio History





Angel Voice Recording Co. San Jose, CA

### •••• ANGEL VOICE RECORDING CO. 2460 Senter Rd., San Jose, CA 95111 (408) 292-1153 Owner: L O.W Inc

Studio Manager: Albert Brown

Engineers: Vincent Sanchez (chief engineer), Bob Langlie In. dependents encouraged Dimensions of Studios: 40' x 38', iso booth A -15' x 8', iso

booth B. 8' x 7'

Dimensions of Control Rooms: 24' x 20'

Tape Recorders: Ampex 1200 w/VSO 24/16 track, Ampex ATR102 2 track; TEAC 3300 2 track; Technics cassette Mixing Consoles: Sphere Eclipse A, 32 in x 32 out.

Monitor Amplifiers: Crown DC300, D75.

Monitor Speakers: UREI 813A Time Aligned

Echo, Reverb, and Delay Systems: Audicon Stero Plate

Other Outboard Equipment: UREI LA4 limiters (4), DeltaLab Acousticomputer, DeltaLab DL4, Eventide Harmonizer, Eventide Instant Phaser.

Microphones: Electro-Voice RE-20s, PL-95s, Sennheiser 421s, AKG 414s, 451s; Shure SM-57s.

Instruments Available: Grand piano, Hammond organ w/Leslie. Rates: 24 track \$65/hr, 16 track \$50/hr, 2 track \$30/hr Substantial discounts for block bookings and demo packages

### •••• APPLEWOOD STUDIOS

680 Indiana St., Golden, CO 80401

(303) 279-2500

Owner: Applewood Studios, Inc. (corporation) Studio Manager: Bill Schereck

Engineers: Michael Pfeifer, Richard Nelson, David Van Soest, Bob Burnham.

Tape Recorders: Studer A-80 24 track, (2) Studer A-80 2 track; (2) Revox A77 2 track.

Mixing Consoles: Neve 8036, 24 in x 24 out.

Monitor Amplifiers: Crown DC 300A's, Harman Kardon Cita-

Monitor Speakers: Custom Altec 604 w/JBL 2231 sub-woofer, White crossover. Also JBL 4311's, Little Reds, Auratones

Echo, Reverb, and Delay Systems: Lexicon Model 92, Lexicon Model 102, EMT 140S, AKG BX-10 Other Outboard Equipment: ADR expander/gates, Scamp

Vocal Stresser, TIT parametrics, Sontec parametric, Eventide Flanger, UREI Cooper Time Cube, (2) UREI LA3A's, (2) UREI 1176's. (2) UREI 1176LN's, (4) Neve limiter/compressors, Tektronix LA2A

Microphones: Neumann U-67, U-47, U-47 fet, U-87, KM-88, KM-84, Sennheiser 421, 441, 216, AKG 414EB, 452EB, D1000, Shure SM-66, SM-57, SM-58, 300 nbbons; Beyer M-500; Sony C-500, ECM 22P, ECM 33P; RCA 77DX, misc others

Instruments Available: Bechstein 9 ft concert grand piano, Hammond C-3 with Leslie and combo pedal, Fender Rhodes, pre-CBS Fender Precision, any electronic keyboard by special arrangement

Rates: \$90/hr including engineer, \$1000 plus engineer for 24 hr day

### •••• THE AUTOMATT

829 Folsom Street, San Fransicso, CA 94107 (415) 777-4111

Owner: David Rubinson. Studio Manager: Michelle Zarin

Engineers: Fred Catero, Leslie Ann Jones, Ken Kessie, Wayne Lewis, Susan Kunes, Maureen Droney, Michael Fusaro, Paul Shubblehine, Michael Larner

Dimensions of Studios: A 1,500 sq ft, B 500 sq ft, C 750 sq ft, D 1,200 sq. ft

Dimensions of Control Rooms: A 320 sq ft, B 320 sq ft, C 750 sq ft, D: 1,200 sq ft

Tape Recorders: (4) MCI (MCI Autolock provides 48 track capability w/each) 24 track, (8) MCI 2 tracks, TEAC 8 4 track, Nakamichi cassettes (3) Model 480s, (2) Model 600s, Studer 2 track; (4) Technics cassette decks

Mixing Consoles: Studio A. Trident TSM w/Allison 65K automation, 40 in x 32 out; Studio B: Harrison w/Allison 65K automation, 36 in x 24 out, Studio C. Harrison w/Allison 65K automation w/Z-80 computer system (patented by the Automatt®) Monitor Amplifiers: McIntosh, Pioneer, UREI and AB Systems

Monitor Amplitiers: McIntosh, Pioneer, UREI and AB Systems Monitor Speakers: JBL 4350, 4311, UREI 813; Big Reds w/Mastering Lab crossovers; Auratones, John Meyer/ACD, Yamaha, Visonik 9000

Echo, Reverb, and Delay Systems: (3) EMT stereo echo chambers, remote controlled, (2) Prime Time digital delay, (3) Lexicon 224 digital reverb; (3) live echo chambers.

Other Outboard Equipment: Prime Time, Dolby, Sennheiser Comm System, Marshall Time Modulator; ADR Compex-Limiter; Inovonics 201 limiter, Eventide Omnipressor and Harmonizer, dbx 165, UREI digital metronome, Orban parametric EQ; EMT compressor; MXR phaser & flanger, Kepex (2); Auto-correlater; Orban D'Esser, Countryman phaser, anything available upon request.

Juess, Microphones: AKG 414, 452, C 11; Beyer M-160, Electro-Voice RE-15, RE-20, Shure SM-56, Sony C-37, 377, Sennheiser 421, 441, 805; Neumann U-67, U-87, KM-84, M-49, KM-88; Telefunken U-47, anything available upon request.

Instruments Available: Yamaha CP-70, Baldwin piano, Yamaha grands, Yamaha drums, Quad bass, acoustic guitar and bass,

clavine', ARP Odyssey, Nhodes electric piano, Wurlitzer organ, Cry Baby wah-wah, vocoder, Prophet 5 voice synthesizer, Princeten amp, Music Man amp, Wehr bass amp, Super Reverb amp, E-hoptex I & II, Maestro synthesizer system, filter, sample & hod, fuzz, sustainer, full range booster, percussion kid, Cooppurhythm drums, Rhythm King, Maestro, Mutrca II, let Phase phase shitters, Linn Moffitt drum machine Rates: Call Michelle Zani, for rates

Extras: Pool table room with juke box, pinbail machine room, Fill kitchen facilities, rehearsa, room with 8 track capability



Pictured above: Automatt Studia Manager Michelle Zarin and Automatt Studio Owner David Rubinson at the board in Studia B.

•••• AYRE STUDIOS

458-A Reynolds Circle, San Jose, CA 95112 (408) 279-AYRE, 279-2973 Owner: Fachard Nebel

Studio Manager: Richard Nebel

Engineers: Richard Nebel, Tom Paddock (independent engineers welcome)

Dimensions of Studios: 26' x 23' x 14' high

Dimensions of Control Rooms: 16 x 15' x 11 high

Tape Recorders: MCI JH-114 24 w/Autolocator III 24 & ;6 track; Ampex AG-440B Servo 2 track, Nevcx A77 2 track, Nakamich, TEAC, and Sony cassettes. Mixing Consoles: MCI JH-636 Automated, 32 in x 28 out

Monitor Amplifiers: McIntosh MC2205; Crown D60's & D40; Nakamch: 620, G A.S

Monitor Speakers: UREI 813 Time Aligns, JBL 4311's, Litt'e David's; Chartwell's (B.B.C. standards); Auratones; additional Dalguist dual sub-wooler system.

quist dual sub-wooler system. Echo, Reverb, and Delay Systems: EMT 140 stereo plate (tubetype); Lexicon DDL (2 out); Eventide Harmonizer (2 delay outputs); MXF DDL (tuli memory); Pandora DDL, Roland Pro 555 chorus echo; tape echo; digital reverb coming!

Other Outboard Equipment: EXR Psychoacousic Exciter, UREI LA2A's, LA3A & LA4; RCA tube limiters (4); Inovonics 201 conpressor/Emiters, Eventide Flanger & Omitipressor, Mutron Bi-Phase, Bi-Amp Va-octave & octave graphic EQ's; EMS signal prccessing synthesizer & much more (anything with nohce)

Microphones: Neumann U-37s, U-47s, KM-84s, AKG C-414 EBs, 451s, 452s; Sennheiser 421s, 441s; Electro-Voice RE-20s; Shure SM-56s, SM-57s, 57s, 58s, 81s, Beyer, Scrivy, tube mics include Neumann U-47s, U-48s, U-67s, AKG; Ałtec and more. Countrysian & Sescom direct boxes, and much more

Instruments Available: Chickening "Masterpiece" 7 grand pianc, Emu Prophet, EMS and ARP 2600 synthesizers; Gibson, Fender, Martin & Rickenbacker guitars and basses; "Spectreguitar synthesizer, wintage Fender and Vox amps, Boogie amp.



Ayre Studios San Jose, CA

### other instruments and devices on request Rates: \$60 to \$95/hr Please phone for guote

Extras: Production, arranging, studio musicians and pressing available. Free coffee refrigerator, lounge area & great at mosphere Game room coming! (We're 5 minutes from many hotels, 24 hr restaurants and the San Jose airport) Direction: Ayre Studios, Northern California's first MCI

Automated 24 track studio, now has the pleasure to offer you a very private, highly creative "One on One" alternative. Our new SRS designed control room sounds incredible, offering only the finest in both new & vintage equipment in a very comfortable environment designed for you. The difference is in the Ayrel

### •••• BEAR CREEK STUDIO 6313 Maltby Road, Woodinville, WA 98072

(206) 481-4100

Owner: Bear Creek Inc Studio Manager: Manny Hadlock Engineers: Joe Hadlock, Tim Killeen Dimensions of Studioe: 30' x 40' x 12 Dimensions of Control Rooms: 17 x 20

Tape Recorders: MCI JH-24/16 w/Autolocator, ATR 100 & 700, Revox Sony

Mixing Consoles: Trident/TSM, 32 in x 24 out

Monitor Amplifiers: Crown, Spectra Sonics, BGW Monitor Speakers: JBL 4333 and 4311, Auratone

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb. MICMIX MasterRoom MR-2, Echoplate, Lexicon Prime Time Other Outboard Equipment: UREI 1176 LN, LA3A limiters, UREI parametric EQ's, Orban Sibilance Controller; Trident stereo limiter, Kepex, Gain Brains, Scamp rack, MXR digital delay, autoflancer

Microphones: Neumann, AKG, Sony, Beyer, Shure, RCA, Senn

Instruments Available: Steinway B 7' grand, ARP, clavinet, Fender Rhodes, Ludwig drums, Prophet V Rates: Call for rates

### •••• BEAR WEST STUDIOS

915 Howard St., San Francisco, CA 94103 (415) 543-2125

Owner: Ross J. Winetsky, Chuck Vincent Studio Manager: Ross J. Winetsky

Engineers: Mark Needham, Vance Frost, Larry Kronen, Sandra Deckert

Dimensions of Studios: A 50' x 30' x 25' ceilings, (3) iso booths, B 30' x 20' x 15' ceilings, (1) iso booth



Dimensions of Control Rooms: A 25' x 20', B 15' x 15' Tape Recorders: Ampex modified MM1100 24 track, 3M M56 16 track, Tascam Model 70 w/dbx 8 track, Ampex AG 350 2 track, (2) Ampex 350 2 track

**Mixing Consoles:** A DiMedio custom, 32 in x 24 out, B (2) TEAC Model 5, 16 in x 16 out

Monitor Amplifiers: A McIntosh, BGW, B McIntosh Monitor Speakers: JBL 4332, JBL L100's Auratone Echo, Reverb, and Delay Systems: Live chamber, Multi-track

reverb, MXR DDL Other Outboard Equipment: UREI 1176 compressors, dbx compressors, 24 channels API EQ, Furmari parametrics, Symetrix

noise gates, Ashly parametric, Soundcraftiaman graphic Microphones: Neumann, AKG, Electrα Voice, Shure, Senn-

heiser Instruments Available: Yamaha C3 grand plano, Fender Rhodes

Rates: Studio A 24 track \$85/hr, 16 track \$65/hr, 8 track \$45/hr, 12 AM - 12 noon 24 track \$45/hr, 16 track \$40/hr Studio B 16 track \$45/hr, 8 track \$35/hr 12 AM - 12 noon 16 track \$35/hr All rates include engineer

### **••••** BONNEVILLE PRODUCTIONS

130 Social Hall Ave., Salt Lake City, UT 84111 (801) 237-2400

Owner: Bonneville International Corp

Studio Manager: Dave Michelsen Engineers: leff Ostler, Orval Fox, Matthew Nickel

Dimensions of Studios: A 19' x 30', B 20' x 16', C 27' x

Dimensions of Control Rooms: A 20' x 20', B 14' x 18', C 20° x 20

Tape Recorders: Ampex MM1200 24 track, MM1100 16 track, (2) ATR100 2 track, AG440C 8 track, (4) Scully 280B 2 track, 3M 79 4 track, (2) Nakamichi 680ZX cassette decks, Sony 2860A video recorder, Nagra IV & III, Magna Sync Full Coat recorder Mixing Consoles: Neotek Senes III C (totally transformerless), 36 in x 24 out, Spectra Sonics 1024, 24 in x 24 out, (2) Bonneville custom con

Monitor Amplifiers: Crest 3501, Crown, BGW

Monitor Speakers: UREI 813 Time Align, Big Reds, JBL 4332, Auratone Echo, Reverb, and Delay Systems: EMT 140ST, AKG BX20E,

Eventide 1745M, DDL with pitch changes

Other Outboard Equipment: UREI LA3A's, dbx 160 limiters, Orban de'essers, Kepex, MICMIX Dynaflanger, Q-lock 310 SMPTE generator/synchronizer, DeltaGraph, UREI & MXR graphic EQ, ITT & Orban parametric EQ, 28 Dolby, 44 channels dbx UREL Dig metronome, Burwen 1000 noise filter, Sony video monitors, full video capability

Microphones: Neumann U-87s, U-67s, U-47s, KM-86, KM-84, AKG Transformerless C414EB, C452EB, C-12A, CK-9 shotgun, Sennheiser 421-U; Sony C-500, E-V RE-20s, RE-16s; Shure SM 57, RCA 77-BX, 44-DX, PZM, Jensen & UREI DI's Instruments Available: Steinway 9' concert grand, ARP Omni,

Ampeg guitar/bass amp, many others on request Rates: 40 track \$95/hr, 24 track \$75/hr; 16 track \$60/hr, 8 track

\$40/hr, audio for video sweetening \$60/hr

### **\*\*\*\*** CARIBOU RANCH RECORDING STUDIO

Box 310, Nederland, CO 80466 (303) 258-3215 Owner: James William Guercio Studio Manager: Jerry Mahler, Steve Hebrock

•••• COAST RECORDERS

1340 Mission St., San Francisco, CA 94103 (415) 864-5200 Owner: United Recording Corp Studio Manager: Steve Atkin Engineers: Steve Atkin, Bob Lindner, Gary Dominguez, Sol Weiss, Jim Hilson continued

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### (See our listing on Page 65) FANE PRODUCTIONS STUDIO 115-B HARVEY WEST BLVD., SANTA CRUZ, CA 95060 (408) 425-0152

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### Dimensions of Studios: A: 25' x 40', B: 12' x 18'; Dialogue: 6' x

Dimensions of Control Rooms: A: 18' x 20': B: 16' x 18', Dia logue: 10' x 12, Production: 14' x 14'

Tape Recorders: MCI 24 track; 3M 16 track; 3M, Ampex 8 tracks; Ampex, Scully 4 tracks; Ampex, Westlake, MCI 2 tracks & monos

Mixing Consoles: MCI automated IH-428B, 28 in x 24 out; Bushnell, 20 in x 12 out; Quantum, 20 in x 4 out. Monitor Amplifiers: UREI 6500, Crown, United Audio

Monitor Speakers: UREI 813; JBL 4320, 4311, L-65; Auratone Echo, Reverb, and Delay Systems: E.M.T (4), MICMIX Other Outboard Equipment: UREI LA-3A, 1176LN, 527, 530,

537, 545, 565T, Orban D'Esser, Kepex, UREI DDL, UREI digital metronome

Microphones: Neumann U-87, U-67, U-47; E-V RE-20, RE-15; Sennheiser 405; AKG 451, 414; RCA 44, 77; Shure SM-56, 57 Instruments Available: Steinway, A.B. Chase grand pianos, Celeste

Rates: \$40 to \$100/hr

Extras: Hi-speed open reel and in cassette recording. Total tape mailing service. Direct remote phone lines

Direction: The leader in audio services geared to the advertising industry Total service except film and location

### •••• COMMERCIAL RECORDING HAWAII 333 Cooke St., Honolulu, HI 96813 (808) 536-5439

Owner: Commercial Recording, Inc Studio Manager: Donn V. Tyler.

Engineers: David Lenly, Donn V. Tyler, Rick Stanley, Tracy Clay

Dimensions of Studios: A: 12' x 18': B: 24' x 36'

Dimensions of Control Rooms: A: 12' x 18'; B: 18' x 22' Tape Recorders: Ampex MM1200 24 track; (5) Ampex ATR 4/2 track; Magnetek 35/16mm magfilm recorders

Mixing Consoles: A. Custom, 8 in x 4 out, B: Tangent 1632, 32 in x 32 out

Monitor Amplifiers: Crown DC300, D150

Monitor Speakers: JBL 4333A, JBL 4310, Auratone Echo, Reverb, and Delay Systems: AKG BX-10 reverb. DeltaLab DL2, Eventide Harmonizer, Marshall Time Modulator. Loft analog delay

Other Outboard Equipment: Orban parametric EQ, Inovonics limiter/compressor, Orban stereo synthesizers, Orban de'esser, Eventide Omnipresser, Tempo check digital metronome, Omni Craft noise gates

Microphones: Neumann, AKG, Shure, Sennheiser, Sony, RCA Instruments Available: Steinway piano, Tack piano, ARP 2600 synthesizer, Slingerland drum set. Rates: A: \$50/hr, B: \$100/hr.

### •••• COPPERWOOD RECORDING STUDIOS also REMOTE RECORDING

2616 Garfield Ave., Carmichael (Sacramento), CA 95608 (916) 485-7999, 972-1694

Owner: Jim Hibbard, Scott Welch

Studio Manager: Scott Welch

Engineers: Jim Hibbard, Scott Welch, Marty Monson. Dimensions of Studios: Main room: 17' x 21'; drum room: 8' x 15'; vocal room 6' x 11'

Dimensions of Control Rooms: 131/2' x 181/2'

Tape Recorders: Otari MTR 90 24 track; Ampex MM1100 16 track; Otan MX 5050 8 track; 3M 79 2 track; TEAC 25-2 2 track, Dokorder 1140 2 track; (2) Sansui SC110 cassettes

Mixing Consoles: Tangent modified 3216, 20 in x 20 out, solo in place, group muting, custom 2 bus pre set effects and muting 16 effects returns and sends.

Monitor Amplifiers: Yamaha, Crown, Phase Linear. Monitor Speakers: JBL 4313, JBL 4311's, Auratones

Echo, Reverb, and Delay Systems: DeltaLab Acousticomputer, modified Orban stereo reverb 1-11B, Ibanez analog delay/flanger AD230, Eventide Omnipressor, Echoplex

Other Outboard Equipment: (2) UREI LA4 compressor/ limiters, dbx 160 limiter, dbx 154 limiter, dbx noise reduction 4 channels, Furman parametric, Neptune 27 band EQ, TEAC effects mixer, noise gates.

Microphones: AKG 414; Beyer M-500; E-V RE-20's; Sennheiser 441, 421; Shure SM-58, SM-56, SM-57, SM-76; RCA DX77;

### Crown P7M

Instruments Available: Baby grand plano, custom studio Rickenbacker bass, Moog and Prophet synthesizers Rates: \$50/hr Block rates available



CSS Recording Studios Las Vegas, NV

•••• CSS RECORDING STUDIOS

also REMOTE RECORDING

2010 E. Charleston Blvd., Las Vegas, NV 89104 (702) 384-1212

Owner: Jon M. Parks, Robin Freeman

Studio Manager: Debbie Parks

Engineers: Robin Freeman, Scott Spain, Bob Lentini, Randy Wood, James Root

Dimensions of Studios: 35' x 32'

### Dimensions of Control Rooms: 18' x 24'

Tape Recorders: MCI JH-114 w/Autolocater 24/16 track, Tascam 80-8 8 track; Tascam 40-4 4 track, MCI JH-110 2 track, Ampex 440 2 track.

Mixing Consoles: MCI JH-528, 28 in x 24 out Monitor Amplifiers: Crown DC 300s, Crown DC 150s, SAE 400.

Monitor Speakers: JBL 4333s, JBL L-100s, Auratones

Echo, Reverb, and Delay Systems: Lexicon 224 Digital, EMT 240, Eventide Digital, MXR Digital.

Other Outboard Equipment: 24 channel Dolby, 24 channel dbx, Eventide DDL/Harmonizers, Omnipressor, flanger, phaser, Kepex, Gain Brains, UREI 1176 limiters, UREI LA3A and LA4A limiters, dbx 162 limiters, Aphex Aural Exciter, Orban de'esser, UREI 527 A graphics, Crown parametrics, Crown pre-amps, SAE 2700 EO's

Microphones: Neumann U-87, U-47, KM-83, KM-84, KM-85; AKG 414, 451, 452, E-V RE-20, Shure SM-54, SM-56, SM-57, SM-58, 456; Sennheiser MD-441, MD-421; Sony C-37, ECM-22, 33-F; Altec 689-BX

Instruments Available: Kawai 7'4" grand piano, Fender Rhodes, Hammond B-3, Yamaha drums, Fender amps, percussion instruments, (no fee). Synclavier available by appointment. Bates: \$50-\$120/hr.

Extras: An in-house production company of writers and producers for album projects and company of inflates Our jungle credits include "No One Does It Better, Las Vegas", "The Lady of Las Vegas, The Sands" and "The Ambassador Hotel", which won Best 60 sec Hotel Jungle/1981

Direction: All of our engineers have gold records to their credit Our clients include; Christopher Cross, Diana Ross, Kenny Rogers, Gladys Knight, Tammy Wynette, Mel Tillis, Paul Anka, Wayne Newton, Waylon Jennings, Bill Cosby, Burgess Meredith and Greg Morns. Also various pre-recorded events for MGM Jubilee", Ann-Margret & Juliet Prowse Shows, Merve Griffin & Flamingo Hilton's "City Lights." Additionally, we offer recording engineenna courses

### •••• CUSTOM RECORDING/STUDIO C 2220 Broadridge Way, Stockton, CA 95207

(209) 477-5130

Owner: Dr. Thomas T. Chen, M.D.

Studio Manager: Drew M. Palmer

Engineers: Drew Palmer, Ralph Stover, Dr. Tom Chen Dimensions of Studios: 32' x 30'

Dimensions of Control Rooms: 12' x 8'

Tape Recorders: Otari MTR-90 24 track w/Autolocator; 3M M56 8 track w/Autolocator; Ampex AG-351 2 track; Otari MX-5050 4 track; Otari High Speed Duplicator; Yamaha TC-1000 cassette; Tandberg TCD-330 cassette Mixing Consoles: Sound Workshop automated Senes 30, 28 in x

24 out; Interface Electronics, 8 in x 4 out

Monitor Amplifiers: Spectra Sonics Model 701, Crown D-60 Monitor Speakers: Ed Long's TA-3, MDM-4, Auratone, Bozak concert grand (studio)

Echo, Reverb, and Delay Systems: AKG BX-20 reverb, Lexicor. Model 224 digital reverb, Lexicon Model 102 stereo digital delay Other Outboard Equipment: Allison Gain Brain, Allison Kepex, Eventide Flanger, Eventide Harmonizer H910, Eventide Har-

monizer H949, White Series 4000 1/3 octave EO, dbx noise reduction, Orban/Pera:ound sfereo matrix, Orban Model 526A de'esser, Inovonics Model 200 limiter, UREI graphic EQ, ITI parametric EQ, Countsymar, phaser, EXR exciter EX2. Microphones: AKG C45 E system including cardoid, omni, shotgun, D200; Ejectra-Voire RE-15, RE-16, RE-20; FRAP for wind instruments; MB 215 MB 301; Microphone substitution devices; Neumann KM-84, U-57, U-47fet; MN-421, MKH-405; Shure SM-58, SM-57, GM 53, GM-60, SM-81, custom built guitar and drum microphone., Countryman direct boxes, PZM 130 Instruments Available: Steinway grand piano, Hammond B-3 organ w/Leslie, Oberheim wight voice synthesizer w/sequencer, Alembic bass cabinet, Oberheim studio amplifier, Fender Vibroverb amplifier w/IBL speakers, Fender Deluxe Reverb amplifier, Legend Rock 'N' Roll guitar amplifier, Fender Precision bass w/custom noiseless electronics, custom individually microphoned drum set, Ludwig drim: Passte cymbals, Roto-Tom tympani, assorted percussion instruments, Hohner clavinet w/custom elec tronics, New England stighted synclavier IJ Rates: \$50/hr Block Focking rates available



thusiastic recording artists-such as: Jack Dougherty, Paul Anka, the Beach Boys, Michael Nesmith, the Mark Almond Band and Uncle Rainbow and the Tubes. Stop in wow't you? "There's a song in the air!" It might be yours!!!



Different Fur San Francisco, CA

### •••• DIFFERENT FUR

3470-19th St., San Francisco, CA 94110 (415) 864-1967

Owner: Patrick Gleeson

Studio Manager: Susan Skaggs Engineers: Stacy Baird, Don Mack, Howard Johnston, Ann DeVenzio Independents Don Cody, Jun Gaines, Steve Man toani Systems Engineer: Tom Paddock Dimensions of Studios: 25' x 35' x 12 plus isolation booths

Dimensions of Control Rooms: 17' x 21' x 12' Tape Recorders: MCI J114 16/24 track, MCJ JH 110A 2/4 track;

MCI IH 110A 2 track: (4) Technics RS 85 metal cassette decks. Mixing Consoles: Harrison 4032 (meduhed for dual 32-track digital recording), 35 in x 32 out; Allis: n 65K automation. Monitor Amplifiers: Crown, BGW, Spectra Sonics, Phase

Linear

Monitor Speakers: Westlake TM-1's, 604E's; JBL 4310's, 4311's; Auratone

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb. EMT 240 Gold Foil, Eventide Digital Delay, Lexicon Prime, Times (2), live echo chamber 17' x 10' x 10'.

Other Outboard Equipment: Dolby A 26 channels Effects: Kepex II's, Gain Brain II's, 1176's, LA4A's, Eventide Harmonizer, White 1/6 octave digital spectrum anatyzer, digital metronome, MXR flanger.

Microphones: Neumann U-87's, U-47's, KM-84's; AKG 414's, 452's; Beyer; Sennheiser; Sony; Electre-Voice; Shure; etc. Instruments Available: Yamaha C-7B grand piano, voccder,

Fender amplifiers, string machine Rates: Telephone for rates, engineer availability, block booking and special demo rates

Extras: Copying facilities, shower, sauria, lounge w/kitchen, color TV

Direction: Custom service in a state of the art studio designed by John Storyk of Sugarloaf View Offering both analog and digital recording capabilities. Complete seclusion in a very private atmosphere for musician, producer and manager. Media voice-over and jungle record Recent clients include Bill Summers, Pleasure, Walter Hawkins, Edwin Hawkins, David Grisman Quartet.

### •••• FANE PRODUCTIONS

115 B Harvey West Blvd., Santa Cruz, CA 95060 (408) 425-0152 Owner: Fane Productions, Inc

Studio Manager: Corie Opperman Engineers: Fane Opperman, Pete Carlson, Dave Luke, Corie Opperman

Dimensions of Studios: 30' x 20' isolation booth

### Dimensions of Control Rooms: 29' x 12'

Tape Recorders: MCI JH-114 transformerless 16/24 track; MCI JH-110B transformerless 2 track; Tascam 80-8 8 track; Tascam 25-2 2 track: Aiwa and TEAC cassette decks Mixing Consoles: MCI JH-636 transformerless w/automation, 32

Monitor Amplifiers: Yamahas, Crown, Bi-Amp Monitor Speakers: Tannoy Berkeleys, IBL 4311's, Altec A7's, Auratones

Echo, Reverb, and Delay Systems: Lexicon 224 digital reverb. Ursa Major Space Station digital reverb, Orban 111B reverb, Eventide Harmonizer and DDL, DeltaLab DL4 digital delay, Delta-Lab DL2 Acousticomputer digital delay, MXR pitch transposer, Ibanez analog delay and multi-flanger

Other Outboard Equipment: 34 channels dbx noise reduction; EXR aural exciter; dbx 160 compressors; UREI 1176 limiters; Symetrix CL100 compressor/de'essers; dbx and Symetrix noise gates; White, MXR and URE1 1/3 octave graphic EQ's; UREI stereo parametric EO.

Microphones: Neumann, AKG, Sennheiser, RCA, E-V, Beyer, Sony, PZM, Shure.

Instruments Available: Yamaha grand piano, Hammond B-3 organ w/Leslie, Prophet 10 synthesizer, Polymoog, Micromoog, Roland sequencer, Wurlitzer electric piano, Fender and Marshall guitar amps/speakers, Fender Stratocaster, Fender P-bass, Guild Jumbo 12-string, Ludwig 6 piece drum set w/timbales, syndrum, many latin percussion instruments.

Rates: 24/16 track \$50-\$80/hr; 8 track \$40/hr; 2 track \$35/hr. Extras: Studio musicians, arrangers and jingle writers are available A restaurant/bar with pool tables and pinball is next door The studio has a redwood geodesic dome lounge Direction: Fane Productions offers automated 24 track

transformerless MCI recording at excellent rates. We have pride in our studio and staff and care about each project we do. All this in sunny Santa Cruz. Our staff producers and engineers have worked with Kenny Loggins, Steve Marnott, The Humans, Maria Muldar, Leslie West, The Mighty Diamonds, The Rastafarians, The Moody Blues, and Alice Cooper



Fane Productions Santa Cruz, CA

**••••** FANTASY STUDIOS 10th & Parker, Berkeley, CA 94710 (415) 549-2500 or 486-2038

Owner: Fantasy Records.

Studio Manager: Roy Segal Engineers: Mixers: Richie Corsello, Dan Kopelson, Jesse Osborne, Wally Buck; mastering: George Horn; maintenance.

Mike Herbick, John Banuelos, John Clavin, Steve Toby Dimensions of Studios: A: 30' x 50', B: 20' x 27', C: 27' x

35', D: 30' x 50'. Tape Recorders: Ampex 1200 16/24 track; Studer A800 24 track; Ampex ATR100 2 track; MCI 110C 4/8 track

Mixing Consoles: Neve 8108, 56 in x 48 out; Quad 8, 20 in x 16 out; DeMedio custom, 24 in x 24 out

Monitor Amplifiers: Crown, McIntosh

Monitor Speakers: Sierra-Hidley, UREI Time Aligned 604 w/Mastering Lab crossovers, all voiced.

Echo, Reverb, and Delay Systems: Live chambers, EMT 140's, Echoplate, EMT 250 digital

Other Outboard Equipment: Eventide Harmonizer, delay, chorus, phaser, Kepex, Scamp rack, etc.

Microphones: 164 mikes-ribbon dynamic, condenser and PZM Instruments Available: Keyboards and guitar amps Rates: Call Andrea Salter or Roy Segal.

### •••• HARBOR SOUND

### 301 Harbor Drive, Sausalito, CA 94965 (415) 332-0983

Studio Manager: Britta Bocala S.

Engineers: Paul Stubblebine, Nancy Evans, Dana J. Chappelle, Fernando Kral

Tape Recorders: MCI JH-114 24 track; MCI JH-110 2 track, Scully 280-B 4 track; Otari MX 5050 2 track

Mixing Consoles: MCI w/automation 636, 28 in x 24 out continued



Cypress Star Recording Studio Monterey, CA

•••• CYPRESS STAR RECORDING STUDIO also REMOTE RECORDING 600 E. Franklin St., Suite E, Monterey, CA 93940 (408) 372-7827, (372-STAR) Owner: Nancy Deolattle Studio Manager: In Dean Engineers: Producer engineer, Ins Dean Dimensions of Studios: 22' x 22' Dimensions of Control Rooms: 14' x 22' Overdub room 10' x 10 Tape Recorders: 3M Series "9 16 and 24 track, Ampex AG 440

4 track; (3) Ampex AG 44(1 2 track; Sony TC-850 1/4 and 1/2 track; Otari MX 5050 2 track; Sony TC-788-4 4 track; Tascam 80-8 8 track

Mixing Consoles: MCI JE-416, 24 in x 24 out w/Allison automated mix (Memory's Little Helper-65K); Sound Workshop Series 20, 8 m x 8 cut

Monitor Amplifiers Alter 9440A, Crown DC 300A, Crown D60, McIntosh 275

Monitor Speakers: UEEI 813 A's, JBL 4311, Auratones (White Room EO)

Echo, Reverb, and Delay Systems: EMT echo, Eventide Digital Delay

Other Outboard Equipment: ADR Vocal Stresser, UREI limiters, UREI graphic EC, dox n-ise reduction-26 channels, Dolby noise reduction-2 charmels, Multi sync motor drive, Kepex, Eventide

Flanger, dbx compressor limiters, custom console Microphones: Neumann U-87's, AKG 451's, D-58E, Shure SM-52's, SM-56's, Sernheiser MKH-405's, MK-404's, MD-421; Electro-Voice RE 2Cts

Instruments Available: AIEP strings, ARP Omni, 6 foot 1980 Kawai grand piano. Carricc drums, Hammond C-3 organ with Leslie speaker, Yamaha bais amp, Fender guitar amp, Fender Rhodes electric plano, Prophet V

### Rates: By request

Extras: Currently under construction is Studio B. Also available artist's lounge, kitchen, and bathroom with shower, all for your comfort and convertienc+

Direction: Picture this setting and see if you can resist! A golden sunset over Monterey Bay An invigorating walk to Fisherman's Wharf with its fascinating shops and gourmet restaurants. Clear skies. Ocean breezes. Fishing boats and barking seals. And just a hve minute drive to the old world charm" of Carmel-by-the-sea Everything you need to: "artistic inspiration" plus endless possibilities for those moments of relaxation! Because we at Cypress Star believe that musicians are a "special breed of people" our goal is to make you feel as special as you are Since ours is a studio "run by musicians for musicians," we invite you to come and set your creative juices flowing in the gracious, "home like" atmosphere we have prepared for you. Just minutes from the airport and two blocks from the sea, Cypress Star offers you our finest in recording equipment and engineering services as we constantly strive for an excluding and rewarding end product! We look forward to including you among our ever growing list of en-

# 1981 WAS A GREAT YEAR FOR Journey, the greg kihn band, the clarke-duke project, and fantasy studios.

During 1981, its first full year of operation, Fantasy Studios' new Studio D secured its reputation as an incomparable state-of-the-art facility.



A fully computerized and automated 46-track studio, "D" is equipped with Studer mix machines and two A800 24-track machines which are interlocked by the Studer TLS 2000 (SMPTE Time Code Synchronizer), giving you 46 usable tracks: Sierra/Hidley Acoustics and Sierra SM III studio monitors; Crown Monitor Amplifiers; and a 56x48 console by Neve with NECAM computer-assisted mixing.

This mixing system has the ability not only to store as many mixes as desired, but to combine (merge) sections of any number of mixes into the "final mix." Incredible!

Understandably, Studio D time does not come cheaply. But "D" was the room chosen by Journey, the Greg Kihn Band, and George Duke and Stanley Clarke, and Fantasy Studios is proud of the part "D" played in these artists' recent successes: Journey's *Escape* (certified platinum), Kihn's *Rockihnroll* (gold), and Duke and Clarke's *The Clarke-Duke Project* (soon to be gold).

1982 can be a great year for you even if you don't have mega-bucks. The Fantasy Studios complex also includes two 24-track studios (A and C), a 16track room (B), and a fully equipped disc mastering room, and has the flexibility to *deal* with any budget.

Want to know more about Fantasy? Contact Roy Segal or Andrea Salter at 415/549-2500 or 486-2038.





Monitor Amplifiers: McIntosh Hafler BGW Monitor Speakers: UREI 813, JBL Auratone Rogers LS 3/5A

Echo, Reverb, and Delay Systems: Storeo FMT DeltaLab DL 2 Scamp ADT, Orban

Other Outboard Equipment: UREF 1176 UREF1A4A, Scamp gates, Pultec EQ, Scamp parametric EQ

Microphones: Neumann, AKG Sennheiser, Shure, E.V., Sony Instruments Available: Yamiha piano. Turner outar: Turner bass, Fender Precision bass.

Rates: 65/hr for 24 or 16 track time. Call bid bad Britta for rates and bookings

### •••• HEAVENLY RECORDING STUDIOS 620 Bercut Drive, Sacramento, CA 95814 (916) 446-3088

(916) 446-3088 Owner: Jonsson Communications

Studio Manager: Jim West

Engineers: Larry Lauzon, Martin Ashiey, Bay Pyle, Julie -Fadness

Dimensions of Studios: 34 x 37 usolation booth 1.2 x 15

drum alcove 8' x 9' Dimensions of Control Rooms: 20-x 23

Tape Recorders: MCLIH 16.8/16.24 track. (2) MCLIH 110B.2 track, Technics M85 cassette

Mixing Consoles: Quad hight Paintine 28 or x 24 out Monitor Amplifiers: UHPL6500 Michitosh 2100, MC 275 Monitor Speakers: UHPL81(A Tume Alions: IBL 4333-4313 4311 Auratone 5 C

Echo, Reverb, and Delay Systems: Lexicon 224 doital reverb AGG BX 20F reverb, Eventide H 910 Harmonizer Digital Delay, Marshall Time Modulator

Other Outboard Equipment: 28 channels dox. UREJ 1176-LN limitors, Teletronix LA 24 limiters, Allison Gain Brains, Ouad Eacht C1 22 companders. ADB Scamp expander/outes. UBEJ 527S equalizer. Pulter PEQ 1S equalizers. Pulter HLF 4C hiter, 8TX SMPTE concentor. BTX Shadow SMPTF synchronizer and controller. Sony color video memors. Sony VO 2660-1411 U matic. VCB

Microphones: Neumann, U.67, U.87, KM.84, AKG, C.414, C.451, Sennheiser, MD.421, Sony, E.CM.22, ECM.280, Shure, SM.7, SM.54, SM.88, SM.81, 545, 300, Flextro Voice, RE 20, 654A, 666, CO.90, RCA 77 DX, Altec M.30, Crown PZM 30, Instruments, Available: Yamaba, C.3, graint, pario, Ludwig drums w/Zidpan cymbals, Synare and various percussion Rates, Please call for specifics

Extras: Video security system. Coffee, tea, refricerator, and frushee on premises. Lodging and fine resourants nearby. American Hiver is twenty paces out the back door.

Direction. We have taken up residence in our new lack Edwards designed recording facility. The new studio and equipment additions will help us continue to serve our line list of clients and provide the highest quality auto services in the area. We are proud to offer these services at reasonable rates.



Sonomo, CA See listing on poge 68

# <u>Starlight Sound.</u> Star-quality 24-track recording.

World Radio History

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If you want your tracks to sound out of this world, but you don't want to go to the ends of the universe, it's time to discover Starlight Sound.

We produce star-quality 24-track recording. Right here in Richmond.

Our studio may surprise you. It's customdesigned. Completely tuneable. State-ofthe-art equipped. With room to move.

And there's talent behind the hardware.

Our engineers are not only super technicians, they're fine musicians. They know how to get good sound down on tape.

R

You see, whether you're on your way, or already there, when' you record with Starlight, you'll get top equipment and top talent. Without paying top dollar.

You'll also get the best sound around. Star-quality 24-track recording.

Starlight Sound Richmond, California (415) 236-2281

### •••• HOUSTON RECORDING ONLY REMOTE RECORDING 2355 Sobre Vista Rd., Sonoma, CA 95476 (707) 996-8881

Studio Manager: Rich Houston Engineers: Steve Hawk, Kathy Meyer, Rich Houston, plus independents.

Dimensions of Control Rooms: 8' x  $8^{1/2}$ ' x 26' truck Tape Recorders: 3M M 79 24 track, 3M M-79 2 track, Sony  $^{1/4}$ track, Kenwood KX-1060 cassette, 3M 32/4 track digital available by special order

Mixing Consoles: MCI JH-636 automated, 32 in x 24 out; Yamaha PM-180 (4), 24 in x 8 out

Monitor Amplifiers: Dynaco 400 Monitor Speakers: JBL 4311, Auratone 5C Echo, Reverb, and Delay Systems: MICMIX "Super C" stereo

echo Other Outboard Equipment: Closed circuit video. RTS 2 channel intercom, 62 microphone inputs, 54 input snake system with Jensen 3-way splitters, complete stereo cue/studio/stage foldback system

Microphones: AKG C-414, C-452, C-451, D 190, E-V RE-15, RE-11, Neumann KM-84, Sennheiser MD 421, Shure SM-57, direct boxes

Rates: Basic 24 track package includes truck control room, equipment and crew at \$1500/day. Call for complete rate schedule



Hyde Street Studios San Francisco, CA

### •••• THE HYDE STREET STUDIOS 245 Hyde Street, San Francisco, CA 94102 (415) 441-8934

Owner: Dan Alexander, Tom Sharples, Michael Ward Studio Manager: Tom Lubin, Dan Alexander, traffic/booking Connie Laventurier, Ricky Lynd

Engineers: Richard Van Dorn, John Cuniberti, Gary Mankin, Mark Wallher, assistants: Gordon Lyon, Scott Chandler, Marco Perry

Dimensions of Studios: A 39' x 19' with 6' x 10' iso booth, C 33' x 21' with (2) 8' x 6' iso booths, D 31' x 18', F. 24' x 16' (media room)

Dimensions of Control Rooms: A 18' x 15', C' 19' x 15', D' 18' x 19', E' 24' x 15'

Tape Recorders: Otari MTR-90 24 track, 3M M56 16 track, Ampex MM1000 16 track, Otari MTR-10.2 track; 3M M64, Ampex 440 2/4, Otari 5050B 2 tracks.

Mixing Consoles: Trident (Studio D) "B" range, 40 x 8 x 24; Helios (Studio C) 2824, 28 x 8 x 24; Neve (media), 18 x 4 x 4; Electrodyne (Studio A) custom, 24 x 8 x 16

Monitor Amplifiers: SAE, BGW, McIntosh, Crown, etc.

Monitor Speakers: UREI 813 Time Align (Studios D & C); Tannoy Golds (Studio A), Klipsch (media), also JBL 4313, 4311 Auratones

Echo, Reverb, and Delay Systems: Five acoustic echo chambers between 200 and 500 cubic ft each (2) Lexicon Delta T  $102\,$  Eventide DDL

Other Outboard Equipment: Keyable noise gates, phasers flangers Eventide Harmonizers, compressors, limiters, parametric EQ's, Pultecs, Lang, LA2A's, etc., etc. You want it, we get it!! Microphones: Over 80 microphones, over 30 tube type

Neumann and AKG condensers, Elam 251, M-49, U-47, U-67 C-12A, etc. Plus all the newest types Instruments Available; Steinway concert grand, Mason Hamlin

concert grand, Hammond organs, Chamberlin, amps, etc Rates: 16 track as low as \$25/hr, w/engineer up to \$50/hr 24 track as low as \$65/hr, w/second engineer. Call for rate details

and time availability Extras: Lounge, game room, private conference room available. Free pool table, restaurants next door, three blocks from BART easy parking

Direction: Marty Feldman Eyes (Baby Man Baum), Lawnchairs (Our Daughter's Wedding), Perry Como Show (The Gatlin Bros.). Mike Bloomfield, The Tazmanian Devils, The Rubinoos, Guitar, A Rock Episode (Haitus/T M. Productions), Flipper, Dead Kennedy's Little Roger and Dick Bright, Max Edwards, Alapela Gold and over 300 other production companys and artists in the past year. We love music<sup>1</sup>





Hyde Street Studios San Francisco, CA

•••• LUXURY AUDIO WORKSHOP 2570 E. Tropicana Ave., #19, Las Vegas, NV 89121 (702) 451-6767

Owner: L.A.W. Inc. Studio Manager: Lee Watters

Enginees: "im Root, Michael Martin, Lee Watters, Michael Cook, al-to some independents

Dimensions of Studios: 1000 sq ft

Dimensions of Control Rooms: 20 x 16

Tape Recorders: MCLIH-24-24 track, MCLIH-110-2 track Mixing Consoles: Custom DeMedio API w/automation, 36 ir. x 24 out

Monitor Amplifiers: Alter 9440-A, BGW 750B BGW 100 Monitor Speakers: JBL 4333A's, JBL custom designed by Augspurger JBL 4311's, Auratones

Echo, Reverb, and Delay Systems: Lexicon 224 reverb Lexicon Prine Time DDL, Orban stered reverb

Other Outboard Equipment: Eventide Harmonizer, Orban de'esser, UREI 1176LN, LA-3A, LA-4 limiters, Allison Gain Brairs: Keoex, Eangers, phasers

Microphones: Neumann U-47, U-87, KM-84, AEG 414's, 451's, D12's; E V RE-20's, Shure SM 56, 57, 58, 59, 81, Sennheiser 441's, 421's, Sony's, RCA ribbon mics

Instruments Available: Yamaha G C 3 grand piano, Yamaha dirums, Yamaha grutar amps, Fender Rhodes 88 keys, most synthesizers available

Rates: 24 trank \$100/hr w/engineer; 2,4,8 trank \$50/hr. Block time can be worked out

 ${\rm Extras:}\ {\rm Ping}\ {\rm pong},\ {\rm pin}\ {\rm ball},\ {\rm TV},\ {\rm kitchen},\ {\rm isolation}\ {\rm room}\ {\rm high}\ {\rm speed}\ {\rm casette}\ {\rm copies}\ {\rm made},\ {\rm limcusine}\ {\rm service}\ {\rm to}\ {\rm and}\ {\rm from}\ {\rm hotels}\ {\rm available}$ 

Direction: Our studio is one of the finest state of file art recording studios in Les Vegas. Our API console has recorded records for Kenry Risgers. Narhie Cole, Lionel Fichle, Steely Dan Paul Anka, Futus, Chervi Ladd, just to name some. We at LA.W. would like to add you to the Lst. LA.W. would like to thank all the artists and producess that. have selected our studio.

### •••• MONTAGE RECORDING CO. 37532 Sycamore Ave., Newark, CA 94560

(415) 794-2992

Owner: Will Mullins, Bill Walsh

Studio Manager: Will Mullins Engineers: Bis Llewellyn, Will Mullins

Engineers: Bill Llewellyn, Will Mullans Dimensions of Studios: 19' x 21', -trum booth 8' x 10', vocal brooth 6' x 4'

### Dimensions of Control Rooms: 15' x 13'

Tape Recorders: MCI JH-114 w/Autolocator 24/16 track; Ampex 44CB 2 track, TEAC 33405 4 track, TEAC A15C, 450 passelies

Mixing Consoles: MCIJH-416, 24 in x 24 out, Studiomaster, 16

Monitor Amplifiers: Crown D150, D60, Yamaha, Uni-Sync 100

Monitor Speakers: Altec 602, Auratone Echo, Reverb, and Delay Systems: Echoplate II stereo reverb.

Lexicon Prime Time, MXR DDL Other Outboard Equipment: Eventide Phaser, UREI limiters,

AudioArts parametric EQ, dbx noise reduction Microphones: Shure SM-56, 57, 58, 82; AKG 414, 452, 224; E-V RE-20, 91; Beyer 500; Sennheiser 421; RCA DX-77. Instrumente Available: Helpinsteel grand piano, Leslie 122 and 910, Roland Jazz Chorus amp, Fender pre-CBS Bandmaster, Oberheim 4-voice synthesizer, Mini Moog, Moog Taurus bass pedals, many acoustic and electric guitars

Rates: 16 track \$45/hr, \$350 for 10 hrs; 24 track \$60/hr, block rates available

### •••• MOUNTAIN EARS RECORDING

1865-33rd St., P.O. Box 2240, Boulder, CO 80306 (303) 444-3277 Owner: John W Aldridge

Studio Manager: Linda Ray

### •••• MOUNTAIN MEADOW RECORDING 570-26th St. #1, Ogden, UT 84401 (801) 394-3217

Owner: Ronald J Watkins Studio Manager: Ronald J Watkins

### •••• MUSIC ANNEX

970 O'Brien Dr., Menlo Park, CA 94025 (415) 328-8338

Owner: Music Annex, Inc. Studio Manager: David Porter; traffic mgr: Kathy Wolff. Engineers: Russell Bond, Harn Soper, David Porter, Frank

Ellis, Steve Andreatta, Linda Procassini, Allen Craft, chief engineer: Roger Wiersema

Dimensions of Studios: A 34' x 28', isolation 10' x 8', B' 16' x 12', C' 30' x 20'

Dimensions of Control Rooms: A 20' x 25' B 22' x 18', C: 14' x 12'

Tape Recorders: MCI JH-114 24 track, MCI JH-16 16 track, Ampex MM-1000 VSO 16 track, Ampex MM-1000 8 track, (2) MCI JH-110A/B 2 track, (4) Ampex AG-440 2 track Mixing Consoles: Neve 8036, 30 n x 24 out, AMEK TAC, 16 in

Mixing Consoles: Neve 5036, 30 in x 24 out, AMEN TAC, 10 in x 8 out; MCI 416, 24 in x 16 out Monitor Amplifiers: BGW 750's, 250's, 100's; Crown DC-300's,

Monitor Amplitiens: BGW 750's, 250's, 100's; Crown DC-300's, 150's, D-60's; Yamaha 2200 FET, White ½ octave EQ in each room

Monitor Speakers: A UREI Time Align, B<sup>1</sup> JBL 4333A, C<sup>2</sup> JBL 4311, Auratones, JBL 4311 available in all rooms.

Echo, Reverb, and Delay Systems: EMT 140, EMT 240, Lexicon 224 (4.4 version), (2) Furman reverbs, Prime Time, Eventide Harmonizer, MXR DDL, (3) Scamp Time Shape

Other Outboard Equipment: (4) UREI 1176LN limiters, 1178 stereo limiter, (4) Inovonics 201 limiters, ADR Vocal Stressor, Scamp limiters, EQ's, noise gates, ADR stereo EQ, Eventide Flanger, Roger Meyer gates, Scamp pan modules, Computeditor automation, dbx & Dolby noise reduction

Microphones: AKG 414's, 452's, C-60's (tube); Beyer 500; Calrec CB-21C, E-V RE-20's, RE-16, Neumann KM-84's, U-87's, U-67's, U-47 FETs, Sony 22-P's, Shure 57's, 58's, 53's, SM-33 rubbon, Sennheiser 421's, 441's, Countryman directs; PZM's

Instruments Available: Yamaha & Steinway grand pianos, Alpha Syntauri digital synthesizer, various snare drums, percussion equipment, amplifiers

Rates: \$45-\$125/hr, according to studio. Block rates and day rates by guote

Extras: Lounge area, coke machine, kitchen, drive-in loading, parking for 40 cars, closed-circuit TV off front door and parking lot, video monitors in all rooms

Direction: Our three studios were designed to meet a variety of requirements from simple narration to the most complex multitrack project Credits include: The Tubes, Todd Rundgren, Bill Whithers, Snail, leanie Tracy, George Winston, Will Ackerman, Holly Near and many others. In addition to our staff engineers, we want to encourage independent engineers to use our facilities and to supply them with the tinest technical support available



Music Annex Menlo Park, CA

## 1.1. 1.1. R atore TH ü a sound

We called Sound Genesis. From our first "garage" studio in Mill Valley to our new LEDE I Design 24-track facility in San Rafael, we've counted on Sound Genesis for equipment, service and real friendship. From Tres Virgos Studios to our friends at Sound Genesis, a toast: Hear Here!



### •••• THE MUSIC SOURCE 615 E. Pike St., Seattle, WA 98122 (206) 323-6847

Owner: Jim Wolfe, Bob Israel, Dave Raynor

Studio Manager: Cathy Keller Engineers: Jim Wolte, Bob Israel, Dave Raynor, Dave Perry rry Nefzger Derek Dunann Bruce Buckner Dimensions of Studios: 25 x 35 Dimensions of Control Rooms: 12 x 24

Tape Recorders: MCI 114 transformerless w Autolocator 24 track MCT-110-2 track, (3) Revox A77-2 track, Revox A77-14 track. Aiwa 6900 cassette: NAD 6140 cassette. Mixing Consoles: MCI 636 w/VCA sub-grouping, 28 in x 24

Monitor Amplifiers: BGW Phase Linear McIntosh

Monitor Speakers: JBI 1100, JBI, L200 w TAD drivers. Phase Research Aurato

Echo, Reverb, and Delay Systems: AKG BX 10 Lexicon Prime mory extension

Other Outboard Equipment: Compressor limiters URFI 1178 (2) Symetrix CL 10() dbx 162, equalizers (6) Bi Amp 10 band (2) SAE 11 band (4) Deltagraph 10 band (2) UREL + octave 31 band, (2) Symetrix 4 band parametric, (2) Symetrix noise gates (Kepex type). Eventide Harmonizer: 6 channels dbx: 150. eries noise reduction, (4) Valley People Tranz amps

Denes noise reduction, (4) Valley People Tranz amps Microphones: Neumann 87, 67 (tube), AKG 414EB, P.48, C.451, D.12E, D.200E, 330, Beyer M.500, 600, RCA DX 77, Shure 57, E.V.RE 20, Sennheiser 421, 441, Sony ECM 22P Instruments Available: Steinway 614, grand plano. Fender In the State Steinway 614, grand plano. Fender Rhodes 7.3, Micromoog synthesizer, Ludwig drums (trap set) Roto toms, bell tree various percussion instruments Rates: \$50 \$80/hr

### •••• OCEAN STUDIOS Box 747, Stinson Beach, CA 94970 (415) 868-0763 Owner: Tim Tomke

Studio Manager: Bandall Redus

### .... PRAIRIE SUN

also REMOTE RECORDING 1039 Madrone Ave., Cotati, CA 94928 (707) 795-7011 Owner: Mark "Mooka" Rennick

Studio Manager: Mark "Mooka" Rennick

Extras: Located on 12 acres of Sonoma Country's hassle free country environment concentrating on total service to the producer or musician. Privacy and beauty merge in a recording environment that is extremely accurate 45 minutes from San Fran cisco, with access to any type of equipment, musicians, arrangers or any of your other needs. Most of all our staff is young, hungry and extremely friendly and honest. Prane Sun has electronic gates, pool room radar dish video, colfee, refreshments, good motels, good tood, clean air and the ocean is 15 minutes away Please call for info on our equipment inventory and engineering staff

Direction: Block 24 track time for as low as \$35/hr plus 2nd engineer and Lhour free set up. Since March 1, 1981, our credits include: Van Morrison, Amos Garrett, Bud Cockrell (formerly Pablo Cruise), Norton Butfalo, Merle Saunders, Mickey Hart Bobby Vega, Chris Rowan, Kate Wolf, Fred Catero, Fusion Records, Roy Rodgers, Imposters, One Love, Smoke, Vince Ashton, Bobby Vitterith, Stu Boardman, Bocket Morton (formerown PZM, etc.

Instruments Available: Yamaha piano. Prophet synthesizer, Rogers drum kit, large collection of new and vintage gear in cluding MESA/Boogie, Marshall, Fender tweeds and blondes, old Strats and Pauls, 30's Dobro, Rickenbacker 12, much more Rates: Please call

### •••• PRODUCERS STUDIO

Suite 201, 45 W. Broadway, Eugene, OR 97401 (503) 583-1400 Owner: Michael S. Dilley Studio Manager: Michael S. Dilley

### **••••** ROAD WEST RECORDING also REMOTE RECORDING 964 Lorraine Ave., Salt Lake City, UT 84106

(801) 484-6539 Owner: Al Schultz, Charles Buehner Studio Manager: Al Schultz, Charles Buehner Engineers: Suzanne Loritz, Al Schultz, Charles Buehner Dimensions of Studios: Remote truck Dimensions of Control Rooms: 27' motor home Tape Recorders: Ampex MM 1200 24 track, MCI JH-110B 2

track Mixing Consoles: MCI JH-428, 28 in x 24 out Monitor Amplifiers: Crown, DC 300A, D 75, D 150 Monitor Speakers: Calibration Standard MDM 4, JBL Echo, Reverb, and Delay Systems: AKG BX 10, Eventide H949

Other Outboard Equipment: UREI 1176 limiters, UREI 529 room equalizers. Orban 622 parametric equalizer, Aphex CX 1 noise gates, Sye Mitchell mike splitting and cue sy Microphones: Sennheiser, Shure, Electro Voice, AKG, etc. Rates: Upon request



### •••• RUSSIAN HILL RECORDING 1520 Pacific Ave., San Francisco, CA 94109 (415) 474-4520

Owner: Jack Leahy, Bob Shotland Studio Manager: Iil Sheree Bergin, General mar, Bob

Shotland Engineers: Jack Leahy Richard Greene Neil Schwartz Sam

Engineers: Jack Leany Dispuss Status III Lehmer Marnie Moore Jeff Kliment Dimensions of Studios: A 20 x 30 B 1H x 280 Dimensions of Control Rooms: A 15' x 24' B 13' x 22'

Tape Recorders: MCI JH 114 24 16 track, MCI JH 24 24 16 track MCI JH 110B 2 track, Technics 1506 14 track Mixing Consoles: Helios, 48 in x 24 out (Studio A), Neotek eries III, 28 in x 24 out (Studio B)

Monitor Amplifiers: Vanha P 2200, McIntosh 2205 Monitor Speakers: UREI 813 Time Aliqued, Control Rooms A & B. JBL 4311, Studios A & B, Auratones, MDM 4

Echo, Reverb, and Delay Systems: Levinon 224, EMT 140 stereo plate Lexicon Prime Time Scamp ADT MasterBoom

reverb Other Outboard Equipment: Eventide H 949 Harmonizer Scamp system vocal stresser, UREI 1176LN ADR compressors Valley People Dynamite digital metronome, Symetrix gate Microphones: Full complement Neumann, AKG, Sennheiser Shure, BCA, EV, etc.

Instruments Available: Steinway pianos, Synclavier II 32 voice digital synthesizer

### Rates: On request

Extras: Video production capability, complete kitchen, con ference room, off street loading, roof deck with bay view. Located in one of San Francisco's best neighborhoods, with convenient ac ess to restaurants, motels, bars, buses, etc

Direction: We feel that our rooms have the most advanced coustical design as well as the most elegant feel of any around Features such as high ceilings, hardwood floors, floating isolation rcoms, completely tuneable walls finished in oak, velvet, and brass make us proud to offer our facilities for anything from major label album projects to two hour announcer voice overs. Please feel free to ask for a tour

### •••• RECORDING ASSOCIATES

5821 S.E. Powell Blvd., Portland, OR 97206 (503) 777-4621 Owner: Jay Webster, Bob Stoutenburg

Studio Manager: Jay Webster

•••• SANGRE STUDIOS

9844 Business Park Dr., Sacramento, CA 95827 (916) 361-3652 Owner: Sanare Productions

### •••• SAUSALITO RECORD PLANT, INC 2200 Bridgeway, Sausalito, CA 94965

(415) 332-6100 Owner: Laurie Nicholas Studio Manager: Teddi Anne Crane

### •••• SEA-WEST STUDIOS/HAWAII also REMOTE RECORDING P.O. Box 30186, Honolulu, HI 96820 (808) 293-1800 Owner: Rick Asher Keeler

Direction: Located on the beautiful North Shore of the Island of Oahu, Sea West Studios/Hawaii offers MCT 24 track recording in a Polynesian paradise! Extras include deluxe beach villas, full kit chen out door hot tub and bamboo grove and a large selection of musical instruments available without charge. Call us for a studio rate card. (808) 293-1800

**••••** SOUND SMITH STUDIOS also REMOTE RECORDING 426 N.W. 6th Ave., Portland, OR 97209 (503) 224-7680 Owner: David Tower, Greg Smith, Tom Gandy, Gary McRobert

Studio Manager: David Tower

•• SOUNDS OF HAWAII, INC 1084 Young St., Honolulu, HI 96814 (808) 537-1442 Owner. Herbert C Studio Manager: Herbert Ond Engineers: Stan One, Herbert One. Dimensions of Studios -0 x 47 x 18 Dimensions of Control Rooms (22) x 145 Tape Recorders: Lync. , 4 track - 21 Ampex ATR 2 track Mixing Consoles: Neve 81-38, 24 in x 24 cur Monitor Amplifiers: Custom built by Mr. Alan Sides of

Monitor Speakers: Custom built by Alan Sides Echo, Reverb, and Delay Systems: (2) FMT 140 plates FMT

40 digital delay, time cribes Other Outboard Equipment: Existence pages limiters EQ etc. Microphones: 11.47, historype), 117,75,6 libe type: Sonyis, AKG. Untribuser about 50, to proceed mini-

Instruments Available: Grand plano, drum set. Rhodes electric amps for a par and bass, percussion early men, Rates Call t ritates

### •••• SPECTRUM

also REMOTE RECORDING P.O. Box 757, San Carlos, CA 94070 (415) 593-9554 Owner: Paul L. Weaver

Studio Manager: Jim Conklin Wes Weaver

### •• STARLIGHT SOUND STUDIOS 617 S. 13th St., Richmond, CA 94804

(415) 236.2281

Owner: Starlight Sound, Inc.

Studio Manager: Bill Banyai

Engineers: Bill Banyai, Peter Brown, Norman Kerner Dimensions of Studios: Main 25' x 35', booth 15' pen

Dimensions of Control Rooms: 20 x 15 x 12' Tape Recorders: MCI w Autolocator 24 track, Tascam 85.16, Otari MX5050B.2 track. Magnetord 1022.2 track

Mixing Consoles: MCI custom: 40 in fex Criteria Studios, Miami nd Pink Floyd

Monitor Amplifiers: Crown Bi Amp Monitor Speakers: UREI 813 Time Aligned, Tannoy Super Red, IBL 4313, Auratones

Echo, Reverb, and Delay Systems: Echoplate, MasterRoom, Bi

Amp. Eventide Harmonizer, DeltaLab DL4, MXR doubler Other Outboard Equipment: UREI compressor/limiter, Eventide Flangers Symetrix noise gates Hi Amp graphic EQ, Furman and AudioArts parametrics, EXR exciters, dbx noise reduction Microphones: Neumann AKG Electro Voice, Shure, Beyer

RCA ribbon, Crown PZM, etc. Instruments Available: Yamaha piano, Prophet synthesizer,

Rogers drum kit, large collection of new and vintage gear in cluding MESA/Boogie, Marshall, Fender tweeds and blondes, old Strats and Pauls, 30's Dobro, Rickenbacker 12, much more Rates: Please call

### •••• STUDIO HAWAII

1 North King St., Honolulu, HI 96817 (808) 536-9311 Owner: Al Harrington

Studio Manager: Jim Linkner/Assistant Mor. Fredrick Woodruff

Engineers: Jun Linkner, John Chang

Dimensions of Studios: 22' x 5 Dimensions of Control Rooms: 18' x 22', isolation booth 9' x

Tape Recorders: Ampex 1200-24 16 track, ATR 102.2 track, (2) Technics 1500-2 tracks, Revox A77.14 track, NAD Metal cassette Mixing Consoles: AMEK 2000 Series, 28 in x 24 out

Monitor Amplifiers: Phase Linear 400 amps Monitor Speakers: UREL 8:885, JBL 4:311's, Auratones, ADS

### Echo, Reverb, and Delay Systems: Eventide DDL 1745M. Echoplate reverb AKG BX 20 reverb

Other Outboard Equipment: Dolby on both 24 and 2 track, Or bio/Parasound parametric EQ, Eventide Instant Phaser, Eventide Omnipressor, UREI 1176 limiter, dbx 160 compressors, Kepex Microphones: Neumann, AKG, Beyer, Electro Voice, Sony, Shure, Crown PZM

Instruments Available: Yamaha grand, Ludwig tympahies, 5 ece drum set. Hammond B 3 organ, full percussion kit . Rates: \$90/br

**••••** SUNWOOD PRODUCTIONS 148 West Street, Reno, NV 89501 (702) 329-4959 Owner: Jim and Linda Howson Studio Manager: Linda Howson Engineers: Mark Ishikawa, Jerry LaCroix Dimensions of Studios: 3800 sq. ft Dimensions of Control Rooms: 20 x 16 Tape Recorders: Ampex MM 1100 24 track, Ampex AG440 2 track, TEAC 3340 4 track Mixing Consoles: Sound Workshop 1600 24 in x 24 out Monitor Amplifiers: BGW 250, BGW 100, BGW 100B Monitor Speakers: UREI Time Aligns Model 838, all Ratone



# "Sound Genesis sold us this Otari 24-Track. But we got more than a tape machine."

"We're Copperwood Location Studios in Carmichael, California. We record the gamut. From music to advertising production. Including remotes."

"We've been doing business with Sound Genesis for about three years now. Picked up monitors, outboard gear. And lately, the hot Otari 24-Track Multi-Track Recorder.

"Sound Genesis set up financing. They even held the Otari on at their facility until we got the studio together."

"And the service doesn't stop when the gear goes out the door. Sound Genesis audio wizards personally installed the Otari. And they truck up here fast if there's a problem."

"If Copperwood has a client whose recording needs take them out of the studio, we get in our sound truck and go." —Jim Hibbard —Scott Welch

"If Sound Genesis has a client whose equipment needs expert attention, they go on location, too."

"It's a pleasure doing business with our new Otari 24-Track."



Echo, Reverb, and Delay Systems: Live chamber, Eventide

Other Outboard Equipment: Audio Design recording vocal stresser. Eventide Instant Flanger Symetrix noise gate, UREI 176 limiter, dbx 160 and 161

Microphones: Neumann U 87's KM 83's, AKG 451, Sennheiser 421's, Shure SM 81's, SM 7, SM 57's Electro-Voice RE 15's, Sony ECM 23's, PZM Instruments Available: 7 grand plano, Fender Bhodes

Rates: Upon request

### •••• TIKI SOUND STUDIO 792 East Julian St., San Jose, CA 95112 (408) 286-9840 or 286-9845 Owner: Inc

Studio Manager: Gradie | O'Neal, Jeannine Osborn

### •••• TRES VIRGOS STUDIOS

1925 Francisco Blvd. Suite "G", San Rafael, CA 94901 (415) 456-7666 Owner: Robin Yeager, Allen Rice, Jerry Jacob, Mike Stevens

Studio Manager: Robin Yeager, operations mgr , Robert Missbach Engineers: Robin Yeager, Allen Rice, "Chief Ed" Bannon

Richie Moore Phd , Robert Missbach and independents Dimensions of Studio: 25' x 35' irregular (including iso's) ceiling, 12' 9" to 14', drum room 9' x 8'

Dimensions of Control Room: 19' x 18' with ceiling from 12' 9" to 14', production room 8' x 12

Tape Recorders: MCI JH-24 16/24 track, Ampex ATR-100 2 track, Otari (2) 5050B 2 tracks, Aiwa and Technics of

Mixing Consoles: MCI 528B (w/Aphex VCA's and custom mods), 28 in x 28 out, Sound Workshop 2012, 12 in x 8 out Monitor Amplifiers: (2) Crown M600 (1300 watts each with Delta Omega Cards for control room monitors, BGW 750 for studio monitors, Crown PS400 for Auratones, (2) Crown D 150 and Crown D 60 for headphones, Crown PS 400 for MDM 4's

Monitor Speakers: Control room URE 813 A's, studio 811's production room MDM 4's, AKG headphones Echo, Reverb, and Delay Systems: Lexicon Prime Time, Even

tide Harmonizer, DeltaLab DI, 4, The Ecoplate I, Marshall Time Modulator, EV-Tapco Tank

Other Outboard Equipment: (4) Kepex, (4) Gain Brain, (2) URELLA 4, URELLA 2, Symetrix CL 100 comp., Symetrix Signal Gate, Furman parametric EQ

Microphones: (2) Neumann U 87's, Beyer 260, 500-201, AKG C414, 452, 170E, 2000E, D12, 224, Electro-Voice RE 20's, RE-10's, Sennheiser 441's, Crown PZM's Instruments Available: Included in base price, 1932 Baldwin 7/

concert grand, Polymoog (with all updates), Yamaha CP-70 elec-tric grand piano, Dyno-My Fender Rhodes, large assortment of custom acoustic and electric guitars and basses, assorted percus-Rates: Introductory Special \$75/hr (subject to availability) in cludes full engineers (2), 1 hour set-up 3 hour minimum Cash in ivance 10% discount to qualified independents. Call for details Extras: Under construction at time of listing game room, lounge, kitchen Full housing facilities available, creature comforts as befits e Bay Area on reques

Direction: Designed by Chips Davis. Tres Virgos was built with loving care and equipped with electronics design, modification and installation by Ed Bannon. Tres Virgos is the finest example of a Chips Davis LEDE<sup>tm</sup> Design and it works<sup>1</sup> To the artist, producer and engineer, this means a predictable technoligically exciting creative facility whose only purpose is to make it easier to make great music. Don't fight it. Hear Hear!



Tres Virgos Son Raíael, CA

•••• TRIAD STUDIOS also REMOTE RECORDING 4572-150th Ave. N.E., Redmond, WA 98052 (206) 881-9322 Owner: Jim Loomis (Vector Communications) Studio Manager: Dan Foster



Engineers: Lary Nefzger, independents welcome Dimensions of Studios: 23' x 36' with two iso booths 8' x 11' and 6' x 7

Dimensions of Control Rooms: 19' x 24 Tape Recorders: MCI JH-24 24 track, MCI JH-110B mono, MCI JH-110B 2 track, Technics cassettes, Pioneer 1/4 track Mixing Consoles: Neotek IIIC, 28 in x 24

Monitor Amplifiers: Hafler, Audionics

Monitor Speakers: Fostex, JBL, Auraton Echo, Reverb, and Delay Systems: EMT 140TS, Lexicon 93, Lexicon PCM41

Other Outboard Equipment: ADR Compex limiter, dbx RM 160, UREI 1176, Symetrix SG 200, Orban 622B, Ashly para metric

Microphones: AKG 414, 451, Beyer M-500, Crown PZM, Coun tryman T 85, E V RE 20, Neumann U 87, U-47, KM-84, Senn heiser 441, 421, Shure SM 53, 56, 57, 58, Sony C 37A, ECM 33P

Instruments Available: Yamaha C-7 grand piano, Fender Rhodes Prophet V, Gretsch drums

Rates: \$75/hr, substantial discounts for brock bookings

### •••• TRIAD RECORDING STUDIOS, INC. 1825 Oak St., Eugene, OR 97401 (503) 687-9032

Owner: Gene P. Moritz, Peter Lorincz Studio Manager: Gene P. Moritz

### •••• VILLA RECORDERS

3013 Shoemake Ave., Modesto, CA 95351 (209) 521-1494 Owner: Scott Snider, John Wright Studio Manager: John Wright Engineers: John Wright, Greg Sesser Dimensions of Studios: 30' x 32' main studio, isolation booths 12' x 12' and 13' x 12 Dimensions of Control Rooms: 25' x 25' Tape Recorders: Studer A-80 24 track, 2) Ferrograph Studio 8 2 track, (2) Ampex ATR 102 2 track Mixing Consoles: Trident, 28 in x 24 out Monitor Amplifiers: BGW, Phase Linear

Monitor Speakers: UREI 813's Time Align, JBL 4311, Tannoy

Echo, Reverb, and Delay Systems: AKG BX-20, Marshall Time Modulator live chamber with 3 second delay and 5 millisecond delay

Other Outboard Equipment: (2) UREI LABA, (2) UREI 1176 LN, Kepex's, Gain Brains, dbx 160 limiters, Scamp sweep EQ, Scamp noise gates, Eventide Harmonizer with keyboard, 2 chan nels Trident parametric EQ, 4 channels Orban parametric EQ. White 'a octave EQ, 26 channels of Dolby noise reduction Microphones: Neumann U 87, KM 84, Sennheiser 421, 441, Electro-Voice RE 20, AKG 414, 452, D200, D202, Calrec 1050, 654, Beyer M-500, Sony C 22, Shure SM 56, Countryman direct

boxes Instruments Available: Baldwin 9' grand piano, Fender Twin

reverb amp, MESA/Boogie amp Rates: 24 track \$95/hr, 2 track \$50/hr

### .... THE WINERY RECORDING STUDIO, LTD also REMOTE RECORDING 240 Kaupakalua Road, Haiku, Maui, Hl 96708

(808) 572-1560

Owner: A Hawaii Corporation Studio Manager: Dorothy V Betz

Engineers: Doromy V Detz Engineers: Tom Milner Artie King, Tim Carroll, Phillip Milner Dimensions of Studios: 17 x 24', 17 x 10' (Lishaped) Dimensions of Control Rooms: 17' x 10' Tape Recorders: Ampex MM-1100 24/16 track, Ampex 440 C Offener Article, Ser Mill 200 P. 27'ee

2/mono track, Scully 280 B 2/mono track

Mixing Consoles: API 2488 w/Deane Jensen input modifications, 24 in x 24 out

Monitor Amplifiers: Yamaha P2100, BGW 250 x 4, BGW 2500.

Monitor Speakers: JBL 4320, JBL 4315, Auratone Echo, Reverb, and Delay Systems: AKG BX-10 reverb, live chamber, Lexicon Prime Time digital delay. Eventide Instant Phaser

Other Outboard Equipment: dbx 161 compressor/limiter, API 525 compressor/limiters/delessers, DAP 300 audio processors, DAP expanders, Omnicraft GT 4 noise gates, Furman parametric Ampex 20 memory search-to-cue, API 550A equalizers, **B&B EOFI filters** 

Microphones: AKG D-12E, Electro-Voice RE-15, Neumann U-87, Shure SM-81, SM-59, SM-58, SM-57, Sony C-37P, Sennheiser 441, Beyer M201

Instruments Available: House instruments at no extra cost: ARP 2600 synthesizer, ARP PE-4 string ensemble, ARP Pro Soloist, Hohner D-6 clavinet. Wide variety of special orders also available Rates: 24 track \$85/hr, 16 track \$75/hr, 2 track \$45/hr. Discount block time and record package rates available

Extras: Country quiet and privacy, video services, full kitchen, family room, green room, lanai (sunporch), and sauna, P.A. and equipment rentals, concert sound reinforcement, local booking referrals, session musician referrals, production assistance, living accommodations, gourmet meal service, radio and TV commer-cial production, broadcast format tape, charter pilot

Direction: Located on fifteen acres of Mau's beautiful upcountry, The Winery offers a uniquely creative environment to the artist Our warm family atmosphere and gorgeous setting have helped producers and musicians from all over the world feel at hom relax and get the most out of their talents and ideas. High quality at affordable rates, and singles make recording at The Winery highly cost-effective. As Mau's only complete recording facility, we have a wide variety of projects, from demos to albums. We believe each and every project deserves flexible, individualized service and professional attention to detail. Call us for more infor mation. After all, wouldn't you really rather record on Maui? (See our photo on the cover of the November MIX )

•••• WOMACH RECORDING STUDIOS E. 122 Montgomery St., Spokane, WA 99203 (509) 327-7784, (800) 541-2671 Studio Manager: Hal Sacks




#### 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 Silvers 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!"

It 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 remake 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.

# **Other Side of the Tracks**

THE BEST OF BONZAI An Encore Performance

The Right Thump

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 was the same one that had been 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 tavorite mic, the secret of Tarzan's multi-track 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 back to the studio I manage, Ryan Recording.

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

'Lets get the Donamichi cassette machine and go record outside so we don't make a mess," suggested Cart.

"How 'bout using this Neuheiser RE-83 omnidirectional microphone?" added Eddie. "We'll get a nice ambiance and the RE-83 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 earthquake in a tunnel. We assembled our props and began.

While Cart worked the Donamichi

# CATCH IT IN THE MIX!

#### **FEBRUARY:** Southeast Recording/ Synthesizer Interface Special

- Listings of Southeast Studios
- Spotlight on Southeast Recording
- Synthesizers in the Studio: A Look at the New Digital Keyboards
- Personalities: Dave Edmonds, Isaac Hayes,

## **MARCH:** Northeast Recording Microphone Special

- Listings of Northeast Studios
- Spotlight on Northeast Recording
- Microphones: The Vintage Years
- Microphone Manufacturers Forum
- Personalities: Phil Ramone and Billy Joel, Spyro Gyra, John Boylan, The Cars

#### Deadline for Space Reservations: January 25, 1982

## **APRIL:** Broadcast Recording & Video Music Special

- Listings of Post Production A/V Studios
- Video Music Update
- Osmond Studios
- San Carlos Audio/Video Complex
- Videodisk Manufacturing
- Personalities: Little Feat, Jeff Baxter

Deadline for Space Reservations: February 22, 1982

Mix advertising reaches more audio professionals than any other magazine. Don't miss these special issues! Call (415) 843-7901 for advertising information. 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 cassette machine 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 collasped 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 Donamichi 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."

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





#### by David Gans

Somehow, it's not at all surprising that the Grateful Dead's recording studio is a very unconventional place. The Dead are, after all, a most unconventional (and uncompromising) band. Le Club Front, as it is known, is a rather homely tin-roofed warehouse on a Marin County street that closely resembles the drawing on the cover of their 1978 album, *Shakedown Street*.

Le Club Front has no formal control room or studio area. The warehouse served as the Dead's rehearsal hall, shop and storeroom for a number of years before the recording equipment was brought in for Jerry Garcia's **Cat Under the Stars** in 1977. According to John Cutler, one of the Dead's army of electronics wizards, "the acoustics of the room vary depending on what we're doing. When we first had the building, there was no insulation on the ceiling. So before we could do any serious recording, we had to put some up there."

Huge Sonotubes stand around, acting as traps and deadening the room. There are curtains on some walls and a wooden floor on top of the concrete in some areas. "When we're recording, we get a lot more material in here," explains Cutler. "We have tons of scaffolding left over from the Dead's old PA system, so it's always

HOTO DAVID GAN

available. We fill it up with insulation and hang packing blankets on it, and turn the board area into a serious mixing room."

I wondered whether they'd ever given any thought to making a more permanent — and acoustically consistent — structure. "We've talked about it, but the general consensus is that what we'd gain in isolation we'd lose in flexibility," Cutler replies. "There's no reason right now why we couldn't put all the gear in a truck and have a mobile facility that could work even beyond the scope of the Grateful Dead, and be a commercial venture."

All the hardware from Le Club Front was in fact taken on the road in 1980 when the Dead played the series of concerts in San Francisco's Warfield Theater and New York's Radio City Music Hall. A special harness was built by Willy John Cashman at FM Productions to facilitate moving of the Neve 8085 console. "Every module was taken out and put in its original packing box," says Cutler. "It sounds crazy, but in the long run we ended up saving money. To rent the equivalent facility in a truck — which we couldn't get anyway — would have cost much more." The Dead played 15 shows at the Wartield and eight at Radio City, and when you factor in setup days and the nights off during the run, it's easy to





#### by David Gans

Lindsey Buckingham joins Stevie Wonder, pre-wimpout Paul McCartney, and a precious few others in the ranks of musicians who play the recording studio as proficiently as their other instruments, with consistent artistic and commercial success.

"Law And Order", Bucking ham's first solo album, is—like Mc-Cartney's "Ram" a decade ago — the work of an instinctive, inquisitive and intrepid creator running barefoot through his fantasies, putting as much or as little effort into each track (in both concept and execution) as the moment's inspiration suggests.

He refused to let Fleetwood Mac become rock reactionaries follow ing the huge worldwide success of

"Rumours", and "Law And Order" stands in sharp contrast to Macmate Stevie Nicks' ultraconventional "Bella Donna"—and Mick Fleetwood's "The Visitor", which falls between the two creatively and has achieved nowhere near the commercial success of either one.

What differentiates the material on Law And Order from anything you would have done with Fleetwood Mac?

Nothing in particular, other than that I was trying to save more accessible material for the band, I suppose. Certainly "Trouble" is not a good example of that [laughs]

I had worked on most of these songs by myself, and the tracks-not the vocals; they were done last-were more or less complete before we went to France to work on the Mac album.

There seems to be more of a pure beam on this record—getting from the inspiration to the tape quickly.

One way to do that is to do it yourself. If you want to make comparisons, doing most of the engineering yourself is very akin to painting. The emotional electricity travels through Imotions from his head down his outstretched arm) to the canvas. Working in the studio with a bunch of other people and trying to get those ideas expressed verbally first and then onto tape is more like making a movie.

You said in an earlier interview, "The way studios are now, you get a couple of engineers who work in a certain way and you end up working in a fairly set format." And yet you've been using [co-producer] Richard Dashut for a very long time.

When we're in the studio with Fleetwood Mac, Ken Caillat is really the one who's working. Richard's role is very diminished at that point.

Richard is really a special person, creatively: he doesn't know a lot about music, but he's got great instincts. I can go into the studio with Richard and we get on the same wavelength; suddenly we're onto something, the excitement level rises and we're just riding high, galloping along. That doesn't usually happen when there's a number of people in the studio, because people start second-guessing your ideas—which is not a bad thing, either.

Richard and I are very close in our sensibilities. He was the first friend that I made when I moved to Los Angeles he and Stevie and I lived together in several different houses when we were starving. He was working at Sound City as a second, and we eventually made



the *Buckingham Nicks* album there with Keith Olsen and Richard. So he's really my closest friend down here.

We are writing songs together now, which I've never been able to do with anyone. It's blowing my mind. I could never give a melody to Stevie and have it come back the way I like it, but I can sit at the piano with Richard and he'll say, "Let's write something about..." He has a very broad sense of how things work together, and I have the specific sense of how to articulate all those things. We've written about four or five songs together in the last couple of months.

#### Let's take one song and trace how you did it.

"Trouble" might be a good one, because Mick [Fleetwood] played drums on it. I had tried to play the drums, and for some reason the tracks weren't happening. So we thought, "Why not bring [bassist] George Hawkins and Mick in?"

They came in and we spent from about 9:00 at night until 3:00 in the morning futzing around with different ways of doing it. There was a rough vocal and an electric guitar run direct, just to set up the bass and drums. We did it in 4/4 and we did it in 2/4, and when we [listened] the next day, none of the takes seemed to have what was needed. None of them sounded steady all the way through—that does happen from time to time.

I think we only did one take in 2/4, right near the end of the session. We took a four-beat section from the intro of that take. It has my count on it, which you hear at the beginning of the song. We made a loop of that 'two, a-three, a-four' thing, using a mike stand for a spool, so we got as much as we wanted of it.

After we got the drums, I played a chunky gut-string guitar that's kind of subliminal. It's really light—you can sort of hear it with headsets—but it was a good place from which to start building.

The most important guitars are halfspeed. This is a technique I use quite a bit: we record at 30 ips, and then slow the machine down to 15 ips. We used a Stratocaster and got a good direct sound. It drives everybody crazy listening to it while I'm playing [he mimes a slow arpeggiando].

There are two parts like that. It's neat, because you can get nice melody lines going and they take up so little space in the track. It takes the sound totally out of the register. When you layer things to get the most apparent level, you EQ things around each other. You can almost see it in terms of strata. You've got a certain frequency that the voice is at, and drums probably bleeding in with the voice, and certain frequencies the kick and bass are at. And way up at the top you've got all this half-speed stuff.

The solo is a regular-speed gutstring guitar. We had two half-speeds on top of the gut-string bedding, and we balanced it out by using another gut for the solo in the middle and the stuff at the end. There's a slap echo on that track, a great device called the AMS that has been used in England for a long time. It's a combination of things, including a (Eventide) Harmonizer and delay, and it's much cleaner than an Eventide. This thing has an incredible amount of high fidelity. But there was no speeding up or slowing down of that track—just the slap, which gave the ascending and descending lines a waterfall effect.

After we had added everything else on "Trouble," we had George Hawkins come back in and overdub the bass. As I said before, the drum track was a four-beat loop. Obviously, when you do that there are no fills. So I overdubbed some cymbals, and then I did a track of tom fills. You have to get the effect somehow that there's something going on besides just a two and a four through the whole song.

#### Are you pretty good at playing the drums?

Yeah, pretty good. If you're around a drum kit for a long period of time and you're interested in music, you'll eventually sit down and start playing it. I enjoy playing the drums; there's a cliche that everyone's a drummer.

One of the interesting things that I didn't do on *Tusk* was play the drums first. On *Tusk*, I played the drums after some of the other instruments, so they really sound overdubbed. I tried to figure out how to get around that with this album, and the only way I could think of was to play the drums first. So I had to more or less figure out an arrangement of the song and hear it in my head as I was playing the drums.

Another interesting thing: when you use a click track, you normally play the drums on the click. But in an attempt to get drums that were as locked-in seemed more logical to me not to play over it. Trying to play the kick and snare over the click really distracts you from how in-time you're playing. You're hearing the click, which is in time, and you're hearing what you play, which may be out of time a little







Richard Dashut (L), and Lindsey Buckingham.

bit. Then when you take the click away, outgoing, but I do have fun in the you might not have that locked in a drum track.

It seemed more logical to play between the clicks instead of on them, because you can make the click track part of the scheme that you've got going. And if you start getting away from it, you can really hear it.

We close-miked the snare and kick, but that's all. Then I used a Superscope cassette player with a built-in limiter-not a good limiter, the cheapest thing in the world-that made the drums sound like gunshots. It's a really raucous, rock-and-roll drum sound. I used it on a lot of these tracks.

#### How do you keep the spontaneous feel on the songs when you're doing everything yourself?

It's not easy. Some of them are not that spontaneous. One thing I was striving for was **not** to sound like a drummer with 25 years' experience. So much of rock that I like sounds like somebody who's been playing for maybe a year—it just has an animal feel. I love the drums on something like "Louie, Louie"—the guy doesn't know what the hell he's doing, but he's just flailing away, and somehow they got a good track out of it. That's great—that's rock and roll!

It's flexible: you can get a basic thing and then change it around, and I love to edit. I love chopping up tape and rearranging it. If you saw the pile of two-inch tape that was left over after the album—I could have been lost in it! But that's what it's there for. A lot of people are afraid to edit, especially a master, but it's one of the easiest things in the world to do. It's not how you cut it, it's where you cut it, and where you hear it in your head. In that respect it's just like movies: all that really matters is what goes up on the screen. It doesn't matter how you did it. I'm a serious person when it comes to work—I'm a fairly serious person anyway—and I'm not that

studio

#### How did you get to the point where you could take control and begin to exercise the freedom in the studio that you do?

I think I always had tendencies to do that. I started working with tape recorders when I was about 18, doing sound-on-sound and going crazy with it. When I was 21, my brothers and myself inherited a house in San Francisco, and we each got something like \$10,000, which allowed me to live without having to work for about two years. It also allowed me to buy an Ampex four-track machine. I started doing overdubs, and that's really where the basis of what I'm doing now comes from

When we moved to L.A., I did tons of stuff on the four-track, working on three tracks and bouncing to one. Some of those recordings really hold up, even now. There are four-track demos of most of the stuff that ended up on Buckingham Nicks, and even a few of our things on the first Fleetwood Mac. They sound great-even better than the albums, in a way, because they have their own character to them.

At that time, I started becoming aware that there was a difference between the way I could do them and the way they ended up being done by the band. From the first time we got in the band, I started having this unsettling feeling about that. There was a conflict trying to get my ideas the way I heard them in my head through to the band, and gradually I realized that I was going to have to back off. Maybe that's one of the reasons why I wanted to make this record—to follow through in a more pure way on what made sense in my head.

The sense of freedom to do this is really an alternative to the compromises that you make with a band, and I think the confidence to do it comes from



CHIPS DAVIS

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years and years of working on a fourtrack machine and knowing how pleasurable it is to work on my own.

#### Your experience has been the opposite of most people's in that you have never worked with another guitarist.

I've had to make it on my own, to make a part stand on its own. I didn't play with *anyone* until I was about 18. That was 10-11 years of playing with records and by myself. My lead playing is really just part of the fingerpicking style I've used all along. I don't use a pick.

#### "Love From Here, Love From There" sounds to me something like Mexican Dixieland music.

That's exactly what I was going for. I inherited my father's record collection, and last Christmas I got them from my mom and drove them down. I hadn't heard those records since I was quite young, and I figured there would be a time when those records would be of optimum use. That time was just before embarking on a solo project.

One of the things that got me was the great Dixieland he had—Kid Ory, Bunk Johnson and others. Lousy recordings, but the performances were **hot**. The three horns—trombone, trumpet or cornet, and clarinet—each have certain places in the measure that they play. Other than that, they can play what they want. That's how they can improvise so much and still sound like they know what they're doing.

I wanted to get that across with guitars, as I'd done with "Johnny Stew", but with a more improvisational sense. So you've got the slide that's sort of playing the trombone role, the Stratocaster that's sort of doing what the trumpet or cornet would be doing. I tried to match the sounds somewhat closely. I wanted to get close to that Dixieland thing, but it's also got really raucous drums on it, so it's sort of a cross-pollination.

#### You complained that so much is built around the drums these days—

In the studio, people get the drum sounds first, and everything else is more or less subservient to them. There's nothing wrong with that, but when you listen to the radio, almost everything has that characteristic.

But you still have to choose a focus—you can't make everything the same level—so people tend to go for what hits you the most: the transients. And sometimes you lose a lot of harmonics that way, you lose what the song's really about. By locking yourself into more of a rhythm track, you preclude taking any further steps toward making it more melodic sometimes.



#### **by David Gans** Fiber Optic Guitar

"Musical notes in this nextgeneration instrument are created by tiny beams of light contained within six optical fibers," says the press release from Dynamic Systems Inc. The Fiber Optic Guitar, according to inventor George Bowley, eliminates many of the problems associated with conventional metal-and-magnet electric guitars: noise and hum, limited frequency response, electric shock hazards and cable-length restrictions. This instrument, connected to a fiber optic cable, can be played into an amplifier up to several miles away without noise pickup or signal degradation. Demonstration records are available (at nominal cost) from Dynamic Systems Inc., 8200 Greensboro Drive, Suite 500 McLean, VA 22102, Attn: Mr. George Bowley.





#### **Built-In Miking System**

Legend Musical Instruments has introduced a new system for miking its amplifiers. The MS-570 Professional Miking System consists of a Shure SM-57 cartridge factory-installed on shock mounts in front of the speaker cone and wired to a balanced output connector on the rear of any Legend self-contained amplifier or extension speaker cabinet.

Permanent mounting saves setup and tear-down time and eliminates a mike stand, according to Legend president Dick Newman. "Most importantly," he adds, "microphone placement is no longer a variable." The system includes an on-off switch. For more information, write Legend Musical Instruments, Inc., 6399 East Molloy Road, East Syracuse, NY 13057.

#### News from The Source

Moog Music introduces The Source, a microprocessor-controlled monophonic synthesizer with two-



oscillator sound, LFO, noise generator, full modulation effects, single/multiple triggering and the patented Moog 24 dB/octave filter. There are two digitally-generated fourpart contours and a digital sample/hold circuit. The three-octave keyboard has a switch to extend its range down one octave, making the total range available from 64' to 4'.

Sixteen programs are available in memeory for ready access, and editing of functions is accomplished with a touch panel and a single incremental knob. The panel is colorcoded for convenience

The Source contains two digital sequencers, each with 88-note realtime storage. A new feature stores any sequence of voice program changes to automatically change programmed voices during the playback of either sequence. There is also a new arpeggiator which enables programming and instant changing of arpeggio patterns in performance.

A cassette interface is provided, and Moog intends to make available a series of cassettes for The Source. The rear panel also contains both S and V triggers and control voltage in and out jacks.

For more information, write Moog Music, Inc., 2500 Walden Avenue, Buffalo, NY 14225.



Rod Stewart may produce the next album by Elton John after his "Le Grand Tour of America and Canada" winds down in March. "It looks like it might come off," he told me in a recent interview, "unless he changes his mind at the last minute."

Stewart will use the members of his own band to back John, he says, "because he needs a good rock and roll band behind him. He seems to be just doing what he knows best and not trying to expand on anything."

Bernie Taupin, the lyricist behind Elton's best work, worked with Stewart on two of the songs on Rod's *Tonight I'm Yours*, "Sonny" and "Never Give Up On a Dream." "I gave him 'Only a Boy', but he didn't write it the way I saw it." says Rod. "Obviously he's had a different upbringing from me, more middle-class as opposed to my working-class upbringing. I saw that in his lyric, so I didn't use it."

Tonight I'm Yours is a definite step back toward critical respectability for Stewart, who dabbled in trendiness while his romance with Britt Eklund kept him in the pages of *People*. His voice, songwriting and stage presence are undeniably strong, as the early dates of the tour have demonstrated. "I've lost a lot of the songs about drinking Pina Coladas sitting under a parasol," he says.



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#### by Mia Amato

#### Access Channel

Your local cable system's "free" channel, allotted to community-produced programs, a breeding ground for avant-garde music video. Notable examples: Videowest (Viacom, San Francisco), New Wave Theatre (Theta Cable, Los Angeles) and Nightclubbing (Manhattan Cable, New York).

#### Broadcast Quality

Technically within the FCC's signal specifications for transmission. Now widely (and erroneously) used to describe any good-looking video signal. If you're not talking one-inch videotape, better see Time Base Corrector.

#### **Channel Capacity**

The real reason why some satellite program networks literally never get off the ground. Yes, there are a few cable systems that offer 104 different channels and are dying for program-ming, but 77% of America's 4,000 cable systems have only a 12-channel capacity.

#### **Digital Paint System**

A video animation computer that allows an artist to actually draw an image onto tape via an electronic tablet and electronic pen. Also called "palette" systems, off-the-shelf models range from the Ampex AVA (with a guarter of a million choices of color and a \$150,000 price tag) to For-A's Video Writer (seven colors at \$8,500).

#### ENG/EFP

Stand for electronic news gathering and electronic field production-fancy terms for shooting outside the studio. Often used to identify the lightweight, rugged portable cameras and video recorders used for such work.

#### Film-Style

Shooting your video with one camera, one camera angle at a time, instead of mixing the signals from two or more cameras shooting simultaneously. It's a favored technique of British promo clip directors (e.g. Russell Mulcahy's "Bette Davis Eyes" promo for Kim Carnes) and producers who can only afford one good camera.

#### Galleries

Some regularly show video art, such as the Castelli-Sonnabend Gallery, 142 Greene Street in New York, which also sells and distributes art tapes on videocassette.

#### Hi-De, HDTV, High Definition Television

Last February Japan Broadcasting Corporation unveiled a high-resolution 1,125-line tv transmission system with an image twice as sharp as our current 525-line tv signal. Alas, the transmission requires a frequency bandwidth equal to that of five normal television channels. HDTV is technically possible, economically unfeasible, but they're still working on it.

#### Ikegami

The Stratocaster of video cameras, axe of aces. The Ikegami HL series pioneered the automation of tedious camera operations and other innovations in portable cameras, and while other manufacturers today offer similarly fine cameras, the legend lives on.

#### J. Walter Thompson

This New York advertising agency is dabbling in video and music, and a noteworthy first effort is "Women in Rock n' Roll," a tv series for broadcast syndication, produced by Sam Szurek.

#### Kirshner Entertainment Inc.

We were surprised that rock impresario Don Kirshner's first programs for cable were homey spin-offs of "Family Circle" and "American Baby" magazines. We were even more surprised when Kirchner starred his own infant son in an "American Baby" segment on breastfeeding. (Mom used a stand-in).

#### Low-Power Television

Low-wattage ty stations with a broadcast range of a few miles or city blocks, proposed by the FCC in 1980. The FCC is currently sorting through applications for LPTV licenses.

#### MTV

Warner-Amex's 24-hour satellite music channel of top-40 promo clips, soda commercials and the occasional concert special, available in stereo to two million cable homes.

#### NTSC

The American television standard of 525 scan lines, incompatible with the European tv standards PAL and SECAM. (Japan also uses NTSC.)

#### One-inch Videotape

Helical tape format of said width, used for mastering video progams. It costs roughly half as much to produce a program on one-inch than on two-inch tape; it costs nearly three times as much as <sup>3</sup>/<sub>4</sub>-inch production.

#### Pay-Per-View

A pay-television variant where the subscriber pays to watch a specific program; all other homes are blacked out. The Leonard-Hearns Boxing Championship and the Rolling Stones' concert produced by Monarch Entertainment were two events sent by satellite to homes on a pay-per-view basis as well as to theatres around the country.

#### Quantel

Brand name of a special-effects "black box" that can tilt, spin, squeeze, stretch, mirrormultiply and in various other ways alter the video image. Vital's Squeezoom and Digital Effects' DVE are two other popular processors.

#### Rentertainment

Videocassette retailers have been renting home video titles to consumers for some time now without the blessings of program distributors. Now Warner and Disney are attempting their own rental schemes to cash in on this high-volume market. The low cost of rentertainment (\$3-5 per title against \$60 to buy a cassette or \$20 buy a disk) is expected to stimulate sales of players, expanding the home video market overall.

#### STV

Short for subscription television, a pay-TV variant, sent over the air in a "scrambled" transmission which is decoded by a box attached to the subscriber's TV set.

#### Time-Base-Corrector

Another "black box." the TBC corrects and stabilizes video signals. Footage shot in the half-inch or 34-inch videotape format frequently needs time-base correcting to be broadcastable.

#### Underground Forces

Yet another angry music-montage from Target Video, this video program ran three nights in a legit movie theatre (the Roxie in San Francisco) on a projection TV setup. Is electronic cinema the most logical venue for video music? Could this be a trend?

#### Visual Music Alliance

A loosely organized band of musicians, technicians, and artists coalesced at last year's Billboard Video Music Conference and reemerged this year with a membership of nearly 100 and a dynamite demo reel. The LA-based organization included well known synthesists Ron Hays and Steve Beck, holds monthly meetings and screenings, and promises to be "a germinating ground for new ideas and techniques."

#### Wold Entertainment

Armed with long term leases on various satellite transponders, earth stations in various cities, and mobile uplink trucks, this division of Robert Wold Company is gearing up for live concert telecasts in 1982.

#### X-Clusiv

This London nightclub not only shows video promo clips but provides its patrons with headphones so they can hear the video music. regardless of what else is happening on the club floor

#### Yuri

Japan's experimental satellite, which is testing the viability of inexpensive, direct satelliteto-home television.

#### Zworykin

One of the inventors of television as we know it (along with Philo T. Farnsworth and John Logie Baird), Vladimir Zworykin is alive and well and living in Southern California.



by Michael A. Dollacker National Marketing Manager-Video/VHS **Video Systems Division** 

(ed. note: This is a continuation of our manufacturer's survey of digital editing systems.)

It was the fall of 1974 that I remember as my first experience with high technology video editing. With my partner operating the source machine, we both put our  $\frac{1}{2}$ " reel to reel, black and white Panasonic VTR's into the play mode and prayed that the proper segment would come up on cue. "Five, four, three, two, one-Now!," John would shout, and I'd bang my thumb into the button marked "edit." This procedure produced a clean edit only about half the time, but sent us into sheer ecstasy at the nature of our accomplishment.

This is a far cry from the amazing editing systems of today. The editor no longer has to worry about the equipment performing the edit, but rather the artistic balance of whether the edit should occur when the arm of the subject is at a 45° angle or a 47° angle. Editing accuracy has now come to within two frames (30 frames per second) in standard editing or better than that when using time code.

From the time Panasonic introduced the NV-3020SD 1/2" reel to reel NV-3130 and NV-3160 color smashing edits to 95%. Then, in 1977, editing video tape recorder to today recorders which introduced the idea of Panasonic introduced the first eco-



Panasonic ¾" Video Cassette Editing System.

tions. First came the improved head and improved my button

represents a series of technology transi- vertical interval editing with flying erase

nomical ¾" editing system that didn't require an editing machine on each side of the controller. By combining the NV-9200 source recorder, the NV-9500 editing recorder and the NV-A950 controller, it was possible to perform high quality ¾" edits for less than \$15,000. Of course, you could only see the picture when the machines were moving forward, but who cared as long as the edit kept coming out perfectly every time.

The latest generation of the Panasonic ¾" editing videotape recorders are a model of slick technology. Consisting of the NV-9240 player/recorder, the NV-9600 editing recorder and the NV-A960 editing controller, the system was dubbed G-2 to show the second generation of  $\frac{3}{4}$ " editing technology. The system is operated by solenoid controls and sits on a rigid die-cast aluminum chassis. It produces a high quality picture with a minimum of 260 lines of color resolution, 46 dB color signal to noise ratio and has improved dub quality with a dub connector. The video heads are now made out of incredibly hard, hot pressed ferrite. The tape transports are operated by gears instead of belts. The capstan accuracy is controlled by that famous direct-drive servo motor developed by Matsushita. The rewind reels and other components are operated by six independent motors. And the body is just a reflection of the sophistication of the electronic controls.

Now, when I press the wrong button on the controller, my LED indicator flashes "EE" for error and gives me a number to tell me what's wrong. My trusty error chart tells me how to do it right. Another light tells me whether my servo and frame are locked in place or whether I need to make adjustments on any individual controls to keep the tape in alignment. The large search knobs allow me to control the tape forward or backward and the preview button allows me to rehearse an edit before actually doing it. I can choose whether to edit video only or to include one or two channels of audio. I can assemble segments or insert new pieces of information. During all this time, the lap time indicator keeps track of the duration of my program.

The very latest addition to the line is the high technology NV-A970 editing controller, which features a built-in SMPTE time code generator and reader. This records the channel one audio track with a precise and permanent reference point in hours, minutes, seconds and frames so that editing errors become a thing of the past. With all of these features, the system still sells for under \$20,000.

# PREVIEW

#### Studer Digital Recorder

Studer Revox has released this photo of their prototype digital multichannel recorder, a 24 track unit employing  $\frac{1}{2}$ " tape. Although no other technical details have been released as of this writing, Studer has announced that the unit will be officially presented at the Audio Engineering Society convention in Montreux, Switzerland, on March 2, 1982. Commercial availability has not yet been announced.

For more information, contact: Studer Revox America, 1425 Elm Hill Pike, Nashvi:le, TN 37210, 615/254-5651



#### Jensen Direct Box Transformer

Jensen has introduced an all new direct box transformer, the JE-DB-E, that they claim to be at least twice as good as its predecessor, the best-selling JE-DB-D. The JE-DB-E has independent Faraday shields (electrostatic screens) for the primary and for the secondary, permitting complete isolation of the guitar or other instrument from the amplifier or mixer. The transformer's mu metal case provides an additional 30 dB of magnetic shielding. The JE-DB-E handles up to +19 dBv @ 50 Hz before saturation. Below saturation, distortion is cut to less than 0.1% @ 20 Hz, and decreases by





#### Kimber Speaker Cable

Kimber Kable by RKB Industrial, Inc., is a new high performance speaker cable which may be run next to power lines, ignition systems, RF fields, etc., with little or no pickup of interference. Kimber Kable may also be placed near microphone and other low level lines, without the usual crosstalk problems.

Studio Technologies Reverb Processor

Studio Technologies has announced the availability of their Reverb Processor, designed to enhance the characteristics of any reverb device. The device employs three parametric equalizers, one on the input to the reverb and one on each stereo output; two noise gates, specially designed to follow the reverb decay to a predetermined threshold and then gently kill the signal noise, etc. Additionally, because of the unique conductor composition, and stranding makeup, the manufacturer claims an audible performance not attainable with other wire. Kimber Kable is available from stock, in sizes and colors for all applications. A new brochure, with complete data, is available upon request by contacting: RKB Industrial Inc., 2058 Harrison Blvd., Ogden, Utah 84401, 801/621-5530

to -90 dBm; and an analog bucket brigade type time delay device with a special compander to give a 70 dB signal to noise ratio. Bandwidth is 20 kHz, without the usual transient tracking problems of companders, and the time delay is variable from 20 to 90 milliseconds. Price is approximately \$1250, including optional time delay. For more information, contact: Studio Technologies, Inc., 6666 N. Lincoln, Lincolnwood, IL 60045, 312/676-9400.



 $^{1}\mathrm{2}$  for each octave higher, measuring less than 0.005% a 1 kHz. The JE-DB-E has very wide band width (-3 dB at 80 kHz), which results in a very clear top end. Square wave response is excellent, as demonstrated by the 4 microsecond rise time, less than 1% overshoot, and the lack of a resonant peak.

Price is \$32.00 in single quantities until March 1, 1982. A complete data sheet is available on request, and includes extensive application notes with plans for building your own direct box. Write or call: Jensen Transformers, By Reichenbach Engineering, 10735 Burbank Blvd. Dept. X, No. Hollywood, CA 91601, 213/876-0059.



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#### AMY WOOLEY Amy Wooley MCA, 5240

Produced by: Louie Shelton; recording and mixing engineer: Tony Peluso with Joseph Bogen; assistant engineer: Bill Thomas; production assistant: Johnnie Holmes; recorded at: Dawnbreaker Studios, Chatsworth, California.

Amy Wooley's debut album introduces us to a major singing talent, as well as a first-rate songwriter. An exceptionally tasteful production by Louie Shelton (Seals and Crofts, Art Garfunkle) adds to make this one of the most satisfying country rock recordings in many months.

Stylistically, there are some similarities to pre-'Heart Like a Wheel' Linda Ronstadt, but Amy Wooley does not suffer by comparison. Her songs are emotionally inspired and she carries them off with sincerity and strength. She has a firm grasp on effective simplicity in songwriting that has resulted in tunes that can get you singing along the first time through—a rarity.

Its hard to pick favorite:: with so much to choose from, but 'Have a Heart', with its wallof-sound production, is the kind of lover's anthem that crystallizes into a powerful personal statement. Actually, most of the material seems to be inspired by her love life... and usually when it isn't (or wasn't) working. This makes the album very personal for the listener, something to sink into when things dor't seem quite right. 'Dreamin' Again' and 'Sleeping Alone' are equally effective lost love moments built around a strong melodic structure.

The musical ensemble is competent, yet restrained throughout, serving more to showcase Amy's voice than to impress us with solos and riffs. In places though, it feels like the music wants to push through more than it does and perhaps it would have added a nice edge had the instrumentation been a bit more aggressive.

The recorded quality is superb with clarity and balance that bring the most out of the material. But I don't know why, with all the color in the music, MCA chose to release this with a black and white album jacket. I hope they splurge and opt for the works on her followup. I'll be anxiously awaiting that one.

—David Schwartz



#### GHOST IN THE MACHINE The Police Nautilus, NR40

Produced by: The Police and Hugh Padgham; recorded at: AIR Studios, Montserrat ('Every Little Thing She Does Is Magic" recorded at: Le Studio, Quebec); mastered by: Bruce Leek and Richard Donaldson at the IAM Cutting Center, and Marv Bornstein, A&M Records, Inc. Platting and pressing by: KM Records; Mike Malan, Rick Goldman.

The Police share with Pink Floyd a concern for the deteriorating quality of life in industrial, information-saturated society. Their fourth album, *Ghost In the Machine*, is a compellingly complex series of hazy snapshots of the landscape of urban fear.

The sound of *Ghost* is deceptively gray on first listen, but the form is part of the record's statement. Bass, guitar, drums, synthesizers, and voices all seem to be given equal strength in the mix, as tightly woven and dense as a wedge-weave rug. But in the fabric of each song, rhythms and harmonies and textures are manipulated in exquisitely subtle ways, driven by Sting's irresistable bass lines.

Songs such as "One World (Not Three)" and "Rehumanize Yourself" are optimistic in feeling, though the lyrics can be harrowingly insightful: "I work all day in the factory/Building a machine that's not for me... Policeman puts on his uniform/Got to have a gun just to keep him warm/Because violence here is the social norm... " The Police, though, take a more optimistic stance with lines such as "One world is enough for all of us."

The production, while occasionally (and intentionally) blurry, is first-rate throughout. Andy Summers' work with the Roland GR-300 guitar synthesizer is phenomenal, and the thinness of the band's voices is more than adequately compensated for by overdubs. And I can't say enough for the quality of the Nautilus half-speed master. Cymbals are rendered in striking three-dimensional stereo, and I'm not just talking about sizzling high end—you can almost see where the drumstick strikes the closed high-hat.

Ghost In the Machine marks the first time an audiophile pressing has been released concurrently with the conventional version. At last, scphisticated listeners don't have to wait to hear hot product!

—David Gans



#### DISCIPLINE King Crimson

EG/Warner Brothers, BSK 3629 Produced by: King Crimson & Rhett Davies; engineered by: Rhett Davies; asst. engineered by: Nigel Mills; recorded at: not listed.

The return of King Crimson, the pioneer British progressive art-rock band, was something I thought I'd never see. For the last seven years, group founder and leader Robert Fripp had consistently denied rumours of the





such and he, himself, had diverged so far away from the Crimson sound with his own albums, that it seemed highly unlikely that it would ever happen. In addition, Fripp had always treated the memory of King Crimson with such reverence that I knew he would never exploit its name.

So, when the new King Crimson album, *Discipline*, finally appeared, I knew it would not be one of those half-assed reunions like the Byrds did in 1972 or Crosby, Stills, Nash & Young have so often attempted.

Discipline is a triumphant recording that merges that familiar and ominious Crimson sound with the progressive new music of the 1980s. It is a compelling collection of songs and musical styles that, like most previous King Crimson records, requires an involved listener concentration, or, in other words, discipline.

As British progressive rock in the vein of Yes, Genesis and Emerson, Lake & Palmer goes, this new version of King Crimson is among the best you're likely to hear. The band, aside from Fripp on guitar and devices, once again employs drummer extraordinaire Bill Bruford along with Peter Gabriel/Paul Simon/John Lennon/studio bassist Tony Levin and Bowie/Talking Heads guitarist and vocalist Adrian Belew. The album was written and arranged by the entire band and co-produced by themselves and longtime Eno/Fripp engineer Rhett Davies.

The recording quality of *Discipline* is magnificent. It is powerful without overshadowing its detail and is among the cleanist rock recordings in recent years. Opening with the moving and metallic "Elephant Talk", the record slides through a spectrum of musical ideas and experiments, from the gentle and thought provoking "Matte Kudasai" to the near frantic "Thela Hun Geenjet". (Don't ask me what any of these titles mean!)

Although there is a sharp new edge to this record, it is often not unlike the latter version of King Crimson that gave us such progressive classics as *Larks Tongues In Aspic* and *Starless And Bible Black*. The only negative aspect of *Discipline* is that Belew's vocal style often is disturbingly close to that of David Byrne's from Talking Heads. The similarity is so great, in fact, it sounds as though it might even have somehow been intentional.

Levin's bass playing (done mostly on the Chapman Stick) is mesmerizing and Bruford's drumming, as always, is awesome. Fripp's performance here, as in all previous 10 versions of the band, remains innovative and haunting.

According to sources close to Fripp, the band is planning to stay together for at least 3 or 4 years. And if *Discipline* is any indication of the music to come, this version of King Crimson will undoubtedly be the finest to date. *—Bruce Pilato* 

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