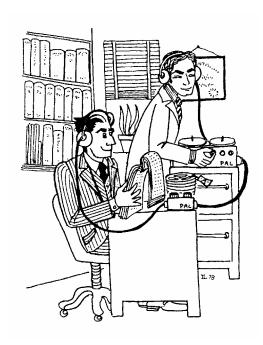
# A PROSECUTOR'S GUIDE TO THE USE OF AUDIO TAPED EVIDENTIARY MATERIAL

# BY PAUL GINSBERG

# PROFESSIONAL AUDIO LABORATORIES 7 Skylark Drive Spring Valley, N.Y. 10977





Cartoons By Patricia P. Parsons

#### INTRODUCTION

This guide for the use of audio taped evidentiary material has been prepared with emphasis on the different steps encountered during prosecution of a case, starting with pre-trial preparation, through jury deliberation.

The recommendations are based upon our experience in over 1,000 cases in 23 Federal districts, and represent the common problems and procedures found in all cases involving audio taped evidentiary material.

Finally, please remember that this guide has been written by an engineer. Consequently, any legal conclusions should be taken with a "grain of salt", any legal expertise having been gained through courtroom osmosis.

#### PRETRIAL

#### **Transcript Preparation**

Upon learning from an agent that a case includes tape recorded evidentiary material, after the initial shock subsides, the most important part of preparation begins --namely, transcript preparation.

The importance of transcript preparation cannot be underestimated. Upon it rides the following:

- 1. Ability of thejury to hearthe tape
- 2. Believability of the conversation
- 3. Credibility of the witness testifying as to the conversation
- 4. Believability of the entire prosecution case.

If the work in connection with a tape case were to be split between pretrial transcript preparation and presentation at trial, the pretrial transcript preparation phase would merit 99% of the effort, whereas the trial presentation would merit only 100/6. The reason is that a well-prepared, accurate transcript will immeasurably assist the jury (and Court) in hearing noisy or otherwise inaudible portions of the conversation. An accurate transcript gives the jury listening to the tape for the first time the benefit of the hours of work that went into transcript preparation. The apparent intelligibility of a tape is increased to a point where the jury can just about hear the desired conversation on their one and only listening as well as you did on the last playing during

transcript preparation.

The initial draft of a transcript can be done by a secretary, or preferably by the undercover participant, or alternately by the case agent. The undercover participant, presumably the one through whom the tape will be introduced, is the person who is best able to make voice identification for transcript preparation. Also, names, dates, places and slang expressions will be more recognizable to him than to a transcriber not familiar with the case.

The form of a transcript is as follows, double spaced and like a script from a play

Costello: What's the name of the guy on second base?

Abbott: That's what I said. Costello: What's his name?

Abbott: That's right.

Some standard abbreviations used in transcripts are:

UNM - unknown male UNF - unknown female SCI - special cooperating informant (UI) or (U)- unintelligible (IA) or (I)- inaudible

Participants should be designated by their names, to agree with the indictment, unless you feel that there is an advantage in using a particular given name, or if one is continually being referred to by his first name on the tape.

Pages should be numbered A-i, A-2, A-3, etc., the "A" designating the first draft.

Parenthetical remarks, such as (Louie dialing telephone) or (sound of spaghetti boiling over), or more seriously (sound of money being counted) can be inserted, but proceed cautiously, since there is a strong likelihood that since the transcript will be used only as a guide for the jury in listening to the tape, everything other than actual dialogue will be ruled inappropriate by the court.

At the top of the first page, a separate short paragraph should state that for instance:

(Draft A)

The following is a transcript of a telephone call

between JOHNNY CARSON and ED Me MAHON on October 3, 1987, at 6:10 P.M. The call was received on telephone number (213) 555-1212.

CARSON - Johnny Carson MC MAHON - Ed McMahon UNF - unidentified female

The above may or may not be ordered redacted at trial, but it will serve to eliminate confusion in a multiple tape case. For a simple 20 page transcript, hundreds of pages of drafts, handwritten, corrected, typed, and re-typed, can be generated,

and it is absolutely necessary not to allow the transcripts to take over your office. Runaway transcripts are as deadly as quickstand, especially on the eve of trial.

Incidentally, one might want to use all capitals for proper names in the text of the transcript.

Tapes you are likely to encounter are:

Telephone tapes - generally of good quality since the participants are in effect speaking directly into the tape recorder.

Bug tapes - these are of various types, usually with considerable room echo and transmission noise. These tapes can vary from low quality unintelligible tapes to high quality, perfectly legible tapes, depending upon location of bug, participants and ambient noise.

Body tapes -

NAGRA - a self-contained miniature tape recorder of

extremely high quality (about \$7,000) which is about the size of two packs of cigarettes. The NAGRA is capable

of recording conversations as long as 3 hours and 15 minutes.

MICROCASSETTE - various microcassette recorders are used in the field due to their small size and consequent ease in concealment. Quality of microcassettes is inferior to that of a Nagra, but the cost for a microcassette can be as low as \$50. At the normal slow speed of 1.2 cm./sec. maximum recording time on a microcassette is either 60 or 90 minutes, depending on the type of tape used. AID - the AID device is a miniature radio transmitter which is used primarily because of its size, about 1/2 that of a

NAGRA, and also to protect an undercover operative by allowing surveillance agents to monitor a situation while recording at a remote site in a car or in an adjacent

location using an attache case radio receiver and either cassette or reel type recorder. The quality of the AID is inferior, as it is subject to all types of radio interference. The worst tapes that you will hear are AID's, for the above stated reasons.

During subsequent drafts at one point the tape should be indexed; that is a record should be made of where different statements in the transcript appear for future reference. One might include the index counter setting along the left or right margin in parentheses for at least one or two statements per page on a transcript to assist in finding selected portions later during summation or deliberation.

IMPORTANT: Be advised that the index counter on one machine will generally not agree with one on another machine. Counters measure arbitrary units, not feet, and vary even from one end of a tape to the other. Consequently it is a good idea to mark somewhere the model and number of the machine on which the indexing is done.

Playback (as well as recording) of tape-recorded evidence is quite demanding. Reliability of machines is of paramount importance. Usually undercover agents are not in a position to have a duplicate conversation with a subject after it is discovered that a recorder has failed. Similarly in the courtroom the smoothness and continuity of your presentation is important in the minds of the Court and jury. For these reasons it is imperative to use the most reliable machines available. An example of such a machine is the Phi Tech Desktop Recorder designed for constant use with a MTBF (mean time between failures) of 3,000 hours. This cassette deck has two speeds, operates in full stereo and also contains its own speakers for portable use. For transcription there is an optional remote control and variable speed control.

With respect to court-ordered Title III telephone taps the original tapes will be sealed in order to preserve their integrity. Original quality tapes will be available for review and transcription however thanks to devices like the Phi Tech Title III Line Monitoring System. This is a suitcase sized piece of equipment which connects to the telephone line and produces 3 original

quality tapes simultaneously. Thus a duplicate original, and a work

copy are made along with an original to be sealed, all automatically and with the same quality. As with all equipment used in law enforcement reliability is of paramount importance. The Phi Tech system is an example of such a unit.

It is not uncommon in the case of long-term conspiracies to have several hundred pertinent conversations, ready to play at trial. It is imperative in such a case that a chart be made with columns set up spreadsheet style, for date, time, original reel or cassette number, intercept number, and columns to be checked when final enhanced tape has been produced, draft transcript, final transcript, transcript interpreted, if necessary, and final review of tape and transcript by witness. Without such a chart this number of tapes can easily get out of hand.

Once the final draft is done by the participant, he should initial both final transcript and original or enhanced tape after listening while reviewing the draft of the transcript.

In many cases it is desireable to produce enhanced copies for use at trial. Enhancement is really a misnomer since in actuality nothing is enhanced. Rather the extraneous noise and nonhuman sounds are minimized electronically leaving the original speech more intelligible and easy to understand. The original tape is not changed in any way during the production of the enhanced copy. Professional Audio Laboratories specializes in the production of the dearest enhanced copies possible using the latest state-of-the-art enhancement equipment. Please call with your requirements.

The final draft of the transcript can be numbered without identifying draft designation, and after a final review by the witness, all previous copies destroyed. At least 20 copies of the final draft should now be run with the signed original marked for i.d. Usually the tape is marked Government's Exhibit 6, for example, with the transcript marked 6A.

A copy of the tape and a copy of the transcript are now forwarded to defense for "discovery." If, due to time pressures you must forward a draft rather than the final transcript, clearly mark it "Preliminaty Draft" so that you are not bound by it.

At this point during pretrial motions you might request, with respect to the tapes and transcript, that any motions be made by a specified date so as to leave time for any transcript changes and reduplication, etc. Hopefully this will preclude defense from making these motions at trial just before playing the tapes for the

jury. This will serve to bind defense after the specified date as to transcript, etc.

If only a portion of the tape is to be played one has the option of providing either a transcript of the complete tape in which it is indicated which parts will be played for the jury, or, alternately, only a redacted transcript corresponding to the parts to be played. The defense in this case would be responsible for providing a full transcript if they desire to play the full tape.

#### **AUDIBILITY HEARINGS**

After receiving the copy of the tape and transcript, the defense attorney will either call and say that he hears nothing on the tape or that your transcript does not agree with the tape. At this point, a meeting is generally arranged to allow the defense attorney (and sometimes defendant) to listen to the original tape at the U.S. Attorney's office and in the custody of a Government agent. Hopefully some of the discrepancies in the prosecution and defense transcripts are resolved at this meeting.

If there are any remaining discrepancies, an audibility hearing is usually scheduled so that the Court may listen and determine:

I.whether or not the tape on the whole is audible

2. the most accurate transcript at questioned parts Note that some judges prefer to leave the accuracy of the transcript as a jury issue. Consequently, sometimes at questioned parts two versions of the transcript are submitted to the jury.

Be advised that Courts do not like to spend hours listening to tapes in order to decide issues regarding descrepancies in transcripts. It is clearly better, if possible, to resolve these discrepancies without the need to involve the Court.

At the audibility hearing, in addition to audibility, questions of relevance, custody and authenticity may be raised. These are handled just as for any other piece of physical evidence. Note that there are certain scientific tests which can be performed to verify authenticity, should that be questioned.

If in fact there is a challenge as to authenticity, or an assertion that the tapes have been 'altered" in some fashion, it may be wise to employ an expert to examine the tapes and produce a report as to authenticity, reliability and continuity of questioned tapes.

This is done routinely at P.A.L. In fact from electronic and physical tests we can determine whether the recorder was portable or A-C powered, mono or stereo, the order of recordings on a tape, whether a tape was recorded in the U.S. or in other parts of the world, and whether there were any erasures, over-recordings or irregularities of any kind observed. This is often a useful test in the case where you have tapes recorded by an unsupervised informant.

It is important, as at trial, that tapes be played in the dearest possible manner for the Court, and that the best possible transcript be presented at this time, since the reaction of the judge in listening to the tapes for the first and only time will probably be a guide as to what one might expect in jury reaction.

Assuming that the tapes and transcripts pass the audibility hearing, the next step is:

#### **TRIAL**

Selection of Jurors

During the Voir Dire of jurors a question is usually put forth, as follows:

"It is possible that tape recordings, which were made without the knowledge of all participants, and totally within the scope of the law, may be introduced into evidence (by the Government). Do any of you (potential jurors) have any strong feelings, one way or the other, in connection with the use of such recordings, which would prevent you from rendering a fair and impartial verdict in this case?"

One should also be wary of jurors with hearing aids or other hearing disabilities. Not only might such a potential juror not hear well, but the use of the tapes might somehow seem offensive or embarrassing to him.

For best possible playback of tape recorded evidence, headphones (and processing equipment) are used, as opposed to loudspeakers. The reason for this is that every room has different acoustics and hence a tape which was perfectly audible in your office pretrial will be lost in the acoustics of a large woodpaneled courtroom. Also, with a speaker system if juror #1 turns the pages of his transcript or sneezes, juror #7 behind him will not hear the tape. With headphones, the uniform signal is delivered to the ears of all jurors independent of physical conditions of the courtroom. Incidentally, headphones should also

be provided for defense, prosecution, judge, clerks, court reporter, and witness. The court reporter will probably not even don his headphones for fear of being asked to take the dialogue as it comes. This is unreasonable as the number of hours required to produce the final transcript would attest.

During jury selection, the headphones, tape recorders and processing equipment, if used, can be sitting out on your table. This has been known to have two results--first, guilty pleas, or second, objections by defense counsel.

At any rate, it can be pointed out that it takes quite a while to set up the courtroom properly, and that the equipment being set up will save the Court's time.

Once the jury is selected and the trial is proceeding, eventually the time comes for the introduction of the first tape.

#### THE PLAVING OF THE TAPE

The witness is asked the following questions:
Do you recognize this tape? (He initialled it.)
How and when was it recorded?
Do you recognize this transcript? (He initialled it.)
Have you had occasion to listen to this tape?
And does it comport with your recollection of the conversation as it took place?

How did you prepare the transcript?

Have you read along with the transcript as the original tape was played?

And does it accurately reflect the conversation as it took place?

Do you recognize the voice on the tape?

Did you assign the voice identification of the transcript from your familiarity with the voices of the participants? Your Honor, I now offer Government's exhibit 3 and 3A, the tape and transcript, into evidence.

At this point there will probably be objections, or a request for a Voir Dire on custody, or voice i.d., etc. Also, in only 3 out of 100 cases were the transcripts actually accepted into evidence and later permitted in the jury room during deliberations. They are usually allowed to be used by the jury as a guide only when listening to the tapes. A cautionary instruction is usually given by the Court, instructing the jury that in the case of a discrepancy between the tape and the transcript, the tape, being the evidence, governs.

During the playing of the tape any press reporters can be given headsets, or alternately, a small speaker can be set up, Located a distance from the jury so as to provide a signal for the spectators, thus countering the defense objections that in its absence, "this is not a public trial.

If only part of the tape is played by prosecution, the defense can play the entire tape. For this reason, complete transcripts should be available for this eventuality. One would do well to consider the effect of minor supposedly exculpatory material being played to the jury by defense versus playing an entire tape and hearing the witness testify on direct as to the meaning of different statements on the tape.

With respect to testimony during introduction of tape recorded evidentiary material, it is important to preserve continuity, while providing as much insight into the facts of the case for the jury. Accordingly, a tape might be played in its entirety followed by a Q & A session with reference to the transcript. This, in effect, allows the jury to first hear the tape and then while the

transcript is still in front of them (subject to objection), the contents are reviewed and explained, statement by statement. Alternately, especially if the tape is lengthy, the tape can be stopped after each item and the appropriatequestion asked. The condition of the individual tape will suggest which is the logical presentation.

#### **SUMIHATION**

At the summation one might want, for emphasis, to either

play selected portions of the recorded evidence for the jury, or, alternately, to quote from the transcripts. Sometimes, in a long,

multi-tape case, a composite tape is prepared, wherein one quote after another can be played in the most effective sequence. Also,

at this time one can invite the jury to ask for the tapes during the deliberations so that they can listen to the words actually spoken by the defendant. In effect, they can be there at the time of the crime.

Often during the summation the defense will argue about the meaning of the words, that the defendant was joking, etc., points which can be taken up on rebuttal.

#### **DELIBERATION**

During deliberation, the jury will often ask to hear certain tapes, or parts of tapes, which were introduced into evidence. Obviously, th'e tapes and transcripts should be available, ready for use at this time. Care should be taken to play the tapes in the dearest possible manner, since the jury obviously has a question which will be answered one way or the other by replaying

the tape. Sometimes it is to convince a hold-out as to state of mind or intent. Sometimes it is to answer a factual question. We

have played and replayed crucial statements as many as 6 times during deliberation.

Tape recorded evidence provides you with the means to

present aclear accurate and factual record of events as they transpired during the course of a crime. They are effecient, concise, and ovennrhelming when used "properly". However it is possible to overdose on tapes. One should be cautioned against

using tapes of many, identical transactions once a pattern has been established in a long term conspiracy for instance. We have had trials where the combined total number of pages of transcripts exceeded 1000. A jury can become weary after several hours of listening especially if the quality of the tapes is less than perfect. For this reason it is desirable to present testimony between tapes as a breather for your "captive audience.

#### SPECIAL SITUATIONS

Foreign Language Tapes

In the case of foreign language tapes the balance of importance of pretrial versus in courtroom presentation shifts even more in the direction of pretrial work, since the jury will at best be listening to a tape which they do not understand, for which an English transcript has been provided

The procedure to follow in pre-trial preparation is to have the undercover participant listen to the tape and prepare the most accurate foreign language transcript as in the case of an English tape. Following his initialing the final transcript, an interpreter should render the best interpreted English version and sign it. The final step which seems to work is that a final composite transcript is prepared in which there are two columns, one for the English translation which the jury pan follow effortlessly, and the other for the actual dialogue that' appears on the tape even if it is partially in English mixed with a foreign language. This presentation gives a clear picture of exactly what is on the tape, and also allows you to separate the work of the undercover participant and the interpreter in preparation of the transcript.

A foreign language tape can be played to allow the jury to hear the emotion or to emphasize state of mind, etc., even though the actual content is not understood by the jury. Whispering, yelling and other voice manipulations come across emphasized when one is not busy listening for content, and so often there is reason to play foreign language tapes for the jury. In such a case both the agent and interpreter would testify as to the procedure used in preparation of the final transcript.

## Simultaneously Recorded Tapes

Occasionally you will encounter situations where an agent utilized a NAGRA (body recorder) and a AID (body transmitter) simultaneously the result being two independent tapes of the same event. Usually the NAGRA will be of superior quality and therefore probably the one used at trial. Sometimes, however, due to circumstances, one may wish to use both recordings, if, for instance, some statements are more audible on one tape and others more audible on the other. In such a case independent transcripts should be made for each tape leaving spaces and (UNINTELLIGIBLE) where there are spaces even though you know from the other tape what was actually said at that point in the conversation. The reason is that the transcript is supposed to reflect the tape and is to be used as a guide only during the presentation in court of the actual evidence. There is also the possibility that for one reason or another the other tape will not be admitted into evidence. Each tape and corresponding transcript must be able to pass into evidence on its own merits without extraneous information. Usually playing the better quality tape coupled with pertinent testimony is sufficient; or playing a portion of one tape, and at a certain time shifting to the other tape may be advisable. Individual situations dictate the best possible course of action.

## Prejudicial Remarks

Sometimes it happens that a defendant on a tape recorded conversation has made some remarks that are prejudicial against

him although there is probitive value in the comments.

Remarks such as racial slurs, comments about other crimes, jail time, and other properly objectionable material should elicit objections from defense counsel. Be prepared to offer a redacted transcript and corresponding edited tape. Alternately the tape signal can be interrupted while the edited comments pass without being heard by the jury. In this case the Court may instruct the jury that certain portions of the tape have no bearing on the case and will therefore not be played for the jury.

Naturally all changes and redactions should be agreed upon as soon as possible so as to eliminate the need for an audibility hearing if possible, and also to give you a chance to prepare final versions of the transcripts. Otherwise be prepared to bring scissors and paste to trial.

Incidentally enormous responsibility rests in the hands of the person playing the tape since once a certain portion has been ruled inadmissable and it is accidentally played for the jury, there will certainly be a motion for a mistrial. Better to let a professional handle this aspect of the presentation.

### Expletives (!lb\$&\*)

There is no question that during the course of under-cover work certain off-color phrases are used, and are reflected in tapes of these conversations. These should be left in the transcript to give the jury a more accurate and true picture of what actually happened at an undercover meeting. Expletives serve to underscore the feeling that the jury is actually there listening to the crime in which the participants are speaking as they usually do, unaware of their presence.

During the Voir Dire of prospective jurors in a case in which there are considerable off-color expressions on tapes, one might ask the following:

"During the case there is a possibility that tapes may be played for you in which abusive or foul language occurs. Would this offend you so much that it would interfere with your ability to render a fairand impartial verdict in this case?"

While the undercover agent is on the stand you might ask, "And agent, why did you use the foul language which we heard

on the tape?" Even if due to an objection he cannot explain that he wanted to be credible in his undercover role, the point will be made.

A final point about expletives; they are a reflection of the defendant if he uttered them, and not of you, if you repeat them, much like the old adage of not confusing bad news with the messenger who delivers it.

Thus on summation, or during cross-examination of the defendant if he should take the stand, don't be afraid to quote exactly from the transcript. After all he said it, and he's got to live with it.

#### THE FUTURE

There are a number of new techniques and products which are currently being evaluated for introduction into the law-enforcement market. Indeed there is an audio recording device which uses no tape for storage of conversations. Instead the material is digitized and stored in integrated circuit chips for later downloading into a computer.

D-S-P, (or digital signal processing) is being introduced as a tool to be used in enhancement and optimization of audio as well as video recordings. The results are far superior to the older analog filters used in the past.

We have recently configured a digital enhancement workstation with four different state-of-the-art D.S.P. enhancement and analysis programs.

Devices are available to enable the investigator to decode the outgoing touch-tones, as well as the incoming caller I.D. tone burst, if present, during playback of wiretap tapes, for verification of telephone numbers to whom and from whom calls are received.

We look forward to still more clarity and length of recordings for use as a powerful investigative tool for law-enforcement.

#### TAPE TIPS

1. With cassettes, always be sure that the safety record defeat interlock tabs are knocked out of original and copy cassettes. These are the plastic tabs which are on the edge of the cassette opposite the side where the tape is exposed, and

are designed to prevent recorded material from accidentally being erased or recorded over. When a cassette with tabs removed is inserted into a standard cassette recorder the machine physically cannot be put into a Record mode, thus protecting the evidence.

- 2. With NAGRA tapes, the reels are very small and the tape is extremely thin. Steps should be taken to secure the end of the tape, (preferably with a special NAGRA plastic reel protector, but in a pinch with a rubber band) to prevent it from unravelling. Also for NAGRA and cassette tapes, it is best to keep the originals in sealed evidence envelopes, and mark the envelopes so that the evidence-marking stickers do not gum up the reel or cassette. All taped evidence should be kept in envelopes and needless to say, not stored near any magnetic fields, electric motors, speakers, heat, etc.
- 3. In the case of reel to reel recordings, either AID, telephone, or bug types, it should be noted at what speed the tape is recorded, so that the jury is not subjected to "Donald Duck" sounds or other noise. The best solution is to have a system whereby the machine operator can listen to the tapes in the courtroom with everybody else disconnected, for cueing purposes. This also helps when prejudicial remarks are to be skipped or when selected portions are to be located during summation or deliberation.
- 4. Please note that index counters on cassette recorders and reel-to-reel machines are not feet, but arbitrary units, and also that generally there is no index counter correspondence between different types of machines. Thus, when indexing a tape, it should be noted on which machine the indexing was done.
- 5. Also please note that if a spot 3/9 into the tape is indexed on a tape which is played to that point, it is possible (and in fact probable) that if the tape is fast-forwarded to that same point, at a later time the index will be slightly different. This is due to the tightness and looseness of the wrap of the tape in different modes.
- 6. If a tape should break accidentally, it can be repaired by someone proficient in tape editing. Recording studios and radio stations do it every day. The proceduie is to simply document everything and let the expert perform the surgery. Incidentally, there are even available cassette splicing kits

for the very thin tape used in cassettes and Nagra recorders.

- 7. A clean machine is a happy machine. The capstan roller (the wheel that moves the tape) and the heads of all tape recorders become dirty from normal use. If not cleaned periodically, there is a danger of a tape being stuck and unwound, and severely damaged in the process. All it takes are some Q-tips and some denatured alcohol, hardware store variety, not rubbing alcohol.
- 8. We have found that a good blank cassette to use for making copies is the TDK DC-30 (60 & 90) for 30, 60 and 90 minutes total, respectively. The physical cassette case is strong and relatively jamproof.
- 9. In making copies, always connect the playback machine and the record machine electrically. Do not make copies with the microphone of the record machine, attempting to pick up the sound from the speaker of the playback unit. Such a copy is virtually worthless. Call us anytime for assistance in connection with making enhanced copies, transcripts or any other problems associated with taped evidentiary material.

# PROFESSIONAL AUDIO LABORATORIES

7 Skylark Drive \* Spring Valley, New York 10977 (914) 354-2229

Dear Mr. or Ms. Attorney,

We have presented an overview of the basics involved in the use of audio taped evidentiary material from a prosecution point of view.

We hope that this guide provides you with some useful information and we look forward to assisting with your next tape case should the need arise. Please call if we can be of assistance in connection with transcript preparation, production of copies, presentation of evidentiary material in the dearest possible manner using specially fabricated state-of-the-art filtering and processing equipment. We can advise you at no cost or obligation as to the best course of action in connection with taped evidentiary material.

PROFESSIONAL AUDIO LABORATORIES, INC. with Is years

experience has assisted the U.S. Department of Justice through 23 offices coast to coast with Federal court qualified expertise in 23 Federal Districts, in over 1,000 cases.

Sincerely,

Paul Ginsberg, President

Pine Sinky

PROFESSIONAL AUDIO LABORATORIES, INC.

P.S. Additional copies of this guide are available from us as required. Call with requirements.

A Prosecutor's Guide to The Use Of Audio Taped Evidentiary Material. Copyright © 1992 by Paul Ginsberg. All rights reserved. No part of this book may be reproduced in any form or by any means without written permission from the author.