FEDERAL JUDICIAL CENTER

GUIDELINES FOR PRE-RECORDING TESTIMONY ON VIDEOTAPE PRIOR TO TRIAL

Washington, D. C.

FJC Pub. No. 76-3 December 1976 Second Edition

GUIDELINES

FOR

PRE-RECORDING TESTIMONY

ON

VIDEOTAPE PRIOR TO TRIAL

SECOND EDITION

A Manual

Prepared By

The Federal Judicial Center
Washington, D. C.

FJC No. 76-3 December 1976

TABLE OF CONTENTS

Table of Contents (continued) Page

LIST OF FIGURES

FOREWORD
to
Second Edition

Following publication of the Guidelines in 1974 the demand for copies was such that it is now out of print. It became obvious that additional copies should be produced because of this demand. At the same time it also became obvious that a supplement to the Guidelines was in order in view of the demand for an audio back-up system to operate concurrently with the making of a recording on videotape. For these reasons, the Second Edition is identical in content to the 1974 edition except for the addition of PART 9: THE AUDIO BACK-UP SYSTEM, and revision of Appendices B, C, and D. No other changes in content have been made.

The audio back-up system has been designed by The Federal Judicial Center to assure the accuracy and trustworthiness of testimony pre-recorded on videotape. Federal Rule of Civil Procedure 30(b)(4) was amended in 1970 to provide that upon court order the testimony at a deposition may be recorded "by other than stenographic means." According to the Advisory Committee's Note the purpose of the change was to "facilitate less expensive procedures" for recording testimony. Balanced against this policy of economy, however, is the concern that a non-stenographic recording may give rise to problems of accuracy and trustworthiness. For this reason the rule requires the party taking the deposition to apply for a court order. The Committee noted that the order, if granted, is to specify "the manner of recording, preserving, and filing the deposition," and it may include "other provisions to assure that the recorded testimony will be accurate and trustworthy."

The purpose of Part 9 is to provide an audio back-up record for each videotape record. Some district courts in granting motions to record depositions on video or audio tape have ordered that duplicate original audio tapes or simultaneous stenographic recordings

made. See, e.g., Marlboro Products Corp. v. N. Am. Phillips Corp., 54 F.R.D. 487 (S.D.N.Y. 1972); Kallen v. Nexus Corp., 54 F.R.D. 610 (N.D. Ill. 1972); Carson v. Burlington Northern Inc., 52 F.R.D. 492 (D. Neb. 1971). With the back-up system described herein, it should be quite simple for each district court to include procedures of this type whenever testimony is pre-recorded.

FOREWORD
to
November 1974 Edition

The Federal Judicial Center has established videotape pilot projects in four U. S. District Courts. The projects are designed to stimulate the use of videotape, to evaluate its potential, and, through experience, to develop rules and procedures for the future use of the medium in the courts.

The Guidelines were first devised for the pilot district courts, and since then have gone through several revisions. The present edition focuses on "pre-recording testimony" rather than the narrower concept of "videotaping depositions" because most often videotapes are recorded solely with the intent of use later at trial, not for traditional deposition discovery. In some jurisdictions where testimony is taken specifically for use at trial, the proceeding is called an evidentiary deposition. In this situation, the procedures generally follow those of any deposition, although the rules of evidence apply. Similarly, if all testimony has been pre-recorded, the contingency aspect of depositions has been obviated, and the recorded testimony comprises the trial itself.

In order to keep costs to a minimum, each pilot court uses a single black and white camera system. Thus, the Guidelines cover only the single camera system. A number of alternatives to a monochromatic single camera are being considered, however, and may be covered in future amendments to these Guidelines. Chief among these are color equipment and multiple camera systems. Preliminary results of research projects at Michigan State University and Brigham Young University indicate that viewing testimony presented via monochromatic videotape may result in a lower degree of information retention than the same testimony presented via color videotape. If these preliminary results are confirmed by replications of the experiments noted, a conversion to color equipment may be required. Major advances in color technology have been made recently so that color equipment introduced in 1974 is much less costly than previous models (although still significantly more expensive than monochromatic equipment). Furthermore, the new color cameras will operate in environments with much less illumination than was formerly necessary. Thus, a "studio" environment with extra bright, hot lighting is no longer required.

Although it is possible with a multiple camera system (whether monochromatic or color) to switch the scene being recorded from one camera to another, its major advantage for pre-recording testimony seems to lie in the reduced operator intervention required. In a setting where the witness is on one side of a table with one camera on him or her and the attorneys on the other side with one camera on them, it is possible - through the use of a special effects generator - to create a "split screen" effect with the witness appearing continuously in the top one-half of the screen and the attorneys in the bottom half. Although no camera movement is required, this technique may not be an appropriate and effective use of the medium. Video is a close-up medium and our typical experience with it involves frequent changes in the "picture" presented to us. The set-up described could lead to excessive boredom and it is arguable that a single camera used according to the procedures described in these Guidelines is more effective and equivalent in objectivity. We use the word "arguable" since although there are photographic and media "principles" available, there is little, if any, research data on the possible differential effects of alternative approaches to control of picture composition. This is an area to which researchers should give priority during the immediate future.

The emphasis herein is on careful, step-by-step, skilled planning and execution of all the procedures involved in preparing for a recording, recording testimony, preparing for playback, and operating the equipment for playback to a jury. In short, we firmly believe that any technological system is only as good as the skill and care of the person who operates it.

PART 1: RECORDING AND PLAYBACK FACILITIES: PHYSICAL REQUIREMENTS

1.1 The Recording Facility.

The following specifications should be considered in planning and setting up an area for videotaping depositions and other testimony.

Location and Dimensions. The room or area to be used for recording testimony must be large enough to accommodate several people, the video equipment, and any exhibits without clutter.

It should have an area of at least 15' x 20'. Storage space for equipment will require an area of about 4' x 10'.

Ceiling height should be between 8' and 12'. If it exceeds 12', it may be necessary to construct a false ceiling with acoustical tile.

Walls should be painted. Use a flat paint in a medium blue or green.

Furnishings. A normal size conference table (3' x 6'), comfortable straight chairs to accommodate all participants (at least 3), an adjustable easel/flipchart/blackboard, a wooden pointer, 2 light boxes, and wall-clock are suggested.

Evidence Area. The recording facility should have a designated area for the display of evidence such as charts, photographs, X-rays, and models. In many cases, objects can be presented by the witness on the table space in front of him or her. However, when charts or graphs are to be used an easel should be provided. A portable light box should be used to display any X-rays.

Layout of a Basic Recording System. The video camera, video tape recorder (VTR), small monitor, and mixer should be situated within reach of the video operator so that the equipment can easily be operated and monitored. The camera should face the witness seated at the head of the conference table. FIGURE A, page 3 , shows a typical layout for a recording system.

Sound. The video room should be located in a quiet area of the courthouse. If the room faces on a main street or busy corridor, is adjacent to an office with a great deal of movement (doors, furniture, etc.), or has a wall with noisy pipes,

the outside sounds likely will cause noticeable audio interference. However, carpeting and draperies will help to minimize the sound problems. FIGURE B, page 3, shows an area with walls (and windows) which have been draped.

Lighting. Although videotaping does not require overly bright and obstrusive studio or stage lighting, it is essential that the recording area be properly lit to obtain a picture with adequate brightness and contrast. The quality of the lighting depends on both the types of lights you will install and how you position them.

A room with windows is preferable for videotaping because sunlight helps to secure a natural lighting effect.

Normally, adequate lighting will be provided by sunlight (if available) and the everyday fluorescent fixtures. When using fluorescent lights, 6 to 12 units should be sufficient to produce a satisfactory picture.

However, if the fluorescent lights are inadequate you may wish to supplement them with specially mounted floodlights. Care must be taken when supplementing the lighting system to be sure that the floodlights are not obstrusive or incorrectly positioned. While floodlights might be hung from existing light fixtures or placed on floor stands, so placed, they tend to clutter the environment. Instead, the best means is to mount the floodlights permanently in the ceiling. If you intend to supplement the lighting system, four floodlights (150-250) watts) are suggested. This will make the room brighter, but will not give it a "studio" atmosphere. The proper way to position floodlights is discussed in Operating Techniques for Recording, *infra* at §3.1.

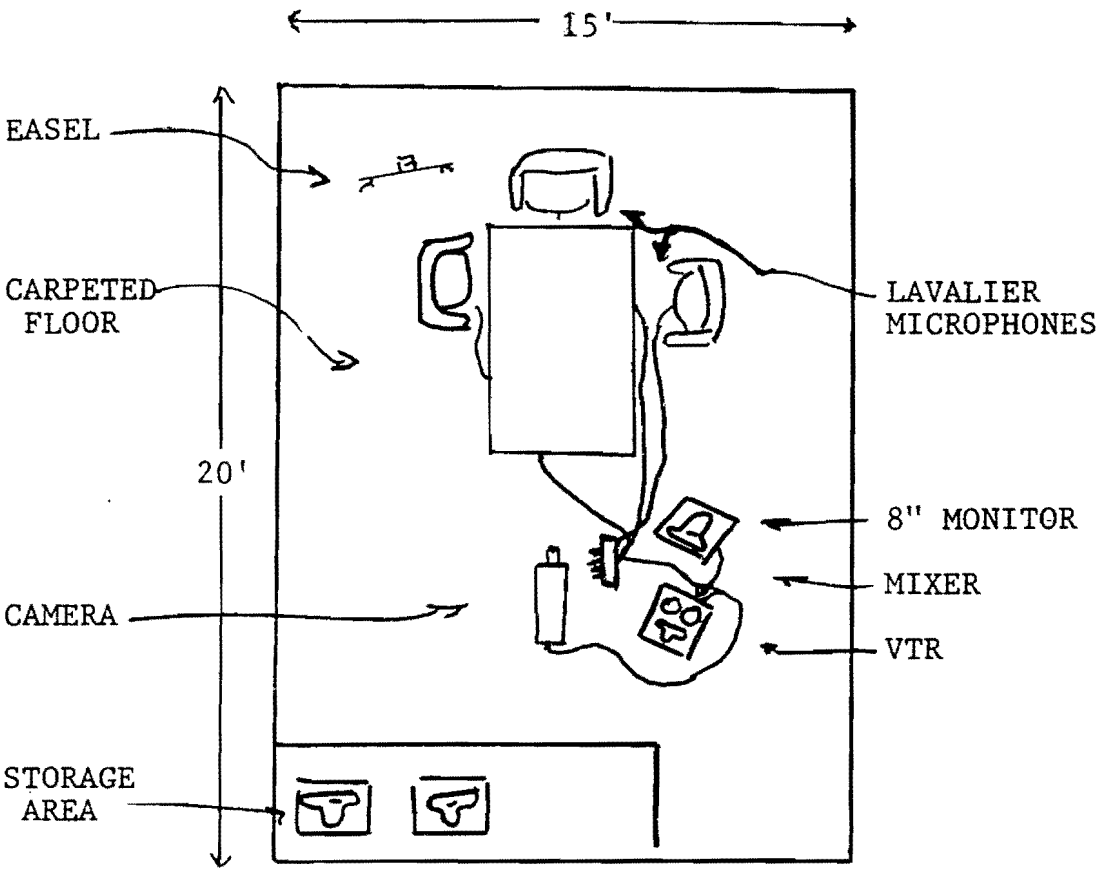


FIGURE A. GENERAL LAYOUT FOR RECORDING FACILITY

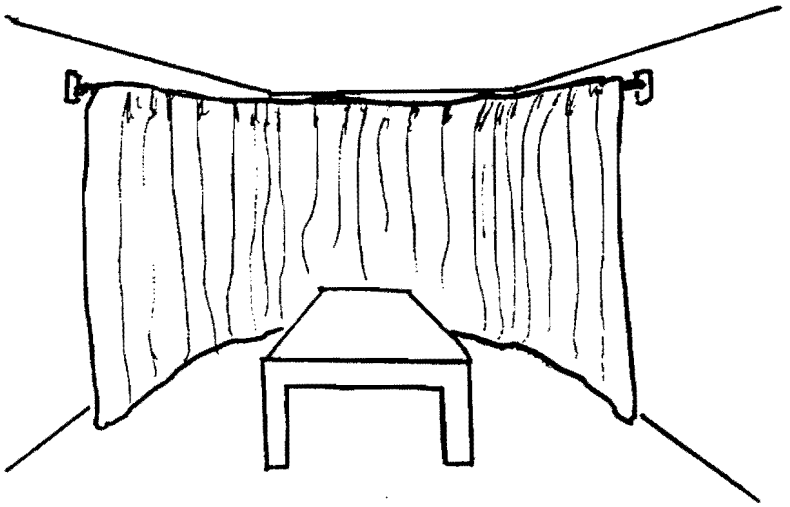


FIGURE B. DRAPING WALLS AND WINDOWS OF RECORDING FACILITY

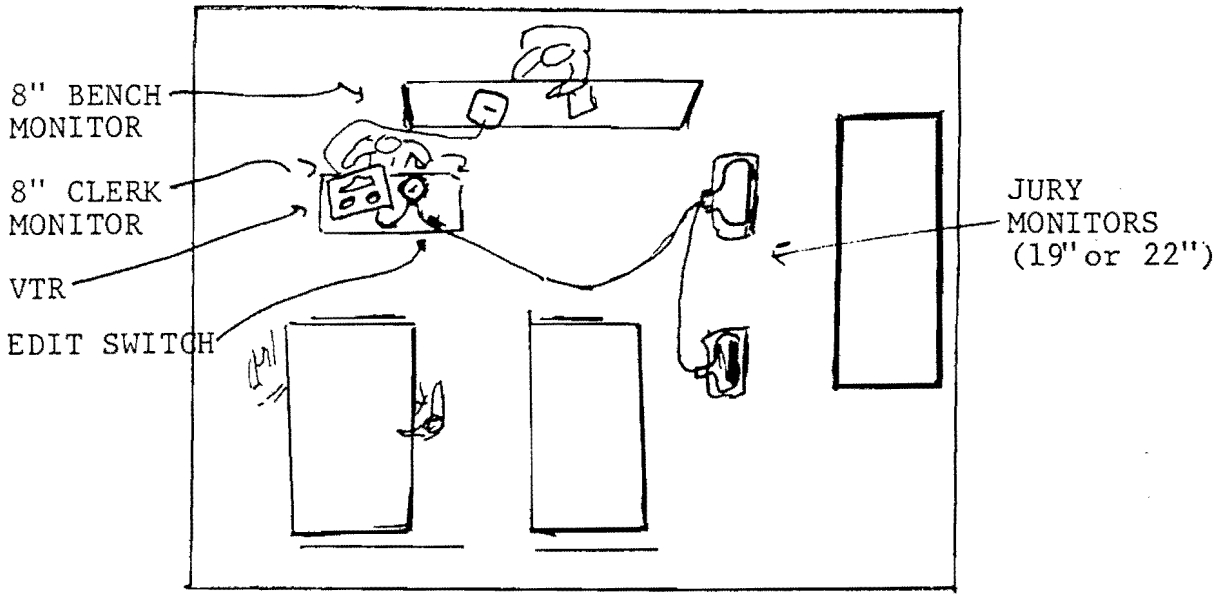
1.2 Courtroom Arrangement for Playback

FIGURE C, page 5 , shows video equipment arranged in two ways for playback in a courtroom.

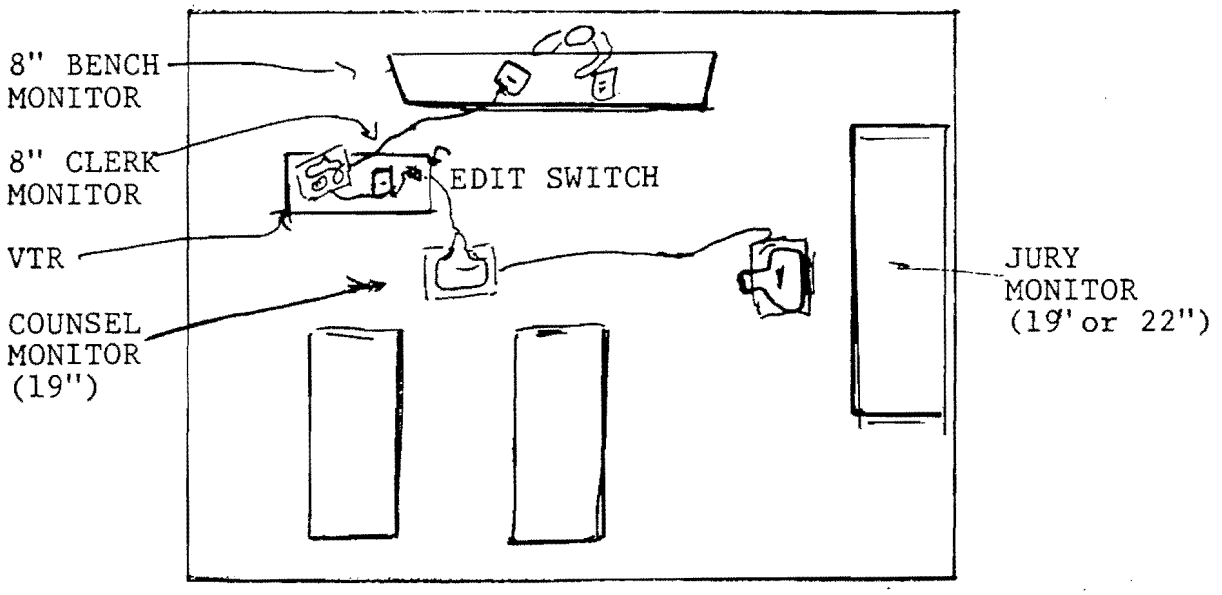
Layout. The operator should be able to supervise the operation of the VTR either from his or her desk or from a location close by. The sound and picture are fed through cables from the VTR to four monitors: a small (8") monitor on the judge's bench, a small (8") monitor on the clerk's desk, and two large (19" or 22") monitors for the jury and attorneys.

Wiring. At this time we do not recommend the installation of special permanent wiring or electrical outlets in existing courtrooms. This is a pilot project and we are not certain about their optimal placement.

Public Address System. The sound portion may be fed into the courtroom P.A. system if it is so equipped. This may require relocation of the P.A. amplifier unit to allow the operator to regulate the sound level and tone when the videotape is played back. Use of a public address system is described in Videotape Playback in the Courtroom, *infra* at §7.4.



COURTROOM ARRANGED WITH TWO MONITORS FOR JURY.



COURTROOM ARRANGED WITH ONE MONITOR FOR JURY.

FIGURE C. ARRANGEMENT OF COURTROOM FOR PLAYBACK

PART 2: BACK-UP SYSTEMS AND DUPLICATION OF VIDEOTAPES

2.1 Back-up Recording Systems

The procedures for recording testimony set forth in this manual establish high standards to insure the production of a reliable videotape of professional quality. Additional measures may be taken, however, to safeguard the testimony being recorded against the possibility of mechanical malfunction or tampering. When testimony is to be recorded "by other than stenographic means" pursuant to rule 30(b)(4) of the *Federal Rules of Civil Procedure*, the court may make provisions to ensure the accuracy and trustworthiness of the recording.

In construing this rule for depositions recorded by *audio tape* some courts have ordered duplicate originals or monitoring devices as safeguards of reliability. Some courts have ruled that at least two original audio tape recordings be made from a single signal, transmitted through a single set of microphones, leading into all of the audio tape recorders simultaneously. *See,e.g.*, Kallen v. Nexus Corp., 54 F.R.D. 610, 614 (N.D. Ill. 1972) (one duplicate original for each party, plus one to be filed with the court); Wescott v. Neeman, 55 F.R.D. 257, 258 (D. Neb. 1972) (one original to be filed with the court; the second to be in the possession of the independent operator to be used to make duplicates for the parties); Buck v. Bd. of Education of the City of New York, 16 Fed. R. Serv.2d 112, 113 (E.D.N.Y. 1972) (original to be given to the deposing party; duplicate original to be filed with the court). These courts appear to emphasize the insurance of the trustworthiness of the audio recordings.

Another court, in contrast, has stressed its concern with insuring the accurate mechanical functioning of the audio equipment, rather than the ability to produce duplicate originals. This court has suggested either a monitoring device or a back-up system which operates simultaneously to prevent loss of testimony. *See* Marlboro Products Corp. v. N. Am. Philips Corp., 55 F.R.D. 487, 490 (S.D.N.Y. 1972).

The considerations affecting the reliability of videotape recordings are somewhat different from those affecting audio tape due to the nature of the equipment. Unlike audio recordings, the video operator cannot monitor the signal being recorded on the videotape. The picture on the receiver/monitor shows only the source signal being received by the electronics of the VTR, not what is being recorded on the tape. Thus, the video operator is not able to monitor whether any or all of the testimony being taken has been lost due to malfunction of the videotape recorder when the basic recording system is use

Although such malfunction without the operator's knowledge will occur very rarely, if ever, this problem can be handled by adding audio and/or video back-up systems to the basic recording system.

An audio backup recording system has several advantages. Even if something malfunctions within the video system, the audio component of the testimony has been preserved. The operator can also monitor the recording of the testimony on the audio tape. On the other hand, the visual component of the testimony has been lost, especially relevant if the witness has used illustrative evidence.

The alternate video back-up systems incorporate a second videotape recorder which produces a duplicate original, safeguarding both the visual and aural components of the testimony. Two recordings can be produced simultaneously from the same signal, assuring the trustworthiness of the recording. Although it is impossible to monitor the recording on the second videotape, it is highly unlikely that both the master and the back-up systems will fail.

If the decision has been made to incorporate either an audio or video back-up system the following factors may help in determining which system to choose. An audio system is much less expensive (for both audio recorders and audio tape) and easier to operate than its video counterpart. However, audio tape is easier to alter, and the visual component of the testimony is lost if the video system fails. Thus if cost and operator convenience are not primary considerations the video back-up system is preferable. Procedures for setting up both audio and video back-up recording systems are detailed in this section. Of course both audio and video back-up systems can be used if desired, especially if counsel want copies of the audio portion.

2.2 Audio Back-up System.

To safeguard against partial or total loss of testimony due to mechanical malfunction, a simultaneous audiotape recording will preserve the audio portion of the testimony.

Audio Tape System Design. Any audio tape recorder should have the following features:

1. Three head format for monitoring both tape and source signals;

2. AC power supply (that is, not solely battery powered) to insure a constant power source;

3. 7" tape reel for long playing time.

Reel to reel recorders are recommended over cartridge or cassette models for the following reasons:

1. Tape feed for reel to reel recorders can be monitored whereas cartridges or cassettes can break or jam without the operator's knowledge.

2. Reel to reel heads are larger and easier to reach for either cleaning or adjusting the heads.

3. Reel to reel parts are still more easily obtainable for repair needs.

4. Reel to reel recorders are larger than cassette or cartridge types, but are still portable.

5. Reel to reel recorders have longer playing times and fewer delays for changing tape reels due to 7" tape reel acceptability.

Cassette recorders on the other hand are less expensive and offer a simple and fast way of threading the machine.

When using any audio recorder the operator should wear earphones for monitoring the audio signal. The operator is than able to switch from the source (original) signal to the tape (recorded) signal quickly and easily for monitoring.

Hooking up an audio recorder. Take the audio cable from the mixer's auxiliary or line output and attach it to the auxiliary or line input of the audio tape recorder. See FIGURE D below.

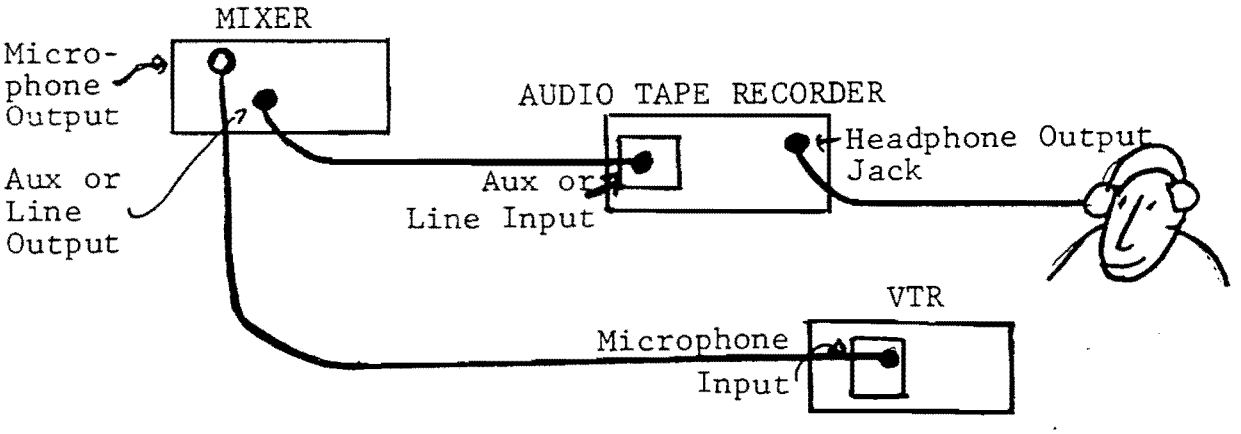


FIGURE D. AUDIO BACK-UP SYSTEM

2.3 Video Back-up Systems

Simultaneous videotape recordings may be obtained by using two VTR's which record the signal from a common camera source. It is important that both VTR's receive the video and audio signals at their original strength. Otherwise, the signal will be split between the two recorders, resulting in signal loss and thus poor picture and sound quality. It is fairly simple to obtain a second original strength audio signal, and there are several different ways to obtain the video signal.

Providing Audio. The audio signal must run from the mixer directly to each VTR. The mixer must have two balanced outputs -- a line output as well as a microphone output.

Run the mixer's line output into the line input of the first VTR, and then the mixer's microphone output into the other VTR's microphone input. See FIGURE E below.

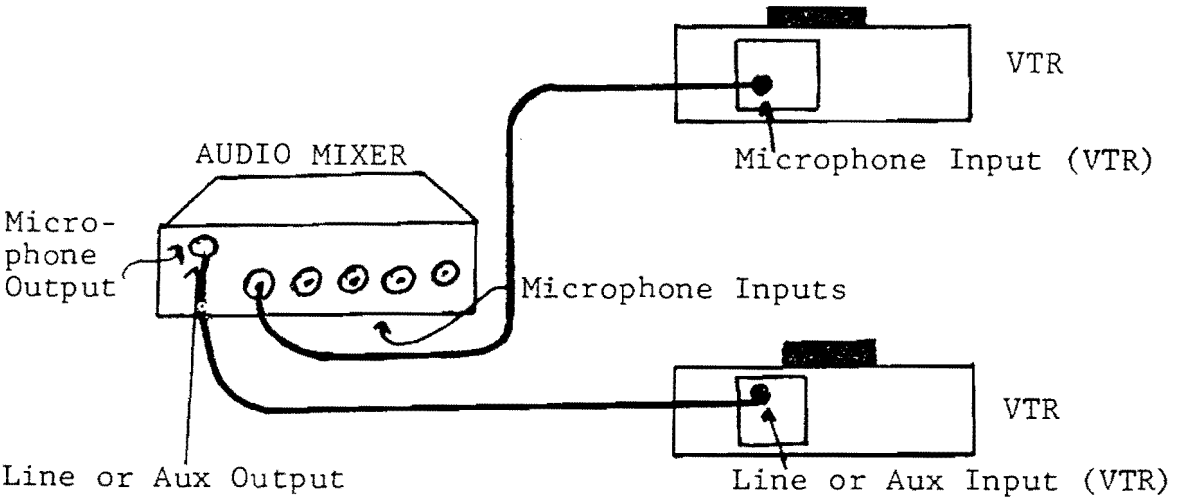


FIGURE E. AUDIO COMPONENT OF VIDEO BACK-UP SYSTEMS

Providing Video. Three methods of incorporating a second video tape recorder to produce a second original video signal will be described. Warning: one other seemingly simple method

should not be used, namely, a "T-connector" or balanced splitter. This "splitter" takes the full strength video signal from the camera but then sends only half the strength of the original signal to each VTR resulting in loss of picture definition.

The following alternatives avoid loss of signal strength and may be used to produce a second original videotape recording of the testimony.

1. Distribution Amplifier. This preferred method of making a second videotape requires the addition of two components to the recording system, a second video tape recorder and a distribution amplifier. The multi-output distribution amplifier takes the signal from the camera; splits it; and then amplifies it back to the original one-volt strength, sending full strength signals to each VTR. (The cost of one distribution amplifier model, Dynair 230A, is approximately $255.00). See FIGURE F below for hooking up a distribution amplifier into the recording system.

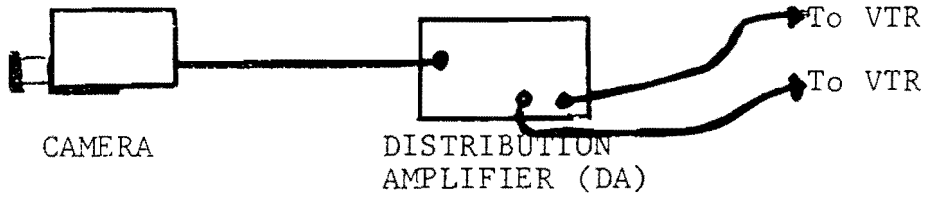


FIGURE F. VIDEO BACK-UP SYSTEM NUMBER 1— USING A DISTRIBUTION AMPLIFIER

2. Monitor with Looping Output. Two full strength video output signals may also be obtained by feeding the camera signal into a monitor with looping video (such as the Sony CVM-920U, 8" monitor). Feed the camera signal into the monitor by means of a UHF coaxial cable with an 8-pin connector. The video signal from each of the twin looping video output jacks is a full strength signal and may be fed directly into each VTR. See FIGURE G, page 11, for hooking up a video back-up system by means of a monitor with looping output.

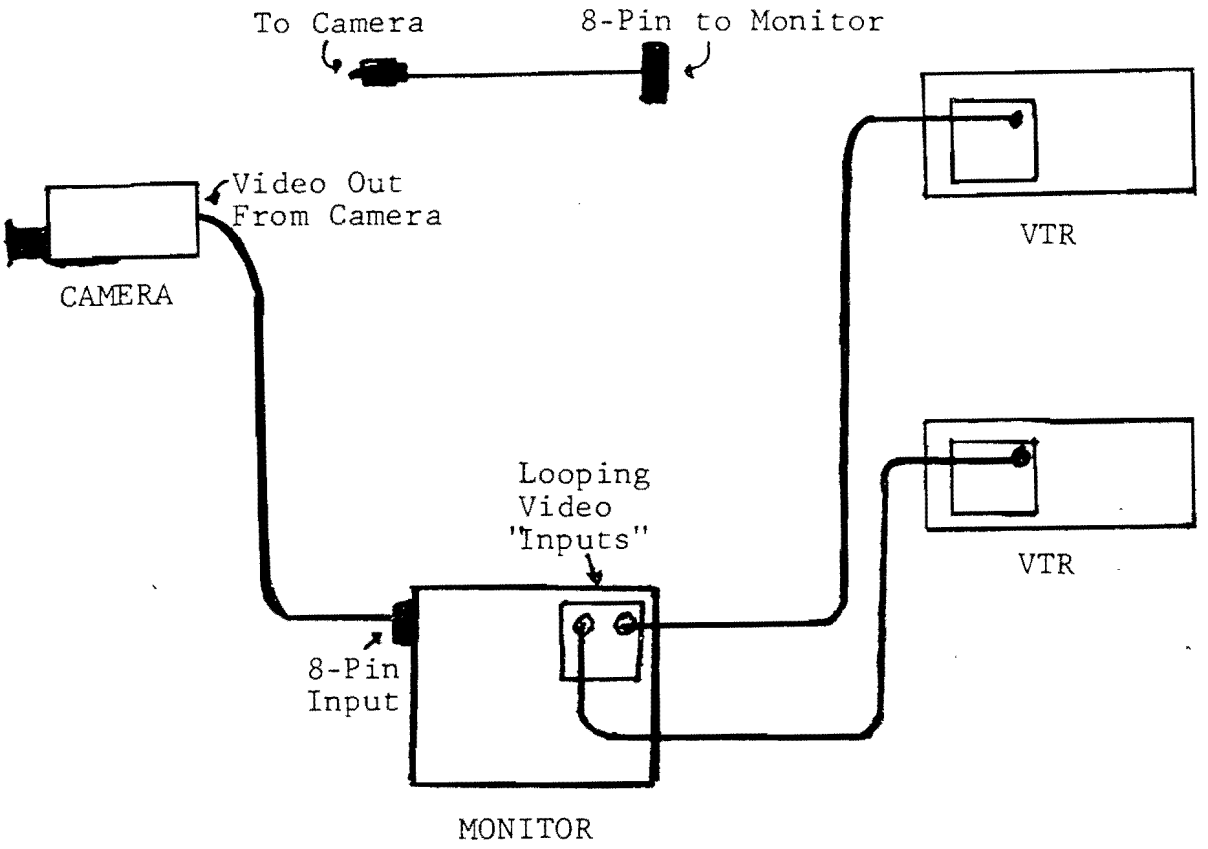


FIGURE G. VIDEO BACK-UP SYSTEM NUMBER 2— USING MONITOR WITH LOOPING OUTPUT

3. Looping Video. The least expensive way to produce the second original recording involves looping the video signal from the camera through the first VTR and into the second VTR. The looping video signal goes only through the electronics of the first VTR, so that if it had fouled or damaged recording heads, or the tape was dirty or damaged, the second VTR would still produce a good recording. The major disadvantage of looping the video signal is the possibility that the electronics of the first VTR will malfunction. In this case, the problem will also appear in the second VTR. Such malfunction can, however, be detected by an alert trained VTR operator. See FIGURE H, page 12, for hooking up a video back-up system with looping video.

2.4 Duplication of Videotape Recordings

If a videotape has been recorded under proper lighting and sound conditions, then this first generation or master tape can be used to make a good copy or duplicate recording.

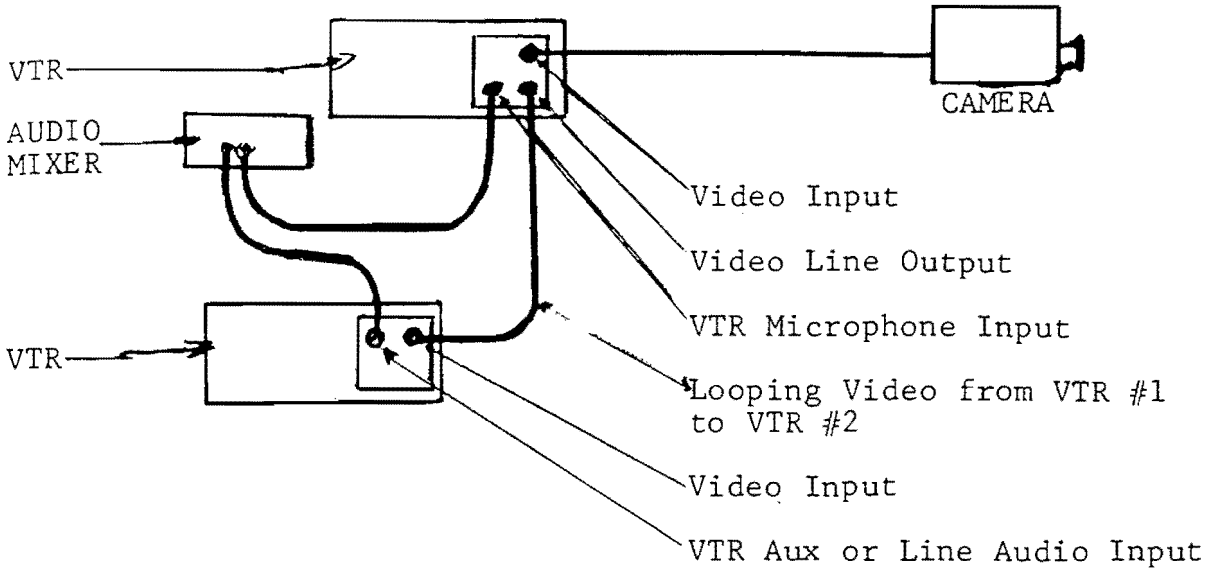


FIGURE H. VIDEO BACK-UP SYSTEM NUMBER 3— USING LOOPING VIDEO

If your video system has a second VTR then you can duplicate videotapes yourself. Otherwise, commercial video companies will be able to make copies for you.

Duplication System Design. A copy of a videotape may be made simultaneously while recording or after the original testimony has been taped. Hook up the duplicating apparatus as illustrated in the following diagram. The camera is included in the system only when making a simultaneous copy; not for simple duplication. Both video and audio are looped from the first VTR to the second so that the second tape is not a duplicate original. See FIGURE I below.

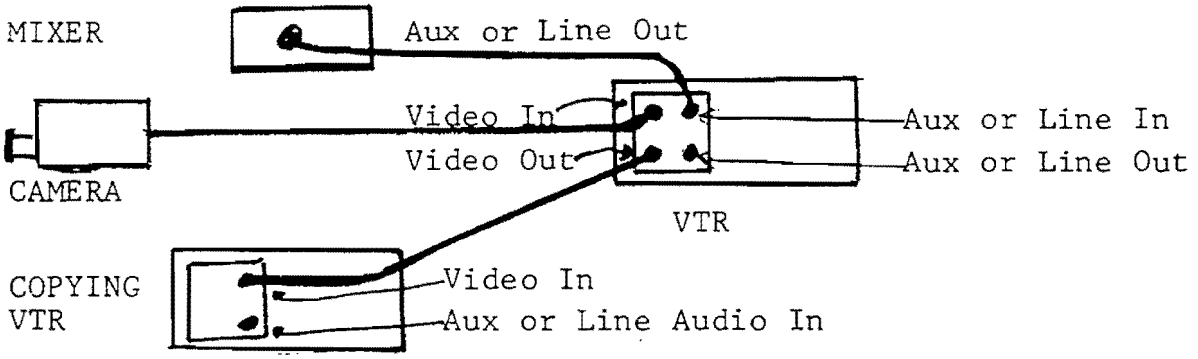


FIGURE I. DUPLICATION OF VIDEOTAPES

Duplication by Commercial Firms. A duplication center can make video copies provided the company knows the type of synchronization signal incorporated by your video system. (The synchronization signal controls the speed at which the video signal is rescanned by the video heads and onto the monitor. Two types of sync signals are used in video systems: random interlace, which is generated in the camera itself, and two-to-one (2:1) perfect interlace, usually found in a separate electronic component, the sync generator). The cameras located in the four pilot courts (as of November 1974) are not equipped with 2:1 sync, but do have the internal random sync. It is important for a commercial duplication center to know that the tape incorporates random sync so that the copy will be made by a system which bypasses certain processing equipment. Processing removes the original sync signal and replaces it with new, very stable synchronization, but cannot be used on a videotape with random interlace sync.

PART 3: OPERATING TECHNIQUES FOR RECORDING

The video operator must be able competently to set up, operate, and monitor the lighting, sound, and camera components of the videotape system. The operator is directly responsible to assure the professional quality of the video and audio components of the recorded testimony.

3.1 Lighting.

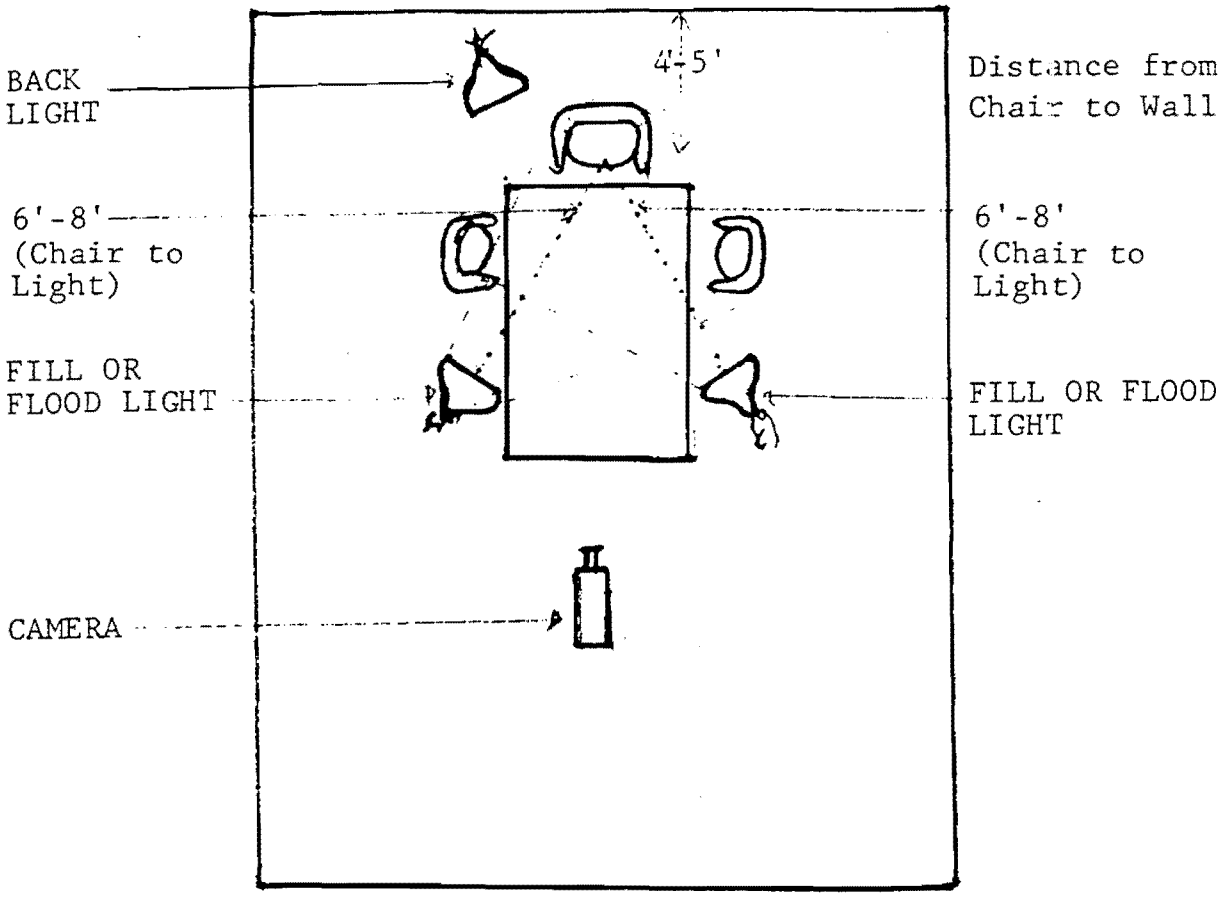
The normal lighting provided by sunlight and fluorescent fixtures must be used to produce an adequate picture. The direction of the light is important. Never set up the camera to shoot into light coming through an open window. The automatic light control with overcompensate, graying out the picture. Instead outside light should come from behind the camera. If you have to shoot with a strong outside light on one side of the picture, balance this by using several floodlights on the weak side.

Most rooms will have fluorescent fixtures for everyday lighting. These should be used to give the best light level available by means of normal lighting. The conference table should by symmetrically aligned under the fluorescent lights for an evenly lit picture, and so that each participant is viewed at the same light level.

Supplementing the Lighting System. If you find that the general lighting is not adequate and choose to add floodlights, they must be placed in the correct positions and angles. The suggested positions are shown in FIGURE J, page 15. Remember that the floodlights should be mounted in the ceiling.

Have all lights on when the witness and attorneys enter the recording room so that they will become accustomed to the extra illumination. If you place a backlight behind the witness, make sure it does not shine into the camera. If it does you may have to shield the light or the lens. FIGURE K, page 16 , shows such a light shield.

Lighting Exhibits. A separate light is recommended for lighting exhibits or other objects. See FIGURE L, page 16, for the correct angle of lights when displaying graphics, charts, or photographs on an easel.



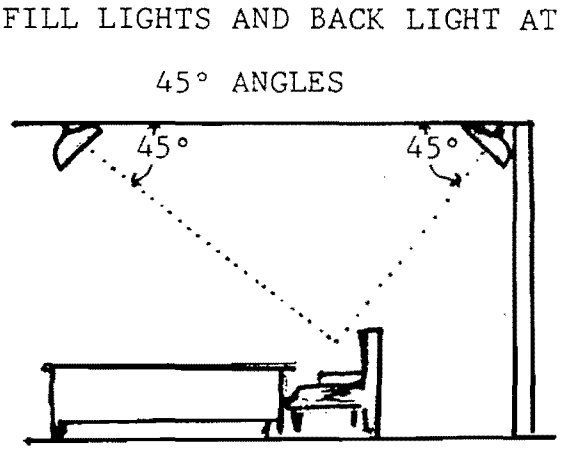


FIGURE J. SUGGESTED LIGHTING PLACEMENT

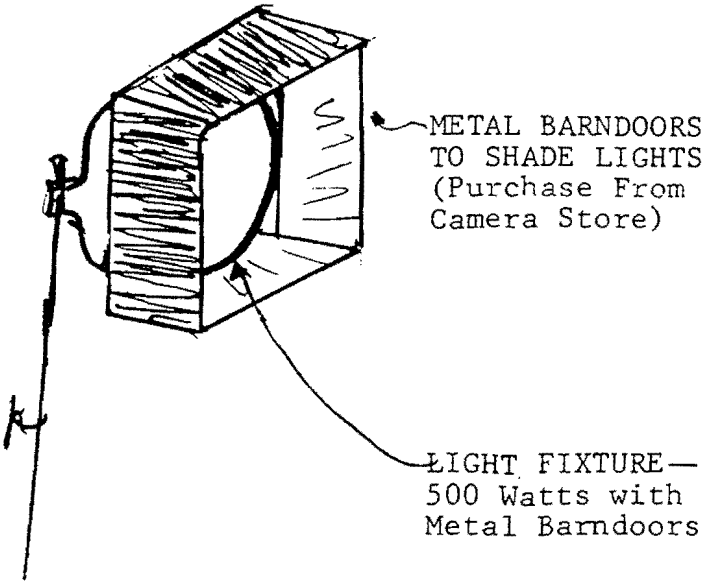


FIGURE K. SHIELD FOR BACK LIGHT

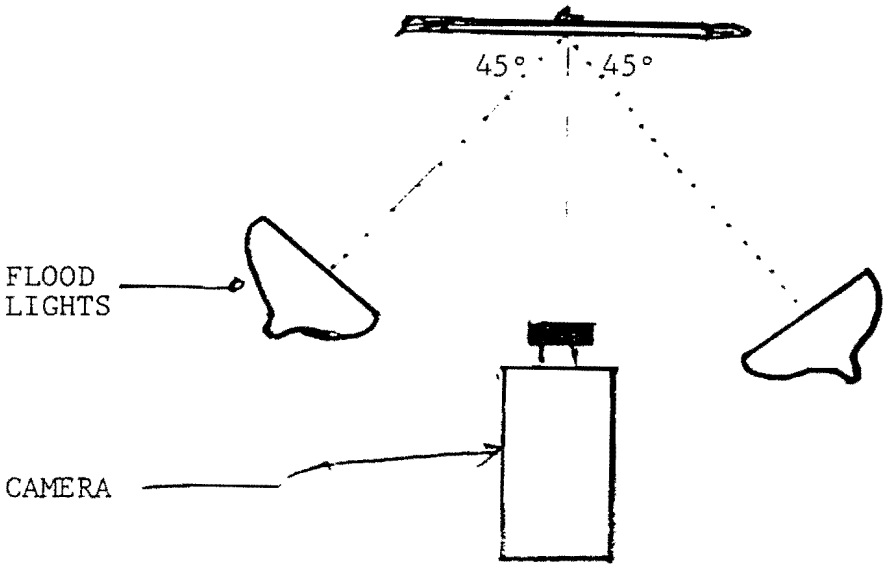


FIGURE L. LIGHTING GRAPHICS DISPLAYED ON AN EASEL

3.2 Sound.

In order to obtain good sound quality you must consider several aspects of sound coverage: proper use of microphones, audio levels, monitoring the sound, and troubleshooting the audio system.

The Lavalier Microphone. We recommend the lavalier microphone for recording testimony since this is by far the best type of microphone in the interview situation. Precautions. In placing the microphone on a participant, make sure it is not placed under a tie or on a piece of clothing that will cause it to rub against another piece of clothing. Arrange the cable so that the participant will not step on it. It should not, however, impede the wearer's movements. In case any participant will have to stand and walk around while taping is in process, check beforehand to make sure there is enough cable to permit freedom of movement. Caution the participants that handling the microphone cable, rustling papers, or drumming on the table will create distracting noises on the audio portion of the tape.

Covering two people with one microphone. If the number of participants is the same as the number of microphones, each speaker can have an individual lavalier microphone. But if there are more participants than there are microphones, one microphone, placed in a deskstand, can be used to cover more than one speaker. For example, if the system has three microphones (one for the witness, and two for counsel) and one party has two attorneys present you will have to use one microphone to cover this party's two attorneys. It is most important that the witness' voice be clear and audible, so use one lavalier microphone for the witness as usual. Then use the second microphone for the single attorney, and, using a deskstand for the remaining lavalier microphone, place it between the other side's two attorneys. The stand should be within three to four feet of each attorney. The key to good sound coverage is forethought in the placement of the microphones.

Audio levels. There are two ways to adjust audio levels: manual and automatic audio gain controls. Each has advantages and disadvantages to its use. Automatic audio gain control will pick up more of the room sound, such as the buzz from fluorescent lights, rumble from the air conditioner, street noise, and corridor noise. On the other hand, if you use manual audio gain control you must constantly monitor the audio gain to make sure that the initial level settings are correct. The more you have to concentrate on audio, the less

attention you can pay to operating the camera. Hence you must balance whether to use automatic or manual audio gain control. If you are a beginner in using the equipment you should definitely use the automatic audio gain control. Once you have gained confidence in operating the equipment, you should employ manual audio gain control to raise sound quality.

Monitor the Audio. During recording, any buzz or hum resulting from a loose cable, a broken connector, or a microphone rubbing against clothing will adversely affect the sound track. If you are using an audio back-up system, these possible problems will be detected since you can monitor both the source signals and the tape signal by using an earphone.

If you are not using an audio back-up system, you must be sure to monitor the sound during recordings with the small earpiece which comes with the 8" monitor. If for some reason you must use a monitor speaker instead of an earpiece for monitoring the audio, turn down the speaker volume control on the monitor to the lowest still audible level possible during recording. Leaving the volume up will result in audio feedback. Equipment necessary. You may need an extension cable for the earpiece. If so, the necessary type is a female mini-jack to male mini-plug cable (6' to 8').

Trouble-shooting the audio system. If you detect audio problems during the recording session, stop the session, announce a five to ten minute recess, and attempt to correct the problem. Procedures. In trouble-shooting audio problems (assuming a single VTR is being used) start from the VTR and work out to the monitor, mixer, and microphones:

1. Place the VTR in RECORD.

2. Turn the audio control on the monitor up at least halfway.

3. Make sure that the speaker in the monitor is pointed away from the microphones.

4. Check the connection between the monitor and the VTR by wiggling the connectors to make sure that they are firmly in place.

5. Check the connection between the mixer and VTR. Again, wiggle the connections to make sure that they are firmly in place.

6. Check to make sure that all audio gain levels are turned up on the mixer. Make sure that the mixer is in the correct acceptance mode, and that it is properly connected to the VTR.

7. Check one microphone at a time. Turn down the other audio gain controls on the mixer, and check all connection points on each microphone and microphone cable. If one microphone works and another does not, exchange the non-working microphone with the working one to help isolate the problem. The problem is very likely a defective cable, connector or microphone.

3.3 Camera Position and Focus.

When selecting a camera position make sure you are close enough to the participants to take advantage of the full range of the zoom lens. A range between 5 and 75 feet would allow you to set up "follow-through focus" on an object situated at a distance greater than 5 feet and less than 75 feet from the camera but not on an object closer than 5 feet. The camera lens should thus be at least the minimum range distance (5 feet in this example) from the nearest subject or exhibit. You may be able to focus on items which are closer but you will not be able to zoom in and out on those objects. Check your zoom lens to determine its range. Below, FIGURE M shows the location of range and focal length settings on a zoom lens barrel.

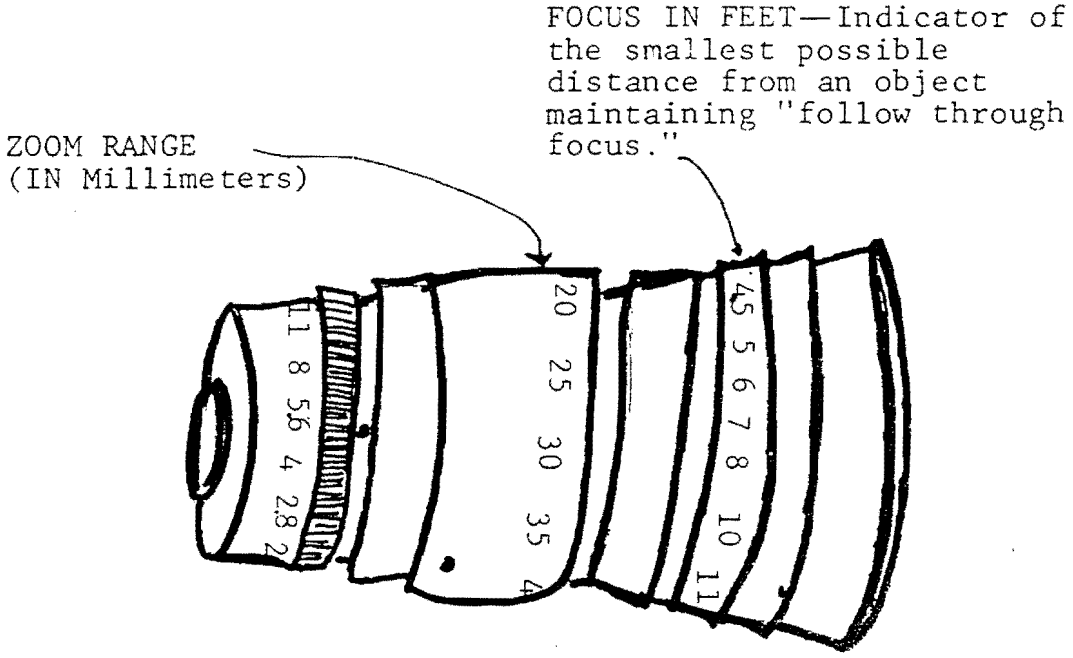


FIGURE M. ZOOM LENS—RANGE AND FOCAL LENGTH

Follow-through Focus. By setting up "follow-through focus," the operator can zoom in and out on a particular subject throughout the entire range of the zoom lens and that subject will remain in focus. This does not mean that close-ups of objects other than the subject originally focused upon will be in focus when zoomed in on.

The method of obtaining "follow-through focus" depends on whether or not your camera is equipped with an external vidicon control.

1. Follow-through focus with an external vidicon control:

STEP 1 ZOOM IN on the subject and adjust the barrel focus to as clear a picture as possible.

STEP 2 ZOOM OUT and adjust the vidicon control for best focus.

STEP 3 ZOOM IN again and touch up the focus using lens barrel focus only. You should have follow-through focus.

2. Follow-through focus without an external vidicon control:

STEP 1 ZOOM IN as close as you can on the subject.

STEP 2 FOCUS your picture using the manual focus ring on the lens barrel.

STEP 3 ZOOM OUT. You should have follow-through focus.

Vidicon close-up focus. A tight, close shot is usually necessary for focusing on objects. A close-up using the follow-through focus technique usually will provide sufficient detail. However, if an object or diagram is too small to use "follow-through focus," control over the vidicon would enable you to accomplish the very close or "micro-focus" necessary. Cameras with fixed position vidicon tubes cannot focus on items less than several feet from the face of the lens. Vidicon focus allows you to change the optical relationship between the lens and the vidicon tube, and to focus sharply on objects only inches from the lens face. Procedure. It will be necessary to stop taping and reset the camera before proceeding in order to obtain vidicon close-up focus. Move the camera closer. Maintain a clear focus by adjusting the vidicon focus knob. When using a zoom lens, the zoom lever should be about midway between the extreme positions of the lens. Tape the exhibit; then stop, reset the camera for normal focus range, and resume the taping session.

PART 4: CAMERA OPERATION AND PICTURE COMPOSITION

The operation of the camera is the most complex and controversial aspect of recording. Lighting and sound affect the quality of the videotape, but the manner in which the camera is operated influences the content of the tape. You, as the camera operator, have complete control over what the judge and the jury will see when the videotape is played back.

The *Federal Rules of Civil Procedure* provide that the court may make provisions to ensure the integrity of a non-stenographically recorded deposition. Fed. R. Civ. P. 30(b)(4). In *Carson v. Burlington Northern, Inc.* the court placed responsibility on the camera operator to record the proceedings accurately and in a trustworthy manner. 52 F.R.D. 492, 493 (D. Neb. 1971).

The objective of videotaping testimony is to simulate the personal appearance of the witness. His demeanor affects his credibility. It is thus important that the trier of fact be able accurately to observe the demeanor of the witness on the videotape. The camera operator must take care that the witness' appearance is not distorted by impermissibly suggestive camera techniques. A tight close-up shot can over-emphasize physical characteristics and mannerisms. On the other hand, a far-out full shot can hide normally observable traits.

There are a number of camera techniques which will help to make the videotape an objective and factual, but nonetheless interesting, document.

In an effort to standardize acceptable, effective camera techniques this section sets forth guidelines for you as camera operator in videotaping depositions and other testimony.

4.1 Types of Camera Shots.

The three basic types of camera shots are designated full, medium, and close-up. These are shown in FIGURE N, page 22. Before taping a deposition or other testimony, demonstrate each type of shot for the witness and attorneys.

1. Full or Establishing Shot. The full or establishing shot is a wide angle view. It establishes the setting by showing all participants at the beginning of the proceeding, and can identify several speakers by including all of them in one picture. A view of the witness illustrating a model or chart will also call for a full shot.

1. FULL OR ESTABLISHING SHOT—

2. MEDIUM SHOT—

3. CLOSE-UP SHOT—

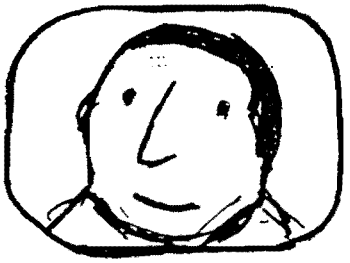


FIGURE N. TYPES OF CAMERA SHOTS

2. Medium Shot. A picture which includes only the head and shoulders of the subject is a medium shot. This shot results in a good individual view of the witness. You will probably use the medium shot most of the time you are taping an individual's verbal testimony.

3. Close-up. The close-up is a tight shot which focuses on a limited area of the subject's body, such as the face or hands, or on an object. Of the three shots, it is the hardest to execute and will require more practice than the full or medium shots. There are two uses for close-ups -- camera coverage of verbal testimony and focusing on small exhibits. When focusing on a witness to cover his verbal testimony, the operator should always maintain the witness' face in the picture, and should never go in closer than the entire face. See FIGURE N, page 22. Using this standard, any physical characteristics or mannerisms of the witness will not be over-emphasized. When the picture is in this tight, the operator should be extremely attentive since a slight side-to-side movement of the witness will most likely take him out of the picture completely, and any sudden movement of the camera will create a very noticeable distraction to the viewer.

On the other hand, when focusing on a small exhibit, you should be prepared to zoom in as close as is necessary clearly to portray the object.

4. Special Restrictions. Before recording, demonstrate each type of camera shot, and let the attorneys tell you if a close-up of the witness during verbal testimony would be objectionable. If the attorney or witness is determined that there be no camera movement whatsoever, and that the camera be focused solely on the witness or fixed on all the participants, then the request should be respected. However, you may be able to allay any fears by describing the standards you will follow if no extra restrictions are imposed.

4.2 Camera Angle

Set up the camera in a position which gives a good angle for a clear view of each participant. See FIGURE 0, below, to illustrate the model camera position. It may be necessary to stop the recorder to change camera positions during recording (for example, if the table must be moved or a chart brought around in front of the table). If you do intend to stop the recorder first be sure to announce you are going off the record. Then stop the VTR and change positions. After positions have been changed, start the VTR with a full shot so that viewers will be aware of the new positions of counsel and witness. Always try to have the participants in the same spatial relationship they held in the opening shot.

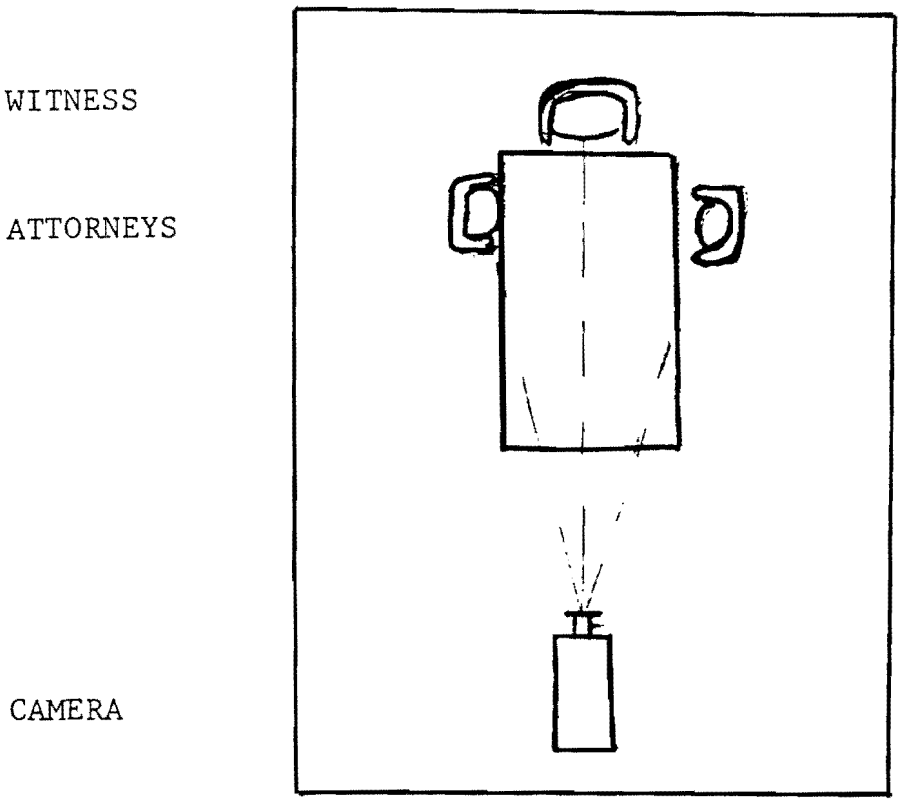


FIGURE 0. CAMERA POSITION

4.3 Camera Movements.

Camera movements control what the viewer sees on the monitor, and hence can also increase or decrease the viewer's concentration on the tape.

Television is a close-up medium. Zooming out from a subject causes rapid loss in picture definition. The less definition in the picture, the shorter time the viewer will watch it. Leaving the camera in a fixed position for more than four or five minutes will also decrease the viewer's attention. Hence some camera movement is essential to produce an effective videotape.

Keep in mind that many apparently easy camera movements require practice and do not just naturally occur. All camera movements should be done for a reason, whether to pick up a question or simply to break up the monotony. Most camera movements should be generated by manipulation of the camera head through zooming, panning (horizontal movement), and tilting (vertical movement). Avoid the temptation to "over-zoom." A fourth type of camera movement, trucking, is movement of the entire camera and tripod. Trucking may be needed to follow a witness who stands up and moves to an exhibit. The dollies on the tripod are helpful to follow the witness, and some slow and careful movement usually is not too disturbing. All camera movements should be smooth and even.

PART 5: PREPARATIONS PRIOR TO RECORDING

The key to obtaining reliable videotape results is careful planning before recording. Time spent in double-checking procedures will save considerable embarrassment, frustration, and time in the long run. While we appear to be dealing with a relatively simple configuration of equipment several problems may arise in its operation. The best way to guard against potential problems is to spend time planning and reviewing before recording. We cannot over-emphasize the importance of being in complete control of the taping session.

The following areas deserve special attention when preparing to videotape depositions or testimony:

Planning Check List

A. Scheduling the taping session

1. Authorization to use videotape.
2. Availability of room and equipment.
3. Notification of attorney of videotape needs.

B. Information concerning the testimony to be recorded

1. Purpose: Deposition or other testimony.
2. Number and function of people (witness, attorneys, defendant (criminal case), court reporter).
3. Type and size of exhibits (graphics, X-rays, objects).
4. Documents reviewed by witness.
5. Estimate of actual time needed for the testimony.

C. Setting Up the Recording Area

1. Diagram of the recording layout.
2. Hook up of the video equipment.
3. Lighting and sound quality.
4. Test recording.

5.1 Authorization.

Under the *Federal Rules of Civil Procedure* a deposition may be videotaped either by stipulation of the parties (Fed. R. Civ. P. 29) or by authorization secured by court order (Fed. R. Civ. P. 30(b)(4)). See Appendix for a statement of these rules and for some sample forms authorizing videotape. In either situation you should urge the parties to stipulate to waiving certain other procedures within the deposition, such as the witness' examination and signature (Fed. R. Civ. P. 30(c)). The chief function of this provision is to give the witness the opportunity to correct errors in the recordation of what was said. This procedure belongs as a safeguard to written depositions but is unnecessary for videotape.

5.2 Scheduling the Taping Session

Whenever testimony is to be recorded, both the video equipment and the recording facility must be available. The same video equipment will be used for recording and playback, so if you have one set of equipment it can be used for only one function at a time. Obtain an estimate of the time required for the deposition or other testimony from the attorney(s). You should add to this estimate at least one hour before and one hour after each session to assemble, test, verify, disassemble, and return the equipment.

Scheduling Log. A chart indicating the date, estimated time required, party requesting videotaping, operator, docket number, type of session (recording or playback), case name, and judge, should be posted in a readily accessible location (for example, in the clerk's office or in the recording facility). FIGURE P, below, is a sample segment of a log for scheduling purposes.

DATE	TIME	PURPOSE	OPERATOR	ATTORNEY REQUESTOR	JUDGE	CASE NAME DOCKET NO.
3/24/75	2—5 pm	Recording	J. Smith	R. Brown	Jones	Alpha v. Beta

FIGURE P. SCHEDULING LOG

5.3 Information About the Testimony to Be Recorded.

It is important that you learn some facts about the particular deposition or testimony before the recording session. This includes information concerning the purpose of the recording, estimated length, the number and function of people involved, documents, and exhibits.

Participants. Find out the number of witnesses and attorneys who will participate in the recording session, whether the defendant (in a criminal case) will be present, and the name of the court reporter, if any. The number and arrangement of chairs and table, the camera positions, and placement of the microphones depend on these variables.

Documents. If either party has records or documents to be reviewed, they should be marked and viewed prior to recording whenever possible. Time and tape will be saved if the recording session does not have to be stopped for a witness to page through documents.

Exhibits. Check to see if charts, diagrams, writings, graphs, photographs, X-rays, models, or other objects will be used. This will allow you properly to set up the camera for follow-through focus on the items You should know in advance if you are going to have to use vidicon focus.

Try to have specially prepared graphics in TV format (See FIGURE Q, below) and in a size large enough for focusing. TV format means that the dimensions of the graphics are proportional to the dimensions of the monitor's screen, i.e., four units wide and three units high.

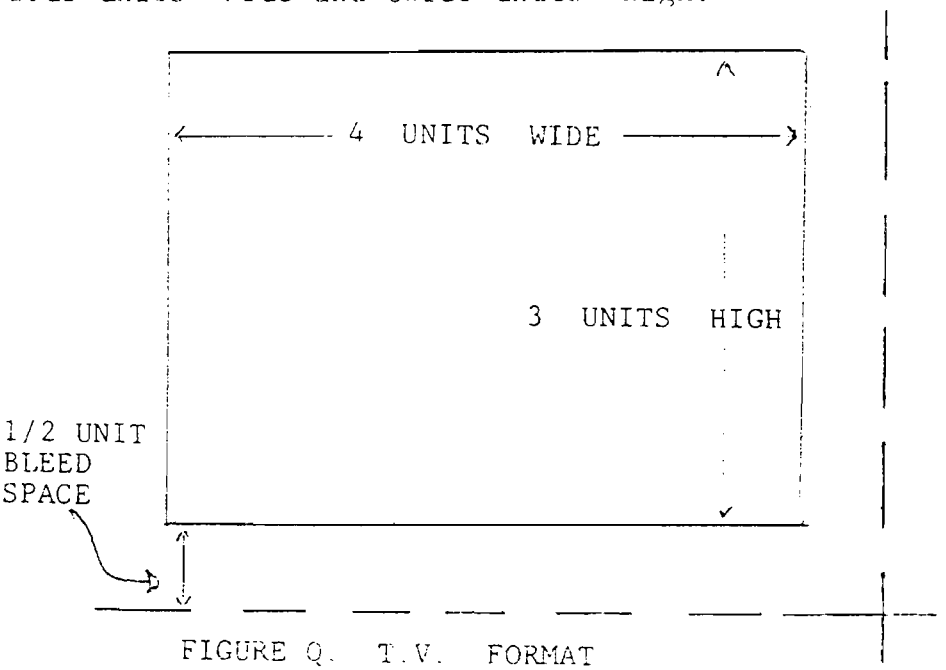


FIGURE Q. T.V. FORMAT

Illuminate X-rays by means of a light box. Use black cardboard to mask off the edges of the light box so that the automatic video light control will not be tricked by bright light on the edges.

Check on the size and dimensions of any physical objects. You will need to know in advance if special supports and settings must be provided.

5.4 Diagram of the Recording Set-Up.

As a permanent reference draw a diagram of the typical recording situation. Include seating arrangements, equipment positions, and cables. See FIGURE R, below, for such an illustration.

Positions of witness and attorneys. Each person should be equidistant from the camera to facilitate focusing and zooming. The witness should be placed at the head of the conference table, facing the camera. The attorneys should be seated on either side of the conference table, facing one another. The attorney for the calling party should normally be seated to the left ot the witness. Direct examination then will always be from the attorney to the witness' left, and cross-examination from the attorney to the witness' right.

Exhibits. Diagram the placement of any exhibits. These should be the same distance from the camera as the participants for proper focusing.

Equipment The diagram should list and label all components of the system—items of equipment, video and audio cables, and outlets.

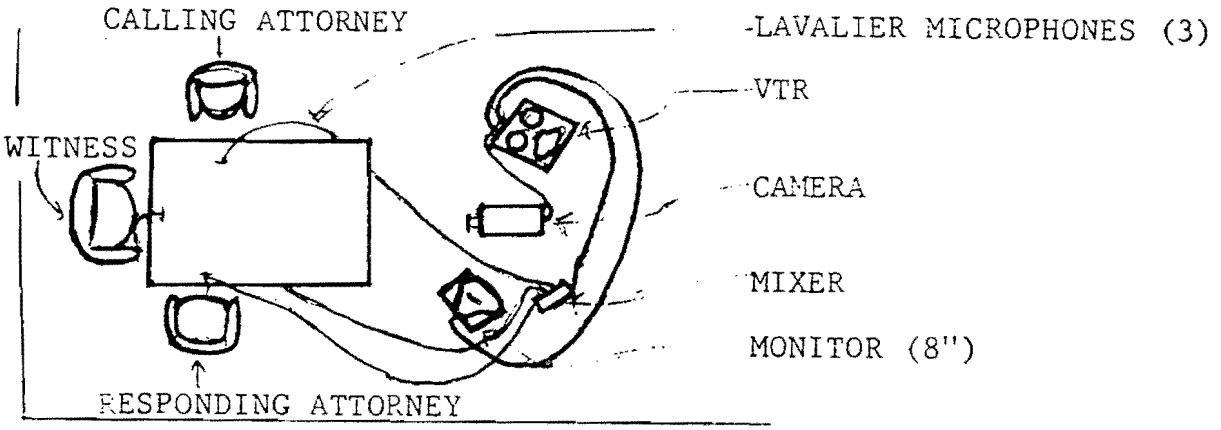


FIGURE R. RECORDING SET-UP (WITH SINGLE VTR)

5.5 Setting Up the Recording Facility.

Allow sufficient time to set up the equipment and arrange the facility. At first allow a half-day to assemble and test the equipment, and even when proficient allow at least an hour.

Tape. Be sure you have an adequate supply of videotape on hand for the recording session. Notify the attorneys that the EIAJ standard (reel-to-reel, 1/2") videotape is required.

5.6 Preventive Maintenance Procedures.

A trained operator can identify and often correct conditions which contribute to the production of a faulty tape by employing high standard maintenance procedures. The conditions which can lead to a poor tape are: grease or dirt on the tape, defective or damaged tape, and damaged or worn recording heads. During recording it is impossible to monitor what actually is being recorded on the tape. The picture on the monitor during recording is a source signal, showing what the electronics of the VTR are "seeing" not what is being recorded on the tape. Thus steps must be taken before recording to minimize the possibility of producing a poor tape. The operator should employ the following preventive maintenance procedures:

1. Tape. If possible use new videotape to diminish the likelihood of excessive grease or dirt on the tape. Handle the tape as little as possible and be sure hands are clean to prevent a buildup of grease.

2. Tape Justification. When using new videotape, place the new reel of tape on the recorder and record a signal. Record on the entire length of tape. Then rewind and review the tape for evidence of damaged tape, such as cinching, buckling, variation of coating or tape width, and excessive dropout (horizontal black or white lines on the monitor during playback). Later, if there seems to be a problem with the tape, justified tape will help to confirm whether the problem is defective tape or fouled recording heads.

3. VTR. Carefully clean the audio and control track heads and tape guides with a Q-tip moistened with head cleaner spray, using a horizontal motion. The video heads should be cleaned with spray freon. The operator must make sure the head cleaner has had sufficient time to dry before threading the tape; this will take at least two or three minutes.

4. Test Recording. When the equipment is set up, make a test recording using the full capacity of the system (camera, VTR, monitor, and microphones). Do not simply record a test sequence off the air. A test recording is mandatory before actual recording of the testimony.

PART 6: PROCEDURES FOR RECORDING TESTIMONY

The operator must be in control of the entire recording situation to produce an effective, factual recording. The more competent you are in handling the equipment, the less likely the participants are to become nervous, hesitant or antagonistic. If you have all the equipment set up, operating, and tested before the witness and the attorneys arrive, you can devote your time to calmly explaining the procedure.

The recording sequence which follows lists some procedures which, although adapted for video use, really belong as safeguards to written and not to videotaped depositions. These include the submission of the tape to the witness for examination and signature and the operator's certification of the completeness of the recording. Unless there is a court order requiring these procedures, urge that they be waived if such has not been done previously. However, if the parties insist, the procedures as set forth can be followed.

When all participants have assembled describe both the recording and playback aspects of the videotape process. A highly effective means of introducing the participants to the medium would be to record a short videotape explaining the process. The tape could illustrate several recording tips: the necessity of speaking clearly and audibly, without mumbling; the audio interference resulting from movements such as rustling papers and drumming fingers on the table; and the visual distraction caused by excessive or nervous hand movements. The tape could also demonstrate the format of the testimony such as the introductions, and the camera techniques you will be using such as the types of camera shots. As an alternative, simply list the sequence of procedures to be followed and distribute the written information.

The following list outlines the procedures which should be discussed with all participants prior to recording and serves as a checklist for the sequence of operations you will perform during the taping session. The procedures are then explained in detail.

Recording Checklist

1. Test Recording.
2. Zero-Counter Sign.
3. Identification Sign
4. On-Camera Identification
5. Oaths: Witness and Operator

6. Camera Coverage of the Examination.
7. Objection Procedure.
8. Log-Index
9. End of Tape Warning and Using More than One Tape.
10. End of Deposition.
11. Certification, Examination, and Signature.
12. Filing and Storage.

6.1 Test Recording.

Conducting a test recording before taping the testimony is a mandatory procedure. You will be able to verify that the equipment is functioning, the lighting is adequate, the audio levels are properly set, the camera position and focus are correct, and the tape is working. You should never, under any circumstances, omit the test recording.

Procedure. Set video and audio levels. Have the monitor turned away from the participants. Seeing oneself on the television screen during recording inevitably proves distracting. Start the VTR in RECORD. Then, one by one, ask each participant to speak. When the test recording is complete, rewind the tape and check the recording. Play back through the receiver-monitor, not an earphone, in order to judge true sound quality.

Problems. If you discover problems when you check the recording, stop, declare a 10-minute recess, and make the neceesary corrections. Encourage the participants to leave the recording area if possible; uninformed advice is not helpful.

6.2 Recording the Zero-Counter Signal.

The counter located on the VTR provides reference points for locating particular places on the tape. It can be used as a guide for indexing subject matter, exhibits, the location and duration of objections, and any stop/starts. The counter numbers on the log-index will not be accurate at the time of playback unless there is a way to "align" the counter on the playback machine so it accurately reflects the position of the tape. This problem is solved by recording a signal at the beginning of each tape which instructs the playback operator to zero the counter on the VTR at a specific point, thus providing a way to synchronize the counter at playback. So far, the best way to give the playback operator notice of when to zero the VTR counter appears to be a signal which combines a printed sign and verbal instruction.

Sign Format. FIGURE S shows a zero-counter sign displayed on a monitor. The suggested format of the sign is as follows:

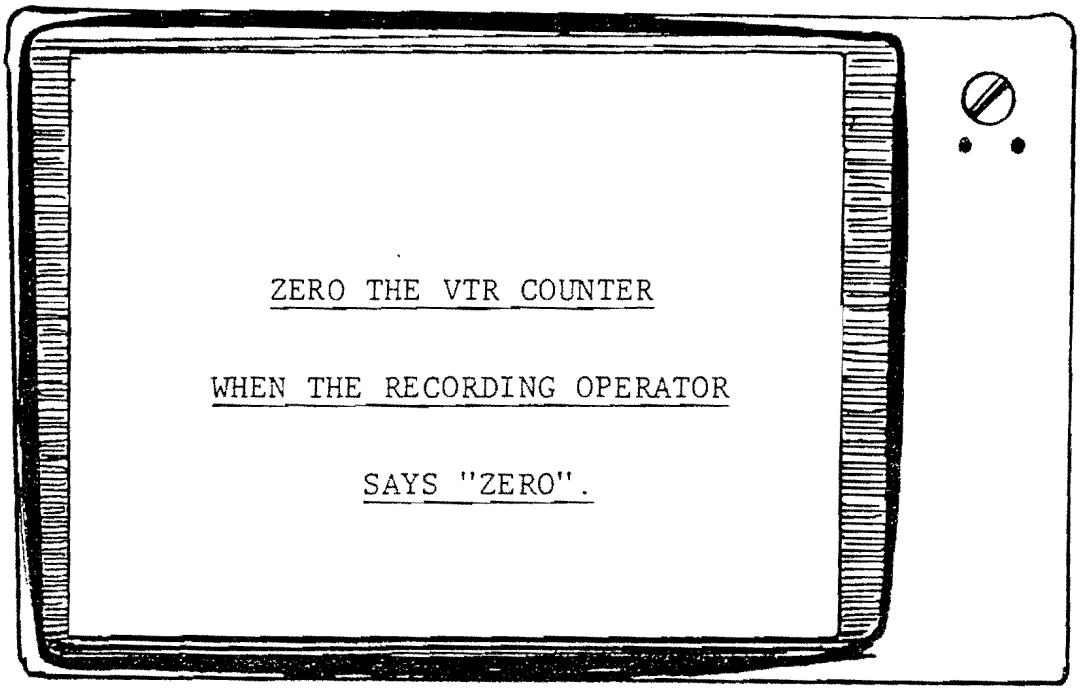


FIGURE S. ZERO COUNTER SIGN

The sign may be set up on an easel or on the table. It should be large enough so that the lettering fills the camera frame without extensive refocusing. For a camera with vidicon focus the information can be typed on an index card. For a camera without vidicon focus use a sign 18" x 24". Magic marker can be used for lettering.

Verbal Instruction. The verbal instruction must clearly indicate the exact point at which the playback operator is to zero the VTR counter. One way is for the playback operator to zero the counter upon hearing the recording operator say a particular word. It is suggested that the recording operator recite an instruction similar to the following statement. In this way the video operator will have both the visual and aural reminder to zero the VTR counter.

"In order to synchronize the log-index with the VTR counter, zero the counter when I say zero: (pause) Three . . . Two . . . One . . . Zero."

Of course the recording operator must also zero the VTR counter upon saying the word which signals the playback operator.

Procedure for recording.

1. Set up the shot sharply focused on the sign and well lit.

2. Note the aperture opening (f-stop) of the lens. Then close the camera's lens aperture all the way down to obtain a grey screen. (If the lens does not close down completely, you may have to place a card over the face of the lens to get a completely grey screen).

3. START the VTR in RECORD. Let it run for about 20 seconds so that it stabilizes. Then FADE UP on the sign by opening the lens aperture to the previously noted f-stop. (If a card is used, remove the card from the face of the lens at this time).

4. When the Zero Sign appears on the monitor screen, recite the Verbal Instruction given above using the VTR microphone. At the same time you say "zero" aloud, zero the VTR counter.

5. Then STOP the VTR and close the lens aperture (or place a card over the face of the lens) to obtain a grey screen.

6. Remove the Zero-Counter Sign; then set up the Identification Sign in its place.

6.3 Recording the Identification Sign.

To identify the deposition or other testimony, record an Identification Sign for each tape used. A pre-printed, erasable card would be handy. The sign should be the same size as the Zero-Counter Sign. As the sign is being recorded the operator should vocally record his name.

Sign Format. The sign should indicate the title of the action, the deponent, date, time, tape reel number and operator. FIGURE T below shows an example of an identification sign. An additional sign may be recorded to identify the court doing the taping.

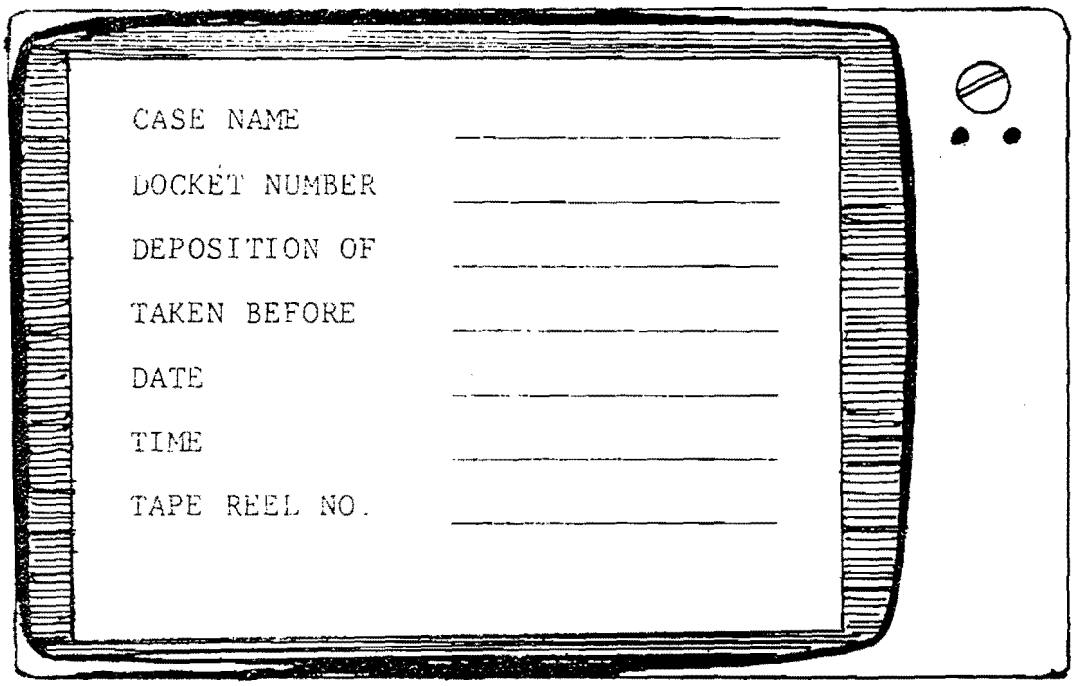


FIGURE T. IDENTIFICATION SIGN

Procedure for recording.

1. The Identification Sign should be placed on the easel or table.

2. Start the VTR in RECORD; let it run for 20 seconds to stabilize; then FADE UP (or remove the card from the face of the lens).

3. Read the Identification Sign to yourself at moderate speed; then stop the VTR and FADE DOWN.

6.4 On-camera Identification.

Each person should be introduced by name and by function: the witness, the parties' attorneys, the defendant

in a criminal case, and the court reporter if one is present. The attorney for the calling party may introduce all participants or they may identify themselves. Procedure. As each participant is identified, zoom in to medium shots, i.e., individual "head and shoulder" shots, if you have sufficient time to do so. If there is not enough time, maintain a full shot of all participants during the introductions.

6.5 Administration of Oaths to Witness and Operator.

Pursuant to Fed. R. Civ. P. 30(c), the operator before whom a deposition is being taken shall put the witness on oath. Although not always considered necessary, an oath by the operator to record the deposition accurately and in a trustworthy manner has sometimes been required. *See* Carson v. Burlington Northern, Inc. 52 F.R.D. 492, 493 (D. Neb. 1971). The same considerations of trustworthiness and accuracy apply to recording all testimony.

There are four alternative ways to administer the oath to the witness. First, the video operator, if an officer of the court, may administer the oath to the witness while appearing on-camera. He may then take an operator's oath, if he is to do so. This method is described below. Second, the camera operator can administer the oath to the witness while standing off-camera. Only the witness will be seen on the monitor using this method. Third, if the camera operator has sworn the witness before the taping he may recite, "The witness, _____, having been duly sworn, the deposition may begin." Fourth, if a court reporter is present and is to swear in the witness, set up a shot which is wide enough to include both the witness and the court reporter. The reporter must be in the vicinity of a microphone.

Recording Procedure.

1. Set up an establishing shot. This must be wide enough to cover both you and the deponent and to allow for differences in heights.

2. Start the VTR in grey screen and FADE UP.

3. Leave the camera and go around to the side of the witness.

4. Facing the camera, swear in the witness and then state the oath you are taking as operator. Remember that you must be in the vicinity of a microphone for this procedure.

5. Return to the camera.

6.6 Camera Coverage During Examination.

The camera techniques outlined in the following sequence should be used for direct examination, cross, redirect, etc. Suggested camera coverage is shown in FIGURE U, page 39.

Beginning Establishing Shot. After the identifications, signal or announce that direct examination may begin. Set up an establishing shot, a wide angle shot which includes all participants, at the beginning of any type of examination.

Questions. As questioning begins, move to a two-shot which includes the attorney who is asking the question and the witness to whom it is addressed.

Answers. As the witness begins to answer zoom in to an individual medium shot or a close-up of the witness to cover his answer. Then pull out to a two-shot to avoid monotony.

Closing Full Shot. At the conclusion of each examination, and at the end of the recording session, all participants should appear on the monitor screen in a final full shot.

Caveat on Camera Techniques.

1. Your primary objective must be to keep the future trier of fact aware of and alert to the progression of events. Always move the camera slowly and evenly. Jerky or hurried camera movements will inevitably interfere with the viewer's attention.

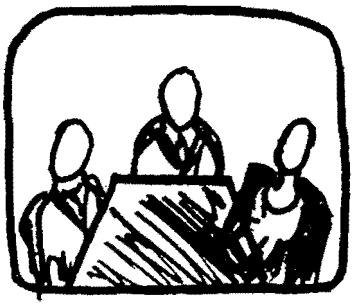
2. When using a close-up shot, do not go in tighter than the witness' entire face. A tighter shot may over-emphasize and distort the witness' physical characteristics and mannerisms.

3. Always make sure to show the person asking the question. Unless the attorney questioning the witness is shown, the jury may not be able to know who is conducting the examination or to distinguish direct from cross examination. In one case in which a videotape was played back during trial, the camera was focused solely on the witness so that the attorneys' questions were heard from off-camera. It was later discovered that one of the jurors thought all questioning had been done by one attorney and did not know that the other counsel had conducted cross-examination. *See* Darnieder, *Videotaped Depositions: A Court Reporter's View,* 34 Nat'l Shorthand Rep. 13 (June 1973).

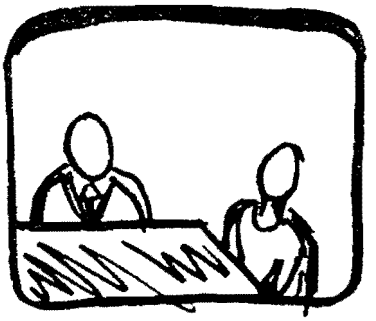
4. If questions begin to go back and forth between opposing counsel, pull out to the establishing (full) shot to include all participants.

DIRECT EXAMINATION

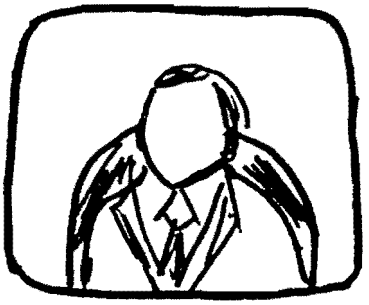
I. ESTABLISHING SHOT—IDENTIFIES PARTIES



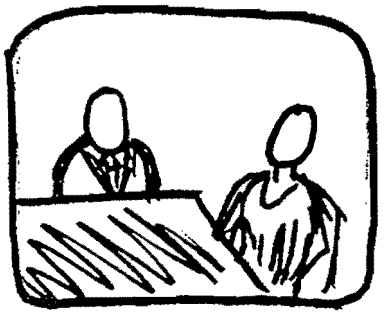
II. BEGINNING OF DIRECT EXAMINATION—WITNESS AND EXAMINING ATTORNEY PICTURED



III. EXAMINATION CONTINUES—WITNESS SHOWN BY MEDIUM SHOT

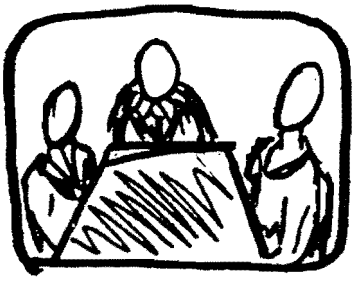


IV. TO AVOID MONOTONY, PULL OUT TO A TWO-SHOT



CROSS-EXAMINATION

V. FULL SHOT—RE-IDENTIFIES PARTIES



VI. CROSS-EXAMINATION CONTINUES—WITNESS AND CROSS EXAMINING ATTORNEY PICTURED

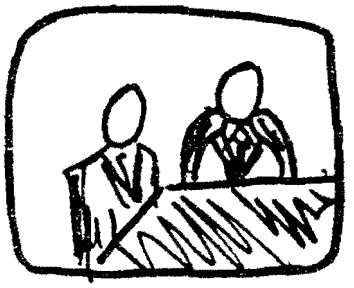


FIGURE U. CAMERA COVERAGE DURING EXAMINATION

5. Do not stay on a single type of camera shot for more than about three minutes unless you have a good reason for doing so. For example, if you have been focusing on the witness using a medium shot, pull out to a two-shot showing the attorney conducting the examination and the witness answering; then zoom back in for an individual view of the witness.

6.7 Camera Coverage of Objections.

See FIGURE V, page 41, for an illustration of camera coverage of an objection.

Beginning of the Objection. When an objection occurs, pull out to a full shot of all participants. This way both attorneys can be seen. Then zoom in to cover the attorney raising the objection as he proceeds with an explanation of his objection. You must be sure to cover the original statement, the objection and its explanation, and any discussion between the attorneys.

Restatement of the Question. If the question is to be answered subject to the court's determination of admissibility or if the objection is withdrawn, the restatement of the original question before the answer by the witness is helpful for playback. Be sure to cover this point in your written instructions or verbal description before recording. Cover the restatement of the question and answer with a two-shot.

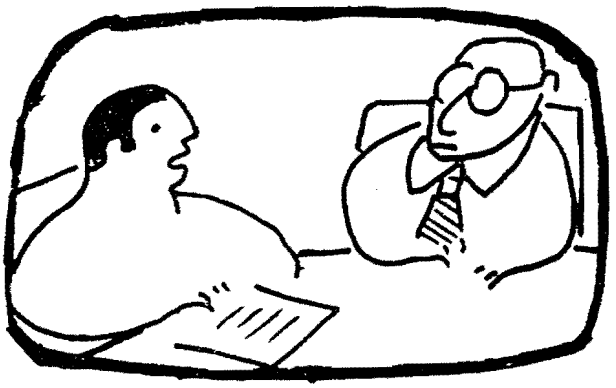
Index Objections. Index every objection by noting in your log where the objection begins and where it ends. Use the VTR counter, clock, or electronic digital time counter to index the tape.

6.8 Log-Index.

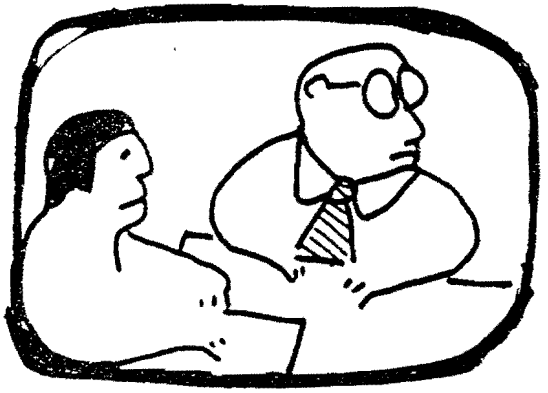
The beginning and end of each direct examination, cross-examination, objection, and stop/start should be indexed by using the VTR counter and the counter numbers indicating these points should be logged. A separate list of exhibits showing the counter number where the exhibits have been introduced should also be included in the log. All stops can be detected on playback. If the VTR is stopped for any reason log the counter number at which the stop occurs to negate any suggestion that the tape has been altered.

Alternatives to Using the VTR-Counter for Indexing. A clock may provide a more convenient reference for indexing. Use two synchronized clocks, one placed to the right and the second to the left of the witness at about shoulder level. See FIGURE W, page 43. This way you will not lose the clock when you use a two-shot on either side of the witness. Camera movement using this method will, however, be limited.

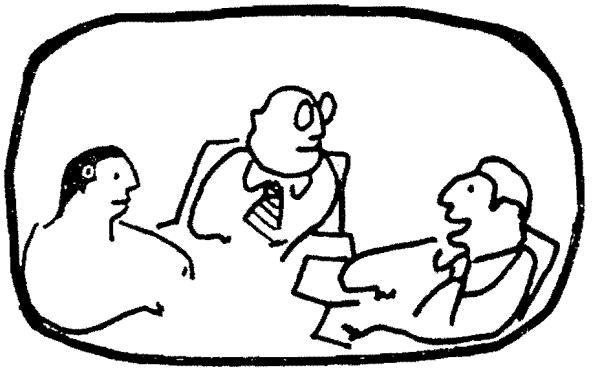
I. DIRECT EXAMINATION BEING CONDUCTED—TWO-SHOT



II. BEGIN TO REACT AS SOON AS OBJECTION IS RAISED



III. ZOOM-OUT SLOWLY AND SMOOTHLY TO A FULL-SHOT TO SHOW OBJECTING ATTORNEY



IV. WHEN REASON FOR OBJECTION HAS BEEN STATED, QUESTION CAN BE ASKED AGAIN—ZOOM-IN TO A TWO-SHOT

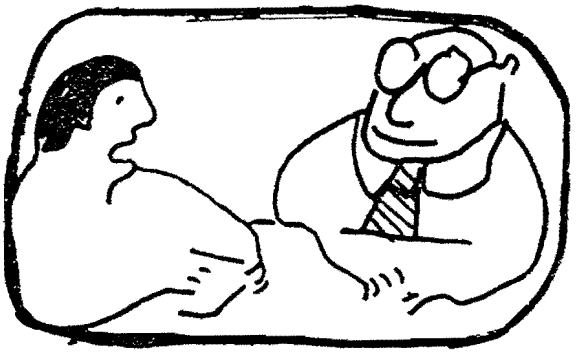


FIGURE V. CAMERA COVERAGE OF AN OBJECTION

A better solution is to use an electronic digital time counter. The device, which inserts the hour, minute, and second into a corner of the video portion of the tape is the most exact way to index the tape but is rather expensive.

6.9 End of a Tape.

Be sure to give a two-minute warning signal prior to the end of a tape. The operator should announce the end of each tape giving the tape reel number. If more than one tape is needed to complete the deposition or testimony, indicate which reel of tape is being used by re-recording the Identification Sign with the new tape reel number. Remember to re-record the Zero-Counter Signal for each tape you use.

6.10 Certification.

At the conclusion of the recording certify the completeness and correctness of the videotape, if certification has not been waived. This may be done in the same manner that a stenographic reporter certifies the typed record of a deposition and the written statement affixed to the tape reel. Such a certification that the tape is a true record of the testimony given by the witness has been adapted from the federal rule governing stenographically recorded depositions, Fed. R. Civ. P. 30(f)(1). Note also that you are not financially interested in the action, and that you are neither a relative nor an employee of any of the parties. Adapted from Fed. R. Civ. P. 28(c).

6.11 Witness' Examination and Signature

Normally the submission of the tape to the witness for his examination and signature (Fed. R. Civ. P. 30(c)) will have been waived. If not, the rule requirements can be met by rewinding and playing back the tape, the witness signing a written statement and then affixing the paper to the tape reel.

Playing back the videotape and checking it at various points will also confirm that a good clear picture and sound has been recorded.

6.12 Filing and Storage

If not required by local rule, the order authorizing videotaping may prescribe requirements for filing with the court. Fed. R. Civ. P. 30(f). The tape should be stored out of sunlight, out of contact with hot, cold, and magnetic objects, and away from dust. The National Bureau of Standards

guidelines set storage conditions for videotape at a temperature of 70 plus or minus 5 degrees and humidity of 50 plus or minus 5 percent. A good storage vehicle is the case in which the tape came. If handled and stored properly videotape will last a very long time. An improperly stored tape is much more likely to collect dirt and dust which can cause fouled or clogged recording heads when the tape is played back or used again for recording.

Remember to store accompanying written information — the log-index and notices of certification and signature — with the videotape.

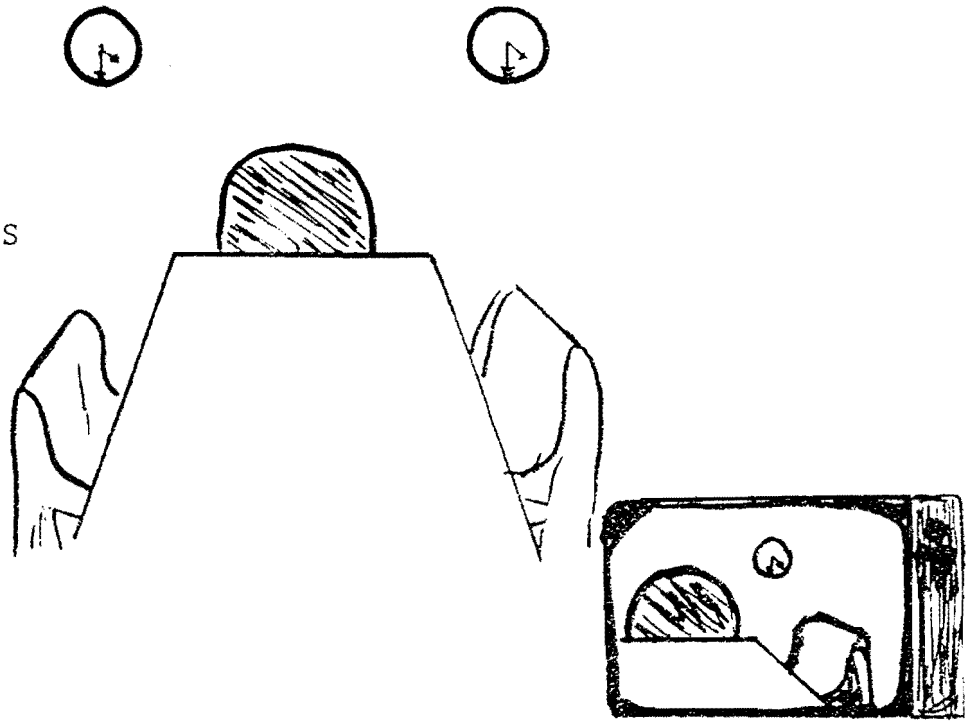


FIGURE W. CLOCK APPEARING ON MONITOR SCREEN

PART 7: VIDEOTAPE PLAYBACK IN THE COURTROOM: SETTING UP THE PLAYBACK SYSTEM

In preparing to play back videotaped testimony there are two major technical concerns: the general environmental conditions in the courtroom during playback and the proper set-up and operation of the videotape equipment itself.

7.1 Courtroom Conditions.

No special environmental adaptation is required to play back an effective videotape. This is one of the main advantages of videotape over film. Normal conditions of light and sound are usually satisfactory for the courtroom.

Lighting. There is no need to cast the courtroom into darkness. The proper illumination is that which accompanies viewing of a television set. Tapes made under good lighting conditions will usually play back well in normal room light. However, light from outside the courtroom can cause glare or reflections on the monitor screen. This can usually be corrected by drawing a blind or drapery, or by tilting or turning the monitor.

Sound. Volume should present no problems where the usual precautions have been taken to eliminate distracting outside noise. You should determine in advance whether it is best to use the monitor speakers, or to use the public address system (*See* § 7.4 *infra* for hooking up P.A. system). Remember that the small monitors are equipped with earphones for judge and clerk operator. If you experience severe reverberation or echoes in a courtroom, you may wish to try "processing" the sound. This can be done with a pre-amplifier, amplifier and good speakers, or with more expensive professional sound mixing equipment. The idea is to gain control over the tone quality (bass, treble, loudness). The hookup is similar to that for feeding into a P.A. system. Special cables may also be desirable.

Picture. At trial, two large monitors are suggested for the jury to insure that each member can view the tape without visual interference. The jury will also be able to look from one monitor to another, thereby helping to increase their span of attention. One monitor should be located to be viewable by attorneys and parties also. The 75-ohm terminating switch on the back of all monitors should be in the "off" position, except for those monitors on the "ends" of cable runs. See FIGURE 2, page 51.

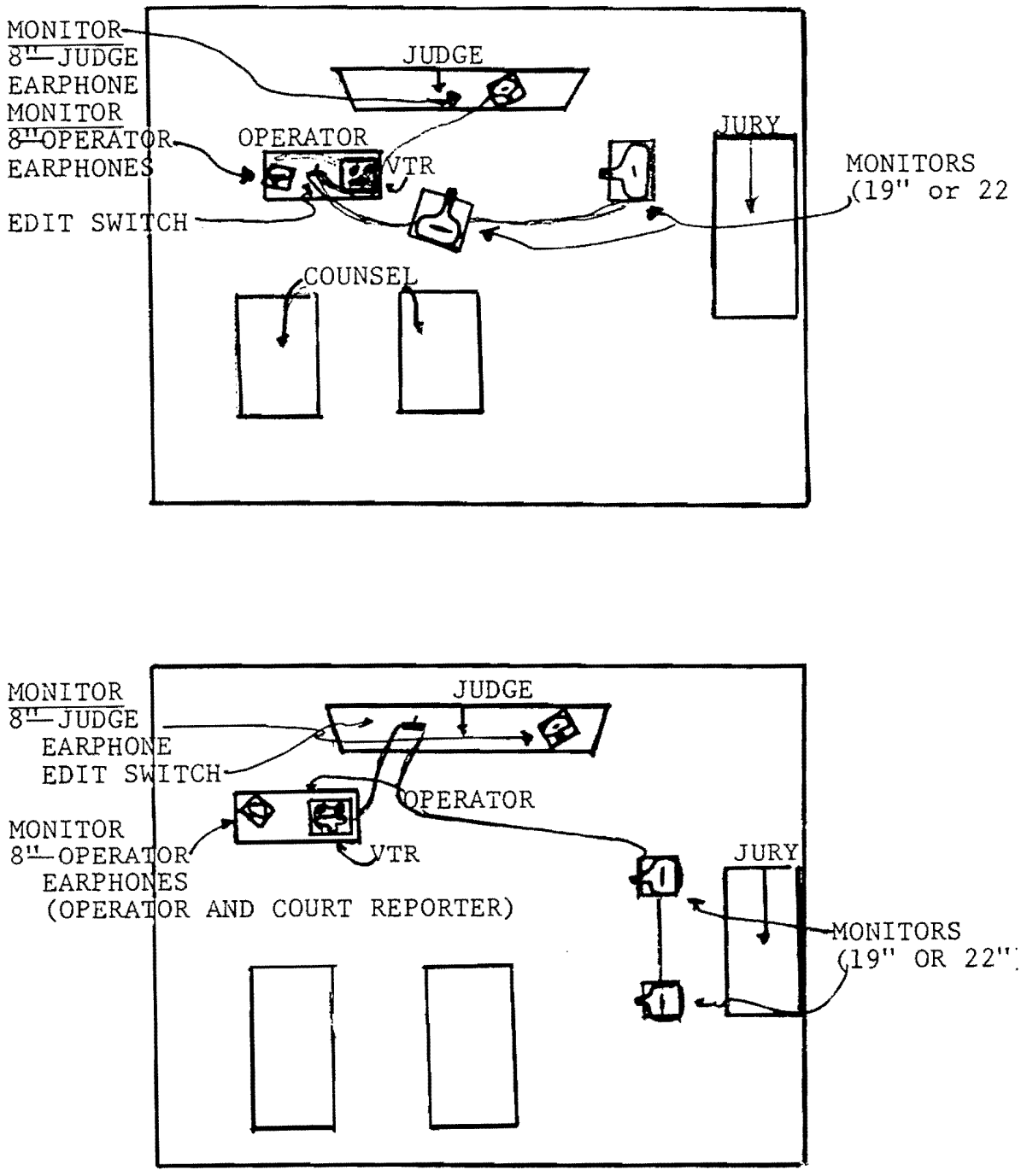


FIGURE X. DIAGRAM OF COURTROOM FOR PLAYBACK

7.2 Diagram of the Playback System

As a preliminary procedure draw a diagram of the video equipment as it will be set up for playback in the courtroom. List all components of the playback system and note any special features of the courtroom. See FIGURE X, page 45, for an example of the type of diagram of a playback system which you should prepare.

A. Video equipment needed for playback.

1. VTR
2. Monitors - 19" or 22" for the jury, attorneys, and parties.
3. Monitors - 8" - and earphones for judge, courtroom deputy, and court reporter.
4. Cables - video and audio.
5. Adaptors.
6. Edit Switch (if used).

B. Courtroom features which should be checked

1. Electrical outlets -- their location, older wiring requiring three-prong to two-prong adaptors, necessity of extension cords
2. Public address system
3. Windows -- location, possibility of glare on monitor screens, control of light level.

7.3 Setting up the Playback System

Before taking the playback system into the courtroom, set up and test the equipment. You can thus verify that you have included all the necessary components of the system and that the equipment is functioning properly. Then disassemble the system and take it into the courtroom for actual use. This step will save time, effort, and reduce, if not eliminate, equipment malfunctions. When you set up the equipment in the courtroom, test the equipment once more to be sure it is operating properly.

7.4 Using a Public Address System

If the courtroom is equipped with a public address system, the VTR's audio line may be fed into the P.A. system as shown in FIGURE Y, page 47. The procedure for hooking up the P.A. system is as follows:

Procedure. The audio input for the P.A. system will be obtained from the auxiliary or line audio output of the VTR. Depending on the type of VTR, this may require a cable with a male mini-plug connector, or a male RCA plug. Feed this signal into the auxiliary, line or tape audio input, not the microphone input, on the P.A. system amplifier. This will usually require a male RCA plug but could also take a phone plug (quarter-inch). Check to see if all P.A. systems in all courtrooms are alike. If not, make adaptors or special cables for each type of P.A. system.

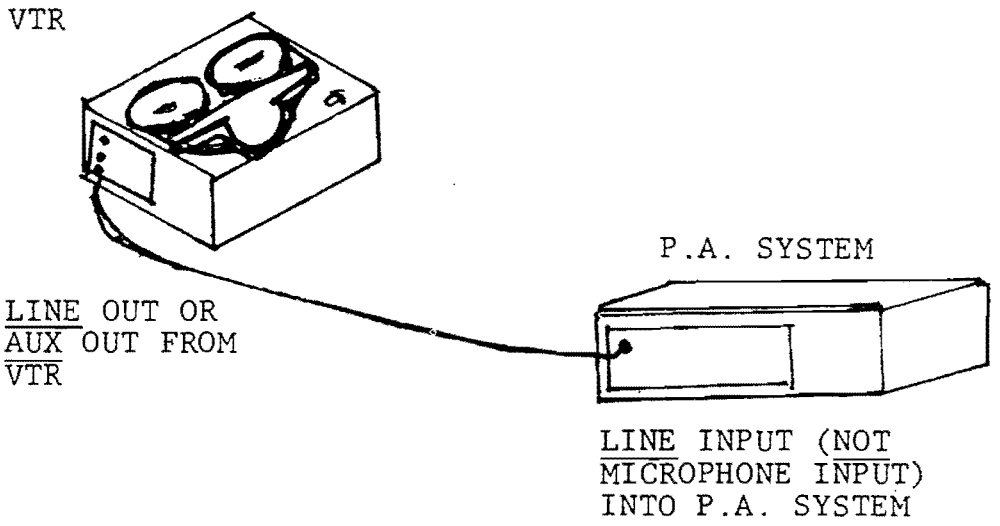


FIGURE Y. HOOK-UP OF VTR AUDIO TO P.A. SYSTEM

PART 8: VIDEOTAPE PLAYBACK IN THE COURTROOM: OPERATING PROCEDURES

Whether the videotape is recorded in the courthouse or by a private firm it may be played back using the court's equipment as long as the tape was made in conformity with the EIAJ (1/2" tape, reel-to-reel) standard. The major variation in playing back pre-recorded videotaped testimony lies in the method of handling objections. The different techniques available will be discussed in this section. Special emphasis is given to the method developed by the Federal Judicial Center.

8.1 Elimination of Inadmissible Testimony -- The Question of Editing

To date, the best method for ruling on objections and eliminating inadmissible testimony has not been determined. An often cited advantage of videotape is the ability to edit the tape to present only the desired, admissible testimony for the jury's view. Different methods have been developed to accomplish this goal.

1. Electronic Editing. If the judge has reviewed the tape and ruled on the objections before trial, a video technician can produce a second electronically edited videotape from which the inadmissible portions of the testimony have been removed. The words "I object..." are also removed whether or not the objection was sustained. At the trial the jury sees a "clean" tape, although the fact that a portion has been edited may be detected on playback. The master tape, which is unedited, is retained for purposes of appeal. The process of electronic editing involves additional skills and equipment and is thus relatively costly and time-consuming. The video equipment provided to the FJC pilot district courts does not have electronic editing capability.

2. New Jersey/Pennsylvania Western Method. This editing method is so named because it was developed by Judge Garth in the District of New Jersey and Judge Weis in the Western District of Pennsylvania in the early months of the FJC pilot operation. The method involves stopping the tape during playback when an objection occurs. The judge then makes his ruling. Procedure: If the objection is overruled simply restart the recorder. If it is sustained place the recorder on Fast-forward until it reaches the end of the inadmissible answer. Use the log-index of objections to determine the counter number at the end of the inadmissible portion. Remember that the picture will require a few seconds to stabilize after the jump.

3. Federal Judicial Center Method -- the Edit Switch. Under the FJC method, the two small monitors used by the judge and courtroom deputy are on a different circuit from the two large monitors being viewed by the jury. Procedure: When an objection is reached flip the switch which cuts off the sound and picture for the jury but which retains the picture and makes the sound available through earphones for the judge and courtroom deputy. (In many courtrooms the judge can listen to the monitor's speaker by reducing the volume to a level which cannot be heard beyond the bench. Be sure to test this possibility and discuss it with the judge to determine which he wants to use). If the objection is overruled reverse the tape, and, after restarting it, turn on the sound and picture for the jury at the appropriate point.

The switch can also be used if the videotape has been reviewed by a judge prior to the trial and rulings made as to admissibility. The log-index can be used in this situation, but greater precision is possible if a marked transcript is available. Use of the switch provides an inexpensive alternative to professional editing. Furthermore, many judges prefer not ruling on admissibility out of context; that is, they think it proper to rule only within the context of other evidence presented at trial. However, if all witnesses were presented via videotape, this would provide "context" prior to trial.

4. McCrystal Method. Under the rules developed by Judge James L. McCrystal of the Erie County, Ohio, Court of Common Pleas, the operator notes objections by means of the electronic digital time counter during recording. *See* Procedure: for Recording Testimony, *supra* at § 6.8. Erie County local rule XXVIII requires objections to be made at the conclusion of the question and answer only. The judge, using the hour-minute-second insert on the monitor screen as an index, makes his rulings prior to trial. When the tape is played back at trial, the operator then simply eliminates the inadmissible material. With this method, the playback of the testimony at trial need not be interrupted for the purpose of ruling.

5. No Editing. A videotape could also be played back without using any editing. The judge would simply rule from the bench as he does now, instructing the jury to disregard certain statements. Of course the operator would have to stop the VTR while the judge made his ruling.

8.2 Hooking up the Edit Switch into the Playback System.

The set-up for the playback system using the edit switch is shown in FIGURE Z, page 51. The switch separates the VTR and small monitors from the large monitors. Procedure: Attach a standard video cable to the VTR's video out connector and connect the other end of the video cable to the video input on the back of the clerk's monitor. Run an audio cable from the VTR's line-out jack to the audio input on the back of the clerk's monitor.

Next, run a video cable from the looping output of the clerk's monitor to the input of the switch. Then run an audio cable from the looping audio output of the clerk's monitor to the audio input on the switch.

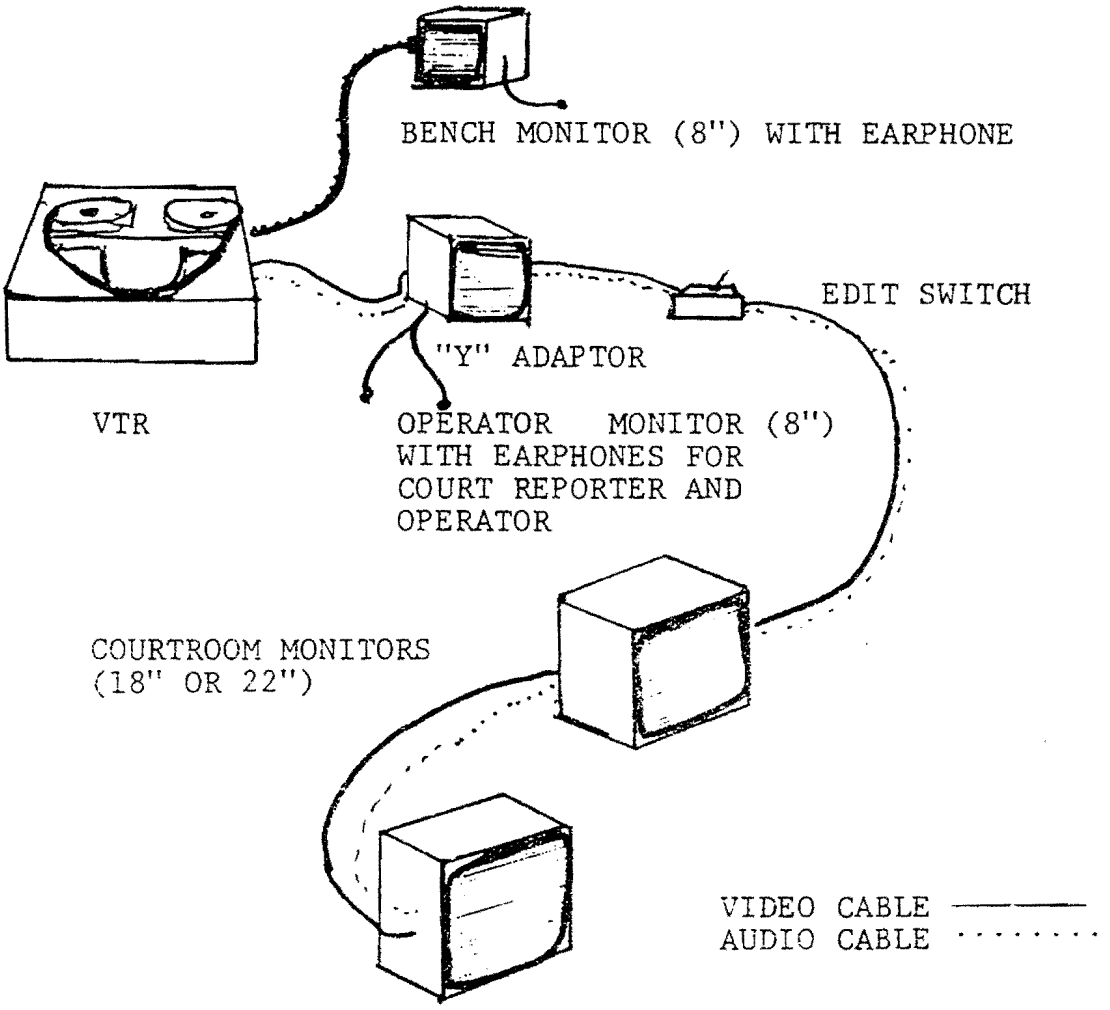
Then connect the other video connector on the switch to the video-in connector on the large monitor. In most cases this will require only a standard video cable. Connecting the audio-out of the switch to the monitor will require a cable with an RCA phono-plug on one end and a connector which matches the monitor's auxiliary audio input on the other. When all cables are connected, you can control audio and video to the large monitors with the switch.

The reporter in the courtroom will need an earpiece to be able to hear and record what the judge hears. Hook up a Y-adaptor for the earpiece.

8.3 Playing Back the Testimony.

If the testimony has been recorded using the guidelines given in this manual, the operator should be able to play back the videotape without difficulty.

Zero the VTR Counter. The Zero-Counter Signal marks the starting point for the log-index. It is therefore important to be as precise as possible when zeroing the counter on the VTR. The signal is a combination of a written sign and verbal instruction. When the zero-counter sign appears on the screen of the monitor, begin to listen for the instruction. Then as the voice of the recording operator directs, zero the counter. This procedure should be performed before the tape is presented to the jury. Of course you can use this technique only if the videotape was recorded by someone in the court and not by an outside operator. If you are playing back a tape made by a private firm, find out if an analogous technique was used.



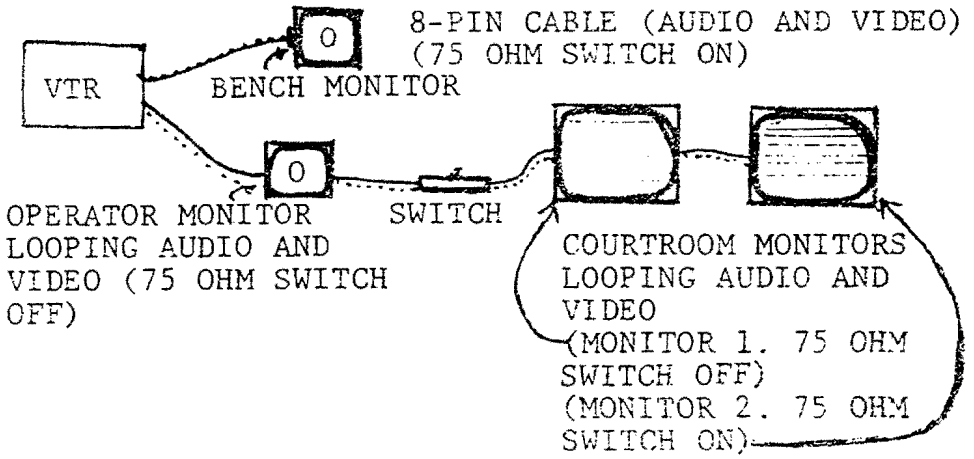


FIGURE 2. HOOK-UP FOR PLAYBACK SYSTEM

Monitor the Picture and Sound. Check to be sure that video and audio are functioning properly. Take note of the counter numbers and reference them to the log that was kept during recording to determine where an objection will occur. With your monitor you will be able to listen for the exact point as well as approximate it with the log.

Handle Objections Using the Edit Switch. When an objection occurs, flip the switch to shut off the picture and sound on the jury monitors. Continue to listen using the earphone attached to the small monitor on your desk. Make sure the jury does not see the picture on your or the judge's monitor. The judge can then rule on the objection. After the judge's ruling, move the tape backward or forward as necessary in order to resume playback for the jury at the appropriate place. Then switch the jury monitors back on and continue to play back the videotaped testimony.

PART 9: THE AUDIO BACK-UP SYSTEM

With the increased usage of the VTR deposition system the requirement for a dependable audio back-up system has become more apparent. The Audio Back-Up System, is provided to give specific guidelines for the set-up and operation of the audio back-up system concurrently being installed in the pilot courts.

The primary function of the audio back-up system is to provide an accurate, audible transcript of all testimony, in conjunction with the information recorded by the videotape equipment. Since the highest possible reliability and positive monitoring ability is crucial in the back-up function, the open-reel format is recommended for the basic audiotape recording machine. A separate playback or "monitor" head is also a requirement -- to allow on-the-scene confirmation of recorded information which is electronically imprinted on the audio-tape. Audio cassette copies of the proceedings can be duplicated from the open-reel tape, or recorded simultaneously from the "line" outputs of the open-reel machine.

It is intended that the audio back-up system will be mounted in a cart/cabinet which will be separate from the videotape recording equipment. This will facilitate hook-up and operation, as well as provide a detached audio recording system which may be used in conferences, seminars, and meetings where the use of video recording is not elected.

9.1 Components and Hook-Up.

The audio back-up system designed for use in the pilot projects includes the following components:

(1) one Tandberg 3600 DX audio recorder

(2) one Shure M-68 microphone mixer

(3) one Shure M-63 audio master

(4) two Sony TC-110B audio cassette recorders

(5) one set of Koss Pro 4-AA headphones

(6) one Colortone cart, C-26E

(7) miscellaneous cables and connectors

Hook-up. The hook-up of the audio system is largely accomplished by permanent installment into the storage/ operation cart. The only additional connections are those of the microphones to the input jacks, and that of the line output of the mixer to the line input on the VTR.

However, if the system is disassembled for any reason, then hook-up proceeds as follows: (See FIGURE 1.)

(1) The microphones to be used (maximum of 4) are connected to the Cannon XLR inputs on the rear of the M-68 microphone mixer. Seat the connectors firmly until they "click" into place, and ensure that the Microphone Impedance selector above each input is in the "LO" position.

(2) The M-68 microphone mixer is connected to the M-63 Audio Master using a male RCA to make RCA cable. The cable runs from the AUX HIGH LEVEL OUTPUT on the back of the M-68, to either of the High-Level Inputs on the M-63.

(3) The Microphone Level Output on the M-63 is connected to the Female Cannon XLR connector and sent via its cable to the Phone plub "Y" Adaptor supplied with the system. Ensure the Microphone Impedance selector above the output connector is in the "LO" position. The "Y" adaptor phone plugs are then connected to the left and right "MIC" inputs on the Tandberg 3600 DX.

(4) The "Line Out" connectors on the back of the Tnadberg 3600 DX are connected (one each) to the "Aux" inputs on the Sony TC-110B Cassette Machines. Connections are made using the RCA-to-Mini cables provided.

(5) The Auxiliary Hi-Imp. Output on the back of the M-63 is connected to the Audio line input on the VTR.

(6) Ensure all components are connected via their 3-prong power cables to a 110-120 volt, 60 cycle AC power source. A multiple outlet 3-pront AC extension cord may be used, since the power consumption by the components is not excessive.

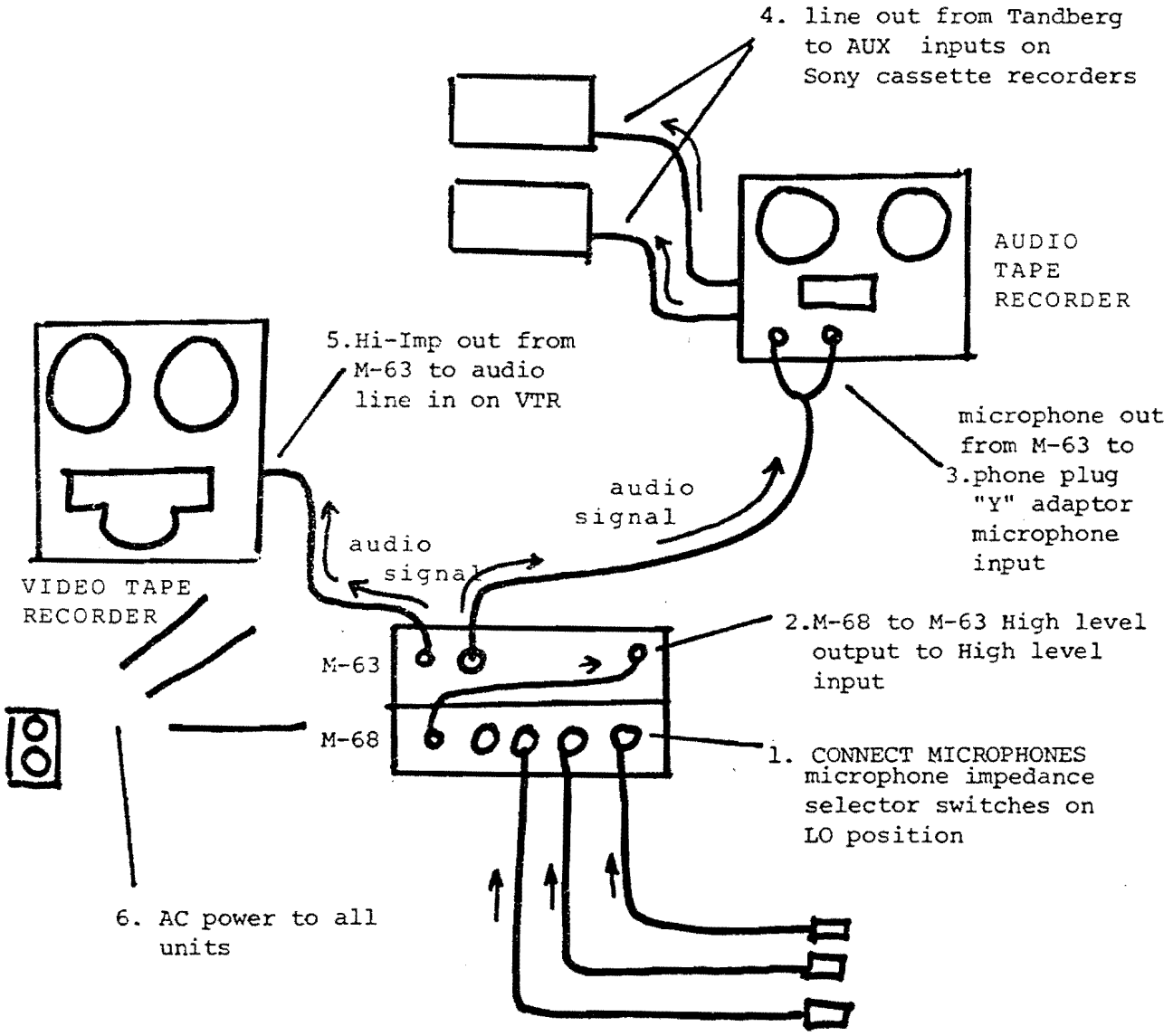

4. line out from Tandberg to AUX inputs on Sony cassette recorders
AUDIO TAPE RECORDER
5.Hi-Imp out from M-63 to audio line in on VTR
microphone out from M-63 to 3.phone plug "Y" adaptor microphone input
audio signal
audio signal
VIDEO TAPE RECORDER
M-63
2.M-68 to M-63 High level output to High level input
M-68
1. CONNECT MICROPHONES microphone impedance selector switches on LO position
6. AC power to all units

FIGURE 1

9.2 Operation and Microphones.

Operation. Once the audio back-up system is hooked up, with AC power provided, the next step is proper set-up and adjustment of the applicable controls. Many of the controls on the equipment will be preset during maintenance, trouble-shooting, etc.).

Before operation of the equipment, take time to read the operational booklets which are provided by the manufacturers. These will provide you with the information of controls and their location, basic operating procedures, and simple routine maintenance. Specific information on operation in the field of courtroom and deposition applications is described in the supplement.

Microphones. Microphone placement should conform to the basic information included in the Guidelines (3.2 pg 17). The audio back-up system outlined in this supplement was designed to incorporate the low impedance lavaliere type microphones you are currently using with your video system.

9.3 M-68 Mixer/M-63 Audio Master.

In order to upgrade the audio quality and capability of your current system the M-68 audio mixer (microphone mixer) and M-63 audio master (tone control) have been added to replace your existing audio mixing system. The M-68/M-63 audio system has been specifically designed to provide both the VTR and audio tape recorder with a properly balanced audio signal. (See Figure 1.) The M-68 microphone mixer provides a maximum of four microphone inputs to the audio and video recorders. The M-68 microphone mixer has a fifth input for an auxiliary or high level source. This particular input should not be confused for a microphone input since plugging a microphone into the high level input will result in an impedance mismatch. The high level input is provided to accommodate high level audio sources from other pieces of equipment such as another audio tape recorder or videotape recorder. Each input is controlled individually by one of the dark (black) knobs on the front panel. The output signal from the M-68 is controlled by the gray "Master" knob, also found on the front of the unit.

Using a piece of paper or masking tape, identify the person who is speaking into each microphone and attach the name tag above the knob or "pot" which controls that microphone. (See figure 2.) Generally, the witness' microphone is in "pot" number 1, attorney for defense in "pot" 2, and attorney for prosecution/ plaintiff in "pot" 3.

Set the gray "master" knob to 6 or 7 on the M-68. The total signal output will not be controlled by the "master" knob on the M-63 Audio Master. Set this master control initially to 7 or 8.

Individual volume should be set by opening the "pots" one at a time, asking the person on that microphone to give their name, address, etc., until a satisfactory check has been made. The correct level for each microphone is monitored by the headsets and the "VU" meter on the M-63. Adjust the individual knob until a good swing into the "black" is noted. Occasional "peaks" into the red are acceptable, but don't allow the needle to "peg" continuously against the stops in the red band -- causing excessive distortion.

Once an individual microphone level has been set, note the number and return that knob to "zero" before checking the next microphone. This will ensure only one sound input at a time affects the "VU" meter. After all levels have been checked, open the individual microphone controls to their assigned positions/number.

After performing the sound level checks on the audio and video recorders (described later in this supplement), the "master" control (or "pot") on the M-63 should be turned to zero. As the recording process begins, "fade up" the master control to the pre-checked level. Total volume of all microphones can be controlled by this knob during recording. Individual microphone volume can be adjusted, if necessary, by the specific black knob on the M-68 mixer which controls that microphone input. The tone controls on the M-63 Audio Master allow the operator to adjust the treble and bass characteristics during recording. Effectively, room acoustics can be altered, de-emphasizing hollow trebel noise or musky bass sound. Normal position of the controls is with the LO CUT and

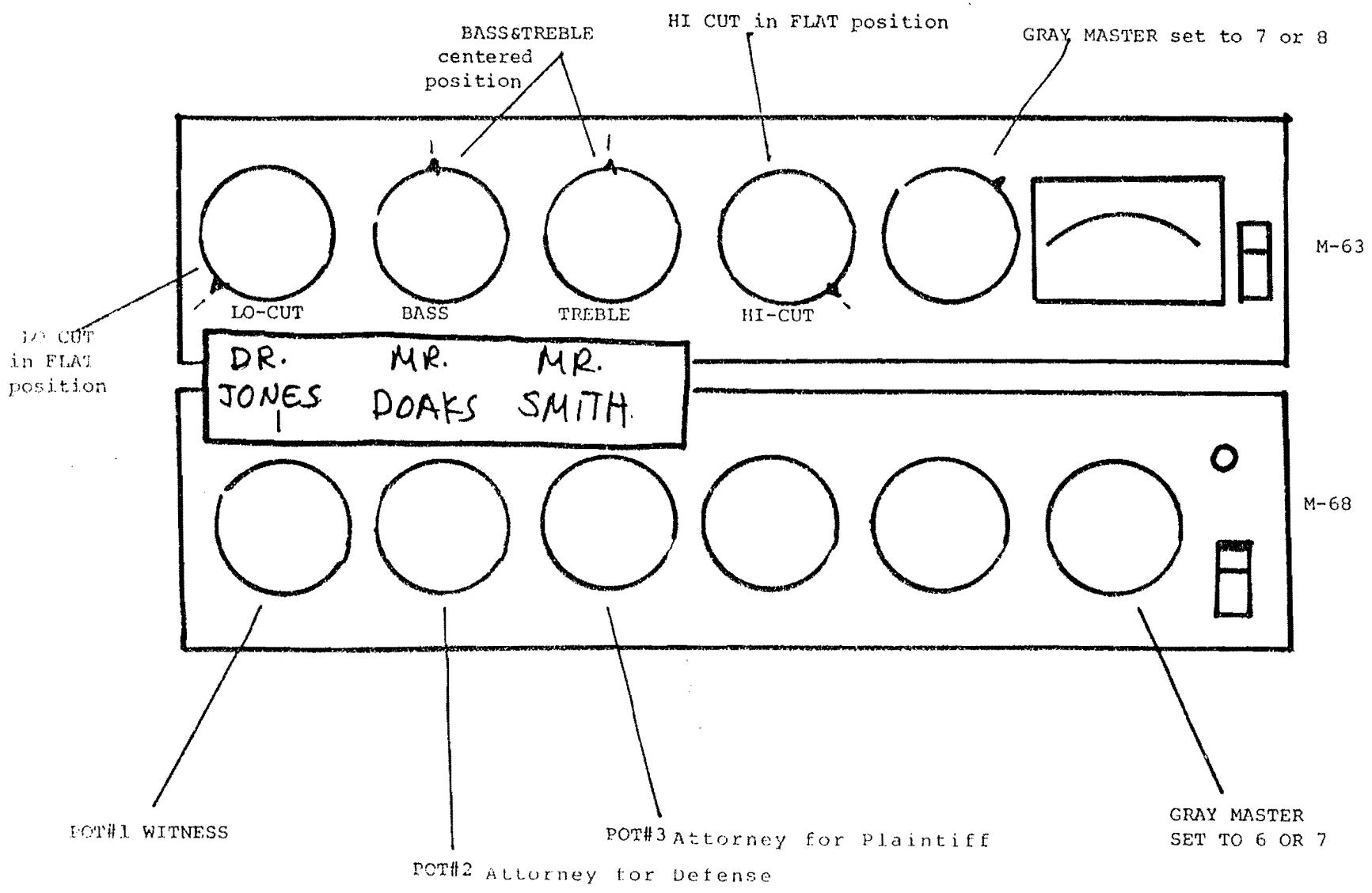

BASS&TREBLE centered position
HI CUT in FLAT position
GRAY MASTER set to 7 or 8
LO-CUT
BASS
TREBLE
HI-CUT
M-63
DR. JONES
MR. DOAKS
MR. SMITH
M-68
POT#1 WITNESS
POT#2 Attorney for Defense
POT#3 Attorney for Plaintiff
GRAY MASTER SET TO 6 OR 7

FIGURE 2

HI CUT knobs in the FLAT position, with the BASS and TREBLE controls centered at the indexed marks.

During test recordings, experiment with the position of the controls until the most clear and concise sound track is achieved. If the location of the recording process is in the same room, mark the preferred position of the knobs with a dark grease pen or felt-tip marker for quick reference.

Tandberg 3600 DX. The audiotape recorder selected for the pilot courts is the two-channel Tandberg 3600 DX. Noted for dependability and its reliable tape transport system, this machine also incorporates a Dolly B noise reduction circuit - for increased clarity in the higher frequencies. The 3600 DX is equipped with a headphone jack which permits the monitoring of the audio signal during record and playback. The 3600 DX does not include a built-in amplifier/speaker system for playback of audiotapes, therefore, if used in the courtroom it must be connected to an amplified system such as a public address system. (Use the same procedures for hooking up the 3600 DX to a PA system as are outlined in Part 7.4, page 46 of the Guidelines for hooking up a VTR). The three-head design of the recording system offers the ability to select between the source signal to the recorder and the recorded signal on the tape. This positively affirms a satisfactory level of recorded information exists on the tape -- as the recording process occurs.

The 3600 DX should be operated at 1-7/8 IPS speed for testimony recording, and 7 inch reels of 1800 foot quality audiotape should be used to allow at least three hours of recording in each direction. The tape can be run through again, for a maximum of six hours recording per reel. Threading information, and routine operation is covered in the Tandberg Operating Instructors booklet. Read the booklet thoroughly before operating the machine.

9.4 Recording Procedures.

Recording with the 3600 DX is accomplished in the following manner: (Figure 3)

1. Thread the tape and allow the machine to run for approximately ten digits on the counter. This will ensure some "leader" at the beginning of the recording session. Now push the counter button and it will reset to zero.

2. Set the S on S knob to the "NORM" position.

3. Select "NORM" on the DOLBY N.R. knob.

4. Place the START/STOP lever to the stop position.

5. Depress the red RECORD button and hold it, while moving the "T" lever to the down position.

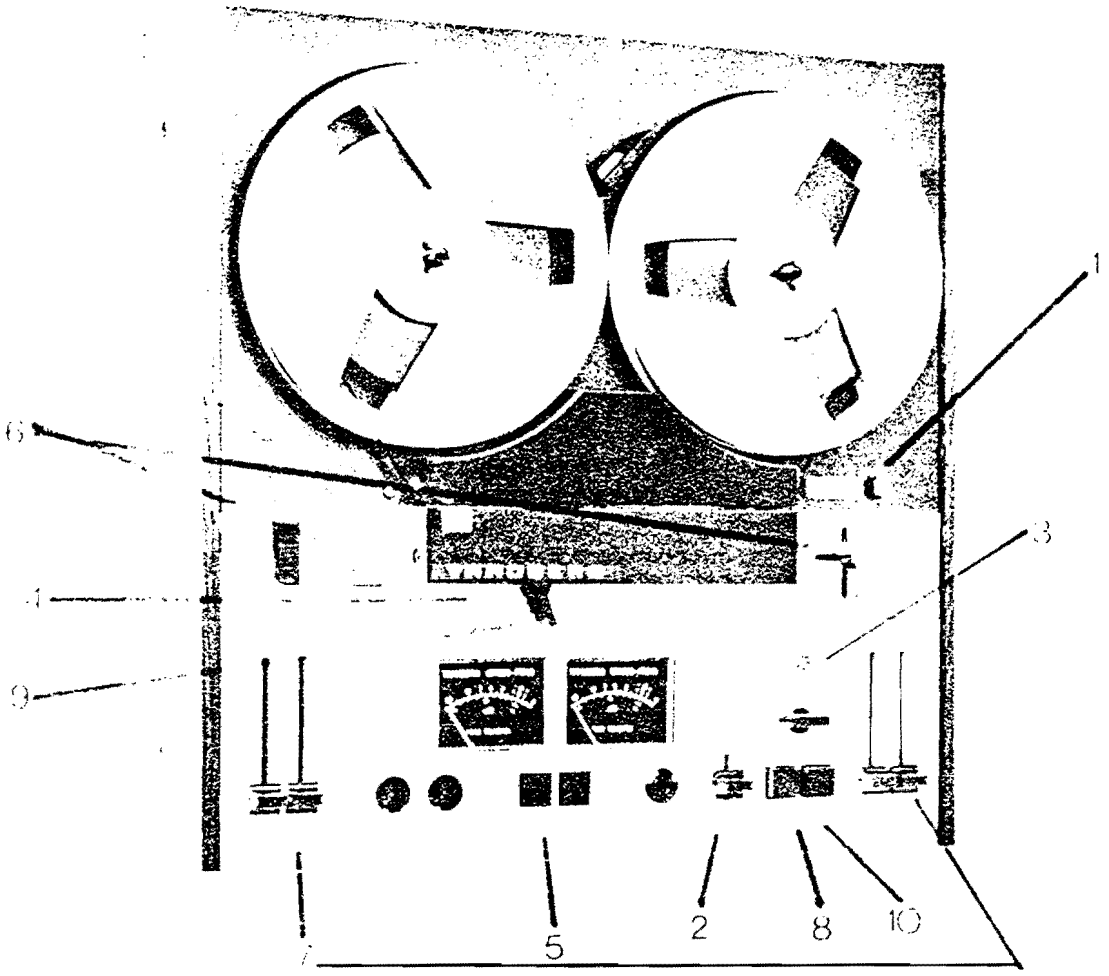
6. Depress both of the REC SELECT buttons. (The VU meters will light up, arming the meters.)

7. During the microphone checks, adjust the INPUT LEVEL selector until the VU meters on both channels swing up to the red band.

8. Select both buttons to the OUT position at the SOURCE/TAPE controls. This allows monitoring of the incoming signal to the recording circuitry of the machine. Plug in the KOSS PRO 4AA headphones and adjust the volume with the output selectors.

9. When ready to record, move the START/STOP selector to the START POSITION.

10. During recording, the sound track can be monitored after it has gone on the tape by depressing the SOURCE/TAPE buttons. Leave the buttons in this position, and periodically put on the headphones to check the recording. Since the signal on the tape is heard after it is recorded it is natural to notice a slight lag between what's being spoken and what is heard in the headphones. (Check tape speed.)



1. Move T lever to FREE position
2. S on S knob to NORM position
3. DOLBY NR to NORM
4. STOP/START to STOP
5. Depress REC/SELECT buttons
6. Depress REC button, T lever to down position
7. Adjust input level and output level slides
8. SOURCE/TAPE buttons out to SOURCE position
9. START/STOP to START position
10. SOURCE/TAPE buttons in to TAPE position

FIGURE 3

9.5 Playback Procedures.

When the recorded session is completed, return the "T" handle to the center position. This stops the recording process. Select rewind, and stop the tape when "zero" is indicated in the counter. Ensure the SOURCE/TAPE buttons are depressed, and then move the "T" handle to the down position. Adjust the OUTPUT LEVEL indicators until the proper volume is achieved.

Sony TC-110 B. It is possible to include two audio cassette recorders in the system, in order to provide attorneys with a copy of the recorded testimony. The SONY TC-110 B recorders are driven by a line signal from the Tandberg machine, and will automatically adjust the volume/level during recording. It is recommended that the maximum cassette length used in these recorders be C-120 (60 minutes recording time per side) to prevent jamming.

The recording process works as follows: (Figure 4)

1. Insert the audio cassette and close the cover of the machine.

2. Depress the record button, hold it, and depress the play button. The machine will now run in the record mode; however, the "leader" tape inside the cassette will prevent signal recording for approximately 6 seconds -- until the actual recording tape reaches the record head.

3. When the cassette reaches the end of the first side, the machine will automatically shutoff. Press the EJECT button, turn the cassette over, and repeat the recording process on the second side.

The input signal may be monitored during recording by using a small ear piece, which is plugged into the earphone outlet. This is not a guarantee that the signal has been recorded on the tape. Playback is the only method of checking tape content.

Since the cassette system will require tape changes more frequently than the open reel machine, it is recommended that a time log be kept to give an indication of when the next cassette change is due.

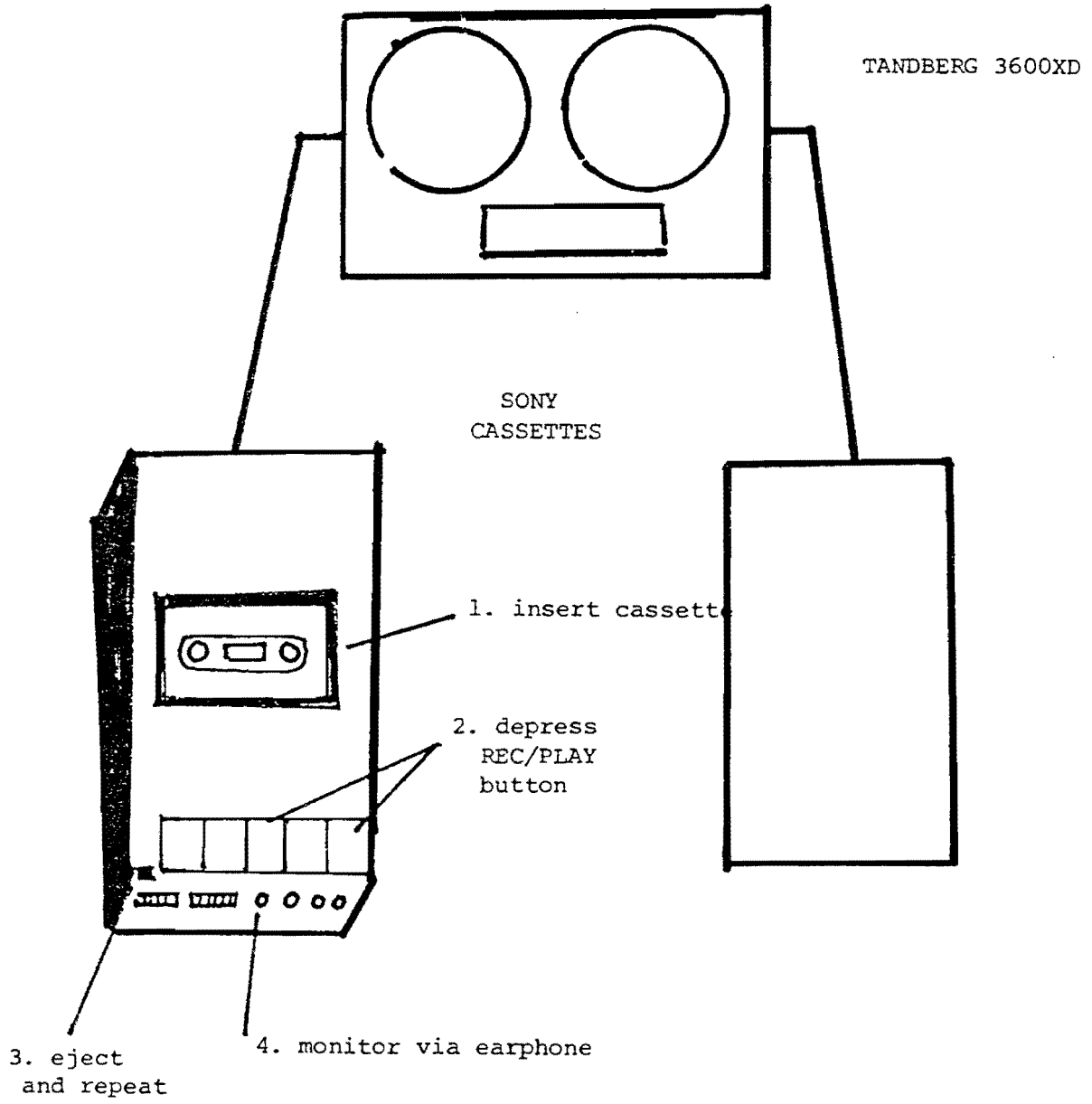

TANDBERG 3600XD
SONY
CASSETTES
1. insert cassette
2. depress
REC/PLAY
button
3. eject
and repeat
4. monitor via earphone

FIGURE 4

VTR. Recording of audio on the VTR should be accomplished through the high level "Line" or "Aux" inputs. Procedures for recording are established in the Guidelines, and should be followed -- with these exceptions:

1. If a Panasonic VTR is used as the VTR machine, select automatic or AGC audio control during the recording process. Monitor the VU meter periodically for normal operation indication.

2. If a Sony VTR is used as the VTR unit, select manual audio control for recording. Rotate the volume control between 1/4 and 1/2 open initially, and adjust the level during the michrophone checks. Monitor the VU meter for indication of a good signal. The Sony machine will give good performance in the automatic (AGC) mode; however, the VU meter is disabled in the automatic mode.

9.6 Conclusion.

Part 9 of the Guidelines is designed to help outline the procedures for and use of the equipment in the audio back-up system. It is intended as a guide and supplement to training in the operation of a video/audio recording system. It should be used in conjunction with the operation material supplied by the manufacturers. In summary, the following suggestions are made:

1. Production Notebook -- keep a small notebook of successes and problems in the operation of the machinery and production facility. Notation on types of microphones, set-up, mixer controls, etc. can be helpful review and basis for continued professional quality productions.

2. Routine Maintenance -- follow the manufacturer's recommendations for cleaning the heads and adjusting the equipment. Take time to ensure all components are clear and functioning properly. It is far better to prevent problems -- than have to solve them!

3. Checklist -- keep the attached checklist handy for reference during set-up and recording. It helps save time and ensures good habit patterns for equipment operation.

4. Trouble-shooting -- if you have followed directions, and the system doesn't operate properly, check all components using the three primary pathways: AC Power, Video and Audio. Trace each pathway through its entire route, being careful to really "see" what you're looking at. Sometimes an extra person can help in checking VU meters, tightening connections, etc.

A list of common problem-makers in audio follows:

1. Cables -- these receive the most day-to-day abuse. Check all connector solder joints for damage.

2. Impedance selectors -- LO or HI impedance selection must match the microphone rating.

3. Level connectors -- ensure microphone outputs are connected to microphone (low level) inputs, and that "Line" or "Aux" terminals are correctly interconnected. The two don't mix!

4. Volume controls -- make certain all volume controls and both master controls are correctly positioned.

5. Source/Tape control -- ensure the desired input is selected for proper headphone monitoring.

6. ALWAYS MAKE A TEST RECORDING -- play it back, re-adjust if necessary, then proceed.

CHECKLIST: ALWAYS MAKE A TEST RECORDING!

1. MICROPHONES/MIXERS

____ Microphones in place and connected.

____ "LO" impedance selection on M-68/M-63

____ "Mic out" to "Y" Adaptor.

____ "Line out" to VTR.

____ M-68 master knob -- position 6 or 7.

____ M-63 master knob -- position 7 or 8.

____ All individual mic knobs -- OFF or CLOSED.

2. TANDBERG 3600 DX

____ S on S knob and Dolby knob to "NORM."

____ "Y" adaptor to mic inputs.

____ "Line out" to cassette recorders.

____ Tape Threaded -- run 10 digits -- 1-7/8 IPS.

____ "Stop/Start" lever to "Stop."

____ Hold "Rec" button -- "T" handle down.

____ Depress both "record selectors" -- VU meters on.

____ Source/Tape selectors to "Source" for mic check.

____ Open input selectors to set volume.

____ Monitor VIA Headphones.

3. TC-110 B CASSETTE RECORDERS:

____ "Tighten" cassette and insert - Run 6 seconds.

____ "Line out" from 3600 DX to "Line Input" on TC-110 B.

____ Hold "Rec" button and press "Play" to record.

____ Note time on log sheet.

____ Monitor via earphone.

4. VTR: Panasonic

____ Tape threaded, video checked.

____ "Line out" on M-63 to "Audio in" (RCA to RCA).

____ Select "AGC" or Automatic Audio.

____ Push "Rec" button, monitor "VU" meter for audio.

5. VTR: Sony

____ Tape threaded, video checked.

____ "Line out" on M-63 to "Aux in" (RCA to Mini).

____ Select Manual Audio, open 1/4 to 1/2 turn.

____ Push "Rec" button, Monitor "VU" meter for audio.

REMARKS:

1. Mark microphone inputs -- set levels.

APPENDICES

APPENDIX A - SAMPLE FORM

A court order granting a motion to videotape a deposition pursuant to rule 30(b)(4), Federal Rules of Civil Procedure, or a stipulation under rule 29 might consist of the following provisions:

1. The deposition of _____ may be taken on the _____ day of _____, in the United States Courthouse, United States District Court for the _____ District of _____, at _____(time).

2. The deposition is to be recorded on videotape, the video equipment to be operated by personnel of the United States District Court.

3. The witness shall be first duly sworn on camera by the officer of the court authorized to administer oaths before whom the deposition is being taken.

4. The video operator (or the camera person and person making the sound recording, if any) shall take an oath to record all proceedings accurately and completely, and certify as to the correctness and completeness of the videotape and that the witness was duly sworn by him.

5. Video camera operation may be suspended during the deposition upon stipulation of counsel.

6. Evidence objected to shall be taken subject to the objections. All objections shall be noted upon an index listing pertinent videotape reel and videotape recorder counter numbers by the operator, which index shall be retained with the videotape recording.

7. The videotape upon which the testimony of the witness is recorded shall be preserved in the custody of the clerk of the court, subject to viewing by any party upon request.

8. Upon reasonable notice to all parties a copy of any part or all of the videotape recording may be made by a party at her/his own expense.

9. If requested by any party a typewritten transcript may be made of the deposition at the requesting party's expense and a copy furnished to each party requesting one at her/his expense.

10. The witness' examination and signing of the videotape recording are waived by the parties.

11. The videotape recording of the testimony may thereupon be used as fully and to the same extent as other depositions.

_____
Counsel

_____
Counsel

Dated this _____ day of _____.

APPENDIX B - RULES OF PROCEDURE AND COURT RULES CONCERNING VIDEOTAPE

Federal Rules of Civil Procedure

Rule 30(b)(4) Non-Stenographic Recording. The court may upon motion order that the testimony at a deposition be recorded by other than stenographic means, in which event the order shall designate the manner of recording, preserving, and filing the deposition, and may include other provisions to assure that the recorded testimony will be accurate and trustworthy. If the order is made, a party may nevertheless arrange to have a stenographic transcription made at his own expense.

Rule 30(c) Record of Examination. The officer before whom the deposition is to be taken shall put the witness on oath and shall personally, or by someone acting under his direction and in his presence, record the testimony of the witness. The testimony shall be taken stenographically or recorded by any other means ordered in accordance with subdivision (b)(4) of this rule. If requested by one of the parties, the testimony shall be transcribed.

Rule 29 Stipulations. Unless the court orders otherwise, the parties may by written stipulation (1) provide that depositions may be taken before any person, at any time or place, upon any notice, and in any manner and when so taken may be used like other depositions...

State Rules

Alabama Rules of Civil Procedure, Rule 30(b)(4)

Florida Rules of Civil Procedure, Rule 1.310

Iowa Rules of Civil Procedure, Rule 140(b)(4)

Michigan Supreme Court Rules, Rule 315. Visual Depositions.

Minnesota Civil Rules of Procedure, Rule 15. Audio-Video Recording of Depositions and Use Thereof at Trial.

Missouri Supreme Court Rules, Rule 57

Nebraska Revised Statutes, Sections 25-1240--1267.45

Nevada Rules of Civil Procedure, Rule 30(b)(4)(c)

Ohio Rules of Civil Procedure, Rules 30(b)3, 40
Ohio Supreme Court Rules of Superintendence, Rules 10, 14, 15

Pennsylvania Rules of Civil Procedure, Rule 3017.1. Videotape Depositions.

Texas Rules of Civil Procedure, Rule 215c

Vermont Rules of Civil Procedure, Rule 30(b)(4)

Washington Civil Rules, Rule 30(b)(4)

APPENDIX C - CASES

Selected Federal Cases

Rule 30(b)(4) Non-Stenographic Recordings

Buck v. Board of Education, 16 Fed. Rules Serv. 2d 112 (E.D.N.Y. 1972) (depositions permitted to be recorded on audio tape provided a duplicate original is filed with the clerk of court, and a typewritten transcript furnished to the witness, for bona fide correction, signature, and filing).

Carson v. Burlington Northern Inc., 52 F.R.D. 492 (D. Neb. 1971) (motion to take deposition by stenographic and videotape means granted, provided cameraman and person making sound recording take an oath to accurately and in a trustworthy manner photograph and record the proceeding, and certify the correctness and completeness of the recording in the manner a stenographic reporter certifies a typed transcript; an original is to be filed with the clerk of court to be preserved as exhibits are preserved. Order is first interpretation of Rule 30(b)(4), Fed. R. Civ. P., and first re videotape. Deposition was videotaped at the scene of the plaintiff's injury, a blacksmith's shop in defendant railroad's diesel yard).

Colonial Times Inc. v. Gasch, 509 F. 2d 517 (D.C. Cir. 1975) (mandamus was available to review district court's refusal to allow the taking of a deposition by other than stenographic means, and that such a denial may be allowed only where the judge is convinced that, given the facts of the particular situation, the particulars of the request do not reasonably ensure accuracy equivalent to stenographic depositions).

In the Matter of Daniels, 69 F.R.D. 579 (N.D. Ga. 1975) (witness filed a motion for a protective order to require the taking of his deposition before a stenographic reporter rather than by videotape. The court held that due to the fact that Daniels was an essential witness who might not be available to testify at trial, a videotaped deposition should be available to give the fact finder greater insight into the witness' demeanor and manner of testifying).

Hendricks v. Swenson, 456 F. 2d 503 (8th Cir. 1972) (videotaped confession admissible in first degree murder case as not violative of fifth amendment rights, where statement was freely and voluntarily given and proper foundation laid, with suggestion by court that videotape protected defendant's rights and that all such statements would benefit from preservation in that manner).

Jarosiewicz v. Conlisk, 60 F.R.D. 121, 124-126 (N.D. Ill. 1973) (motion to record depositions by other than stenographic means held in abeyance until moving party delineates definite method, procedure, and safeguards, subject to the conditions that the responsibility remain on the calling party, an independent operator be used, and the quality of the recording be as high as in stenographically recorded deposition).

Kallen v. Nexus Corp., 54 F.R.D. 610 (N.D. Ill. 1972) (first published order granting motion under Rule 30(b)(4), Fed. R. Civ. P., for audiotape recording depositions, with exceedingly cautious and detailed safeguards for accuracy and trustworthiness. The court required the calling party to be responsible for the quality of the record, to employ an independent operator, to use equipment of very high reproductive quality, specifically ordering: lavalier microphones, stereo recordings, separate simultaneous recordings from a single source, log-index of subject matter, exhibits, attorneys and witness, and certification by the operator of the correctness and completeness of the recordings).

Lucas v. Curran, 62 F.R.D. 336 (E.D. Pa. 1974) (purpose of Rule 30(b)(4), Fed. R. Civ. P., in facilitating less expensive procedures is effective participation of economically disadvantaged. Thus procedures should not be so onerous as to make it prohibitively costly, although procedure should include: non-participant operator to monitor equipment; two original tape recordings, one to be filed with the court; identifications of speakers; authorized person to administer oath if deposition to be used at trial; calling party to transcribe any portion either party desires, the transcript to constitute official record for trial.

Marlboro Products Corp. v. North American Philips Corp., 55 F.R.D. 487 (S.D.N.Y. 1972) (motion granted to audio tape record depositions provided counsel work together to formulate order; independent operator not required; transcript to be typed by calling party's secretary; monitoring or backup device to guard against equipment failure to be used).

Montgomery Mills, Inc. v. Giffen-Burgess Corp., 62 F.R.D. 105 (D. Del. 1974) (on motion for protective order under Rule 26(b)(2) Fed. R. Civ. P., attorney's practice of audio tape recording testimony for his own use during depositions officially stenographically recorded permitted, citing court's power to permit recording devices at depositions, Rule 30(b)(4), Fed. R. Civ. P., provided microphone is unobtrusive, and counsel does not interrupt at all to adjust tape recorder. By listening to a tape recording, the attorney found he was better able to formulate additional questions for the next day, and to prepare a digest of deponent's testimony without having to wait for a written transcript).

Perry v. Mohawk Rubber Co., 63 F.R.D. 579 (N.D. Ga. 1975)(Rule 30(b)(4) does not authorize use of non-stenographic technique as a matter of right. Where the opposing party objects to such a motion, the court will consider the merits of the request to see whether non-stenographic recording is necessary, either for economic reasons or for reasons of justice. However, where such necessity is lacking, and the request is motivated purely by personal preference of a single party, the court will deny the 30(b)(4) motion).

U.A.W. v. National Caucus of Labor Committees, 525 F.2d 323 (2d Cir. 1975)(the refusal of the trial judge to allow the taking of depositions by non-stenographic means was not an issue for interlocutory or mandamus review. Furthermore, the Second Circuit disagreed with the analysis of the D.C. Circuit in *Colonial Times Inc., v. Gasch, supra*, as to the proper scope of trial court discretion under Rule 30(b)(4). While the latter case took a narrow view of that discretion, this court held that the judge has wide discretion to grant or deny motions made under the Rule, just as it has in regard to other issues in the discovery procedure).

United States v. LaFatch, 382 F. Supp. 630 (N.D. Ohio 1974) (upheld use of videotaped deposition of a witness in a criminal proceeding, and made passing reference to the need of the judiciary to accept and promote technological advances relating to the administration of justice).

Wescott v. Neeman, 55 F.R.D. 257 (D. Neb. 1972) (order granting motion to audio tape record depositions, listing specific guidelines similar to those in *Kallen v. Nexus Corp., supra*, plus voice identification of the speaker, and requiring a certified written copy of any portion sought to be introduced later at trial under Rule 32, Fed. R. Civ. P.).

Zollman v. Symington Wayne Corp., 438 F.2d 28 (7th Cir. 1971) (videotape demonstrating car lift permissible as demonstrative evidence).

Selected State Cases

Blumberg v. Dornbusch, 139 N.F. Super. 433, 354 A. 2d 351 (1976) (while procedural rule governing depositions did not expressly permit videotaped depositions, neither did it prohibit them; admission of such depositions as evidence was a question committed to the sound discretion of the trial judge, the test being whether the videotape is a fair, accurate and undistorted representation of the deposition of the witness. Accord, *Rubino v. G. D. Searle & Co.*, 340 N.Y.S.2d 574 (1974); *Bichler v. Eli Lilly & Co.*, 376 N.Y.S. 2d 144 (1975).

Hutchins v. State, 286 So. 2d 244 (Fla. Ct. App. 1973) (testimony of laboratory technician taken by videotape, upon court finding of witness' unavailability to appear at criminal trial, with provision for presence of defendant and counsel and for duplication of tape for defendant).

Paramore v. State, 229 So. 2d 855 (Fla. 1969) (videotape confession, found to be an accurate reproduction of entire interview between officer and defendant, and a free and vuluntary statement, properly received in evidence).

People v. Moran, 39 Cal. App. 3d 398, 114 Cal. Rptr. 413 (1974) (videotape of preliminary hearing testimony of main prosecution witness admitted at trial did not deny right of confrontation, where witness was dying, defendant knew of witness' condition and expected testimony to be used at trial, and extensive cross-examination was held at hearing).

State v. Hewitt, 545 P. 2d 1201 (Wash. 1976) (the civil rule governing stenographic and non-stenographic depositions [Wash. R. Civ. P. 30(b)(4)] permits the use of videotaped depositions. Court also held that the Sixth Amendment rights of the party opposing the admission of the deposition are not violated where four criteria are met: (1) the deposed witness is unavailable at time of trial, (2) witness is properly sworn in, (3) opponent had opportunity for cross examination at time of deposition, and (4) the videotape is properly authenticated).

State v. Lewis, 35 Ohio App. 2d 218 (1973) (videotape of criminal trial is transcript and need not be transcribed into written form for purposes of appeal, but counsel may view the tape on file at the courthouse and is provided an audio cassette recording).

State v. Lindsey, 507 S.W. 2d 1 (Mo. 1974) (appellant challenged the admission of his videotaped confession because it was not demonstrated to be reliable, and because such evidence made such an emotional impact on the jury that it obscured all other evidence. Court held reliability had been established by testimony as to videotape's accuracy, and that the "emotional impact" argument went to weight rather than admissibility. The state is not precluded from using its most persuasive evidence merely because it is damaging to appellant's case).

State v. Mattox, 12 Wn. Ap. 907, 532 P. 2d 1194 (1975) (videotape which showed defendant being advised of his rights by the police was admissible to rebut defendant's defense of intoxication. While defendant may have a valid argument against its use in the prosecution's case in chief based on Sixth Amendment grounds (no defense counsel present during taping), videotape was still admissible as impeachment evidence).

State v. Scott, 535 S.W. 2d 281 (Mo. 1976) (denied defendant's request that a videotape of him made by the police, containing his account of the alleged crime, be admitted as evidence to corroborate his testimony at trial; held that the videotape was irrelevant, repetitive and hearsay).

Williams v. State, 542 P. 2d 554 (Okla 1975) (authenticity of videotape confession is sufficiently established by witness who specifically identified the videotape, and testified that as presented this exhibit was a true and correct representation of the actual events depicted therein, and that the original tape had not been altered or tampered with in any way).

APPENDIX D - SELECTED ARTICLES

Barber & Bates, *Videotape in Criminal Proceedings*, 25 Hastings L.J. 1017 (1974).

Bermant, et al., *Juror Responses to Prerecorded Videotape Trial Presentations in California and Ohio*, 26 Hastings L.J. 975 (1975).

Brakel, Samuel J., *Videotape in Trial Proceedings: A Technological Obsession?*, 61 A.B.A. J. 273 (1973).

Cunningham, Robert E., *Videotape Evidence: Technological Innovation in the Trial Process*, 36 Ala. Lawyer 228 (1975).

Darnieder, *Videotaped Depositions, A Court Reporter's View*, 34 Nat's Shorthand Rep. 13 (June 1973).

Doret, *Trial by Videotape--Can Justice be Seen to be Done?* 47 Temp. L.Q. 228 (1974). An extensive videotape bibliography is listed. *See id*, at 228 n.1.

Kornblum, *Videotape in Civil Cases*, 24 Hastings L.J. 9 (1972).

Kornblum & Rush, *Television in Courtroom and Classroom*, 59 A.B.A. J. 273 (1973).

McCrystal, *Videotape Trials: Relief for Our Congested Courts*, 49 Denver L.J. 463 (1973).

McCrystal & Kornblum, *The Pre-Recorded Videotape Trial: A Status Report*, 25 Federation of Insurance Counsel Quarterly 121 (1975).

Miller, *Videotaping the Oral Deposition*, 18 Prac. Law. 45 (1972).

Morril, *Enter--The Videotape Trial*, 3 J. Marsh. J. Prac. & Proc. 237 (1970).

Niehaus, William F., *Videotape and the Courtroom Process*, 18 Air Force L. Rev. 87 (1976).

Roth, *Videotape in the Courts: Its Use and Potential*, 3 Rutgers J. Computers & L. 279 (1974).

Valentino, Vincent, *Practice, Procedure and Forms under the Nebraska Videotape Deposition Statute*, 8 Creighton L. Rev. 314 (1975).

Annot., *Recording of Testimony at Deposition by Other Than Stenographic Means Under Rule 30(b)(4)*, 16 A.L.R. Fed. 969 (1973).

Case Note, *Evidence--Admission of Videotape (Hendricks v. Swenson)*, 38 Mo. L. Rev. 111 (1973).

Comment, *Rule 30(b)(4); Colonial Times v. Gasch (509 F.2d 517)*, 26 S. Car. L. Rev. 753 (1975).

Comment, *Nebraska Faces Videotape: The New Technology in Perspective*, 6 Creighton L. Rev. 214 (1973).

Comment, *Videotape Depositions: An Alternative to the Incarceration of Alien Material Witnesses*, 5 Calif. W. Int'l L.J. 376 (1975).

Comment, *Videotape Trials: Legal and Practical Implications* 9 Colum. J.L. & Soc. Prob. 363 (1973).

Note, *Admissibility of Videotaped Depositions in Missouri*, 43 U.M.D.C. L. Rev. 138 (1974).

Note, *On Camera--The Advent of the Videotape Trial*, 40 Albar L. Rev. 367 (1976)

Note, *Review of a Discovery Order Under F.R.Civ.P. 30(b)(4)*, 22 Wayne L. Rev. 179 (1975).

Note, *Videotape--Its Use and Potential Use*, 24 Drake L. Rev. 419 (1975).

Note, *Videotape Trials: A Practical Evaluation and a Legal Analysis*, 25 Stan. L. Rev. 619 (1974).

Symposium, *The Use of Videotape in the Courtroom*, 1975 Brigh Young L. Rev. 327 (1975).

_____, *Modernizing Trial Techniques and Management: Audio-Visual Testimony*, Excerpt from Proceedings of the Judicial Conference of the Sixth Judicial Circuit of the United States, May 1972. 58 F.R.D. 221.

_____, *Selected Checklist on Videotape and the Courts*, (bibliography), 30 Record of Assoc. of Bar of City of New York 221 (1975).

APPENDIX E - BOOKS

ABA-AIA, The American Courthouse—Planning and Design for the Judicial Process 33-37 (Ann Arbor: Institute of Continuing Education) (1972).

Mattingly & Smith, Introducing the Single-Camera VTR System (N.Y.: Charles Scribner's Sons) (1973) (videotape text).

A. Morrill, Trial Diplomacy 226-34 (Chicago: Court Practice Institute) (2d ed. 1972).

Federal Judicial Center
Thurgood Marshall Federal Judiciary Building
One Columbus Circle, N.E.
Washington, DC 20002-8003