

THE USE OF AUDIOVISUAL AIDS IN THE RELOCATION PROGRAM

by

Michael A. Perfater
Research Analyst

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

Virginia Highway & Transportation Research Council
(A Cooperative Organization Sponsored Jointly by the Virginia
Department of Highways & Transportation and
the University of Virginia)

In Cooperation with the U. S. Department of Transportation
Federal Highway Administration

Charlottesville, Virginia

June 1979
VHTRC 79-R62

ECONOMICS RESEARCH ADVISORY COMMITTEE

MR. J. T. WARREN, Chairman, Management Services Officer, VDH&T
MR. G. W. ALEXANDER, Assistant District Engineer, VDH&T
MR. F. C. ALTIZER, JR., Resident Engineer, VDH&T
MR. R. J. BOYD, JR., Personnel Officer, VDH&T
MR. L. E. BRETT, JR., District Engineer, VDH&T
MR. A. S. BROWN, Secondary Roads Engineer, VDH&T
MR. D. L. EURE, Programming and Scheduling Engineer, VDH&T
MR. C. O. LEIGH, Maintenance Engineer, VDH&T
MR. W. A. MCFARLANE, Deputy Attorney General for Transp., VDH&T
MR. D. D. MCGEEHAN, Research Analyst, VH&TRC
MR. J. P. MILLS, JR., Traffic and Safety Engineer, VDH&T
MR. T. B. OMOHUNDRO, Fiscal Manager, VDH&T
MR. E. T. ROBB, Assistant Environmental Quality Engineer, VDH&T
MR. W. P. TUCKER, Right-of-Way Engineer, VDH&T
MR. W. W. WHITE, District Environmental Coordinator, VDH&T
MR. J. E. YEATTS, Assistant Location and Design Engineer, VDH&T
MR. B. C. YOWELL, Realtor Officer, FHWA

ABSTRACT

The report presents the findings of a study of an audio-visual slide presentation on the rights and benefits of persons relocated as a result of highway construction. The overall purpose of the study was to evaluate the audiovisual system used by the Bureau of Relocation of the Maryland State Highway Commission for eventual use by the Right-of-Way Division of the Virginia Department of Highways and Transportation. The Maryland audiovisual system consisting of three sets of slides and accompanying taped narrations — one each for tenant displacees, owner displacees and business displacees — was adapted to fit Department needs through editing and experiments with a variety of colors and type faces for the projected slides used. A professional narrator provided the sound track. Two formats, the 16mm continuous loop and 35mm slides, were evaluated. The 35mm format was chosen for the presentation. Three projectors having the capacity to present a synchronized slide-tape rendition were purchased and the presentations and equipment were sent to the field.

The presentations were given in three types of field situations: 1) informational relocation trailers, 2) pre-hearing public meetings, and 3) the eight highway district offices.

It was found that the use of the presentations in the informational trailers met with enthusiastic approval from right-of-way agents manning them. The consensus of the agents was that while the programs would not replace person-to-person explanations to displacees they could certainly be used to enhance and illustrate the explanations, and should be placed in informational trailers on a regular basis. The presentations were also viewed by both the agents and the public as being quite useful at pre-hearing public meetings. Forty-two agents responded to a questionnaire asking for an evaluation of the equipment, slides and narrative. The majority said the presentations definitely enhance the Department's relocation procedures. The majority of agents felt that utilization of the presentations in displacees' homes would be limited because of the bulk of the projector. It is probable, however, that a more readily portable unit might change this opinion and that in-home use could become another quite feasible application for the slide-tape presentation.

THE USE OF AUDIOVISUAL AIDS IN THE RELOCATION PROGRAM

by

Michael A. Perfater
Research Analyst

BACKGROUND AND INTRODUCTION

In September 1976 the Virginia Highway and Transportation Research Council issued a report on an assessment of the relocation assistance program of the Virginia Department of Highways and Transportation.⁽¹⁾ That report cited a need for improvement in communications between Department representatives and persons who would potentially be displaced by highway construction projects. Further, it noted a need for training right-of-way agents to ensure uniformity in what they tell displacees. While many techniques were found to be helpful in achieving these improvements, a particular one that was being used successfully by the Maryland and Pennsylvania Departments of Transportation was determined to have great potential for use by the Department. The technique was to use a synchronized sound-slide presentation, employing portable equipment, adaptable to various situations to explain the rights and benefits of persons relocated as a result of highway construction. Because of its potential for use in the Department's procedures for disseminating information on the relocation program, the technique was evaluated by the Research Council. This report presents the findings from that evaluation, suggestions for improvement to the audiovisual programs, and recommendations pertinent to the implementation of the audiovisual program and to certain of the Department's procedures.

OBJECTIVES AND SCOPE

The purpose of the study was to evaluate the audiovisual system used by the Bureau of Relocation of the Maryland State Highway Commission for eventual use by the Right-of-Way Division of the Virginia Department of Highways and Transportation. Specifically, the objectives were to — 1) evaluate the portable audiovisual system for use by the district right-of-way offices at public meetings and special meetings of persons to be displaced by Department activities, 2) evaluate the portable audiovisual system for use by the district right-of-way agents in their face-to-face dealings

with displacees when visiting them in their homes, and 3) evaluate this system for use in training right-of-way agents and other departmental personnel who need to be knowledgeable of the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970.

METHODOLOGY

A set of slides with a corresponding narrative was obtained from the Maryland Department of Transportation and reviewed to acquire background for the development of a similar program for the Department. These programs — one each for tenant displacees, owner displacees, and business displacees — were adapted to fit Department needs through editing and experimenting with a variety of colors and type faces for the projected slides used. At the same time a review was made of the audiovisual equipment available for this type of program. This investigation included much correspondence and many phone calls to photographic supply houses, both in the Commonwealth and in other parts of the country. Arrangements were made to have at least five types of equipment demonstrated to the author and several individuals from the Department's Right-of-Way Division, and the results of an evaluation of several of the models demonstrated can be found in later sections of this report. After much deliberation, the Bell and Howell Ringmaster sound-slide projector was chosen for field evaluation. Of the three units purchased for the field evaluation, one had the capacity for both recording and playing back audiovisual programs while the remaining two units were designed for play-back only.

Three scripts, one each for homeowners, tenants, and businesses, were written in lay terms and then recorded by a professional narrator to explain the provisions of the 1970 Uniform Act. To accompany each script, slides were developed to give clarity and emphasis to the information being conveyed. The slide presentations were first used during the summer of 1977 in an on-site trailer in Newport News, and then were shown at various public meetings and pre-hearings throughout the state during the remainder of 1977 and 1978. In addition, the presentations were shown to the right-of-way agents in each district to obtain their evaluations. (The evaluation sheet is given in Appendix A.) The agents were asked to evaluate the effectiveness of the audiovisual presentations in communicating the provisions of the relocation program to displacees and their potential for other usage in the Department, including the training of in-coming right-of-way agents.

ANALYSIS

Equipment

Two types of slide-sound presentations were evaluated: the 16mm cartridge sound filmstrip projector and the 35mm format slide-sound carousel type projector.

16mm Format

The Maryland Department of Transportation was using the 16mm format in the first presentations seen by the writer. The projector has a rear projection screen which utilizes a continuous loop 16mm filmstrip and a two-track 1/4" (.625 cm) magnetic sound tape. The program is packed into a plastic cartridge that is inserted into the rear of the projector for play. The filmstrip and tape are synchronized with 1 kHz pulses that automatically advance the frames as the tape plays out the narration. There are several projector models but the typical portable one weighs approximately 18 lb (828 kg) and has a 5-1/4" x 7" (13.3 cm x 17.78 cm) screen.

While the equipment for this format was very compact, it had several drawbacks. First, the screens in the projectors typically were so small that showing a program to small groups would have proven difficult. Several of the machines did feature built-in front projection and converted to wall projection at the flip of a switch. However, the most important disadvantage with this format was relatively high production costs. Neither the sound nor the visual portion could be produced in-house; thus the expense of studio production resulted in very high per program costs. In addition, any revisions to the program that might result from errors in production, changes in legislation or policies, etc. would also have to be made in a studio, and the entire program, not just the portion needing revision, would have to be redone. Because of these costs, it was decided that the 35mm format would be evaluated.

35mm Format

The 35mm format employs a front and rear screen projector incorporating a carousel tray containing either 80 or 140 slides. Included in the unit is a cassette tape recorder-player for the narrative accompanying the 35mm slides. The narrative can be taped with this projector, and 1 kHz pulses can be added for synchronization of the slide advance and the sound track. It is also possible to record the narrative elsewhere and add the 1 kHz pulses with the projector.

Upon inquiry, it was found that projectors using this format were readily available on the market. Literature on three models was obtained and demonstrations on two of the three were requested. (The third model, it was later learned, was a prototype and was not available for demonstration or purchase at the time the research was conducted.) Upon evaluating the two models, it was discovered that one did not have the front projection feature, which the author feels is very important since the slide programs would likely be presented to groups. For this reason the projector containing the most features, including front projection, was chosen for purchase.

The units purchased for use in the research were Bell and Howell Ringmaster sound-slide projectors. Two Model 796 units, which have no recording capability, were purchased for use in the field evaluation, and one Model 797 recorder-player was purchased to provide the recording.

The Ringmaster* features rear projection onto a 9.5 x 9.5 in (2.413 m x 2.413 m) screen capability for use in one-on-one and desk top situations, as well as front projection onto a wall screen. The light output is over 250 ft Lamberts (857 cd/m²) for rear projection and 250 lumens for front projection. The machine weighs approximately 20 lb (5.08 kg) and contains a 3 x 5 in (7.62 cm x 12.70 cm) speaker and a 1 watt amplifier. Both the audio and video controls are grouped in a panel over the screen and are of the push-button type. Included are an on-off switch, a manual forward-reverse slide control enabling the user to advance or go back to a slide, a pause control allowing interruption of the tape, a fast forward-rewind control for the tape, a record button, and a volume control. Also included is a frame-filler control that allows the user to enlarge the image on the rear screen by as much as 60%. This control was not deemed necessary for the kinds of presentations included in this study, however. Also included as standard equipment with each projector was one 80-slide rotary tray, a microphone for the recording of programs, a vinyl protective cover, a carrying handle and a pulsing control-slide advance lead. This last item has two uses: First, it is used to add the 1 kHz pulse to the tape for synchronized advance; and second, it serves as a remote slide advance lead to provide the convenience of standing or sitting away from the projector while presenting a program.

Audiovisual Programs

The next steps in the evaluation were to produce narratives stating the benefits available under the relocation program for 1) renters, 2) owners, and 3) businesses with a corresponding slide

*See Appendix B.

program for each, and to have narratives recorded by a professional. Each of the three presentations contains approximately 30 color slides which include photographs of agent-client deliberations, computations for various relocation payments, cartoon representations of certain relocation activities and photographs of certain Departmental forms. Once the slides had been put into sequence, the 1 kHz pulses were added to the taped narratives to synchronize the slide advance with the narrative. Each presentation lasts for about 11 minutes.

The three presentations developed at the Research Council were then reviewed by personnel of the Department's Right-of-Way Division, a few changes were made in both the slides and the narratives, and the presentations and equipment were sent into the field for evaluation.

Field Applications

In the field evaluation the sound-slide presentations were presented in 1) an informational relocation trailer, 2) pre-hearing public meetings, and 3) review sessions for the right-of-way agents in the district offices.

Relocation Informational Trailer Operation

The presentations were first shown to displacees visiting an informational trailer at a project site in the Tidewater area. Showings continued for several months and good reports were received from the agents operating the projectors. In several instances, in fact, agents reported that the audiovisual programs helped to clear confusion expressed by the displacees immediately following the agent's explanations of the relocation program. Most agents operating the projectors in this trailer agreed that the presentations were quite useful there and reported no negative or confused reactions from displacees viewing the programs. Most agents viewed the presentations as a definite aid in clarifying the terminology used in the legislation setting forth the benefits available to displacees. There was also a consensus among agents that the presentations would not replace the agent's person-to-person explanations but would be used to enhance and illustrate them.

Pre-hearing Public Meetings

On four occasions in three districts the audiovisual presentations were given at pre-hearing public meetings held either the night before the formal public hearing or immediately preceding the hearing. "Pre-hearings" are merely informal sessions to which

the public is invited to informally discuss a project with representatives from the Department. Because relocation information is provided in these sessions, they provided an opportunity to field test the audiovisual presentations. The presentations met with an overwhelmingly positive response from both the public viewing them and the agents showing them. The consensus among agents was that the pre-hearing provided an excellent opportunity for using the presentations in that they were often helpful in translating the relocation jargon into lay terms.

Agent Reviews

Since so few informational trailers were installed by the Department while this research was being conducted, it was decided to have all relocation agents in the Department review the presentations in their own office. The presentations, along with evaluation forms, were circulated among the eight districts during the winter and spring of 1979. All the agents who viewed the presentations returned a completed evaluation form.

Only 17% of the agents gave a less than positive opinion of the effectiveness of the slide show format. The most common negative comment was that the projector "removes the human factor." Many agents did say that the slide show used in conjunction with the agent's presentation was the approach to be used. Many agents (31%) also related that telling the story with pictures was an excellent method for transferring information from the Department to the displacees. Table 1 shows the agents' responses to the question of where they felt the slide show could be best presented. Respondents were allowed to pick more than one response for this question. As the table shows, agents perceive the slide show format as having multiple uses, with the most often cited uses being for public hearings and public meetings. Informational trailers were seen as the third best application. Agents felt that the potential for in-home use of the program was limited due to both the bulk of the machine and the fact that the first contact with a displacee should be as personal as possible. It is the writer's opinion, however, that use of a more readily portable unit might overcome much of the objection to the use of the projector in the home.

All agents were quite impressed with the narrations. The writer feels that the utilization of the services of a professional narrator is very important to the effectiveness of the presentation. Over 62% of the agents felt no changes in the narrations were necessary. A few suggestions regarding specific changes were made, but there was no real feeling that any major modification was needed. The same was true of the slides. The only consistent suggestion here was that the numbers on some of the slides needed to be slightly larger.

Table 1

Potential Application of the Slide Show Format

Category	Frequency of Responses	Percentage of Agents
Public Meetings	22	52
Public Hearings	25	59
Informational Trailers	17	40
One-on-One with Displacee	13	31
Training	13	31
In Displacee's Home	10	24
TOTAL	100	*

*Percentages total more than 100 due to the multiple responses.

More than half the agents had an opportunity to give the presentations to displacees either in an informational trailer or at a public meeting. Of these, all but two felt that the reaction of the displacees to the presentations was positive. In addition, 79% of the agents who returned evaluation forms felt that they would like to have a projector and the three sound-slide presentations at their disposal on a continuous basis for use in the various applications mentioned in Table 1.

SUMMARY AND CONCLUSIONS

In an effort to enhance communications between relocation agents and displacees three audiovisual presentations on the rights and benefits of displacees under the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 were developed and field tested. The synchronized slide-tape presentations were designed for showing on a combination rear screen projector and cassette tape player, the Bell and Howell Ringmaster, Model 796 or 797. Standard 35mm color slides made at the Virginia Highway and Transportation Research Council were used for the video portion of the program while the audio portion was produced in a professional studio.

Several pieces of equipment were evaluated for use in giving this type of presentation. The 16mm continuous loop format was ruled out, principally because of the high costs of producing the presentations, which the Department was not equipped to produce in-house. It was decided that presentations in the 35mm slide format could be produced in-house at a very low cost and could be revised as needed in a very short time. The narrations for this particular series of presentations were produced in a private studio to lend them a pleasant, professional sound. The Ringmaster projector does, however, have a recording feature which enables narratives to be produced in-house quite easily. The projector also allows front as well as rear projection so that it can be used in a variety of settings. The only desirable feature not provided in the projector purchased was an automatic focusing capability, which is now available on the newer Ringmaster models. The per unit cost of the projector including optional equipment such as carrying cases and extra lamps (which are advisable for any piece of audiovisual equipment) ranged between \$400 and \$500.

The sound-slide presentations were given in three types of field situations: 1) informational relocation trailers, 2) pre-hearing public meetings, and 3) the eight highway district offices. It was found that use of the presentations in informational trailers met with enthusiastic approval from the right-of-way agents manning the trailers. The consensus of the agents was that while the programs would not replace person-to-person explanations to displacees, they could certainly be used to enhance and illustrate the explanations and should be placed in informational trailers on a regular basis. The presentations were also viewed by both the agents and the public as being quite useful at pre-hearing public meetings. Forty-two agents responded to a questionnaire asking for an evaluation of the equipment, slides, and narrative. The majority said the presentations definitely enhanced the Department's relocation procedures. Agents felt the slide show format had multiple applications, with the most often cited applications being for use in pre-hearing meetings and public hearings. Use in informational trailers was seen as the third best application for the presentations. The majority of agents did feel, however, that utilization of the presentations in displacees' homes would be limited because of the bulk of the projector. It is probable, however, that a more readily portable unit might change this opinion, and that in-home use could become another quite feasible application for the slide-tape presentation.

RECOMMENDATIONS

The findings from the study led to the following recommendations.

1. The audiovisual presentations developed, along with one model 796 (player only), and one model 797 (player-recorder) Bell and Howell Ringmaster projectors, should be furnished to the Relocation Section of the Department's Right-of-Way Division. One model 797 unit should be available at the Council to facilitate any assistance which can be provided in modifying the slide portion of the presentation.
2. The audiovisual presentations should be used in all relocation informational trailers or on-site offices as relocation agents manning those offices see fit. For this reason, it is also recommended that one unit (either a 796, 797, or reasonable facsimile) be purchased and assigned to each district relocation office.
3. The audiovisual presentation should be used at all pre-hearing public meetings where deemed appropriate by the relocation section of the sponsoring district office.
4. The presentations (both slide and narrative) should be continuously modified to meet the changing needs of the relocation program. Technical assistance will be available at the Research Council. It is advisable that a library of slides be maintained by the Relocation Section in the Department's Central Office.

EVALUATION OF SLIDE SHOW FORMAT

1. What is your opinion of the overall effectiveness of using a slide format to explain relocation benefits?

2. What application do you think the slide programs have? (circle one) Public meetings Public Hearing
Informational Trailers One-on-one with Displacee Training In Displacee's Home
Other _____
Comments? _____

3. What is your overall opinion of the narration (that is, the narrator's voice, his inflection, the music, etc.?) (circle one) Excellent Good Fair Poor
4. What changes, if any, would you like to see made in the narration? (Specify whether renter, owner or business program) _____

5. Which slides, if any, would you like to see changed or deleted? (Specify which program and slide numbers) _____

6. If you have shown these programs to prospective displacees, do you think their overall reaction to them was positive or negative? (circle one) Positive Negative
Comments? _____

7. Would you like to have one machine and the three slide programs at your disposal on a continuous basis? Yes No
If no, why? _____

8. Please enter below any further comments you have about these programs.

Please return to:

Mike Perfater
Virginia Highway and Transportation Research Council
P. O. Box 3817 - University Station
Charlottesville, Virginia 22903

APPENDIX B

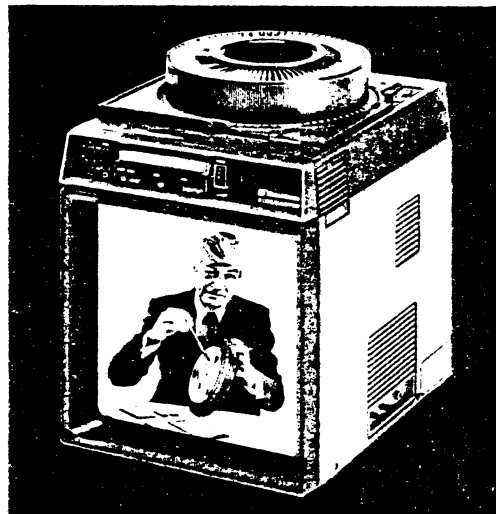
Bell & Howell RingMaster™

Project Forward... Project to the Rear; Brightness Automatically Adjusts

A RingMaster™ Projector is like two projectors in one. For large audiences, it's a front-throw projector that casts images on a wall screen. For the small group, it's a rear-screen projector that sits on a desk top. Picture brightness automatically adjusts to the optimum viewing level, whatever the situation. In fact, rear screen brightness is brighter by half than most competitive units, yet there is no annoying glare.

Create Your Own Pre-Recorded, Pulse-Controlled Sound/Slide Programs

Model 797 has a cassette tape player/recorder (Model 796 has a tape player only) which comes with microphone and pulse control lead. You can tape your program with 1 KHz pulses for synchronization of slide advance to the sound track. Included is an automatic shut-off of the tape unit in Record or Play mode. Plus a record/erase interlock that prevents accidental erasure of your program.



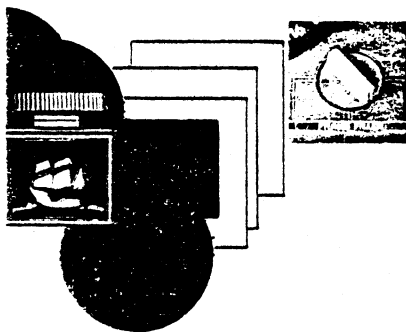
Simulated picture



sound/slide projector



Unique Frame Filler — An image expanding control on top of the unit allows you to enlarge the projected image on the rear screen by as much as 60% when using 126 slides; 55% when viewing 35 mm slides. Dramatic effects are also possible: Flick the control fast for instant expansion; move it slowly for dissolves.



Simple, Convenient Controls—

All primary operating controls are grouped in a panel over screen (except for top-mounted Frame Filler, focusing control and slide select button).

Pushbutton-type controls include a Pause control that allows you to interrupt the tape when you wish to linger on a particular slide. It may also be used while recording to permit pauses during material preparation. Forward/reverse slide controls enable you to advance or go back to a previous slide in your presentation with equal ease.

Changing from rear screen to front-throw projection or vice-versa is fast and easy. Projection lamp brightness is adjusted automatically for front or rear projection.

Cool, Quiet, Low-Maintenance Operation — You'll appreciate the extra-cool and quiet operation of RingMaster™ Projectors. And their modular construction that allows quick access to moving and electrical parts for faster, easier servicing and lower maintenance costs.

supplied as standard equipment

1. Rotary Slide Tray — The RingMaster™ is compatible with all standard 80-slide rotary trays, such as Eastman Kodak's Carousel, etc. (Part No. 708602).

2. Dynamic Microphone — Model 797 only. Set it on a table or hold it in your hand to pre-record your own tape programs. For recording, either Philips-type or continuous-type audio cassettes can be used. (Part No. 707808).

3. Pulsing Control/Slide Advance Lead — Model 797 only. A press of your thumb on the control adds a 1 KHz pulse to the tape you are recording. It also serves as a remote slide-advance lead to provide the convenience of being able to stand or sit away from the projector while presenting your program. (Part No. 708062).

4. Vinyl Protective Cover — Protects your unit from dust, scratches, etc. when not in use. (Part No. 708446).

5. Convenient Carrying Handle — The RingMaster™ Projector weighs only 20 lbs. This carrying handle makes it easily portable. Folds flat on top when not in use.

6. Built-in Spare Tray Storage — You can carry two ready-to-show sound/slide programs with you without the bother of extra storage boxes.

