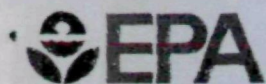


United States
Environmental Protection
Agency

Region 9 Noise Program
215 Fremont Street
San Francisco, CA 94105

October 1980



A Partnership in Noise Control

EPA Assistance
to
Local Noise Programs

Controlling noise is a difficult task that requires a comprehensive, coordinated effort by all segments of society and at all levels of government. Only through such an effort will we finally be able to tackle the worthwhile objective of reducing excessive noise levels...

In the end, perhaps the real job of noise abatement should rest with the State and local governments, with the support and involvement of citizens...

-Senator John Culver
Chairman, U. S. Senate Subcommittee on Resource Protection

I believe that EPA's efforts will positively demonstrate that an equal partnership between cities and the Federal Government can succeed in the Eighties...

-John P. Rousakis
Mayor of Savannah, Georgia
Former President, National League of Cities

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A PARTNERSHIP IN NOISE CONTROL

EPA Assistance to Local Noise Programs

A partnership is emerging in the Nation's effort to control noise pollution. It is a partnership between EPA and the many State and local governments confronting the problem of noise, "the invisible pollutant." It is a partnership which EPA is supporting with resources, not regulations; with assistance, not requirements.

EPA's goal in the partnership is to encourage 400 communities to develop active noise control programs. An active community program will have a local noise ordinance, designated noise personnel, monitoring instrumentation, enforcement capability, and a public information program.

To achieve this goal, the EPA Regional Noise Program is working in cooperation with State Noise Officials and County Noise Advisors to provide technical assistance and services to interested communities throughout Region 9. The assistance of technical experts is available through:

- The County Noise Advisor, who coordinates technical support activities at the local level and can directly assist communities in the development of effective noise control programs;
- The Center for a Quiet Environment, Region 9's Technical Assistance Center affiliated with the University of California, which provides training, communication and technical assistance in community noise control;
- State Noise Control Officials; and
- The EPA Regional Noise Program, which is staffed by specialists in aviation noise, acoustics, instrumentation, noise control program development, and public awareness.

The EPA can provide direct assistance through:

- The Regional Equipment Loan Program for monitoring equipment and training aids;
- Access to technical reference materials;
- Participation in State and Regional workshops on community noise control;
- Distribution of public awareness materials; and
- Matching of community noise experts with communities in need of specific technical assistance, informally or through the ECHO (Each Community Helps Others) Program.

The following pages present additional information on the Equipment Loan Program, EPA Public Awareness Materials, and the sources of technical assistance. For further information, please contact your County Noise Advisor, State Noise Coordinator or the EPA Regional Noise Program.

EQUIPMENT AND TRAINING AIDS

EQUIPMENT AND TRAINING AIDS

AVAILABLE FROM EPA REGION IX

The EPA Region 9 Noise Program has a variety of noise monitoring systems and education/training aids available for loan to state and local governments, federal agencies, schools, and universities.

Loans are usually made for a period of two or three months. Requests, specifying time and purpose, should be made well in advance. A standard lease agreement will be sent for signature to the requesting agency. There is no charge other than for transportation.

Further detailed information on the loan program and a full description of each piece of equipment is contained in the Catalogue Of Noise Monitoring Equipment, Systems And Training Aids For Loan, available from the EPA Region 9 Noise Program. Contact Richard Procunier, Regional Noise Program Chief, at (415) 556-6333.

The following equipment can be used for training sessions, conferences and workshops, exhibits, speeches, school or college classes, or any aspect of a public awareness program.

Conference Display Sound Level Meter

A hand-held digital sound level meter (SLM) and separate display unit. The SLM measures instantaneous maximum and average sound levels in decibels which are transmitted to the display unit, whose digital display can be easily read from up to sixty feet away. Excellent tool for a one-person demonstration before a moderate size audience, or as an attraction in an exhibit booth. Sound level meter can be used separately to read dBA.

Large Display Sound Level Meter

SLM readings (dBA) appear in a two-foot digital display visible to audiences, passers-by at sidewalk monitoring sites, etc. Heavy, weatherproof construction for continuous outdoor operation.

Noise Control Demonstration Kit

Can be used to present the general principles of noise and to give a practical demonstration of noise control procedures involving source, path and receiver. Includes a 9-step demonstration procedure to utilize the kit, containing bells, steel and fiberglass cylinders with covers, rubber tubing, damping felt, rubber bands, switches and wooden base with bell terminals. Especially good for classroom demonstrations.

"Sound-On-Slide" Training Aid

Can be used to create and run your own slide show, or to show an existing one such as EPA's "Aviation Noise" presentation. Regular 35mm slides fit into frames with individual sound discs. Projector contains sound recorder. Slides can be re-arranged to fit your own needs. To make your own show, EPA supplies the projector (on loan), sound-on-slide frames (for user-supplied slides), microphone, blank sound discs, storyboard pads, and instructions for producing an effective presentation.

Stereo Cassette Recorder

Contains a recorder, two loudspeakers, microphone and connection cord. Can be used to record talks or audiovisual presentations. (Cannot be used to record noise samples with retention of original dynamic range.)

MONITORING AND MEASURING EQUIPMENT

Hand-held Sound Level Meter (Type 1)

Useful for measurement of short background ambient levels, maximum levels, and energy-weighted average levels. Two models are available for different measurement situations.

Hand-held Sound Level Meter (Type 2)

Measures average and maximum sound levels of individual events.

Environmental Noise Classifier

Measures the statistical distribution of noise levels and provides data for calculating L_{dn} , L_{eq} , CNEL values, and statistical parameters such as L_{10} , L_{90} .

Automatic Noise Monitoring System

A multiple-function monitoring system for long-term unattended use in measuring community or airport noise.

Calculator--Data Analysis System

A programmable hand calculator, available with pre-programmed magnetic cards for running L_{eq} , L_{dn} , and SEL calculations.

Graphic Level Recorder

Produces a time-history record of sound levels from a sound level meter.

Community Noise Analyzer

A statistical unit that computes and stores various noise exceedance levels (L_{min} , L_{max} , L_1 , L_{10} , and averages L_{eq} , L_{dn}).

Octave and Third-Octave Band Noise Analyzers

Determines the spectrum of a noise event.

Electronic Air Traffic Monitor

Can electronically identify a specific aircraft noise violator.

Miscellaneous Equipment

Wind Meter; Fluorescent Tube Lantern.

PUBLIC AWARENESS MATERIALS

NOISE AWARENESS MATERIALS

AVAILABLE FROM EPA REGION 9

The EPA Region 9 Noise Program maintains a wide selection of public information materials available to government officials, citizens groups, service organizations, schools, and the general public. These materials -- pamphlets, booklets, films, slide shows, posters, buttons, and stickers -- can be a valuable part of your noise awareness program.

How To Order

You may order materials by phone at (415)556-9741, or by returning the attached order form to:

U.S. Environmental Protection Agency
Regional Noise Program (A-3)
215 Fremont Street
San Francisco, CA 94105

Delivery of a large order may take up to six weeks. Please place your orders as far in advance as possible.

Available Quantities

Supplies of publications and other materials are limited. Some publications are available only as single copies; others may be ordered in quantities of up to one hundred. In the descriptions that follow, we have noted the limit for each order.

If you need quantities greater than the limits given, please call us. We may be able to arrange a special order.

NOTE: All EPA publications are public documents and may be freely reproduced with no copyright infringement.

For Further Information

The Regional Noise Program can assist you in locating noise awareness materials other than those listed here. If you have a special awareness need, please contact Chuck Flippo at (415)556-9741.

GENERAL INTEREST PUBLICATIONS

THE NOISE PROBLEM

Noise and Its Measurement. 1977. One-page pamphlet.

A brief explanation of the nature of sound and noise and how sound is measured. Multiple copies available (limit: 100).

Noise: A Health Problem. 1978. 24 pages.

A general discussion of the many ways noise affects our health. Multiple copies available (limit: 50).

Noise and the Environment (EPA Journal). 1979. 40 pages.

The October, 1979 issue of EPA's monthly magazine, EPA Journal, containing 17 articles on different aspects of the noise problem and efforts to control it in the U.S. and abroad. Multiple copies available (limit: 50).

Noise at Work. 1977. One-page pamphlet.

Facts about the magnitude of the workplace noise problem, with some noise reduction suggestions and tips on protection against hearing loss. Multiple copies available (limit: 100).

Noise and Recreational Vehicles. 1976. 11 pages.

Looks at noise levels and the causes of noise from common recreational vehicles: snowmobiles, motorboats, dunebuggies, mini-bikes, motorcycles, and race cars. Suggests ways an individual can reduce the impact of recreational noise. Multiple copies available (limit: 10).

Environmental Quality -- Annual CEQ Report. 1979. 816 pages.

Tenth Annual "State of the Environment" Report from the President's Council on Environmental Quality. Contains a 44-page chapter on noise pollution trends and

government noise control activities. Multiple copies available (limit: 25).

CONTROLLING NOISE

Noise Directory for Arizona, California, Hawaii, and Nevada. 1979. One-page pamphlet.

A citizen's guide for reporting noise problems to local, State, or Federal officials within the states in Region 9. Multiple copies available (limit: 100).

Noise Control Programs -- Progress to Date. 1979. 43 pages.

EPA's Annual Report on Federal Programs implementing the Noise Control Act and the Quiet Communities Act. Includes a list of available EPA technical documents on noise. Multiple copies available (limit: 50).

Quieting a City -- A Brief History of Noise Control in Minneapolis. 1980. One-page pamphlet.

Outlines the efforts of the citizens and government of Minneapolis to control local noise pollution through a noise ordinance and public awareness activities. Suggests actions that citizens in other communities can take to initiate a local noise program or correct a noise problem. Single copies available.

San Diego, California -- Case History of Municipal Noise Program. 1978. 181 pages.

A comprehensive study of San Diego's successful noise control program. Includes examples of complaints handled through the city's formal complaint procedure. Single copies available.

QUIET LIVING: NOISE AND THE HOME

Noise Around Our Homes. 1977. One-page pamphlet.

A look at sources of noise in and around the home and ways to make a home quieter. Multiple copies available (limit: 100).

Is Quiet Possible at the Dudley Home? 1978. Fold-out poster.

A 13 1/2" x 17" color poster illustrating simple self-help suggestions for a quieter home. Single copies available.

Quieting in the Home. 1978. 115 pages.

A comprehensive handbook of practical techniques to control noise throughout the home. A reprint of the National Bureau of Standards' publication, "Quieting: A Practical Guide to Noise Control." Multiple copies available (limit: 25).

Quiet -- Man's Best Friend (Barking Dogs Brochure). One-page pamphlet.

Discusses the problem of barking dogs and describes the "water-training" method to control excessive barking. Multiple copies available (limit: 50).

AVIATION NOISE

Aircraft Noise and the Community. 1978. 181 pages.

Proceedings of an EPA/UCLA conference held in Los Angeles on September 21-22, 1978; covers health effects, airport planning, measurement, political and legal aspects, and citizen perspectives on the aviation noise problem. Single copies available.

Airport Noise Abatement Planning. 1977. 11 pages.

A general introduction to the issue of airport noise, the process of evaluating the problem and options for reducing airport noise. Single copies available.

CREATING AWARENESS

Activity Kit for Service Organizations. 1980.

A collection of materials suggesting activities a service organization can undertake to promote community awareness of noise and hearing problems. Single copies available.

PUBLICATIONS FOR THE CLASSROOM

"Quiet Schools" Information Packet

A collection of EPA noise brochures, articles on noise problems in schools and the effects of noise on learning, and information on EPA's noise education materials ("Sounds Alive," "Preparing for a Quieter Tomorrow," "School Hearing Test Program"). Multiple copies available (limit: 50).

Teachers may order the following materials as separate items. School officials who want to develop a full noise education program may order the entire set as the "Quiet Schools Curriculum Kit". Single copies available.

Preparing for a Quieter Tomorrow. 1980. 109 pages.

Secondary school educational module containing teacher notes and outlines for classroom coverage of noise as an environmental pollutant. Covers sound and its measurement, noise as a health problem, and control of noise pollution. Can be adapted for grades 7-12.

Sounds Alive. 1977. 33 pages.

A noise workbook for elementary school classes, adaptable for grades K-6. Explains the harmful effects of noise, identifies major noise sources, and describes noise control techniques. Comes with a 12-page teachers' guide.

School Hearing Test Program. 16 pages.

Outlines a hearing test/noise education program, including suggestions for school officials and background materials for teachers. Can be used in conjunction with the three hearing conservation/noise reduction brochures listed below.

Hearing Conservation/Noise Reduction Brochures.

Three fold-out brochures for students, designed to create an awareness of the problems of noise pollution and to give self-help methods to reduce noise exposure.

Can be used as handouts prior to a hearing test program.

Noise and Your Hearing (grades K-4)

Hear Here (grades 5-8)

Think Quietly About Noise (grades 9 and up)

Noise: A Primary Teaching Pack. 1979. 112 pages.

An outline of teaching activities developed in Darlington, England, during its "Quiet Town Experiment." Designed for use in elementary classes, but has projects which can be adapted for all grade levels.

PUBLICATIONS FOR GOVERNMENT OFFICIALS

ASSISTANCE PROGRAMS

Buy Quiet Program: Quiet Lawnmowers. One-page pamphlet.

Briefly describes the "Buy Quiet" program, which encourages the development of quieter products through government purchasing policies. The example of a "quiet lawnmower" is given. Multiple copies available (limit: 25 copies).

ECHO (Each Community Helps Others). One-page brochure.

Briefly describes the "Each Community Helps Others" (ECHO) program, through which local communities can obtain expert assistance from other communities that are effectively dealing with noise problems. Single copies available.

Noise: A Community Problem -- A Community Solution. 11 pages.

Describes the ECHO program in more detail than the ECHO brochure (see above). Discusses several types of assistance available through the program and illustrates its successful use of ECHO advisors. Multiple copies available (limit: 25).

CREATING AWARENESS

Public Education and Information Manual for Noise. 1980. 94 pages.

Outlines a full public awareness program for local noise control officials. Suggests ways to work with community organizations, local government, schools, and the media. Also discusses the planning and coordination of special events. Single copies available.

LEGAL TOOLS

Model Noise Control Ordinance. 24 pages.

A basic tool for communities to use in developing a noise control ordinance suited to local needs and conditions. Single copies available.

Noise Control Act as Amended. 1978. 19 pages.

The Federal Noise Control Act of 1972 as amended by the Quiet Communities Act of 1978. Establishes EPA's noise control authority and programs. Single copies available.

FEDERAL PROGRAMS

Catalogue of Noise Monitoring Equipment, Systems, and Training Aids for Loan. 1979. 30 pages.

Contains ordering information and a description of the noise monitoring equipment and training aids available for loan to government agencies from the EPA Region 9 Noise Program. Includes equipment that can be used in public awareness programs. Single copies available.

Toward a National Strategy for Noise Control. 1977.
53 pages. Addendum: 15 pages.

Discusses the nature and scope of the noise problem in the U.S., goals of the Federal noise control effort, and specific Federal noise control programs. Addendum presents EPA's response to questions and comments on the National Strategy document. Single copies available.

Protective Noise Levels. 1978. 25 pages.

Condensed, less technical version of the EPA "Levels Document," which describes the nature of sound, sound measurement, noise exposure levels in the U.S., and the health and welfare effects of noise. Clarifies the meaning of EPA's noise reduction goals: noise exposure levels that will protect public health and safety with an adequate margin of safety. Single copies available.

AUDIOVISUAL MATERIALS

The following films are available for free loan to the general public from:

Audience Planners
6290 Sunset Blvd.
Hollywood, CA 90028

Phone: (213) 463-7888

A Quiet World: It's Up to Us. Eight minutes.

A mime film on the effects of noise on man. Bill George shows us the world as we see and hear it today. After experiencing the effects of common noise, he presents us with a view of a quieter world. Can be used as a starter for noise discussions.

Who Stole the Quiet Day? 15 1/2 minutes.

An evaluation of the noise pollution problem which shows how loud noises and high frequencies destroy nerve cells within the ear. Points out that hearing loss is often not the result of aging; young people may begin the deterioration process through thoughtless exposure to loud noises. Suggests ways to protect our hearing and prolong enjoyment of one of our most valuable senses.

The following films and slide shows are available for free loan to government agencies from:

Environmental Protection Agency
Regional Noise Program (A-3)
215 Fremont Street
San Francisco, CA 94105

Phone: (415) 556-9741

Jet Roar. 16 minutes.

A color film on aircraft noise and its effect on residential neighborhoods around airports. Discusses various solutions to this noise problem: changes in

take-off and landing procedures, aircraft modifications and design changes, and purchase or insulation of affected homes.

Demonstration of Urban Noise Control. Three minutes.

A Bureau of National Standards film which looks at one urban noise problem: freeway truck traffic. Shows how the noise impact on residents can be reduced through truck modification, use of constructed or natural noise barriers, and improvements in home construction. Graphically illustrates the effect of combined noise control modifications by comparing the noise from a passing truck before and after the modifications have been made.

The George Show. 15 minutes.

A color cartoon slide show which takes George through a typical day, showing the various kinds of noise he and his family encounter and the decibel levels they're exposed to. Discusses the effects of noise on the quality of life and on health, the extent of the noise problem in the U.S., and what citizens can do about the noise problem in their community.

Aircraft Noise. 1976. 10 minutes.

A "sound-on-slide" presentation which focuses on the aircraft noise abatement requirements of the Noise Control Act and the methods for reducing aircraft noise problems. Discusses aviation noise control techniques in more detail than Jet Roar (see above). Requires a sound-on-slide projector (available through the EPA Regional Equipment Loan Program: see "Catalogue of Noise Monitoring Equipment, Systems and Training Aids," page 13).

OTHER AWARENESS MATERIALS

"No Noise" Button

A 1 3/4" diameter pin-on button; shows the "No Noise" emblem (see below). Available in quantity (limit: 25).

"No Noise" Stickers

Gummed stickers showing the "No Noise" emblem (see below); come in two sizes: 1" diameter and 4" diameter. Available in quantity (limit: 25)



"No Noise" Emblem

TECHNICAL ASSISTANCE SOURCES

REGION IX

STATE NOISE PROGRAMS

STATE	COUNTIES	INCORPORATED COMMUNITIES	POPULATION	COORDINATOR
AZ	14	74	2,411,800	A.J. Battistone 602/255-1156
CA	58	422	22,435,100	Ed Lowe 415/540-2657
HI	4	1	916,500	Tom Anamizu 808/548-3076
NV	17	17	665,300	Hugh Ricci 702/885-4670
<u>4</u>	<u>93</u>	<u>514</u>	<u>26,428,700</u>	

COUNTY NOISE ADVISORS

STATE	COUNTY	INCORPORATED COMMUNITIES	POPULATION	NOISE ADVISOR
AZ	Maricopa	19	1,321,000	Michael Sparkes 602/258-6381
AZ	Pima	4	473,000	Bailey Battiste 602/624-8338
CA	Alameda	13	1,110,500	John Vollmer 415/874-6434
CA	Butte	5	134,200	Howard Snyder 916/534-4281
CA	Contra Costa	15	622,700	Rafat Shahid 415/372-2521
CA	Fresno	15	480,900	Larry Dwoskin 209/488-3757
CA	Kern	11	371,200	Bill Thiessen 805/861-3618
CA	Los Angeles	81	7,122,500	Frank Gomez 213/974-7837
CA	Marin	11	227,600	Tim Underwood 415/499-6907
CA	Merced	6	125,800	Keith Isozaki 209/726-7391
CA	Monterey	12	273,800	Donald Wheeler 408/757-1061
CA	Orange	26	1,847,300	Ellwyn Brickson 714/834-6798
CA	Riverside	17	614,600	Harry Koontz 714/784-1860
CA	Sacramento	4	740,100	Harry Sen 916/366-2091
CA	San Bernardino	16	789,400	Ken Jeske 714/383-2743
CA	San Diego	14	1,742,300	Ray Sacco 714/236-4717
CA	San Francisco	1	657,000	Eugene Lau 415/558-4731
CA	San Joaquin	6	316,300	Lee McLaughlin 209/466-6781
CA	San Luis Obispo	7	143,700	Steve Carnes 805/549-5500
CA	San Mateo	19	588,200	Michael Robinson 415/877-5461
CA	Santa Barbara	5	290,800	Diane Kobayashi 805/964-8848
CA	Santa Clara	15	1,240,600	Gerald Starkey 408/279-5842
CA	Santa Cruz	4	176,500	Joseph McCann 408/425-2341
CA	Solano	7	210,600	Larry Ohnstad 707/553-5251
CA	Sonoma	8	277,000	Richard Holmer 707/527-2597
CA	Stanislaus	9	248,500	Duncan Wilson 209/526-6892
CA	Tulare	8	223,900	Tony Maniscalco 209/733-6441
CA	Ventura	9	490,500	Terry Gilday 805/654-2818
HI	Honolulu (Oahu)	1	740,600	Tom Anamizu 808/548-3076
NV	Clark	4	376,300	Rufus Howell 702/385-1291
NV	Washoe	2	163,500	Carl Cahill 702/785-4290
<u>4</u>	<u>31</u>	<u>374</u>	<u>24,140,900</u>	

September 1980



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street
San Francisco, Ca. 94105

Regional Noise Program Staff

Richard Procunier (415) 556-6333
Noise Program Chief

Chuck Flipppo (415) 556-9741
General assistance;
Public awareness

Jim Hahne (415) 556-5309
Technical assistance:
Aviation Noise
Equipment Loan Program

Vince Salmon (415) 556-5309
Technical assistance:
Workshops
Quality Assurance

Center for a Quiet Environment

University of California
Richmond Field Station
1301 S. 46th Street, Bldg. 167
Richmond, CA 94804

(415) 231-9463

Jim Buntin, Director

The Center for a Quiet Environment was founded to serve as a University Regional Noise Technical Advisory Center pursuant to the Quiet Communities Act of 1978. It is funded by the Environmental Protection Agency to provide training, communication and technical assistance to State and local agencies in Region IX. The Center perceives its role as expanding to embrace the disciplines of public health, engineering and psychology, serving as a resource center and research facility in the field of community noise evaluation.

PUBLIC AWARENESS MATERIALS

ORDER FORM

ORDER FORM for NOISE AWARENESS MATERIALS

Return completed form to: U.S. Environmental Protection Agency
Regional Noise Program (A-3)
215 Fremont Street
San Francisco, CA 94105

Publications/Other Materials

<u>Title</u>	<u>Quantity</u>	<u>Date Needed</u>
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(Continue on reverse side)

Audiovisual Materials

<u>Title</u>	<u>Date(s) Needed</u>
--------------	-----------------------

(Note: Please order "Who Stole the Quiet Day" and "A Quieter World:
It's Up to Us" from: Audience Planners, 6290 Sunset Blvd. Hollywood,
CA 90028; (213) 463-7888)

SEND MATERIALS TO:

NAME _____

AGENCY _____

MAILING ADDRESS _____

CITY/STATE/ZIP _____

PHONE NUMBER _____