

# **Feasibility Study Relating to the Establishment of a Descriptive Video Loan Service**

Prepared by

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## Foreword

Like sighted people, blind children and adults are part of the modern mass media audience; yet, until recent times little was really known about their pattern of viewing, their interests, and the impact of mediated programs on them. As stated in our original contract proposal, the National Association of the Deaf (NAD) and the National Captioning Institute (NCI) see striking parallels between developing and implementing a viable audio description service which is available to the widest possible audience and the development of a closed-captioned service.

While the activities of NCI leading to this report concentrated on home viewing products, it is worthy to note that one conclusion of this report is identification of the need for description of video for school or other instructional use. Again in a parallel to captioning, the initial focus of adaptation efforts to benefit hearing impaired persons was entertainment films. The original law (PL 85-905) to provide subtitled entertainment films was amended to include captioned educational materials.

NAD believes that this study is strong support for the establishment of a descriptive video loan service. The efforts of NCI and Leo E. Persselin are much appreciated.

Bill Stark, Project Director  
Captioned Films/Videos Program

## Preface

This report addresses three technologies for accessing described video materials. It focuses on three organizations that are using these technologies --- Descriptive Video Service (DVS), Narrative Television Network, and DVS Home Video --- because of the degree to which they exemplify their approaches to the delivery of descriptive video.

The investigator wishes to acknowledge the generous cooperation of the many individuals without whose help and sharing of information this study could not have been completed. Particularly, the investigator thanks Corinne Kirchner and Mary Ellen Mulholland, American Foundation for the Blind; Mike Moodie, National Library Service for the Blind and Physically Handicapped; Barry Cronin, Laurie Everett, Gerry Field, and Linda Richards, Descriptive Video Service; and James Stovall, Narrative Television Network.

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This report does not necessarily reflect the views or policies of the U.S. Department of Education. The mention of trade names, commercial products, or organizations does not imply their endorsement by the investigator, the National Association of the Deaf, or the United States Government.

L.E.P.

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## INTRODUCTION

This report is submitted in fulfillment of the requirement for a draft final report specified in RFP 91-045, Solicitation, Screening, Evaluation, and Captioning of Educational and General Interest Videos and Other Activities; Task 19, "Evaluation of Specific Needs and Activities Related to Implementing a Descriptive Video Loan Service."

Descriptive video consists of videotaped material containing descriptive narrative for the visually impaired. The audiodescription is added to the original sound of a videotape. It is heard during pauses in the dialogue, narration, and other audio elements of the video presentation.

Task 19 asks for answers to a list of six sets of questions related to establishing a loan service for descriptive video materials. The outline of this report follows the Task 19 list of questions precisely. Each section of the report corresponds by number and subject matter to its counterpart in Task 19:

1. Potential Users
2. Availability of Audiodescribed Materials
3. Activities Needed to Create Described Videos
4. Audiodescription Processing Facilities
5. Consumer Preferences
6. Conclusions and Recommendations

Some of the data in this report deal with subject matter that was also addressed in two earlier studies conducted for the Office of Special Education Programs. Reports on these studies were completed in 1990:

"Technical Viability of Descriptive Video Services," by the Smith-Kettlewell Eye Research Institute, and "Commercial Viability of Descriptive Video Services," by COSMOS Corporation. This report attempts to be non-redundant to the Smith-Kettlewell and COSMOS reports, particularly in describing the characteristics of the blind and visually impaired population, and in outlining the processes of writing and recording audio-descriptions. The Smith-Kettlewell and COSMOS reports are cited liberally in these areas of the discussion.

Portions of this report also deal with technical aspects of television transmission and reception. The report attempts to present these data in as non-technical a manner as possible.

The report deals throughout with references to blind and visually impaired persons. Except where it is important to make distinctions, the term "visually impaired" is used throughout to refer to all levels of visual impairment, from totally blind to conditions under which a person has trouble seeing in one or both eyes even when wearing corrective lenses.

## 1. POTENTIAL USERS

### 1.1 Numbers

Visually impaired people watch television nearly as much as do sighted persons (see 1.5 Viewing Habits). Virtually the entire visually impaired population may be considered potential users of a descriptive video loan service, given subjects of interest, accessibility, and affordability. Estimates of their number depend on definitions of blindness and visual impairment (1:6)\*.

At the high end, the National Center for Health Statistics uses a figure of 8.4-million to include people who are blind, severely impaired, and those who have defects or malformations that result in trouble seeing in one or both eyes even wearing glasses (2). The Descriptive Video Service (DVS) perceives its potential audience to be as high as 12-million (1:9;3).

### 1.2 Other Characteristics

The prevalence of visual impairment increases with age (1:9). The family income of visually impaired persons is lower than that of the sighted population. A large majority of working-age visually impaired persons are unemployed. Of those who do work, their earnings tend to be significantly lower than those of sighted workers. Compared with sighted workers, they have jobs with less permanence and are also significantly underemployed (4:179). Visual impairment among the nonwhite population is higher than that for whites at all ages (4:81).

\* In citations, the first number is the number of the reference, the second number is the page number within that reference. Thus, (1:6) means reference 1, page 6.



### 1.3 Location

Historically, more visually impaired persons have lived in smaller towns and farm communities than in metropolitan suburbs and large cities, with highest concentrations in the South (4:19). This pattern has shifted, however, so the geographic distribution of the visually impaired population is essentially consistent with that of the population at large. Nationwide, most visually impaired persons now live in large cities and their suburbs, most of them east of the Mississippi, but with a large concentration also in California (3).

### 1.4 Access to Reception Technologies

#### 1.4.1 Broadcast Television

Television blankets the nation. Ninety-eight percent of all American homes own at least one TV set, 97% have color TV, and more than 60% have two or more TV sets. In each of the last four years, manufacturers and distributors have sold more than 20-million direct-view color TVs. Ninety percent of these sales have been to upgrade or replace existing TV sets, or to add additional sets to the home (5:7).

Broadcast, cable, and direct-satellite services make TV reception potentially accessible to virtually every household in the United States. Sixty percent of all TV homes now subscribe to cable TV services. Color TV sets that are cable-compatible are the standard; these sets can tune in non-scrambled cable channels without the use of external converters (5:8).

All commercial TV networks, the Public Broadcasting System (PBS), and most local TV stations and satellite transmissions now

feature stereo audio, putting virtually all U.S. TV homes within reach of TV stereo. In addition, nearly all cable TV systems supply stereo to their subscribers. Thirty-seven percent of all color TV sets sold in 1991 included stereo, marking the seventh straight year of double-digit increases in the sale of stereo TVs (5:9). Industry analysts believe that in the next six-to-eight years, nearly all TV sets on the market will be stereo (6). This has important implications for the accessibility of broadcast described television.

#### 1.4.2 Broadcast Described Television

Two types of broadcast described television are now accessible to visually impaired viewers. The Descriptive Video Service (DVS) of the WGBH Educational Foundation offers described video as a part of WGBH PBS programming and makes DVS available to PBS stations nationwide (see 2.1 Kinds of Materials). To receive DVS audiodescriptions, a viewer must have either a stereo TV or stereo videocassette recorder (VCR) that also includes a Second Audio Program (SAP) feature, or a SAP TV receiver --- a decoder that enables monaural TV sets to receive SAP and DVS programming (see 2.2 Equipment Needed). Without this equipment, the audiodescriptions cannot be heard.

The second type of broadcast described television requires no special equipment. Narrative Television Network (NTN) produces and airs described videos via the Nostalgia Channel cable service and affiliated stations. The NTN audiodescriptions are heard by all viewers as part of regular Nostalgia Channel programming (see 2.1, Kinds of Materials).

DVS programs are available through 64 PBS stations. An additional five PBS stations are expected to begin broadcasting DVS by early 1993. These are almost all of the PBS stations that have both stereo and SAT capability. DVS programming is accessible to an estimated 54% of the viewing public nationwide (3). Eighteen Radio Reading Services across the country also simulcast some DVS programs (7:27). No commercial networks or local stations are now using the SAP channel for DVS.

NTN programming is accessible nationwide through the more than 1,000 cable outlets and affiliates of the Nostalgia Channel. Affiliates include several non-Nostalgia Channel cable services and about a dozen broadcast stations. NTN estimates that it is reaching 25-million households (8).

#### 1.4.3 Non-Broadcast Described Videotapes

Described videos --- videotapes with audiodescriptions for the visually impaired added to the original soundtrack --- may be played on any VCR and viewed on any type of TV set. No special equipment is needed. Seventy-million U.S. households --- nearly 77% of all U.S. TV households --- now contain a VCR. Industry sources project the sale of more than 10-million VCRs in 1992 (5:13).

Described videos for non-broadcast viewing are now generally accessible only through mail-order purchase from DVS

Home Video. Twenty-six feature films and 11 episodes from a PBS Sherlock Holmes series are currently available (see 2.1 Kinds of Materials). Prices (not including shipping, handling,

and insurance charges) are comparable to what one would pay for the same titles without descriptions at retail video stores; the DVS Home Video prices range from \$14.95 for "True Grit," "Top Gun," and "Fatal Attraction" to \$29.95 for "Anne of Green Gables" and "Anne of Avonlea."

### 1.5 Viewing Habits

Studies over a span of more than 30 years show that visually impaired people enjoy watching television with their families and that their viewing habits do not differ from those of sighted persons who share similar demographic characteristics (6;1:13).

In a survey of visually impaired persons conducted by the National Captioning Institute (NCI) in 1992, 69% of the respondents said they watched between one and four hours of television a day; two-thirds owned a VCR; just under two-thirds said they watched without anybody telling them what was happening on the screen; 55% said they had watched DVS (9).

The NCI findings are consistent with the results of a survey that DVS included in its December 1990 "DVS Bulletin/Program Guide" (now "DVS Guide"). Of those responding, more than 62% reported that they watched TV between one and four hours a day; 27% owned a VCR; 50% reported that they typically watched TV or videos alone; 50% reported that they had watched DVS (3).

As indicated above, many visually impaired persons are independent TV viewers. But other data show that just as it is for most Americans, watching TV is also a major family activity for visually impaired individuals (6).

## 2. AVAILABILITY OF AUDIODESCRIBED MATERIALS

### 2.1 Kinds of Materials

A broad range of PBS programming has been audiodescribed for broadcast by DVS. Narrative Television Network (NTN) programs broadcast over the Nostalgia Channel typically consist of vintage black-and-white films. Movies offered by DVS Home Video are a mix of recent films and perennial favorites for viewers of all ages.

One-third of all PBS prime-time programming is now being described and broadcast by DVS (3). The fall 1992 issue of the "DVS Guide" shows the following series scheduled for described broadcast through the end of the year: "The American Experience," "American Playhouse," "Degrassi High," "Masterpiece Theater," "Mystery!" "Nature," and "Wild America." The feature film "You Must Remember This" will be shown on "Wonderworks Family Movie" (7:8).

NTN currently broadcasts three different films a week, with repeat showings totalling eight hours a week of air time, on the Nostalgia Channel. Typical offerings have included "Daddy's Little Dividend," with Spencer Tracy and Elizabeth Taylor; "This is the Army," with Ronald Reagan and Kate Smith; "It's a Wonderful Life," "Meet John Doe," and "Made for Each Other," starring James Stewart; "Tulsa," with Susan Hayward; "Delightfully Dangerous," with Jane Powell; "Angel and the Bad Man," with John Wayne; and other such films of the silver screen (10).

NTN has described about 250 films since it began broadcasting in 1989. It is now describing videos at the rate of more than 200 a year. NTN

also owns description rights to "Matlock," "Andy Griffith," "Dick Van Dyke," "Gomer Pyle," and "Big Valley" TV series, but has not yet described any of these (8).

The films being sold by DVS Home Video range from G-rated films for children and the whole family to R-rated films of adult interest, with a variety of PG and PG-13 features in between. The children's films include three Walt Disney animation perennials: "101 Dalmatians," "Alice in Wonderland," and "Dumbo." Other G and PG-rated films are "Anne of Green Gables," "Anne of Avonlea," "Star Trek V: The Final Frontier," "Top Gun," "True Grit," "Honey, I Shrunk the Kids," "Dick Tracy," "Beaches," "Three Men and a Baby," "Dead Poets Society," "The Hunt for Red October," "Raiders of the Lost Ark," "Field of Dreams," "Hook," and "Steel Magnolias." PG-13 films are "Ghost," "Parenthood," and "Awakenings." R-rated films are "Beverly Hills Cop," "Pretty Woman," "The Godfather," "Fatal Attraction," and "Glory." DVS Home Video is also offering 11 Sherlock Holmes episodes that originally appeared on the PBS "Mystery!" series (11).

## 2.2 Equipment Needed

As discussed in 1.4 Access to Reception Technologies, except for DVS broadcasts, no special equipment is necessary to access or utilize the materials identified above. The Nostalgia Channel requires cable subscription, but once connected, any cable-compatible TV set can receive NTN audiodescribed movies. The videos offered by DVS Home Video can be played on any VHS VCR, and viewed on any TV set connected to that VCR, stereo or monaural.

DVS broadcast reception requires a stereo TV or VCR with Secondary Audio Program (SAP) capability, or a SAP TV receiver, a decoder that attaches to any TV set and enables it to receive both stereo and the SAP channel. A SAP-capable TV or VCR costs about \$150 more than comparable monaural equipment. A SAP decoder (F.R.E.D. III, item #624) is available from Recoton Corporation at a special price of \$44.95 (shipping and handling included) for visually impaired persons (7:24).

The F.R.E.D. III SAP decoder includes a built-in amplifier, but no speakers for stereo sound. If the decoder is attached to a monaural TV set, a pair of auxiliary speakers must also be added to the system to hear stereo sound. The additional speakers are not necessary if the decoder is used with a TV set that is already stereo, but does not receive SAP.

Additional speakers are also not necessary when the SAP decoder is used with a monaural TV set if stereo sound is not important to the viewer. When stereo sound is received, the viewer will hear "synthesized" stereo through the monaural TV set's speaker(s). When the SAP channel is accessed to receive DVS, SAP automatically replaces two-channel stereo sound with monaural audio that incorporates both audiodescription and original program audio. No matter how DVS is received, the SAP channel that carries DVS eliminates stereo (22).

The National Technology Center of the American Foundation for the Blind makes available a comprehensive listing of stereo TVs, VCRs, and decoders able to receive the SAP channel (12).

### 3. ACTIVITIES NEEDED TO CREATE DESCRIBED VIDEOS

#### 3.1 Materials Identification and Acquisition

Models for identifying and acquiring video materials to be described may be found in the ongoing procedures of DVS broadcast and Home Video services and analogous activities of both past and present captioned films/videos projects. Fundamental to any approach to materials identification is responding to viewer interests and needs.

For identification of general interest and educational video materials, the ongoing educational and general-interest video captioning project being conducted by the National Association of the Deaf provides a useful model. Activities leading to instructional materials identification include curriculum review, analysis of statistics on usage of materials already available in specific subject areas, and consumer preferences, in addition to the guidance of advisory groups (13:II-2).

DVS constantly solicits viewer input to assist in selecting materials for description. In its 1990 consumer survey, DVS asked respondents to specify their preferences both for types of TV programs (e.g., news and public affairs, drama, soap operas, situation comedies, etc.) and movies (e.g., classics, drama, comedy, science fiction). A consumer advisory council also assists in materials identification (3).

Procedures for acquiring rights to selected materials have long been established by captioned films/videos projects, and more recently by Narrative Television Network and DVS. Good working relationships with studios and home video companies are essential for facilitating copyright clearance and successful negotiation of audiodescription rights.



The National Captioning Institute cements its relationships with film and video companies by including as members of its corporate advisory council such companies as Columbia Pictures Television, Fox Video, Orion Home Video, Lorimar Television, and Paramount Home Movies, among others (14).

### 3.2 Audiodescription

Writing the script for a described video begins with identifying those lapses in dialogue, narration, and other audio elements of the video where audiodescription would be appropriate. The location and duration of these time slots are precisely logged. Segments of the script are then written to fit the slots.

Unlike caption writing, which approximates the dialogue or narration and is language centered, the writing of audiodescriptions focuses on visual elements. These include not only the movements of performers and other on-screen action, but also other visual information that might demand explanation and/or significantly enhance understanding and appreciation of program content, e.g.: facial expressions and body language, costumes and settings, on-screen background activity, and a host of non-verbal, visual cues that sighted audiences take for granted but are lost to visually impaired viewers. Particularly in describing historical dramas, documentaries, nature and travel programs, and any movies or TV shows set in exotic locales, the writer may be required to do substantial research to accurately and fully describe what is on the screen. Because the space for description on the soundtrack can be very limited, and because what appears on the screen is often open to interpretation, the decision as to what to describe and how to

describe it is often highly judgmental (3).

Several methods of actually composing the audiodescription are available (15:6). The most efficient and effective of these incorporates the use of a customized, computer-based, video playback system that runs a time-coded version of the video being described; automatically stops at predetermined audiodescription time slots; presents the description writer with on-screen information as to how many words will fit into a given time slot; enters the writer's description for that time slot into computer memory; and automatically tests for fit. The output of such a system is a printout of a time-coded, cued script ready for review or recording (15:9;3).

Options for recording the description are essentially the same as for recording the narrative of any film or video. Again, however, the process can be greatly facilitated through the use of computerized playback systems designed to permit the video to be viewed while recording, and presenting the description reader with on-screen cueing information similar to that used in "lip-sync" film dubbing (15:10;3).

### 3.3 Unit Costs

The costs of identifying and acquiring video materials for description vary depending on specific procedures. The costs of description writing and recording, on the other hand, fall within a fairly defined range.

After reviewing description writing and recording costs in 1990, the Smith-Kettlewell technical viability study concluded that writing and recording the description for one hour of video would cost between

\$3,500 and \$4,000. This did not include "track building and lay back" --- combining the recorded description with the original soundtrack and putting the combined soundtrack onto a master videotape ready for duplication. The study estimated that this would cost about \$250 for a one-hour video, raising the total cost to between \$3,750 and \$4,250 for a one-hour video (15:10).

The COSMOS commercial viability study in 1990 estimated high-end costs of \$3,000 for each hour of description, including track building and lay back (1:24).

DVS costs are currently estimated at about \$3,000 for an hour of described TV programming, from description writing through track building and lay back. But for a feature film, these costs may be as high as \$5,000 to \$6,000 for each hour of description because of the additional research, reviews, and decision making needed for described movies to meet DVS standards (3).

Narrative Television Network estimates costs of \$2,500 for an hour of described video through track building and lay back (8).

All of the foregoing cost estimates reflect fully equipped facilities, established procedures, and experienced personnel.

#### 4. AUDIODESCRIPTION PROCESSING FACILITIES

Adequate processing facilities (laboratories) exist to add audiodescriptions to all types of videos. The only unique aspect in the production of described videos is the writing of the audiodescription. All other production and processing activities --- recording, track building and layback, duplication --- are essentially equivalent to similar work being done in other types of video production. A large number of video and recording studios and laboratories are available nationwide for this work (16;17).

## 5. CONSUMER PREFERENCES

### 5.1 Comparison of Technologies

Each of the technologies for accessing described videos described in 1.4 Access to Reception Technologies and 2.2 Equipment Needed has its strengths and weaknesses.

A major benefit of broadcast DVS and the cable programming offered by Narrative Television Network is that they make popular TV programming accessible to large numbers of visually impaired persons at scheduled broadcast hours. Visually impaired individuals can therefore watch TV shows with families and friends, or by themselves if they wish, but at the same time as other people watch the same programs on their own sets. This can be an effective socializing mechanism for visually impaired people --- a way of significantly expanding their participation in the popular culture.

A major weakness in DVS broadcast technology is the need for special receiving equipment --- a stereo TV or VCR with SAP capability, or a SAP TV receiver (decoder) to adapt a monaural TV set for DVS reception. This can be an important consideration for the large numbers of visually impaired persons who are seriously financially limited.

DVS faces serious problems in expanding its services. DVS may now be broadcasting to 54% of the viewing public, but the 64 PBS stations carrying DVS still represent fewer than 20% of the 340 local PBS stations nationwide. The PBS stations now broadcasting DVS are almost all of the PBS stations that are equipped to do so. Every

local TV station must have its own SAP capability to broadcast DVS. Equipping a station for SAP is costly.

The unwillingness of commercial networks and local stations to broadcast DVS is another serious limit to DVS expansion. Network broadcast of DVS would require equipment modification and extensive equipment operations. The COSMOS study estimated that converting the commercial networks' technical facilities to provide DVS at a level comparable to that of captioning for the deaf would require \$10- to \$20-million (1:26). No commercial network has expressed interest in even partial conversion for DVS broadcasting.

Local commercial TV stations are similarly disinterested. The COSMOS study estimated that only about 10% of network-affiliated commercial stations were broadcasting SAP in 1990 (1:27). A popular use of SAP by local stations in some parts of the country is for broadcast of foreign-language audio with English-language programs for non-English speaking viewers. Thus, in California, in other states bordering Mexico, in Florida, and in some East Coast metropolitan centers, stations use SAP for Spanish-language audio. Some stations also use SAP for weather forecasts. So even if DVS were made available to these stations, there could be serious competition for time on the SAP channel.

The major advantage of "open" described TV broadcasts --- with audio-descriptions as part of regular program audio for all to hear --- is that it does not require any special equipment for either transmission or reception. But a broadcast outlet is still needed.

Narrative Television Network (NTN) broadcasting on the Nostalgia Channel shows how well cable television can meet that need (see 2.1 Kinds of Materials). NTN buys air time on the Nostalgia Channel, and recoups its costs by selling advertising that appears during commercial breaks. All viewers hear the NTN audiodescriptions. Viewer mail indicates that 60% of NTN viewers are fully sighted (8).

Broadening the hearing impaired audience for "open" described video via cable means finding cable channels that serve other markets and are willing to sell the broadcast time. The only limitation to viewer access is the need to subscribe to the cable service.

Described home videos are attractive because they also do not require any special equipment for viewing. They can be played on any VCR. Their only problem is that of accessibility. The major drawback to DVS Home Video is that its materials must be purchased. This could be financially difficult and even prohibitive for large numbers of low-income visually impaired persons.

## 5.2 Preferences

Because all the existing ways of accessing descriptive video are so new, and exposure to them and experience of consumers so limited, very little data exist as to viewer preferences.

The National Captioning Institute (NCI) survey asked visually impaired viewers what programming they would most like to have described. Their order of preference was commercial television, public television, cable television, and home video (9).

The NCI respondents also were asked how likely they would be to purchase described home videos. Seventy-seven percent said they would be "not likely at all" or "somewhat likely"; 23% said they would be "very likely" or "extremely likely" to purchase a described home video at a price of \$19.95. Eighty-six percent said they would be "not likely at all" or "somewhat likely" to purchase a home video at \$29.95 (9).

In the DVS consumer survey of a year ago, two-thirds of those responding indicated not only that they would purchase described videos or TV programs, but also that they would be willing to pay a few dollars more than the regular price of a home video to get one with description (3).

The NCI survey also asked about lending library and rental access to described videos. All of the NCI respondents said they would borrow described videos from their local libraries if they were available. More than a third said they already had borrowed non-described videos from their local libraries (9).

If described home videos were available for rent through the mail, 77% of the NCI respondents said they would be "somewhat likely," "very likely," or "extremely likely" to rent them. Fifty-four percent said they would expect to pay up to \$3 to rent a described home video; 27% said they would expect to pay between \$3.50 and \$5 (9).

If described home video movies were available for rent through the mail at \$8 apiece half of the respondents said they would rent up to six a year; 27% said they would rent between eight and twelve videos a year (9).



## 6. CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Conclusions

Visually impaired people enjoy watching television and want greater access to described TV and video materials. All of the described video media now available --- broadcast DVS, "open" description on cable, and the sale of described videos --- are worthwhile in helping to meet some of the needs of those who can access them, but none of them show the potential for substantially expanding their audiences and their program content over the long term.

Cost to the viewer is an important limiting factor --- the cost of stereo and SAP equipment for DVS broadcast reception, cable subscription costs, and the cost of purchasing described home movies.

Broadcast DVS is not likely to be able to reach many more of the visually impaired TV audience than is already within reach of the PBS stations currently offering DVS service --- 64 stations out of a total of 340, including American Samoa, Puerto Rico, and Guam. Almost all PBS stations able to broadcast DVS are now doing so. Equipping the remaining stations to use the SAP channel for DVS would be costly and is probably not a priority for local PBS stations in lean times.

Commercial TV networks and local stations will not broadcast DVS, both because of the cost of gearing up to do so and because of the audience-driven economics of commercial TV programming. Foreign-language advertising revenues encourage local stations with SAP capability to use the SAP channel to broadcast foreign-language audio to large non-English speaking audiences.

Reaching broader visually impaired audiences with "open" described programming through cable services is also limited by the economics of the medium. Narrative Television Network (NTN) is successful on the Nostalgia Channel because NTN's described vintage films fit perfectly into the Nostalgia Channel's programming format. Also, the Nostalgia Channel appeals to older viewers in age brackets that incorporate the largest numbers of visually impaired persons. Finding other cable channels for "open" described programming at desirable hours could be difficult.

It remains to be seen how successful DVS Home Video will be in its sales of described videos as the number of its titles increase. The booming video rental business makes it clear that viewers prefer to rent videos rather than buy them. Whatever their preferences, the buying audience for described videos will always be restricted by the lower income of visually impaired people.

Many of the limitations to audience growth also limit the types of program content that might be made available to visually impaired viewers. Although the visually impaired respondents to the National Captioning Institute survey earlier this year stated that what they would most like to have described is commercial television, this is not foreseeably about to happen. DVS broadcasting is limited to selected PBS programs, and that is not likely to change. The offerings of NTN and DVS Home Video consist almost entirely of movies and there is no indication of that changing.

A very important category of video content not being made available in described form is that of materials prepared specifically for school and other instructional use. Some of the DVS offerings from PBS can be educationally useful --- for example, nature shows like "Wild America" and "Nature," and the documentaries that appear on "The American Experience" --- but these barely scratch the surface of what is needed. Descriptive video needs a program of support that will make available described general interest and educational video materials comparable to that of captioned videos for the deaf.

The establishment of a descriptive video loan service could not only meet the dissemination needs of general interest and educational described videos, but also help make all types of described video content more easily and economically accessible to all visually impaired viewers in all parts of the country.

## 6.2 Recommendations

Based on the foregoing data, two major recommendations are offered:

1) support and expand ongoing descriptive video activities as fully as possible; and 2) concurrently explore all avenues for establishing a nationwide descriptive video loan service as rapidly as possible.

### 6.2.1 Support and Expand Ongoing Activities

A number of compelling reasons exist for supporting and expanding ongoing descriptive video activities as fully as possible while a loan service is being established. To begin with, the existing access media are not exclusive of one another or of a future loan service. In fact, ongoing DVS broadcast,

"open" described cable broadcast, and described home video tend to be mutually supportive and complementary in program offerings, outreach, and collection of audience data.

They are also supportive of any future descriptive video loan service:

- Ongoing descriptive video activities are producing described video materials which might be acquired for loan-service dissemination.
- The audiences of DVS, NTN, and DVS Home Video are identifiable potential loan-service users. Outreach activities to expand the audiences of existing descriptive video services are building a customer base for a future loan service.
- Ongoing descriptive video activities are a source of information for use in assessing needs and planning a descriptive video loan service. Feedback from viewers and collection of data from existing video audiences can be invaluable in helping define the interests, preferences, and needs of future loan-service users.

Encouragement and support should be extended to all who have something to offer in expanding access to descriptive video. This report has focused on major players in the field because of the extent to which they exemplify ongoing delivery of descriptive video services. But others also have been involved in descriptive video --- AudioVision, in San Francisco, and

Audio Optics, Inc., in New Jersey, for example --- and others have expressed the desire to become involved. All who can make useful contributions should be assisted in broadening the base of descriptive video expertise and services.

#### 6.2.2 Establish Loan Service

All reasonable avenues should be explored for establishing a descriptive video loan service as expeditiously as possible. Organizations and institutions that already provide media services nationally for visually impaired persons could be possible operators of a descriptive video loan service or part of a combination of lending centers. And although the nature of described videos differs greatly from that of captioned films, the possibility of described videos being made available through commercial video rental stores should not be discarded without thorough investigation.

National organizations already lending or otherwise disseminating media for the visually impaired include the National Library Service for the Blind and Physically Handicapped of the Library of Congress, Recordings for the Blind, the American Printing House for the Blind, and the National Association for Visually Handicapped. Commercial organizations not primarily serving the visually impaired, but in related activities --- Books On Tape, for example --- might also be considered and solicited for their interest in operating a descriptive video loan service.

The use of public libraries for lending described videos should be explored thoroughly. Nine-hundred public libraries nationwide reach 70% of the population. More than two-thirds of the library systems in the U.S. already lend videos. Most circulate their videos free of charge. Some charge for entertainment videos, but not for educational videos. Fees tend to be nominal for libraries that charge --- as little as \$1 for a three-day loan. A 1990 national library video survey showed that 58% of public library video collections were circulating monthly (18:8).

Using public libraries as primary outlets for lending described videos would be consistent with their role in making other media available to visually impaired persons. Approximately 7,000 local libraries are now lending special materials for the blind and visually impaired. The National Library Service operates nationally through a network of four multistate centers, 56 regional libraries, and more than a hundred subregional libraries, all in public libraries (19:310). The distribution mechanism is already in place for using public libraries as the vehicle for a nationwide descriptive video loan service.

Finally, the possibility of offering described videos for rent through commercial video stores should be thoroughly explored. The need for a store to maintain dual video inventories, i.e., one described, one not described; the comparatively limited customer base, from a retail marketing perspective; narrow profit margins; etc. tend to discourage the viability of this

option. Yet, convincing a single major home video chain to put described video in its stores along with its other rentals could be a pivotal breakthrough. Blockbuster Entertainment Corp. would be that chain.

Blockbuster is the undisputed leader in video rentals, with about 2,800 stores worldwide, 1,500 stores nationally, and a 13% market share of all U.S. rentals. Blockbuster is seven times the size of its largest retail competitor, and bigger than its 300 largest competitors combined (20:31-6;21). If Blockbuster were to offer described videos, other stores might well follow.

Other options that could be explored include existing state and regional media distribution centers serving the visually impaired population, school and university-based centers, and commercial firms in the media dissemination business. None of these or other options identified need be exclusive.

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