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METREK DIVISION

MTR-7328

Vol. I

The Video Telephone in Criminal Justice:  
 The Phoenix Project  
 Volume I  
 Summary of Applications and Findings

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AUGUST 1976

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MITRE Technical Report

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# The Video Telephone in Criminal Justice: The Phoenix Project

## Volume I

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THE MITRE CORPORATION  
METREK DIVISION

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Department Approval: W. King

MITRE Project Approval: W. King

## EXECUTIVE SUMMARY

This is Volume I of three volumes describing the Phoenix video telephone project. It summarizes the project experience with video telephone applications implemented during the project in the Phoenix-Maricopa County criminal justice system.

Seven applications were implemented and used to a significant extent during the project. Principal among these were such functions as public defender conferences with jailed clients, remote access to the police information bureau, arraignment of in-custody defendants, and remote testimony at preliminary hearings and trials.

The most heavily used application for the video telephone was in public defender conferences with jailed clients. After the video telephone was installed there was an average of 186 video telephone contacts per month with clients in the county jail, which represented 67 percent of the total of all video telephone, telephone, and in-person contacts. The number of in-person contacts at the jail dropped to about half its previous level during the same period, and the total number of contacts per attorney almost doubled.

Simultaneously it appeared that the first contacts between public defender attorneys and in-custody clients were taking place earlier by amounts that ranged from 37 percent for conferences pertaining to upcoming preliminary hearings to 130 percent for conferences in preparation for trial. These changes in conjunction with the increase in contact frequency suggest that the use of the video telephone for this application exhibited potential for improving the administration of criminal justice. An analysis of costs suggests further that the advantages were achievable at a net cost savings, if the video telephones were costed as if they were generally available as a tariff item.

The applications involving criminal hearings and trials were implemented only on a test case basis to avoid a buildup of cases that might be reversed on appeal because of the use of the video telephone. Police officer testimony was presented by video telephone in seven preliminary hearings and two criminal trials. The testimony of a jailed codefendant was also taken in one of the criminal trials using the video telephone in the jail.

An analysis of the overall cost impact of the video telephone use in Phoenix, assuming the video telephone were costed as if it were generally available as a tariff item, showed that even with the

minimal test installation and limited usage, the cost savings more than offset the cost of the installations. When the usage was projected to the maximum possible within the Phoenix-Maricopa County jurisdiction the savings increased to as much as \$27,000 per month. This suggests that there is potential in Phoenix for saving money by using the video telephone as a substitute for in-person traveling in the administration of criminal justice.

Other documents available from the Phoenix Video Telephone Project are:

The Video Telephone in Criminal Justice: The Phoenix Project

Volume I - Summary of Applications and Findings, W. A. Eliot et.al., The MITRE Corporation, August 1976.

Volume II - Analysis of Applications, L. L. Stine, L. G. Siegel, The MITRE Corporation, August 1976.

Volume III - Technical Characteristics, R. G. Pfefferkorn, The MITRE Corporation, August 1976.

Visual Communications Program: Site Evaluation and Recommendation, T. Kornreich, K. Levin, The MITRE Corporation, September 1974.

Video Technology in the Courts, Genevieve Coleman, The MITRE Corporation, June 1976.

## ACKNOWLEDGEMENT

The authors are grateful to the officials and police officers of Phoenix and Maricopa County, Arizona, for their support and assistance throughout the project. Special appreciation goes to the Honorable Robert C. Broomfield, Presiding Judge of the Superior Court and to the Honorable C. Kimball Rose, Presiding Criminal Judge of the Superior Court for their thoughtful support of the research made possible by the installation of the video telephones. Appreciation is also due the American Telephone and Telegraph Company and the Mountain Bell Telephone Company for making available and installing the video telephone equipment, and to Shan Hamner, Helen Kroll, Tom Potrykus and Dennis Ruffin of those companies for their assistance and participation in the project. Finally, the authors also extend their thanks to Joseph T. Kochanski and Warner J. Merrill of the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, for their guidance and advice.

## FOREWARD

The Phoenix project was concerned with the role of the video telephone in the criminal justice process and the improvements in case disposition that might result from its use. The specific equipment selected for the project was an experimental version of the PICTUREPHONE fabricated by the American Telephone and Telegraph Company (AT&T). Any other equipment of a similar nature could have been used. The AT&T equipment is not generally available and no conclusion about its availability should be inferred from its use in the Phoenix project. In addition, the cost figures used in the report were projected by The MITRE Corporation from figures charged by AT&T during an earlier service offering. The projections were assumed for a hypothetical situation in which the PICTUREPHONE would be generally available for public use and would be widely used. Since this is not now the case the cost figures and the calculated savings would not necessarily apply in the kinds of limited installations that might be negotiated by individual users with AT&T or any other manufacturer.



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PART A

SUMMARY OF APPLICATIONS  
AND FINDINGS

W. A. ELIOT, ET AL.  
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METREK DIVISION

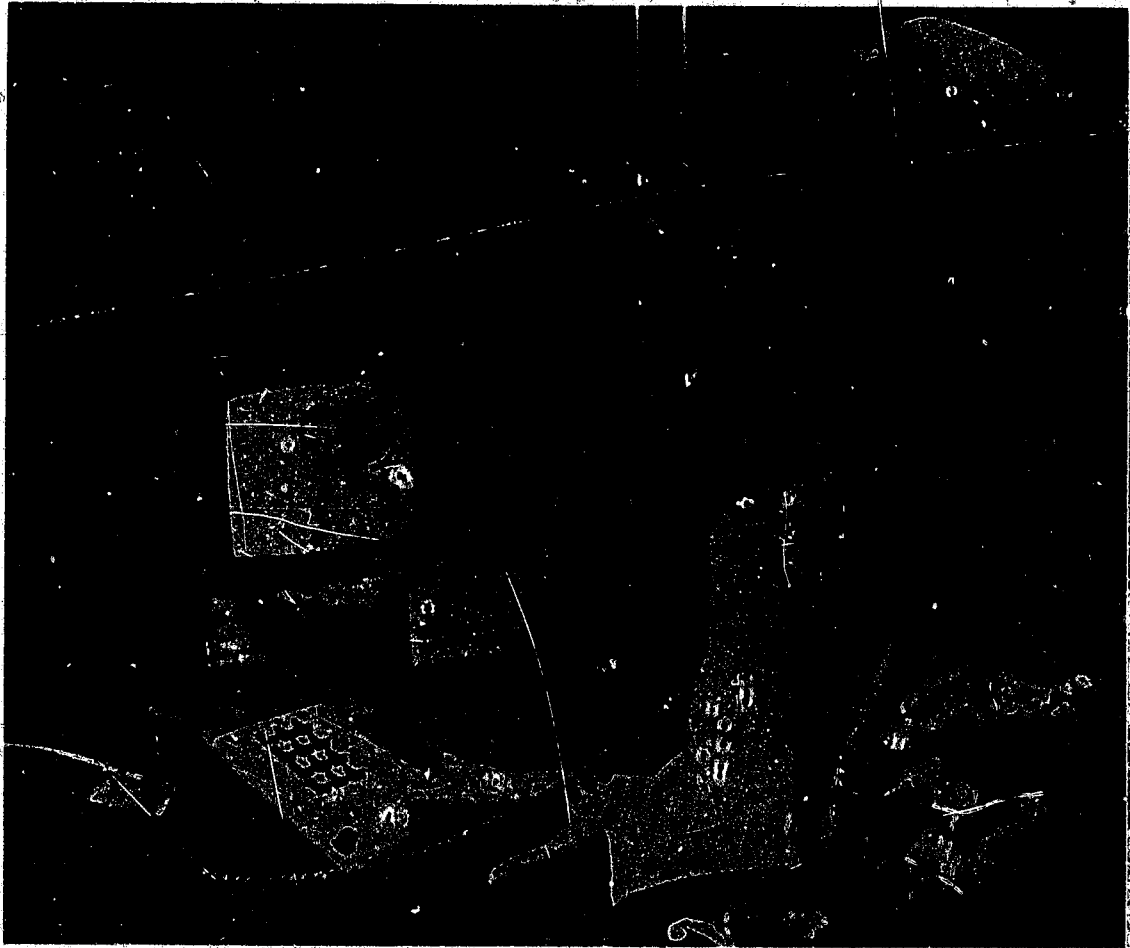


PHOTO COURTESY AMERICAN TELEPHONE & TELEGRAPH COMPANY

SECTION I  
INTRODUCTION

*...the machine's danger to society is not from the machine itself but from what man makes of it...*

Norbert Wiener  
The Human Use of Human Beings

This is a summary report of the findings of the Phoenix video telephone project. It presents the results of 16 months experience with a video telephone network provided free of charge to the criminal justice system of Phoenix and Maricopa County, Arizona. It summarizes the uses to which the network was put and the frequency with which it was used. It also summarizes the procedural changes experienced as an apparent result of the network use and the cost savings that might be expected if the network were generally available at a nominal tariff.

The project was conducted under the auspices of the National Institute of Law Enforcement and Criminal Justice (the Institute), Law Enforcement Assistance Administration, U.S. Department of Justice, with the cooperation of the American Telephone and Telegraph Company (AT&T). It involved the planning and installation of a video telephone network in Phoenix and Maricopa County, with video telephone sets located in many of the principal criminal justice offices and facilities. It also involved the development of procedures to use the video telephone in many of the routine functions of the criminal justice system, and the encouragement of its use in these functions. The equipment was provided by AT&T and maintained by its subsidiary Mountain Bell Telephone Company of Phoenix.

The project sought to determine the demand that would be placed on the network by the criminal justice agencies and the effect that use of the video telephone network would have on the administration of criminal justice. Specifically:

- Would the video telephone be used in the administration of criminal justice?
- Would the use be of value to criminal justice?

#### BACKGROUND

The use of video technology as a means of communication in criminal justice has grown significantly in the last 15 years. Major milestones in the use of video technology by the courts since 1962 are presented in Table I.<sup>1</sup> Most of these have involved the use of videotape. Prior to the current project there was comparatively little use of two-way, close-circuit television.

One of the earliest applications of video recording in a legal proceeding occurred in 1967 when a videotape of a convicted murderer recreating the crime while under the influence of a drug administered by the Menninger Clinic was admitted into evidence on appeal.<sup>2</sup> In that case the defendant was granted a retrial on a reduced charge of manslaughter. Since then videotape has been used frequently for taking depositions in criminal cases, supplementing or substituting for stenographic reporting, and recording trial proceedings for later presentation to a jury. These uses have been upheld several times on appeal but none has reached the U.S. Supreme Court.

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<sup>1</sup>Excerpted from: Coleman, Genevieve, Video Technology in the Courts, MTR-7235, Revision 1, The MITRE Corporation, June 1976, p.9.

<sup>2</sup>State of Kansas v. Kidwell, 434 p. 2d 316.



**TABLE I  
MILESTONES IN THE USE OF VIDEO TECHNOLOGY  
IN THE COURTS**

<u>YEAR</u>	<u>STATE OR JURISDICTION</u>	<u>EVENT</u>
1962	Michigan	First use of CCTV to enable law students to view court proceedings.
1968	Illinois	Use of videotape as a supplement to stenographic reporting.
	California	First use of CCTV to enable media representatives to view a trial.
1971	Ohio	First use of videotape to present all testimony and judge's instructions to a jury in a civil case.
	Florida	Use of videotape to present expert medical testimony in a personal injury case.
1972	Ohio	First use of videotape to present all testimony and judge's instructions to a jury in a criminal case.
	Illinois	First use of video telephone to conduct a bail bond hearing.
1973	Missouri	First use of CCTV to present expert testimony from one city to a court in another city.
	Ohio	First use of videotape as the sole recording of a criminal trial.
1974	Pennsylvania	First use of video telephone for preliminary arraignment of a defendant.
1975	California	Use of CCTV to enable defendants to view part of their own murder trial.
	New York/ Washington	First use of teleconferencing for attorneys in one state to present appellate arguments to judges in the District of Columbia.
	California	First use of videotape to present testimony of a U.S. President in a criminal trial.

SOURCE: Coleman, Genevieve, Video Technology in the Courts, The MITRE Corporation, MTR-7235, Rev. 1, June 1976.

Live, closed-circuit television (CCTV) was used even earlier but it was not until 1972 that it was used as an integral part of a criminal proceeding. Then a video telephone was used to connect persons held in the police district station in Cook County, Illinois, to a Bond Court, 2 1/2 miles away. Since then there have been other applications in Philadelphia, Kansas City, Missouri, and most recently, Phoenix, Arizona. In Philadelphia, a CCTV system is used to link police district stations with: (1) police headquarters for rapid suspect identification, ROR hearings and administrative communications, and (2) the district attorney's office for pre-release interview of arrested suspects. In the Kansas City case, the Missouri Supreme Court upheld the conviction of the defendant in a narcotics case in an appeal based on the use of two-way, CCTV to present testimony from the crime lab located some distance away.<sup>3</sup>

This growing availability and use of a different way of transacting the business of criminal justice led the Institute in 1974 to initiate the Phoenix video telephone project. Milestone in the use of the video telephone that occurred during the Phoenix project are summarized in Table II.

#### THE NATURE OF THE PROJECT

G. Robert Blakey, in his study of possible uses for the video telephone in criminal justice concluded that there were no "insuperable constitutional barriers" to the adoption of visual communications technologies.<sup>4</sup> He presented the view that reasons pointing toward the development of the technologies in criminal justice are compelling and that a number of specific video telephone applications might benefit

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<sup>3</sup>Kansas City v. McCoy, 525 S.W.2d 336 (1975).

<sup>4</sup>Blakey, G. Robert, "Application of the Video Telephone to the Administration of Criminal Justice: A Preliminary Assessment," Journal of Police Science and Administration, Vol. 3, No. 1, 1975, p. 54.

**TABLE II**  
**MILESTONES IN THE USE OF THE VIDEO TELEPHONE**  
**FROM THE PHOENIX PROJECT**

<u>YEAR</u>	<u>EVENT</u>
1975	<p>First use of video telephone to present testimony by a probation officer in a probation revocation hearing.</p> <p>First use of video telephone to arraign a jailed defendant.</p>
1976	<p>First use of video telephone to present police officer testimony in a Justice Court preliminary hearing.</p> <p>First use of three-way video conferencing by a superior court judge to hear pre-trial motion arguments presented by a county attorney and a public defender from other locations.</p> <p>First use of video telephone to present testimony involving cross-examination of witnesses (criminalist, police officer, jailed accomplice) in criminal trials.</p> <p>First use of video telephone for sentencing in a probation revocation proceeding.</p>

the administration of criminal justice. He stressed, however, that his study was only a preliminary assessment and that a more complex assessment would have to await the actual use of the video telephone in criminal justice.

The Phoenix project involved the implementation of a network of 17 video telephone sets installed in seven separate criminal justice agencies in Phoenix and Maricopa County, Arizona. The sets were available to the personnel of the agencies for use in the criminal justice business of the agencies. The presumption was that the video telephone would be used by the agency personnel where it offered personal convenience and where there were no compelling inhibitions on the part of either party. A record of sustained usage for any specific application was then assumed to be an answer to the question of whether the video telephone would be used in criminal justice. Consequently, one focus of the project was on the usage that developed on selected applications following training in the use of the equipment and encouragement of use to overcome resistance to change.

A second focus was on the effect of the usage of the administration of criminal justice. Records of procedural changes and man-hour savings that appeared to result from the sustained usage were assumed to point toward an answer to the question of whether the use of the video telephone would be of value to criminal justice. The dollar savings potential was calculated on the basis of estimated service costs for estimated maximum usage by all participating agencies on the assumption that the network was generally available in the Phoenix area.

These measurements, observations and calculations stemmed from what actually happened in Phoenix and Maricopa County when the video telephone network was implemented. A summary of the experience makes up PART A of this report. To consider what the findings might mean and

what the potential for acceptance of the video telephone in the administration of criminal justice might be, a forum of selected criminal justice professionals and researchers was convened in Phoenix near the end of the project. While no consensus was sought from the forum, a summary of the deliberations was prepared by one of the participants. This summary is included verbatim in this volume of the report as PART B.

SECTION II  
DESCRIPTION OF THE PROJECT

THE VIDEO TELEPHONE

The basic video telephone combines two-way television with telephone service (see Figure 1). It provides black and white, face-to-face communications with head and shoulders display. By dialing the appropriate number on the telephone, any party with a video telephone can see and talk with any other party similarly equipped.

In addition to the ability to see and talk with each other, each party is able to view typed copy, photos and exhibits on the screen and, when provided with the right equipment, to make 'hard copies' of documents displayed by the other party (see Figure 2). The system also can be set up for three-party conference calls and can be provided with wide-angle lenses and large-screen displays for use in courtrooms.

The operating characteristics of the video telephone are compatible with commercial television standards<sup>1</sup> and the signals can be recorded on commercial videotape equipment for later replay. Also, signals reproduced from videotape equipment can be transmitted over the video telephone lines for display to the called parties.

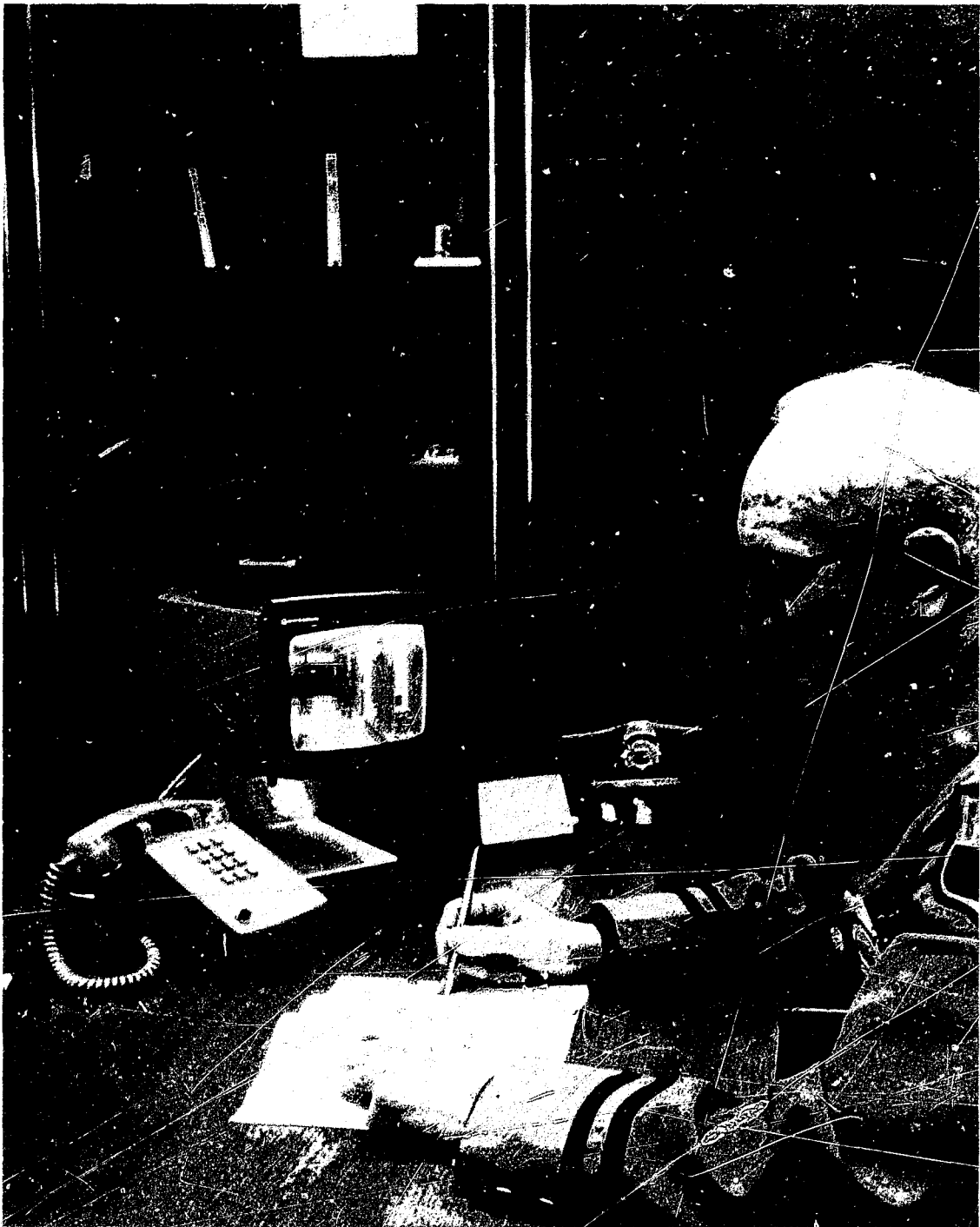
THE NETWORK

In the Phoenix<sup>2</sup> project the video telephone sets were installed in police offices, the jail, the prosecutor's and public defender's offices,

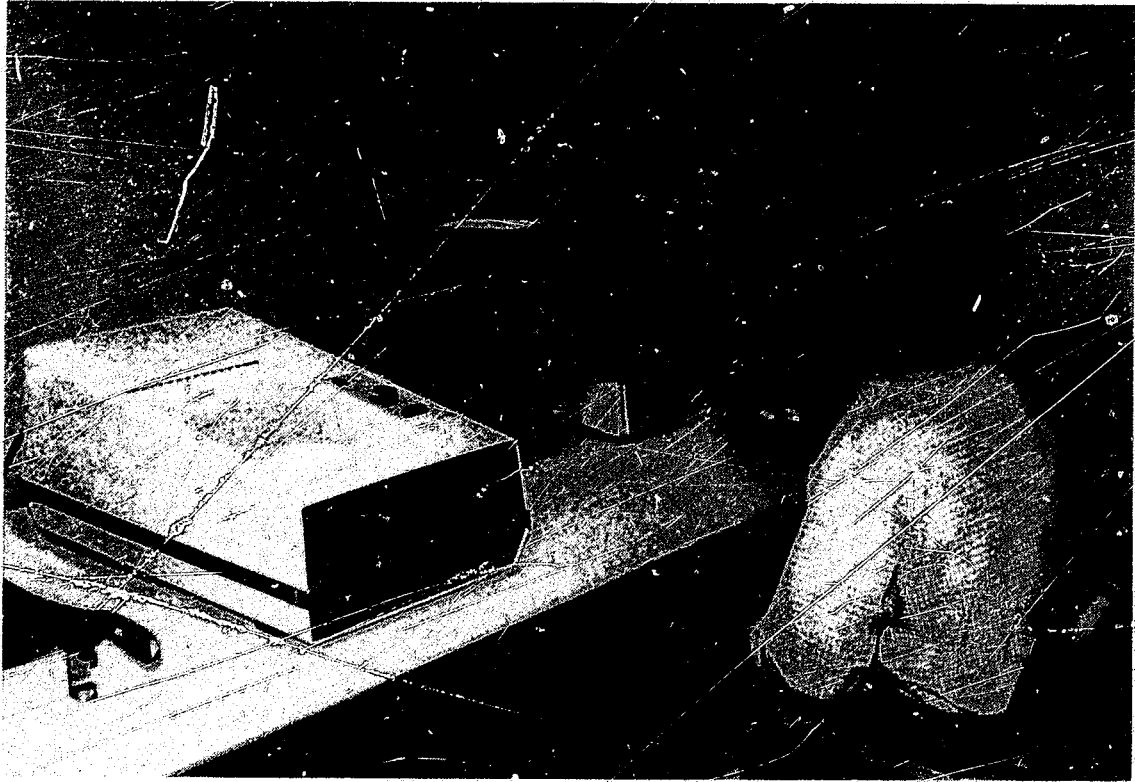
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<sup>1</sup>For a description of technical characteristics and functional capabilities of the video telephone equipment, see Volume III of this report.

<sup>2</sup>For a description of the site selection process, see Visual Communications Program Site Evaluation and Recommendation, by T. Kornreich, and K. Levin, The MITRE Corporation, September 1974.



**FIGURE 1**  
**BASIC VIDEO TELEPHONE SET**



**FIGURE 2**  
**VIDEO TELEPHONE WITH HARD COPY ATTACHMENT**



the probation office and the courts (see Figure 3). The police headquarters sets were located in the records room, the crime lab and the detective bureau. In the Superior Court the sets were located in the chambers and courtrooms of two judges in the criminal division and in the secretary's and court clerk's offices. The jail sets were in private rooms reserved for video telephone use. For comparison purposes, a similar room on a different floor of the jail was equipped with a private telephone line to the public defender's office. This was an attempt to determine whether an audio link alone would suffice for contact between the public defender and the client.

All of the video telephone sets were interconnected through the central exchange facilities of the Mountain Bell Telephone Company. The connections were accomplished by underground coaxial cable or by microwave radio link. However, the potential exists for future use of modified twisted-pair telephone wires.

The map locations of the offices connected to the video telephone network were in some cases across the street from each other and in other cases miles apart (see Figure 4). Intuition suggests that the farther apart the locations, other things being equal, the more appealing the video telephone would be to the individual otherwise faced with the necessity of making a trip. However, as will be shown later, significant usage developed between locations only four blocks apart.

The network was implemented over a 14-month period beginning in February 1975. Figure 5 shows the schedule of availability of the video telephone sets. The measured pace of the buildup permitted the necessary coordination of video telephone applications and set locations with the engineering required to form the network.

## Video Telephone Network

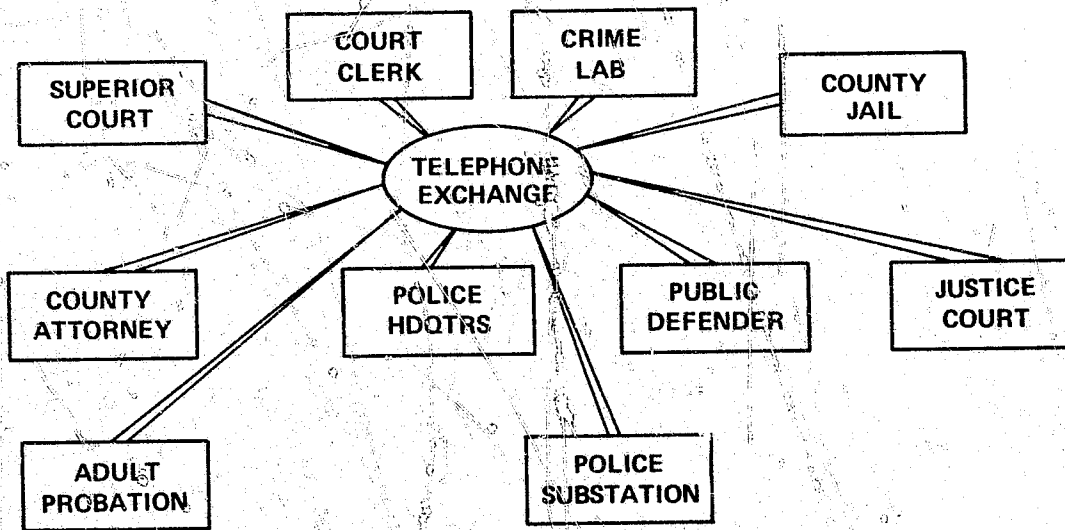
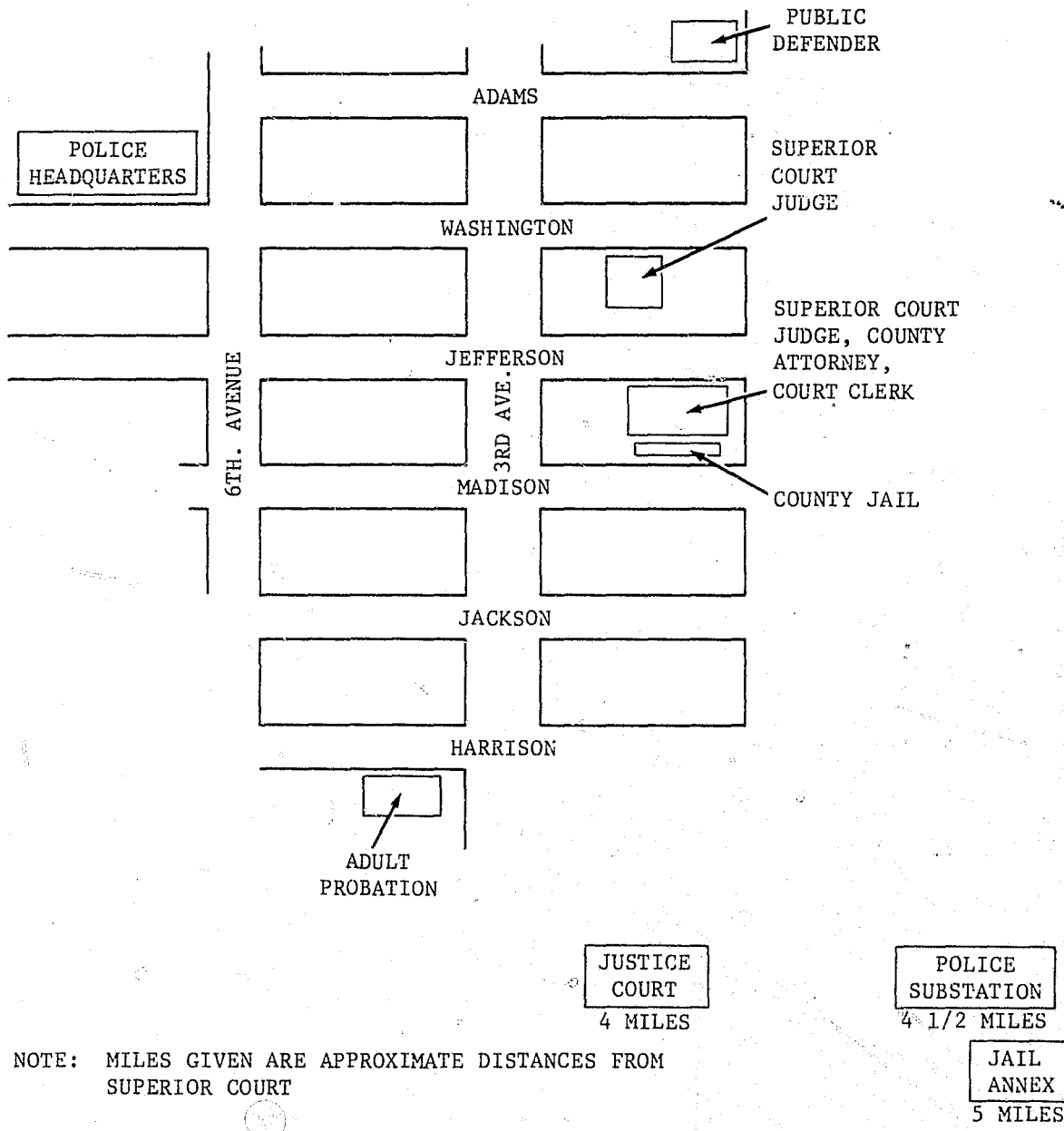


FIGURE 3  
VIDEO TELEPHONE NETWORK



NOTE: MILES GIVEN ARE APPROXIMATE DISTANCES FROM SUPERIOR COURT

**FIGURE 4**  
**LOCATIONS OF AGENCIES PARTICIPATING**  
**IN VIDEO TELEPHONE PROJECT**

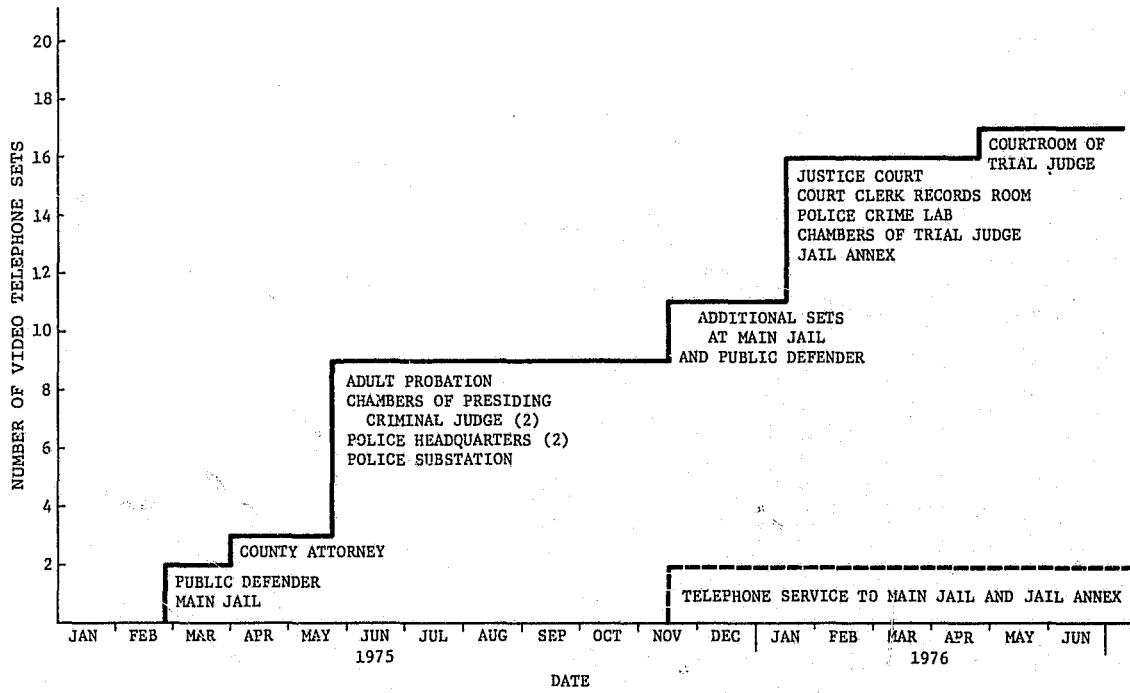


FIGURE 5  
AVAILABILITY OF VIDEO TELEPHONE SETS

## THE APPLICATIONS

It was clear initially that the test in Phoenix would be a complete innovation--the users being unprepared by training or practice to accept the technology--and the planners unprepared to predict how it might be most useful or acceptable. This suggested that there might be an initial reticence to be involved that would appear to be a rejection of the video telephone concept. The project sought to bypass this potential obstacle by concentrating on specific pre-selected applications instead of relying entirely on spontaneous usage, and by training the potential users to use the equipment for these applications.

The applications were selected for the most part in advance of the installation of the video telephone network. They were selected to involve most of the key agencies and most types of routine criminal justice interactions. Emphasis was given to applications that cross agency boundaries.

Table III is a list of the principal applications that found a measurable level of usage during the project. In each case the video telephone was used as a substitute for an in-person trip to accomplish the necessary interaction. Several other applications listed in Table IV were tried also but for one reason or another experienced little or no usage.

The following are descriptions of the applications for which significant usage developed in the course of the project or that are considered to be important because of the challenge they pose to traditional procedures:

(a) Public Defender Conference with Jailed Client - In this application the investigative and felony attorneys in the public defender's office use the video telephone to confer with clients held in jail on

**TABLE III  
PRINCIPAL VIDEO TELEPHONE APPLICATIONS**

APPLICATION TITLE	DESCRIPTION
PUBLIC DEFENDER CONFERENCE WITH JAILED CLIENT	A public defender confers with clients at the county jail prior to court hearings.
PRE-SENTENCE INTERVIEW WITH CONVICTED PERSONS IN JAIL	A probation officer interviews convicted inmates at the county jail prior to sentencing.
REMOTE ACCESS TO POLICE INFORMATION BUREAU	Police officers in substations access central police records in support of investigations, identifications and court testimony.
CALL OF THE CALENDAR	The Presiding Criminal Judge, public defenders and deputy county attorneys meet daily to confirm plans and readiness for trial the next day.
ARRAIGNMENT OF IN-CUSTODY DEFENDANTS	The Presiding Criminal Judge arraigns in-custody defendants pleading not guilty.
ORAL ARGUMENT OF PRE-TRIAL MOTIONS	The county attorneys and/or public defenders present motions to the criminal court judge prior to trials.
PROBATION REVOCATION HEARINGS	The probation officer testifies at a probation revocation hearing before the criminal court judge concerning an alleged probation violation
TESTIMONY IN PRELIMINARY HEARINGS	Police officers and crime lab experts testify for the prosecution at preliminary hearings.
TESTIMONY IN CRIMINAL TRIALS	Police officers and crime lab experts testify for the prosecution at criminal trials.

**TABLE IV  
LITTLE USED VIDEO TELEPHONE APPLICATIONS**

<u>APPLICATION TITLE</u>	<u>DESCRIPTION</u>
PRE-DISPOSITION CONFERENCES BETWEEN ATTORNEYS	Prosecution and defense attorneys confer with each other regarding pre-trial case disposition.
POST-ARREST PROSECUTION REVIEW	Police court liaison officers confer with county attorneys to screen cases brought by police arrest in the previous 24 hours.
ATTORNEY CONFERENCE WITH POLICE WITNESSES	County attorneys confer with police witnesses in advance of pending hearings.
JUDICIAL RETRIEVAL OF COURT RECORDS	Superior court judges review case records filed by the court clerk.

criminal charges. In the absence of the video telephone the conference requires a personal visit either to the county jail a few blocks from the office or to the jail annex five miles away. The public defender walks or drives to the jail, logs in at the front desk, takes the elevator to the appropriate floor, waits while the defendant is brought from his cell to the visiting area, and then confers in one of two visiting rooms or by telephone at a stand-up counter divided by a glass partition. The travelling and waiting time for visits to the county jail for each conference<sup>3</sup> is 27 minutes. The equivalent time for the jail annex is 75 minutes.

With the video telephone, the public defender calls the jail by conventional telephone to request a conference with the defendant. The correctional officer brings the defendant to the video telephone room (see Figure 6),<sup>4</sup> calls to the public defender on the video telephone and then turns the video telephone over to the defendant and leaves the room. The video telephone conversation takes place in complete privacy. When the conversation is over the defendant "hangs up" the video telephone receiver at the direction of the public defender. The correctional officer is alerted to the completion of the conversation by a red light outside the room.

(b) Pre-Sentence Interviews with Convicted Persons in Jail -

In this application the video telephone is used by the probation officers to interview adult jail inmates awaiting sentence for felony convictions. In the absence of the video telephone the interview requires a personal

---

<sup>3</sup>On the average there are one and half 20-minute conferences per visit to the county jail.

<sup>4</sup>There are two at the county jail and one at the jail annex.





**FIGURE 6**  
**VIDEO TELEPHONE ROOM IN THE COUNTY JAIL**

visit to the county jail or the jail annex. The application is procedurally similar to the application concerning public defender conferences with jailed clients.

(c) Remote Access to Police Information Bureau - In this application the video telephone is used to permit officers located in substations to view files held in the central records office in the Phoenix police headquarters. The principal use is by Phoenix police officers in the Sky Harbor substation located four miles from the central records Information Bureau (I Bureau) in the police headquarters. Other potential users are adult probation officers and county attorneys.

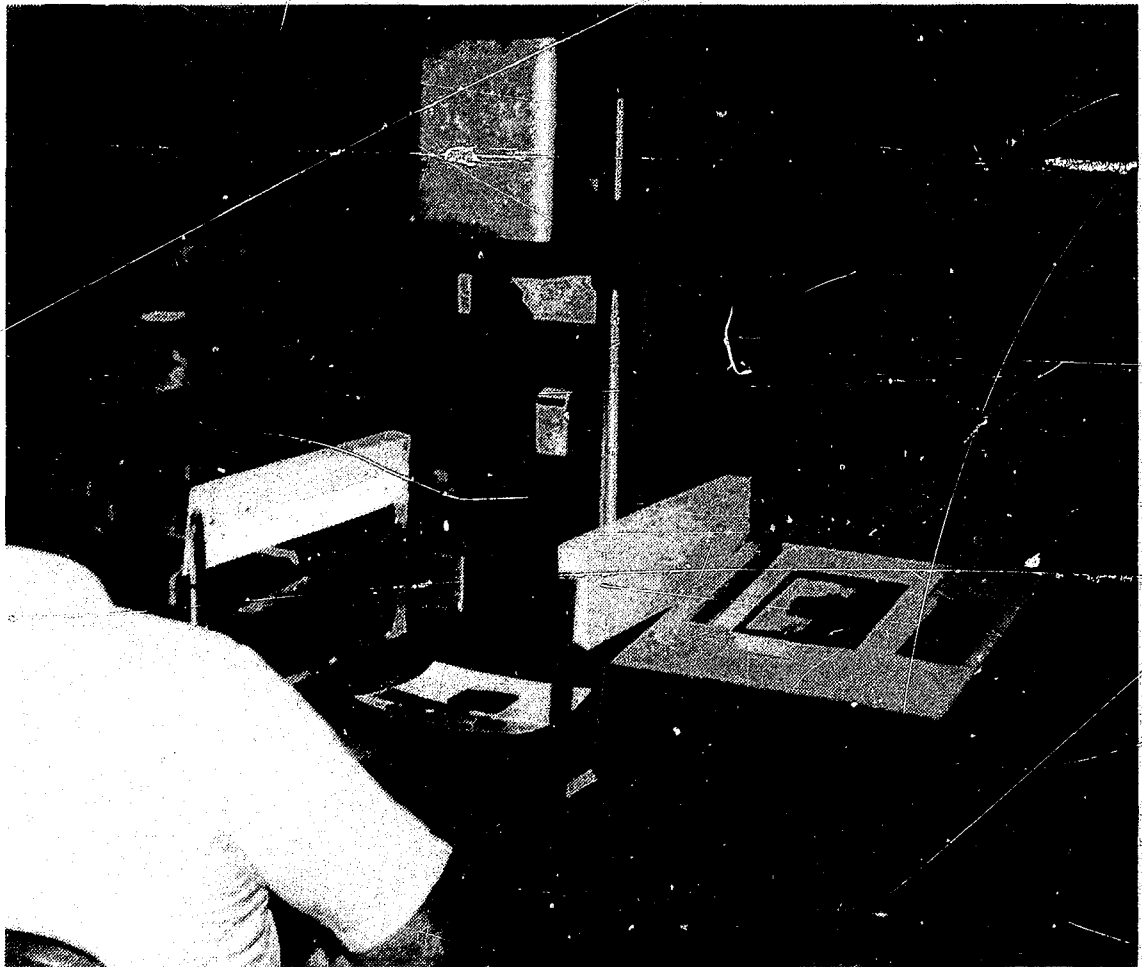
Officers from the substation normally read the criminal files in person at the I Bureau counter. The clerk logs a counter request bearing the name of the desired file and the identification of the officer and gives the file to the officer to be read on the spot. Copies of selected documents bearing the identification of the requesting officer and the date are made by the clerk on demand.

With video telephone the officer is able to view files without leaving the substation (see Figure 7) and to make copies of those parts of documents appearing on the display screen using the copy attachment to the video telephone. In response to a video telephone call, the clerk in the I Bureau places the file under the graphics camera attachment to the video telephone and turns the pages at the request of the officer (see Figure 8). The request is logged the same way and the identification on the copies is accomplished with a graphics camera overlay that bears the necessary legends.

(d) Calendar Call - This is an application of the three-way conference capability of the video telephone to allow individuals or groups at three locations to interact. Under the centralized criminal calendar project of the Superior Court, all cases are pooled and assigned to one



**FIGURE 7**  
**VIDEO TELEPHONE IN SKY HARBOR POLICE SUBSTATION**



**FIGURE 8**  
**VIDEO TELEPHONE WITH GRAPHICS STAND IN POLICE INFORMATION BUREAU**

or another court division for hearing of specialized proceedings: guilty plea arraignment, changes of plea, motions sentencing from guilty pleas, etc. All judges except the motion judge and the presiding judge of the criminal court conduct trials. The daily calendar call is held by the presiding judge to assign criminal cases for trial to begin the following day.

Without the video telephone all attorneys awaiting assignment of a trial judge assemble in the courtroom of the presiding judge along with a deputy county attorney and the necessary clerks. As each case is called, the prosecution and defense attorneys indicate readiness for trial and the case is assigned to a judge. Pertinent motions are also heard at this time.

A typical calendar call involves about 18 cases, 11 of which are handled by public defenders. A total of 15 to 20 attorneys typically gather in the court for the half-hour proceeding.

With the video telephone the presiding judge, the public defenders and the county attorneys all dial the conference number at the scheduled time in order to participate in the calendar call from their respective offices. The private attorneys continue to meet in the courtroom with the presiding judge. All parties are able to see and hear each other.

(e) Arraignment of In-Custody Defendants - Arraignment proceedings in Maricopa County involve a reading of the charge by the presiding judge of the criminal court, a plea of guilty or not guilty by the defendant, and the assignment of a date and court division for trial. By pre-arrangement, in-custody defendants planning to plead not guilty to felony charges are arraigned in separate proceedings from defendants pleading guilty. The video telephone was used only for the in-custody, not guilty arraignments.

In the traditional arraignment proceeding, the in-custody defendants pleading not guilty are assembled in a holding tank at the jail about an hour before the scheduled arraignment. All defendants, in handcuffs and shackles, are escorted to the court in a building adjoining the jail by sheriff's deputies--one deputy to every three or four defendants--about 30 minutes before the arraignment.

During the arraignment each defendant appears before the judge in company with his attorney. The reading of the charge is generally waived because of the pre-arranged not guilty plea. Inconsistencies in name spelling and other data and requested postponements are handled at that time. The judge then assigns a date and court division for trial. A written copy of the assignment is given to the defendant. The entire procedure takes only a little over a minute for each defendant; motions other than for routine continuances are not usual.

The video telephone arraignment follows essentially the same procedure except that the assembled defendants stay in the jail and are escorted by one deputy to the video telephone room. At the appointed time the judge calls the jail on the video telephone and the arraignment proceeds (see Figures 9 and 10). A single public defender is present in the jail to handle all cases assigned to that office. Private attorneys are also present but this generally involves only a small percentage of the defendants. The court clerk and the county attorney attend with the judge in chambers (when the three-way video telephone conference capability was activated, the county attorney was able to stay in his own office and participate by video telephone from there).

Additional features of the video telephone arraignment that were requested by the Arizona State Supreme Court are (1) the signing of a waiver of the right to physical presence at arraignment (see Figure 11), and (2) the reading of a statement for the record that notes the use



**FIGURE 9**  
**IN-CUSTODY ARRAIGNMENT: JUDGE'S CHAMBERS**



**FIGURE 10**  
**IN-CUSTODY ARRAIGNMENT: JAIL**



IN THE JUSTICE COURT OF \_\_\_\_\_ PRECINCT

MARICOPA COUNTY, ARIZONA

STATE OF ARIZONA,

Plaintiff )

v. )

Defendant )

J.P. Court No. \_\_\_\_\_

WAIVER OF PHYSICAL PRESENCE  
AT TIME OF ARRAIGNMENT IN  
SUPERIOR COURT

I understand that I have a right to be physically present before the Superior Court Judge who takes my plea of not guilty at arraignment in Superior Court.

I hereby waive (give up) my right to be physically present before the Judge at that proceeding. I understand that I will appear by means of the video-phone installed in the Maricopa County Jail.

I understand that my attorney will be with me and appear on my behalf at that proceeding by means of the video-phone also.

DATED this \_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
DEFENDANT

\_\_\_\_\_  
ATTORNEY FOR DEFENDANT

FIGURE 11  
ARRAIGNMENT WAIVER FORM

of the video telephone and explains that the proceedings are held pursuant to Maricopa County Criminal Rule XII (see Figure 12).

(f) Oral Argument of Pre-trial Motions - This application is procedurally complex. It involves both adversarial and non-adversarial proceedings and frequently three-way debates as well as a passing around of documents for review. The purpose is to save time during trial and to expedite the disposition of motions. The use of the video telephone involves a three-way conference call between the judge and the opposing attorneys with all three remaining in their offices, although in some cases the defense attorney participates from the jail with his client. The argument by video telephone allows police and expert witnesses to be brought into the argument without the need for declaring a continuance until the witness appears in person.

Without the video telephone the motion argument is scheduled by the Clerk of the Court and the participants are notified by mail. Approximately 35 percent of the motions are allocated 15 minutes for argument, 20 percent are given 30 minutes and the remainder are allotted an hour or more. The attorneys convene in the judge's chambers, typically waiting outside the chambers for about 15 minutes for the motion to be called. Approximately 60 percent of the motions involve only the two attorneys and the judge. The remainder involve a defendant and/or a law enforcement officer.

With the video telephone, the scheduling of a motion is handled in the same manner, however, the mailed notification specifies use of the video telephone. At the appointed time the participants dial the video telephone conference number from their offices and the argument proceeds as before.

OPENING STATEMENT FOR  
VIDEO-PHONE PROCEEDINGS -- ARRAIGNMENT

The video-phone arraignment court is now in session.

These are the not guilty arraignment and initial appearance on revocation proceedings for defendants in custody.

These proceedings are being conducted by video-phone installations. In the Court of the Presiding Criminal Judge, there are the Arraignment Judge, the clerk, the court reporter, the bailiff, and a representative of the court administrator. The Arraignment Judge appears on the video screen.

The defendant being arraigned or making an initial appearance on revocation and his attorney are in the video-phone room on the fourth floor of the Maricopa County Jail. The defendant and his attorney can see the Arraignment Judge and hear anyone in the court. They can be seen and heard by all in the court. Unless otherwise stated, the Public Defender appears for all defendants.

The deputy county attorney is in the video-phone room in the office of the Maricopa County Attorney. He can see the Arraignment Judge and the defendant being arraigned and can hear and be heard by all who are in these proceedings.

These proceedings are being held pursuant to Maricopa County Local Criminal Rule XII.

All defendants being arraigned desire to plead not guilty.

All prior orders as to appointment of counsel and custody are affirmed unless otherwise indicated.

ORDERED THE CLERK IS TO AMEND ANY CHARGE TO REFLECT THE TRUE NAME OF DEFENDANTS.

Notice of dates and time and minute orders are provided on all arraignments. Counsel will pick up their copy of the charge in Div. 24-E.

All dates referred to are the year 1976.

**FIGURE 12**  
**STATEMENT READ AT THE START**  
**OF VIDEO TELEPHONE ARRAIGNMENTS**

(g) Probation Revocation Hearings - This application concerns the use of the video telephone by the adult probation office and the criminal court judge to expedite the holding of probation revocation hearings. In the absence of the video telephone the probation officers travel to the court to attend revocation hearings. The average travelling and waiting time is 81 minutes per hearing.

When the video telephone is to be used for probation officer testimony, the use is agreed upon in advance by the judge and the probation officer. The call is placed by the judge's office when the testimony by the probation officer is desired.

(h) Testimony in Preliminary Hearing - This application concerns the use of the video telephone by police officers to give testimony in preliminary hearings. The object is to make it less costly for police officers to testify by eliminating the "wasted" time spent in travelling to the justice court from the police headquarters or substation and waiting for the hearing to begin. In the absence of the video telephone the subpoenaed officer travels to the justice court where he confers with the prosecutor and waits to testify. Measurements in Phoenix revealed that only one out of four subpoenaed officers actually testified and that 9½ man-hours were expended by the four in placing one man on the stand for 35 minutes.

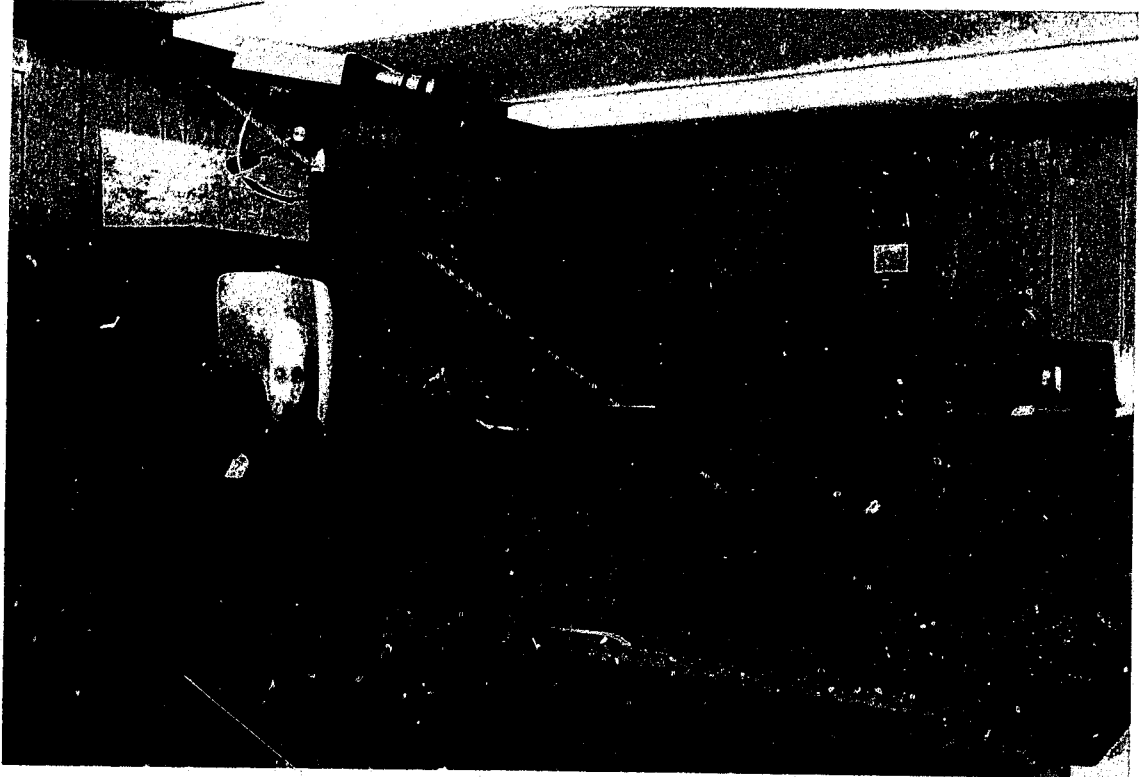
When the video telephone is used, the subpoenaed officer remains conveniently close to the video television set in the police headquarters or substation (see Figure 7) but is able to use the waiting time productively because of the availability of office files. Prior to the start of the hearing the officer and the prosecutor are able to confer by video telephone. When testimony is required the clerk of the court calls the witness on the video telephone and presents his image on

both a large screen monitor facing the courtroom and a conventional desk-top monitor facing the judge (see Figure 13). All parties see and hear each other and the hearing proceeds.

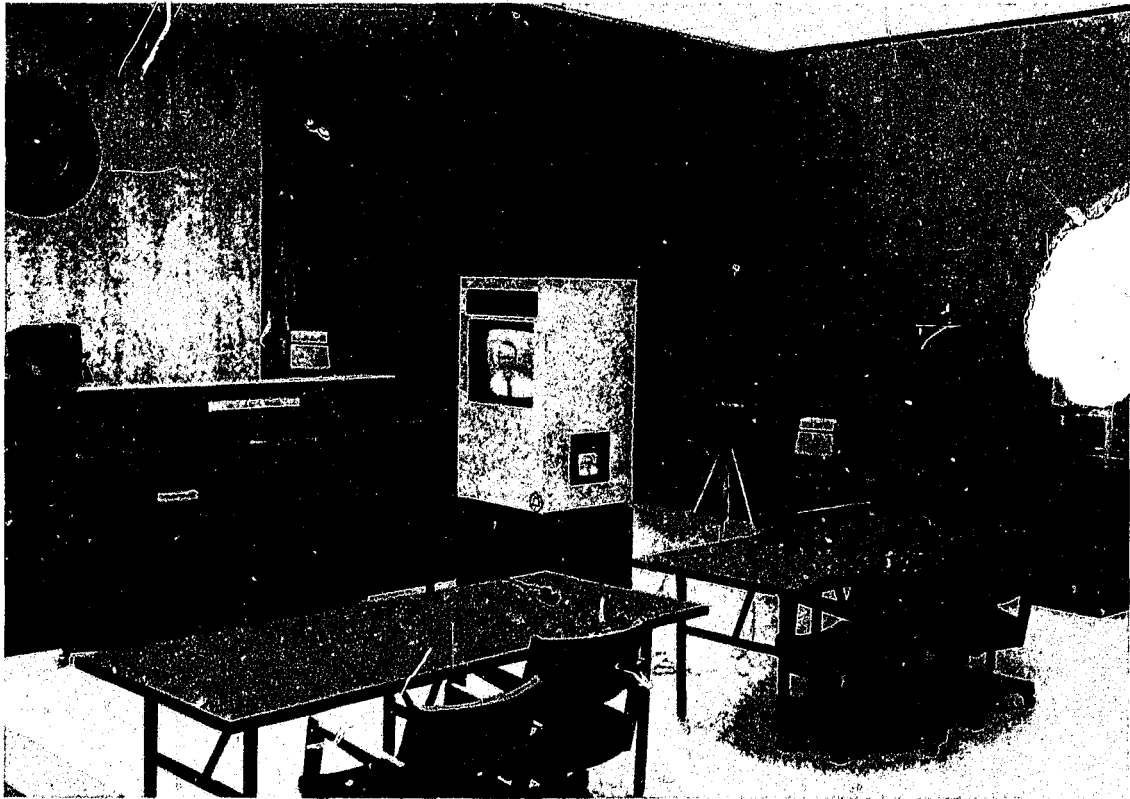
(i) Testimony in Criminal Trial - This application allows witnesses to appear in court from a remote location without having to be physically present in the court. The witness stays at his normal location in the police headquarters, crime lab or jail and appears in the court by means of a large screen TV monitor and loudspeaker. The examination and cross examination by attorneys proceed the same as in a conventional appearance.

In a conventional trial the witness appears in court in response to a subpoena issued by the court for criminal trials. The witness appears at the appointed time and waits to be called to take the stand. Examination and cross-examination by attorneys are conducted in the physical presence of the court and the witness is frequently requested to identify evidence and to identify persons in the court allegedly involved in the case.

When the video telephone is used, a conventional subpoena is issued but a stipulation is made, with the concurrence of all parties, that the witness will appear by video telephone. When the witness is called to take the stand in a criminal trial, the trial is recessed for 5-10 minutes while a video telephone call is placed to the witness and the courtroom equipment is moved into place (see Figure 14). When the trial resumes the witness appears on the screen and his voice comes over the loudspeaker. The judge can interrupt the video telephone connection at any time. The witness is able to see the attorneys and, when necessary, the judge and jury. When evidence is to be identified the material



**FIGURE 13**  
**JUSTICE COURT INSTALLATION**



**FIGURE 14**  
**SUPERIOR COURT INSTALLATION**

is placed in front of the video telephone in the courtroom and appears on the screen before both the witness and the court.

The next section of the report summarizes the video telephone usage experienced during the project.



### SECTION III VIDEO TELEPHONE USAGE

Experience with the use of the video telephone for the applications listed in the preceding section varied widely. For some applications the video telephone quickly became the way to do business. For others the use was infrequent or not at all. For some the use was a matter of personal choice; with these, the usage tended to increase with the number of trained users. For others, and particularly those involving remote testimony in criminal proceedings, the use was planned and carried out only for selected test cases--and sometimes with reluctant or hesitant participation.

For applications involving graphics transfer, the usage was sporadic and was clearly inhibited by the technical limitations of the equipment used. When technical improvements were made, usage increased.

#### GENERAL LEVEL OF USAGE

Figure 15 shows the monthly network usage for all applications for 11 months of the project (May 1975 through April 1976). The increase in usage should be compared with the build-up of the network shown in Figure 5. From February 1975, when the first two video telephone sets were installed, through the end of the project (June 1976), over 8,000 video telephone calls were completed. The usage increased as the number of agencies on the network and the number of sets increased. By April, when 17 sets were operational in 7 separate criminal justice agencies the completed-call rate was over 1,000 per month, with an average call length of over 10 minutes.

Twenty percent of these calls could not be completed because the dialed station was busy. The 20 percent busy rate is an indication of a greater potential usage if more video telephone sets were available.

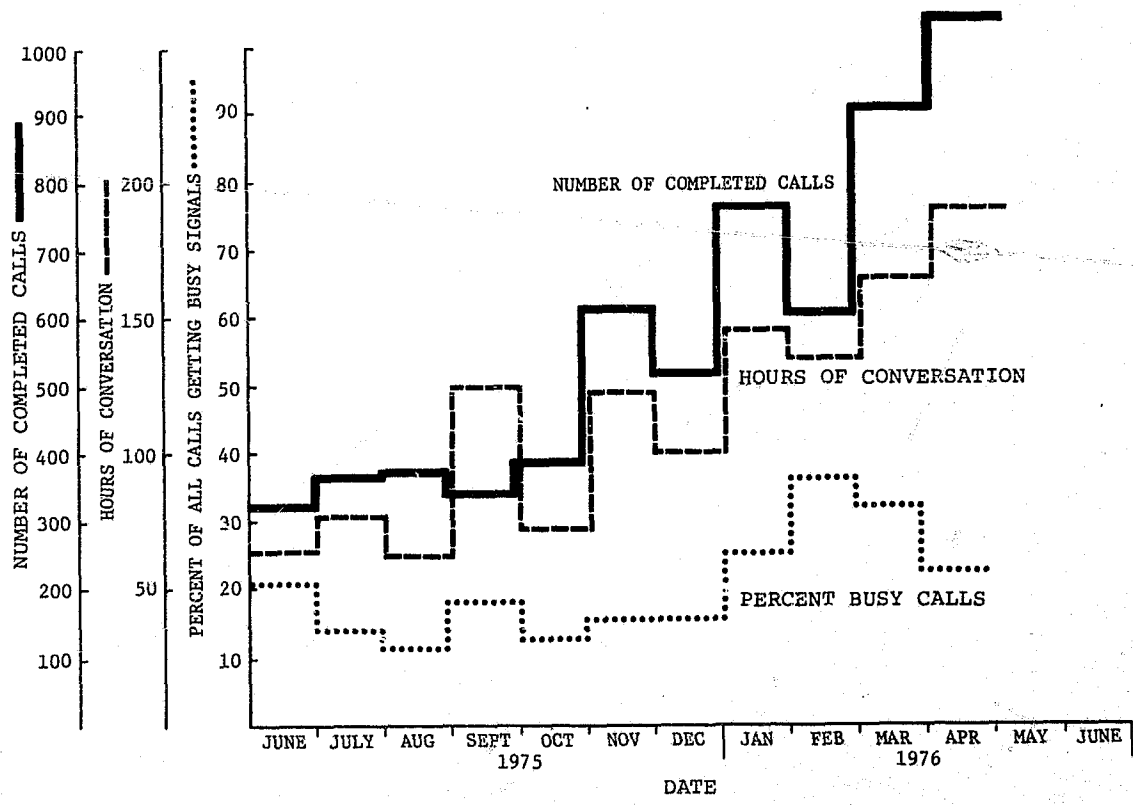


FIGURE 15  
NETWORK MONTHLY CALL STATISTICS

## USAGE FOR SPECIFIC APPLICATIONS

The applications discussed in Section II were the principal ones for which usage statistics were sought. Most of the applications were planned in advance and procedural protocols (formal instructions for how to initiate and carry through a planned contact) were prepared to assure a uniform, effective use of the system. Potential users were trained in accordance with the protocols and were encouraged to use the video telephone whenever its use seemed appropriate. The presumption was that usage would develop and would continue where it seemed to offer advantage to the user and where there were no overriding rules or inhibitions that dictated otherwise.

Table V is a summary of the video telephone usage experienced with individual applications. The heaviest use is shown for three specific applications: (1) public defender conferences with jailed clients, in which 67 percent of the contracts between public defenders and clients held in the county jail were by video telephone, (2) call of the calendar, in which all of the daily centralized calendar calls used the video telephone in a three-way conference mode, and (3) arraignment of incustody defendants pleading not guilty, in which 89 percent of all defendants involved were arraigned by video telephone between the judge's chambers and the county jail.

The most significant use in terms of the potential impact on jurisprudence and the future of video technology in the courts is shown for three other applications: (1) testimony in criminal trial, (2) police testimony in preliminary hearing, and (3) jailed defendant participation in preliminary hearing. All of these are adversarial proceedings in which the physical separation of the defendant and the witness brings into question the defendant's constitutional right of confrontation. In each of the above categories the video telephone was only used a few times for selected test cases. These uses established

**TABLE V  
SUMMARY OF VIDEO TELEPHONE USAGE**

<u>APPLICATION</u>		<u>USAGE</u>
PUBLIC DEFENDER CONFERENCE WITH JAILED CLIENT	67% OF CONTACTS AT COUNTY JAIL	186 CALLS/MONTH
	100% OF CONTACTS AT JAIL ANNEX	71 CALLS/MONTH
PRE-SENTENCE INTERVIEW WITH CONVICTED PERSONS IN JAIL	15% OF CONTACTS AT COUNTY JAIL	34 CALLS/MONTH
	35% OF CONTACTS AT JAIL ANNEX	12 CALLS/MONTH
REMOTE ACCESS TO POLICE INFORMATION BUREAU	14% OF CONTACTS FROM SKY HARBOR SUBSTATION 3.5% OF ALL CONTACTS	43 CALLS/MONTH
CALL OF THE CALENDAR	100% OF ALL CALENDAR CALLS	22 CALLS/MONTH
ARRAIGNMENT OF IN-CUSTODY DEFENDANTS	89% OF ALL IN-CUSTODY, NOT GUILTY ARRAIGNMENTS	22 CALLS/MONTH
ORAL ARGUMENT OF PRE-TRIAL MOTIONS	20% OF MOTION HEARINGS	22 CALLS/MONTH
PROBATION REVOCATION HEARINGS	—	3 HEARINGS
TESTIMONY IN PRELIMINARY HEARINGS	6% OF HEARINGS AT SOUTH PHOENIX JUSTICE COURT; 0.6% OF ALL PHOENIX HEARINGS.	16 HEARINGS
TESTIMONY IN CRIMINAL TRIALS	TEST CASES ONLY	2 TRIALS
PRE-DISPOSITION CONFERENCES BETWEEN ATTORNEYS	NO USAGE	—
POST ARREST PROSECUTION REVIEW	NO USAGE	—
ATTORNEY CONFERENCES WITH POLICE WITNESSES	USAGE ONLY AS PART OF PRELIMINARY HEARINGS	—
JUDICIAL RETRIEVAL OF COURT RECORDS	NO USAGE	—

a number of "firsts" in American jurisprudence and laid the ground work for appellate rulings that may determine the acceptability of the video telephone in future criminal proceedings (see Table II).

Thus, the answer to the question posed at the start of the project-- would the video telephone be used in criminal justice?--must be a qualified "yes". It was used in Phoenix for some purposes. It also was specifically rejected by some users--for some uses. Overall, however, the usage was such as to suggest that in time, with greater availability and with improved graphics capability, the usage would have grown and additional applications would have developed.

The characteristics of the usage for the two categories of applications highlighted above (heavy, regular use and test case use), and for the application concerned mainly with graphics (access to central police records) are given below:

(a) Public Defender Conference With Jailed Client - In this application the public defender calls the jail to talk with specific clients by video telephone rather than visiting the jail in-person.

Figure 16 shows the frequency of contact by all public defenders with clients held in the county jail. It shows that the average frequency of contact increased by 81 percent during the period when the video telephone was available compared with the average frequency in the four months prior to installation of the first video telephone. The frequency of in-person contacts decreased by approximately 43 percent during the same period. Approximately 67 percent of all contacts were made by video telephone.

It is clear that definitive conclusions about the growth of contact frequency based on only a four month baseline experience are hazardous. The 81 percent growth, if it represents other than a normal growth due

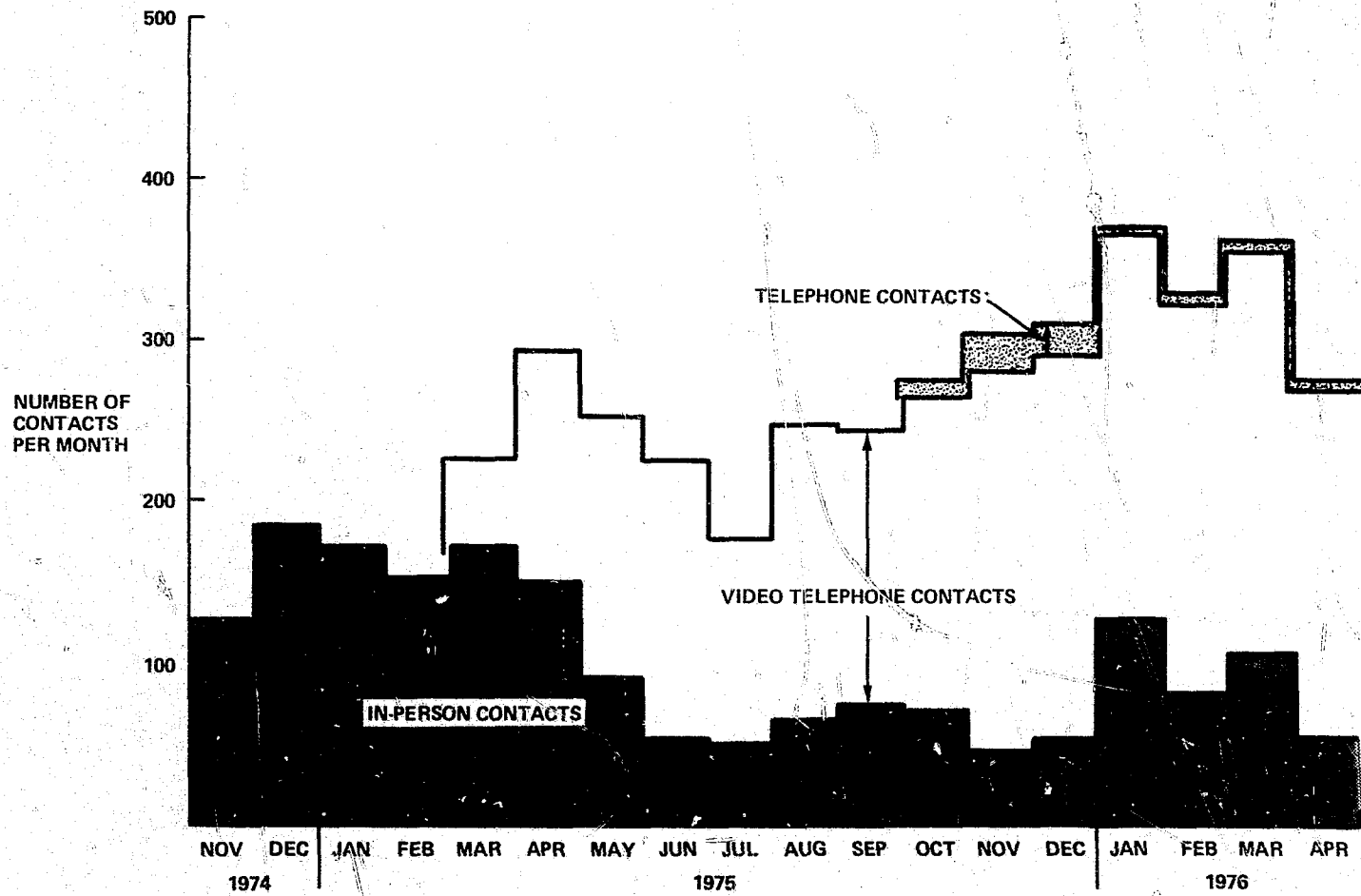


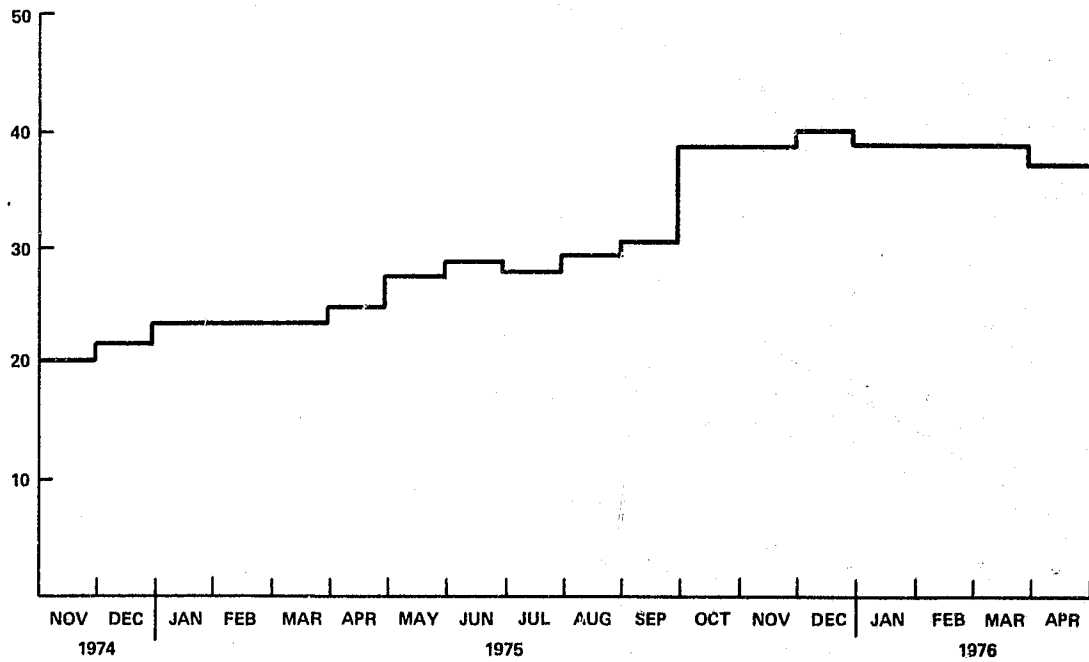
FIGURE 16  
FREQUENCY OF PUBLIC DEFENDER CONTACTS WITH JAILED CLIENTS  
(COUNTY JAIL)

to increases in the jail or public defender population, would be a significant change. In fact, the jail population did not change significantly during the project although the public defender population did, as shown in Figure 17.

Figure 17 shows roughly a 100 percent increase, paralleling the increase in contact frequency. Figure 18 normalizes the felony attorney contact frequency to a per attorney basis. It shows an average increase of 75 percent in the total contact per attorney and a 43 percent decrease in in-person contacts. Approximately 75 percent of all felony attorney contacts were made by video telephone. This suggests that the overall increase in contact frequency shown in Figure 16 represents a real increase in public defender-jailed client interaction.

Figure 19 shows the frequency of contact between public defenders and clients held in the jail annex five miles away. At one point the in-person contact frequency dropped to zero, indicating that all contacts with clients at the annex were by video telephone. This should be compared with Figure 16 which shows the frequency of contact at the county jail which is only four blocks away. The difference suggests some validity to the intuitive premise that distance is an influence on the use of the video telephone, although a substantive difference in the types of cases in the two jails could influence the rates also.

The increment of contact frequency ascribed to the conventional telephone in each of Figures 16-19 stems from an "experiment within an experiment" to determine if a conventional telephone would serve as well as a video telephone. The figures show that the telephone was used at the jail annex when the video telephone was unavailable but not otherwise. It suggests then that the conventional telephone will be used if the inconvenience of an in-person visit is great enough but not if the alternative of a video telephone is available.



\*Assume all Appellate Attorneys are Half-Time

FIGURE 17  
GROWTH IN PUBLIC DEFENDER FELONY ATTORNEY STAFF



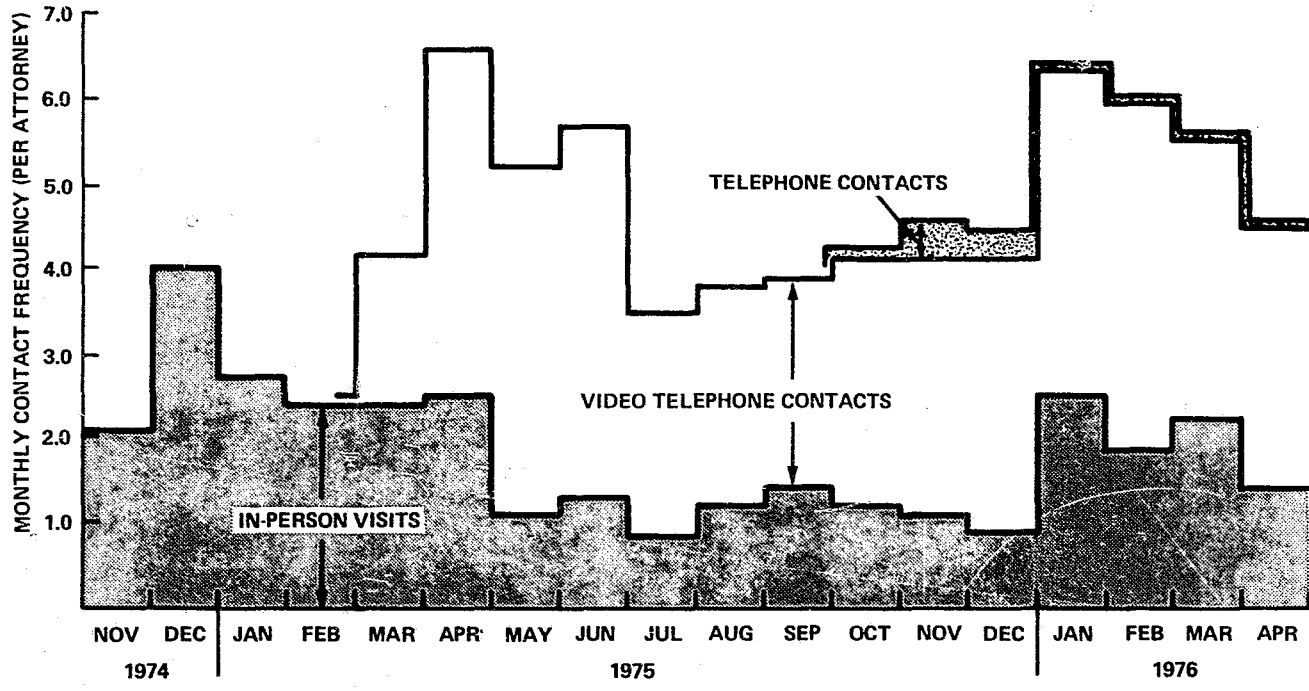
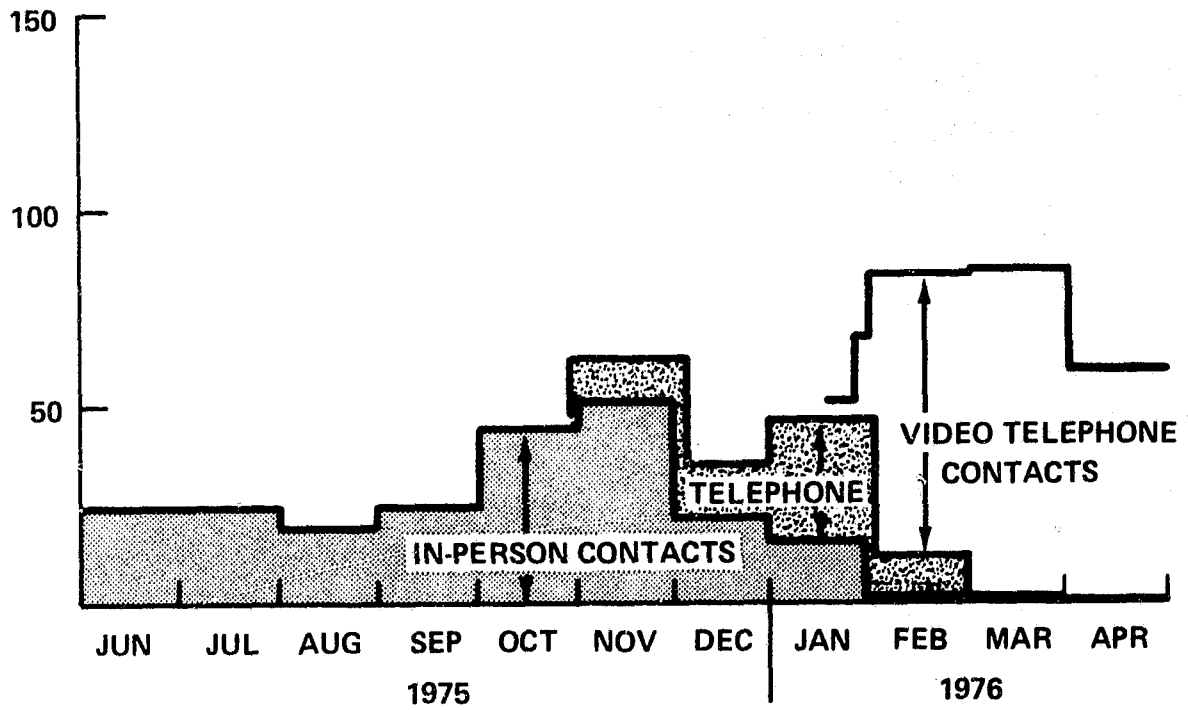


FIGURE 18  
PER ATTORNEY FREQUENCY OF CONTACTS  
FOR ALL FELONY ATTORNEYS (COUNTY JAIL)



**FIGURE 19**  
**FREQUENCY OF PUBLIC DEFENDER CONTACTS WITH JAILED CLIENTS**  
**(JAIL ANNEX)**

(b) Pre-Sentence Interview with Convicted Persons in Jail - This application concerns probation officer interviews with convicted inmates held in the jail prior to sentencing. The usage experience in this case was in marked contrast to the experience with public defender conferences.

Figure 20 shows the frequency of contact between probation officers and adult prisoners at the county jail five blocks from the probation office. It shows that the average frequency of contact was largely unchanged by the availability of the video telephone and that the video telephone accounted for only about 15 percent of all contacts.

Figure 21 shows the frequency of contact between probation officers and adult prisoners at the jail annex five miles from the probation office. Here the video telephone appeared to account for about 35 percent of all contacts, although the dynamics of the contact frequency during the pre-video telephone period make it difficult to determine if the number of trips to the jail annex was influenced by the use of the video telephone. The presumption of a relationship between the larger usage at the jail annex compared to the usage at the county jail, and the increased distance to the jail annex is hard to avoid, particularly when it is noted that the experience was the same for public defender conferences. However, here too, the effect could result from differences in the cases in the two jails.

(c) Call of the Calendar - In this application the judge, private attorneys and representatives of the public defender and county attorney all meet by three-way video telephone to determine readiness for trials scheduled the following work day and to assign court divisions for the trials. The Call is held under the Maricopa County Centralized Calendar Project under which approximately 56 percent of the trial cases are assigned to available court divisions by the judge. The Call is held each

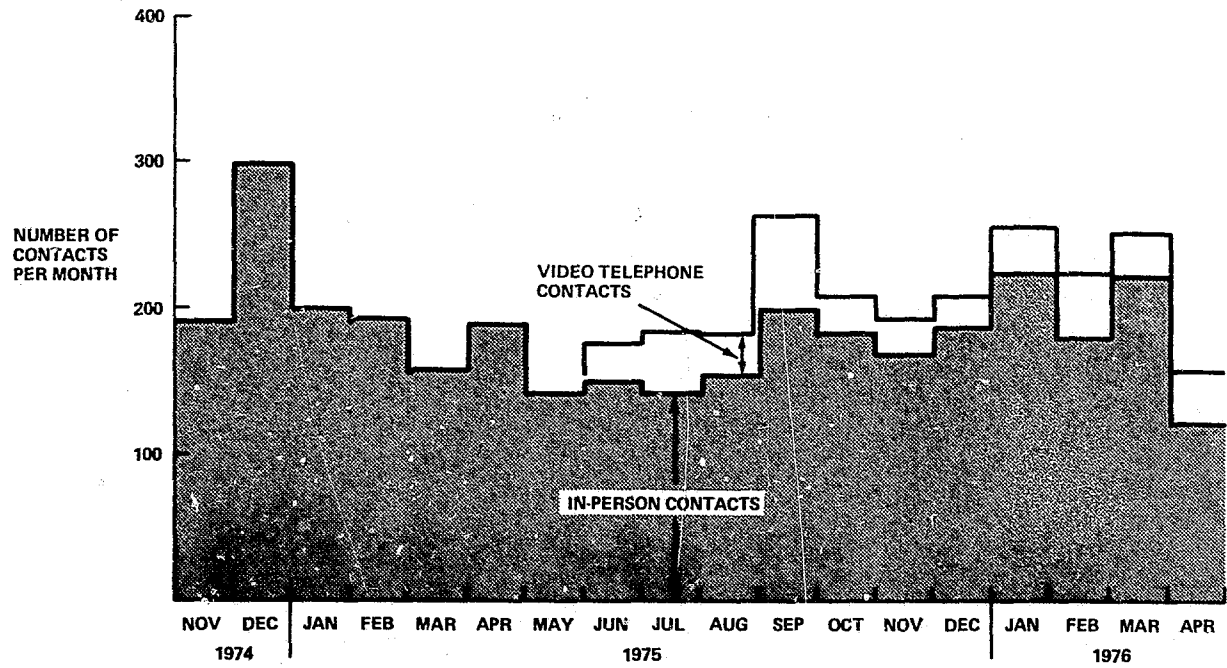


FIGURE 20  
FREQUENCY OF ADULT PROBATION CONTACTS WITH JAILED PERSONS  
(COUNTY JAIL)

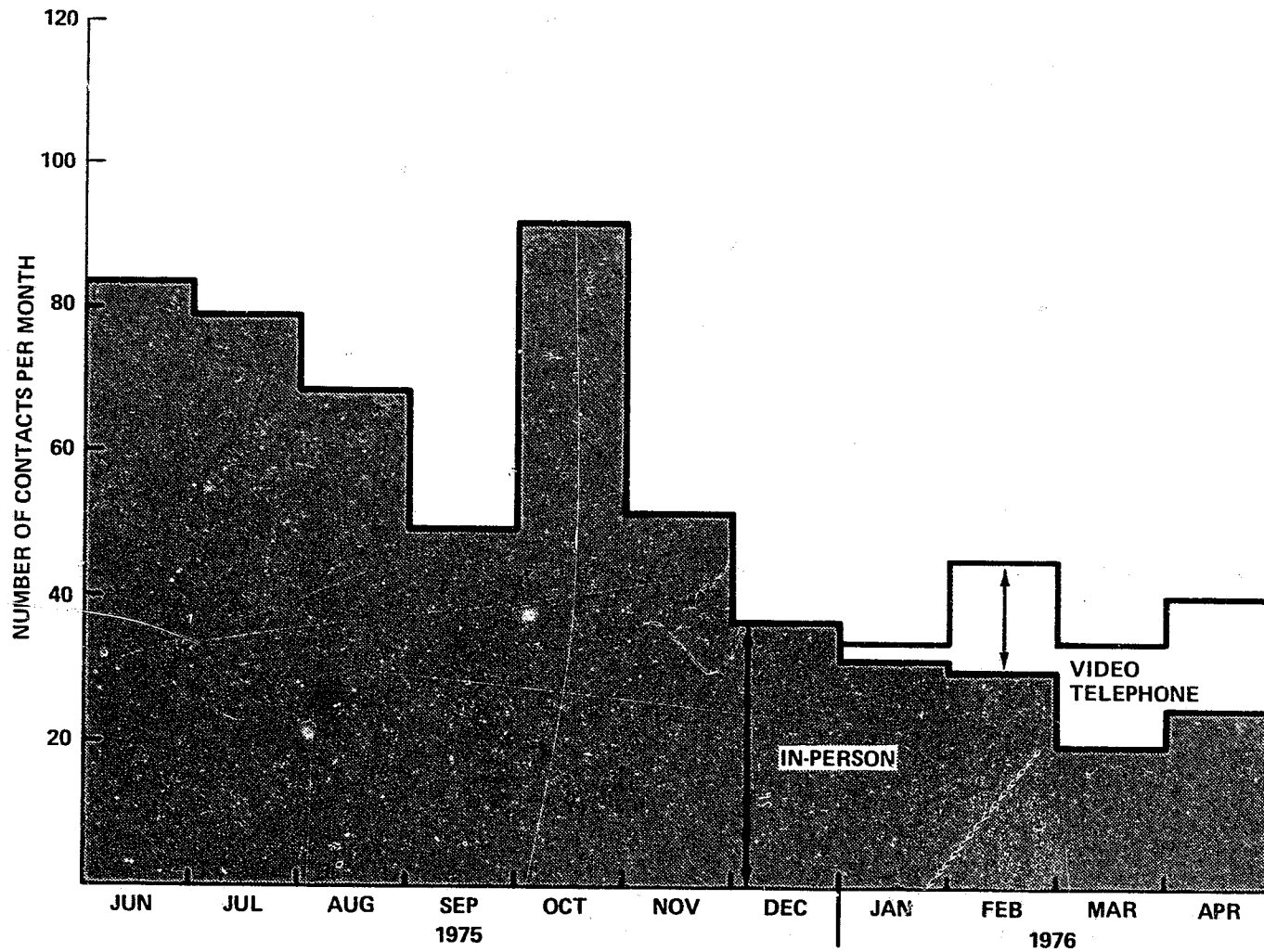


FIGURE 21  
FREQUENCY OF ADULT PROBATION CONTACTS WITH JAILED PERSONS  
(JAIL ANNEX)

afternoon to review a daily average of 18 cases, 11 of which typically are handled by a public defender. The remaining seven are represented by private attorneys. One deputy county attorney typically represents 14 of the cases. Assigned deputy county attorneys represent the remainder.

All centralized Calendar Calls for the last few months of the project were conducted by video telephone. This is an example of 100 percent usage of the video telephone in a largely administrative application.

(d) Arraignment of In-Custody Defendants - In this application the presiding criminal judge calls the county jail to conduct the daily arraignment of defendants held in custody who plan to plead not guilty.

The experience with this application was similar to the experience with the Calendar Call application; that is, the video telephone was used once each day to conduct almost 100 percent of the in-custody, not guilty arraignments. The only such arraignments that did not make use of the video telephone concerned those defendants (approximately 11 percent) who refused to sign the waiver of physical presence required under Maricopa County Criminal Rule XII for video telephone arraignment (see Figure 11). Defendants refusing to sign the waiver were escorted to the court for a conventional in-person arraignment.

(e) Testimony in Criminal Trial - This is by far the most significant application undertaken because of the potential for appellate decisions regarding the constitutionality of confrontation by video telephone. At the beginning of the project there appeared to be almost total rejection of the idea that witness examination in a criminal trial might be conducted by means of video telephone. This view appeared to soften as users became more familiar with the video telephone. By the end of the project the video telephone had been used in two criminal trials and

nine preliminary hearings. One of the trials concerned a charge of possession of marijuana in which the criminalist was examined as to the substance contained in a bag found in the possession of the defendant. The other was a trial for armed robbery in which the police officer was examined about the circumstances of the arrest, and a co-defendant, appearing as a prosecution witness from the video telephone room in the county jail, was examined regarding the circumstances of the robbery.

In both trials the acceptability of the video telephone for witness examination was stipulated by both attorneys.

(f) Testimony in Preliminary Hearing - Experience with the use of the video telephone for remote testimony in preliminary hearings was similar to the experience with criminal trials except that the initial resistance was less and no formal stipulation as to the acceptability of the video telephone was necessary. The video telephone was used for 16 preliminary hearings in the South Phoenix justice court to allow participation by police officers located at the Sky Harbor sub-station and at the Phoenix police headquarters (see Figures 7 and 13). Each hearing was selected by the attorneys involved as a candidate for video telephone use and was undertaken only with the agreement of the defendant, the witness, both attorneys and the judge. In the end, only 7 of the hearings went far enough to require testimony by the police witness.

(g) Remote Access to Police Information Bureau - This was one of the principal applications to make use of the graphics transfer capability of the video telephone. Every video telephone installed in the Phoenix area was equipped with an auxiliary lens that allowed documents or other material, rather than the image of the person making the call to be displayed on the screen, this was accomplished by rotating a hinged

lens assembly to focus the camera onto the table surface rather than on the individual. In addition, several of the sets were equipped with a copy machine that permitted the viewer to make a paper copy of the image on the screen at the moment. With these arrangements, it was possible for police officers in the Sky Harbor substation, for instance, to call for display of selected police records and either to read the records displayed on the screen or to copy selected parts of the records for retention (see Figures 7 and 8).

The document transmission capability depended heavily on the graphics reproduction capability of the video telephone equipment. The capability was assessed on a comparison basis by a panel of police users and the results are reported in Volume III of this report. In general, the tests showed that the graphics transmission capability was adequate for mug shots and marginal for typed or handwritten documents and fingerprints.

Figure 22 is a photograph of a typical mug shot as seen on the display screen. The photographic process degrades the image somewhat but the usability of the image for identification purposes is readily apparent. Figure 23 is a photograph of a hard copy of the same image taken from the hard-copy machine. The reduced quality is apparent.

Figure 24 is a photograph of the display of typical 8 1/2 x 11 inch types incident report magnified to fill the display screen with about one-half of the page. The marginal nature of the reproduction is apparent (see Volume III for more details of the display capability). Figure 25 is a similar photograph of a fingerprint display magnified to fill the display screen.



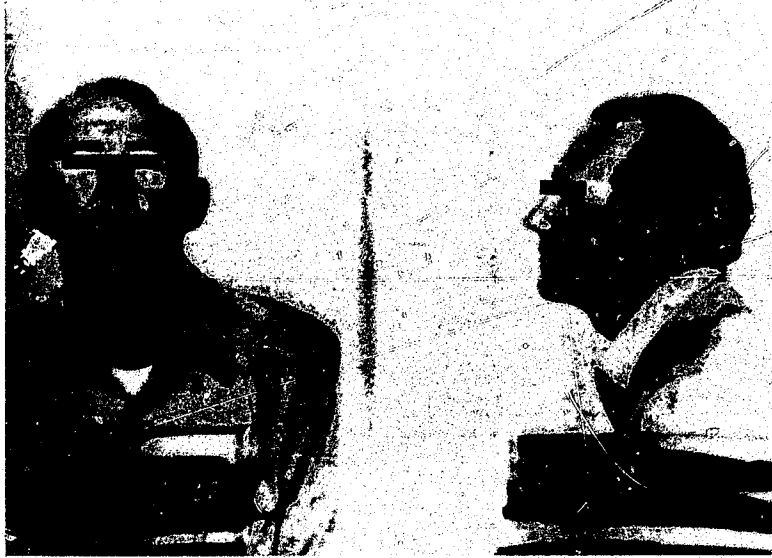


a. Magnified



b. Not magnified

**FIGURE 22**  
**PHOTOGRAPH OF MUG SHOT FROM DISPLAY AT SKY HARBOR**

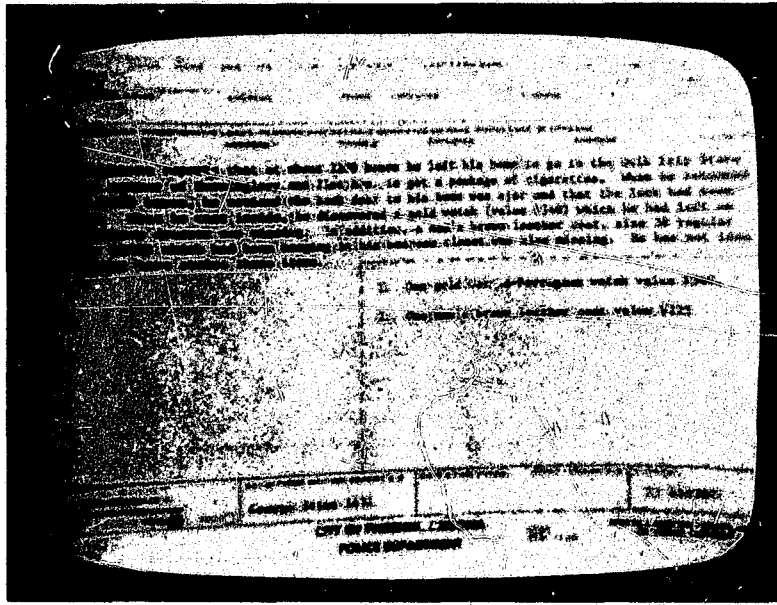


a. Magnified

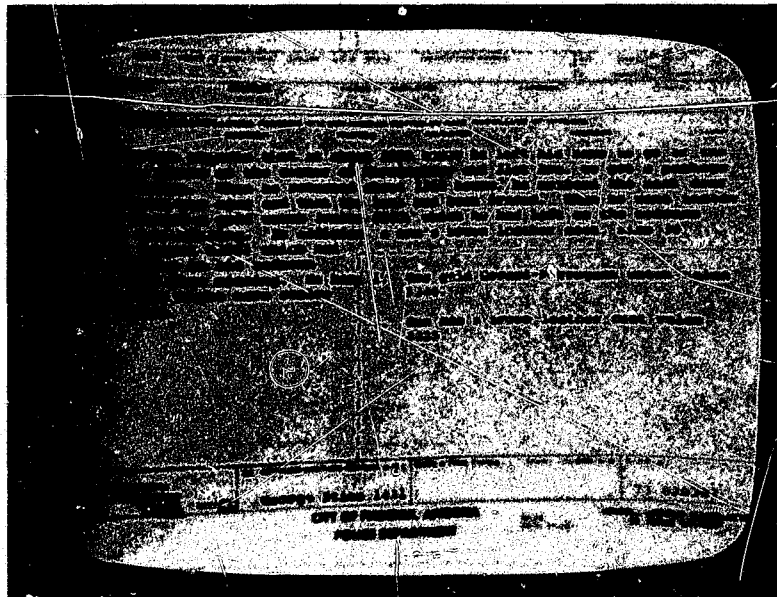


b. Not magnified

**FIGURE 23**  
**PHOTOGRAPH OF MUG SHOT FROM HARD COPY MACHINE AT SKY HARBOR**



a. Elite type face



b. Pica type face

**FIGURE 24**  
**PHOTOGRAPH OF TYPED INCIDENT REPORTS FROM DISPLAY AT SKY HARBOR**



a. Single flat print



b. Two rolled prints

**FIGURE 25**  
**PHOTOGRAPH OF FINGERPRINTS FROM DISPLAY AT SKY HARBOR**

The practical effect of this marginal capability, which was characteristic of the particular equipment used and not of the video telephone technique in general, was to inhibit the use of the video telephone in this application. After an initial period during which modifications were made to improve the hard copy image, approximately 10 calls per week were made from the Sky Harbor substation to review material in the I Bureau files. During the same period there were roughly 50 in-person trips to the I Bureau.

The next section of the report summarizes the changes that appeared to result from the usage described in this section.

## SECTION IV

### FUNCTIONAL CHANGES

The preceding section summarizes the video telephone usage experienced during the project. It shows that the video telephone was used in the administration of criminal justice in Phoenix and Maricopa County and that some applications were more readily accepted than others.

This section summarizes some of the functional changes and issues experienced during that usage. Presumably, where the user had an option to use or not to use the video telephone for any particular purpose, some advantage was anticipated when it was used. Whether the expected advantage was realized, or even recognized, and whether the use resulted in a functional change that affected the well-being of the defendant was not always clear. However, since the latter, in particular, bears on the question of whether usage is of value to criminal justice, an effort was made to identify the real changes that appeared to occur when the video telephone was used. The following describes some of these changes as they were experienced in the different applications.

#### PUBLIC DEFENDER CONFERENCES WITH JAILED CLIENT

When the video telephone was used by public defender attorneys to confer with their jailed clients, the frequency of contact with clients appeared to increase and the contacts appeared to occur earlier in the case disposition process. Figure 18 shows a 75 percent increase in the average rate of contact at the county jail per felony attorney in the public defender's office, with 75 percent of the contracts resulting from the use of the video telephone in place of in-person visits to the jail. The frequency of in-person contacts dropped by 43 percent during the same period.

Table VI shows an increase in the average elapsed time between the first contact and the subsequent court appearance. The change is assumed to have resulted from earlier contact rather than later court appearance. For preliminary hearings, which have to take place within six days, the increase, identified in the Table as an improvement in timeliness, was more than a full day. For criminal trials, which are required to take place within 114 days, the improvement was approximately 30 days.

There is no evidence that either change was caused specifically by the use of the video telephone, and it is entirely possible that there was a biasing process at work in the choice of whether or not to use the video telephone for any particular case. Also, it is possible that external factors entered the picture simultaneously and that the changes had no relation to the use of the video telephone.

Both of these changes, whether or not they resulted from the use of the video telephone, would appear to be to the advantage of the defendant. On the other hand, informal conversations with a number of jail inmates who had conferred with their attorneys by video telephone suggested that there were possible disadvantages also:

(a) Increased Perception of Threat to Privacy

Fear was expressed that sensitive conversations over the video telephone might be monitored and recorded or, perhaps, overheard by persons standing near the attorney but out of view of the video telephone camera. Even intuitive recognition of these possibilities by the clients may lead to less than full disclosure of pertinent facts to the attorney. There was no evidence that this occurred but the possibility exists.

TABLE VI  
TIMELINESS OF PUBLIC DEFENDER CONTACTS

	ELAPSED TIME BETWEEN FIRST CONTACT AND COURT APPEARANCE					t  (t VALUE FOR A TWO-TAILED TEST)	df  (DEGREES OF FREEDOM)	P  (PROBABILITY)
	PRE-VIDEO PERIOD		VIDEO PERIOD		IMPROVEMENT IN CONTACT TIMELINESS			
	MEAN TIME $\bar{X}_p$ (DAYS)	STANDARD DEVIATION, SD (DAYS) <sup>P</sup>	$\bar{X}_v$ (DAYS)	SD <sub>v</sub> (DAYS)	$\bar{X}_v - \bar{X}_p$ (DAYS)			
PRELIMINARY HEARING <sup>1</sup>	3.2	2.9	4.4	5.9	1.2	1.67	152	≤0.1
GUILTY PLEA	17.5	16.7	37.7	39.3	20.2	4.6	155	≤0.001
TRIAL START	23.2	22.3	53.4	43.1	30.2	4.8	109	≤0.001
SENTENCING DATE	13.]	7.7	18.5	15.0	5.4	1.74	50	≤0.1

<sup>1</sup>PRELIMINARY HEARING DATA ARE RESTRICTED TO FIRST MEETINGS CONDUCTED BY INVESTIGATORS FROM THE PUBLIC DEFENDERS OFFICE.



(b) Depersonalization of the Conference

Because only the head and shoulders of each party appear as a monochrome image on the video telephone screen, it can be argued that important non-verbal, non-facial "metamessages"<sup>1</sup> by each participant are not being conveyed. The resulting conversation would be less informative to the attorney and less comforting to the client.

(c) Adequacy of Representation

This is a variation of the preceding point. If communication between an attorney and a client is perceived by either party to be inhibited in any way, there can be a question about the adequacy of representation. There seemed to be no serious question raised by any lawyers approached during the project about the legality of video telephone conferences but there was concern about the adequacy.

ARRAIGNMENT OF IN-CUSTODY DEFENDANTS

When the video telephone was used by the Superior Court judge to arraign defendants held in the county jail who elected to plead not guilty, the need to escort the defendants through public places in handcuffs and shackles was eliminated. This reduced the potential for security incidents and made it easier for attorneys to confer individually and privately with their clients prior to the arraignment.

Both of these changes would appear to be to the ultimate advantage of the defendant. On the other hand, a number of defendants

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<sup>1</sup>Bermant and Jocabovitch, "Fish out of Water: A Brief Overview of Social and Psychological Concerns about Video Taped Trials," Hastings Law Journal, Vol. 26, February 1975, pp. 999-1011.

who had been arraigned over the video telephone felt that use of the video telephone had abridged their right "to appear in person" before the judge. A number expressed dissatisfaction that they were unable to "tell their side to the judge." In fact the opportunity to do this was not a part of the procedure with or without the video telephone because in Maricopa County the not guilty arraignment is largely an administrative procedure.

Broader issues would probably be raised if the application were extended to include guilty plea arraignments.

#### REMOTE ACCESS TO POLICE INFORMATION BUREAU

When the video telephone was used to transmit mug shots from the police Information Bureau to the Sky Harbor substation, it occasionally helped to avoid the need to transport suspects to headquarters for identification. This would be an advantage to the suspect who was able to be released when a positive identification was made, and to the police who otherwise would be faced with a lengthy round trip to headquarters.

The disadvantage to the defendant appeared to be indirect, concerning possible unauthorized access to the information contained in the files. If the clerk at the police Information Bureau is lax in controlling access to the files or if unauthorized persons read or made copies of files displayed on the screen at the substation, the security of the files is jeopardized and the defendant's right of privacy is potentially compromised. There was no evidence that this occurred during the project but the prospect was always there.

## REMOTE TESTIMONY AT TRIALS AND HEARINGS

The video telephone was used for remote testimony at two criminal trials, 16 preliminary hearings and four probation revocation hearings. This was not sufficient usage to establish whether the greater access to witnesses afforded by the video telephone would reduce the number of continuances. On the other hand, there was at least one instance, in a probation revocation hearing, in which an additional probation officer was called unexpectedly from his office to testify by video telephone, without the necessity of calling a recess to await his arrival.

This type of responsiveness, if it led to reduced continuances and faster case disposition, would appear to be to the advantage of criminal justice. On the other hand, it was not clear to many attorneys and judges familiar with the Phoenix project that testimony by video telephone would meet the rights of confrontation granted the accused under the U.S. Constitution. Also, there were questions as to whether examination and cross-examination by video telephone meets the requirements of due process and "best evidence." Almost all attorneys queried felt they would be inhibited in their ability to draw the "truth" from a witness over a video telephone and to demonstrate the evidence of "truth" and "falsity" to the court when the witness is not physically present. PART B of the report discusses this type of issue further.

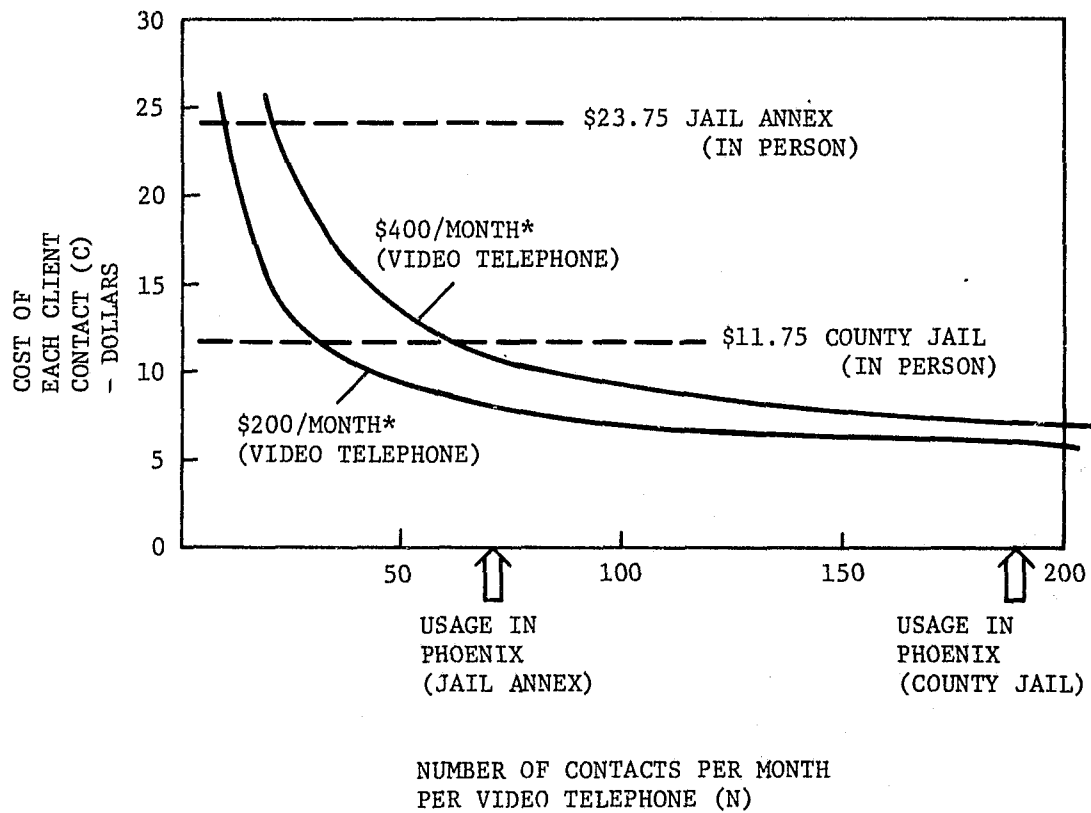
The next section of the report summarizes the potential cost impact of using the video telephone for the applications experienced in Phoenix.

## SECTION V

### COSTS

The use of the video telephone will result in cost savings to an agency if the usage and consequent man-hour and salary savings are sufficient to compensate for the cost of the video telephone service. The maximum savings will be limited by the maximum usage possible in the agency.

Figure 26 is a characteristic cost saving to the public defender's office in Maricopa County for attorney conferences with jailed clients. It represents a model of the savings that might result from using the video telephone instead of travelling to the jail to visit the clients in person. The dotted lines represent the approximate cost per client contact by in-person visits to the jail; the value is independent of the number of contacts made each month. The solid lines represent the approximate cost to accomplish the same contacts by video telephone, prorating the monthly cost of the video telephone over the number of calls made each month. The difference between the corresponding dotted and solid lines is the savings. Where the solid line is above the dotted line for the particular jail under consideration, the difference represents a net loss to the agency. Where the solid line is below the dotted line, as it is in the figure for the higher contact frequencies, the difference represents a net savings. For the usage rates experienced during the project a savings is shown to be possible for contacts at both jails.



\* Refers to monthly cost per video telephone.

**FIGURE 26**  
**COST OF PUBLIC DEFENDER FELONY ATTORNEY CONFERENCES WITH JAILED CLIENTS**

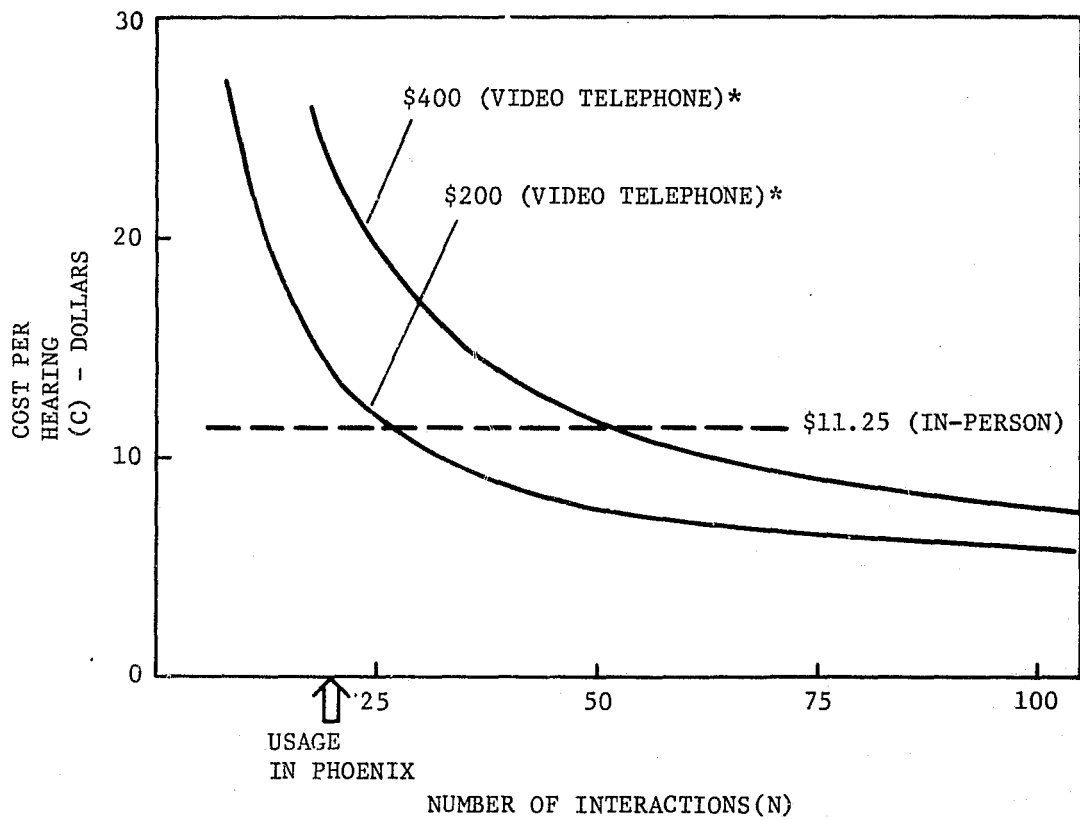
It is important to recognize that the cost figures are based on assumed future tariff rates for the video telephone. For purposes of analysis, base figures of \$200 and \$400 per month per video telephone were assumed, with a 50 percent mark-up to \$300 and \$600 where special graphics facilities were required.<sup>1</sup>

Figure 27 is a similar cost saving characteristic for public defender attorney attendance at pre-trial motion hearings. In this application, the usage rates experienced during the project would be insufficient to generate a savings.

Similar characteristics for each of the applications showed similar results; some would generate savings at the usage rates experienced; some would not. In each application, the comparison was made only for the agency that appeared most likely to experience cost savings. The other agency involved in each interaction was assumed generally to experience the cost of the video telephone in addition to the normal cost of labor. This assured that savings and costs could be accumulated and examined for individual agencies separately. However, the video telephone

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<sup>1</sup>AT&T's PICTUREPHONE service was offered in Chicago at \$125 per month. Future rates for an advanced system of the type used in Phoenix can only be estimated. AT&T confirmed by letter dated July 1, 1976, that a projection of \$200 per month is reasonable if a sufficient number of customers outside the criminal justice system were to subscribe to the service. However, they estimated higher prices, including possibly a significant initial charge, where the network is of limited scale and geographically disbursed. The values of \$200 and \$400 were selected as being within the bounds of the AT&T estimates for (1) a system generally available and used broadly by the public, and (2) a limited system installed under a long term lease arrangement.



\*Refers to monthly cost of video telephone

**FIGURE 27**  
**COST TO THE PUBLIC DEFENDER'S OFFICE OF ATTENDANCE**  
**AT PRE-TRIAL MOTION HEARINGS**

equipment is a dial-up network, which operates in the local criminal justice system. Accordingly, the results should be examined across the spectrum of applications for each agency to determine the net agency impact, and across the spectrum of agencies to determine the impact of the community of agencies as a whole.

Table VII is such a cost accumulation. The costs and savings are shown for each agency "owning" one or more video telephones in Phoenix/Maricopa County and are listed separately for each application. The labor savings are based on the actual usage rates experienced during the project and the measured average labor hours involved. The video telephone costs are based on the estimated \$200 per month basic tariff, with a 50 percent higher tariff assumed for installations having an extra graphics capability or special monitors and cameras. Different tariffs would, of course, affect the results.

By adding the net labor savings for each agency and comparing with the cost to that agency, the cost impact of using the video telephone becomes apparent. For the police or sheriff's departments the costs are considerably higher than the savings, even though only small amounts of monies are involved. For the public defender the saving is considerably higher than the cost even though, again, not much money is involved. For some agencies there is no saving at all and the cost is carried only because of the personal convenience afforded by the use of the video telephone and so that other agencies can experience a cost benefit. The overall cost impact based on all video telephones installed during the project and the actual usage experienced during the project is a savings of \$566 per month, a minor amount that could just as easily be doubled or converted to a net loss by slightly different costing assumptions during the analysis. The important feature to note, however, is that for the minor usage experienced with a system involving only a small fraction of the possible installations and working with criminal



**TABLE VII  
COST MODEL FOR PHOENIX INSTALLATION**

	LABOR SAVED PER MONTH -MAN-HOURS		EST. COST PER MAN-HOUR - DOLLARS		LABOR SAVINGS - DOLLARS	EST. VIDEO TELEPHONE COST-DOLLARS	VIDEO TELEPHONES REQUIRED AND COST BASIS
<u>POLICE DEPARTMENT</u>							
Remote Access	39	X	6	=	234		1@ 200 (Detectives) 1@ 200 (Crime Lab)* 1@ 200 (Substations) 1@ 300 (I-Bureau)
Preliminary Hearings	16	X	8	=	128		
Criminal Trials	*				*	900	
					362		
<u>SHERIFF'S DEPARTMENT</u>							
Arraignments	49						2@ 200 (City Jail) 1@ 200 (Jail Annex)
Pub. Def. Conferences	0						
Pre-Sentence Inv. (Probation Follow-up)	0 49	X	6	=	294	600	
<u>PUBLIC DEFENDER</u>							
Pub. Def. Conferences	173						2@ 200 (Office)
Calendar Call	38						
Oral Arguments	11 222	X	15	=	3330	400	
<u>ADULT PROBATION</u>							
Pre-Sentence Inv.	35						1@ 200 (Office)
Probation Rev.	0 35	X	8	=	280	200	
<u>COUNTY ATTORNEY</u>							
Arraignments	*						1@ 200 (Office)*
Calendar Call	*						
Oral Arguments	*						
	*				*	200	
<u>SUPERIOR COURT</u>							
Criminal Trial	*						1@ 200 (Chamber A) 1@ 200 (Chamber B) 1@ 300 (Courtroom A)* 1@ 200 (Secretary) 1@ 200 (Clerk)*
Calendar Call	0						
Arraignment	0						
Oral Arguments	0						
Probation Revocation	0 0				0	1100	
<u>JUSTICE COURT</u>							
Preliminary Hearing	0 0				0	300 3700	1@ 300 (Courtroom)
					4266		
Monthly Labor Savings						\$ 4266	
Monthly Equipment Cost						\$ 3700	
Monthly Net Savings						\$ 566	

Legend:  
o = usage but no savings  
\* = minimal usage and savings

justice personnel who approached the experiment with a healthy degree of skepticism, the impact was shown not to be a heavy cost burden and, in fact, showed a slight savings.

Table VIII reexamines the cost impact that might result from projecting usage to the maximum possible on the basis of the overall average interaction rates experienced during the project for each application, adding additional video telephones as necessary to accommodate the full scale usage, and removing video telephones where the usage experienced was zero or not significant. Table VIII thus represents the cost impact of a minimum cost system designed to accommodate the maximum level of usage for applications that would seem to promise a growing usage.

Note, for example, that the police department saves money at a level equivalent to the cost of over 10 additional officers. The public defender's office experiences net savings roughly equivalent to the cost of two additional attorneys. The courts still experience a net loss. The overall impact would be a net savings of roughly \$27,000 per month, a not inconsiderable savings to the community. If the rather large police department saving is left out of the accounting, the net impact is still a saving of about \$4,700 per month assuming that no video telephones are installed in police facilities or justice courts.

Again, the significant feature is that the video telephone network is shown not to be a cost burden and, in fact, has potential for rather significant savings. The actual result, if the video telephone were generally available and all affected personnel were experienced enough in its use to overcome the normal inhibitions, would probably lie somewhere in between.

The next section examines an aspect of the potential for transfer ability of the project experience to other jurisdictions.

**TABLE VIII  
COST MODEL FOR JLL USAGE  
OF MINIMAL SYSTEM**

	LABOR SAVED PER MONTH -MAN-HOURS		EST. COST PER MAN-HOUR - DOLLARS		LABOR SAVINGS - DOLLARS	EST. VIDEO TELEPHONE COST-DOLLARS	VIDEO TELEPHONES REQUIRED AND COST BASIS
<u>POLICE DEPARTMENT</u>							
Remote Access	1,092	X	6	=	6,552		4@ 200 (Substations) 1@ 300 (I-Bureau) 1@ 200 (Detective)
Preliminary Hearings	2,560	X	8	=	<u>20,480</u>	1,100	
					27,032		
<u>SHERIFF'S DEPARTMENT</u>							
Arraignments	54						2@ 200 (County Jail) 1@ 200 (Jail Annex)
Pub. Def. Conferences	0						
Pre-Sentence Inv.	0						
(Probation Follow-up)	54	X	6	=	324	600	
<u>PUBLIC DEFENDER</u>							
Pub. Def. Conferences	215						2@ 200 (Office)
Calendar Call	38						
Oral Arguments	55						
	308	X	15	=	4,620	400	
<u>ADULT PROBATION</u>							
Pre-Sentence Inv. (Probation Follow-up)	170	X	8	=	1,360	200	1@ 200 (Office)
<u>SUPERIOR COURT</u>							
Calendar Call	0						1@ 200 (Chamber A) 1@ 200 (Chamber B)
Arraignment	0						
Oral Arguments	0					400	
<u>JUSTICE COURT</u>							
Preliminary Hearings	0					3,000	10@ 300 (Courtroom)
					<u>33,336</u>	<u>5,900</u>	
					Monthly Labor Savings	\$33,336	
					Monthly Equipment Cost	\$ 5,900	
					Monthly Net Savings	\$27,436	

## SECTION VI

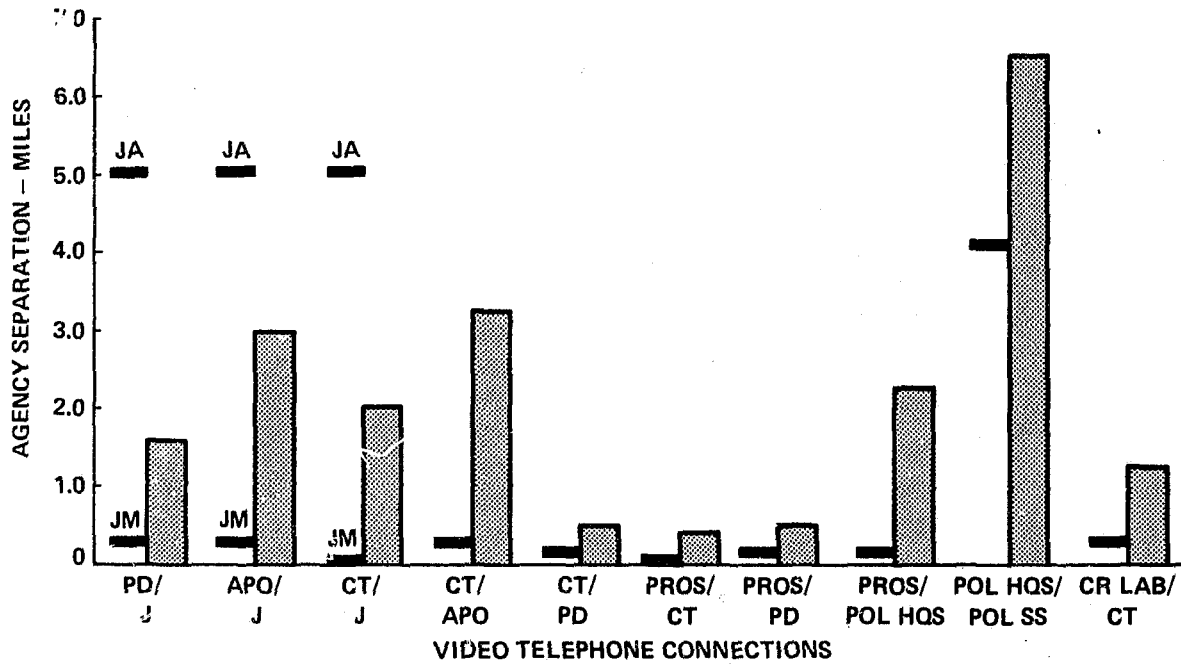
### TRANSFERABILITY OF FINDINGS

The preceding sections described the video telephone applications that found usage in Phoenix and identified some of the apparent advantages and disadvantages of the usage in the practice of criminal justice. They also showed the labor equivalent cost savings that could be projected from the Phoenix experience if the video telephone were generally available at an estimated tariff rate.

This section examines one of the key factors felt to influence the frequency of usage of the video telephone as a substitute for in-person visits. It describes the position of the Phoenix-Maricopa County criminal justice system in the spectrum of like-sized cities in the U.S. in terms of distance between principal criminal justice agencies.

Figure 28 is a chart of the average distance between pairs of agency offices making up the kinds of video telephone network links involved in the Phoenix applications. The data represent the average of data obtained from a random sampling of 20 communities in the U.S. in the population range from 144,000 to 900,000, excluding Phoenix (Maricopa County). The height of the vertical bar represents the average minimum distance. The position of the solid bar on each vertical bar represents the minimum distance in Phoenix. In every case, the average distance for the sample of U.S. cities is greater than in Phoenix. Only the distances to the jail annex in Phoenix are greater than the average.

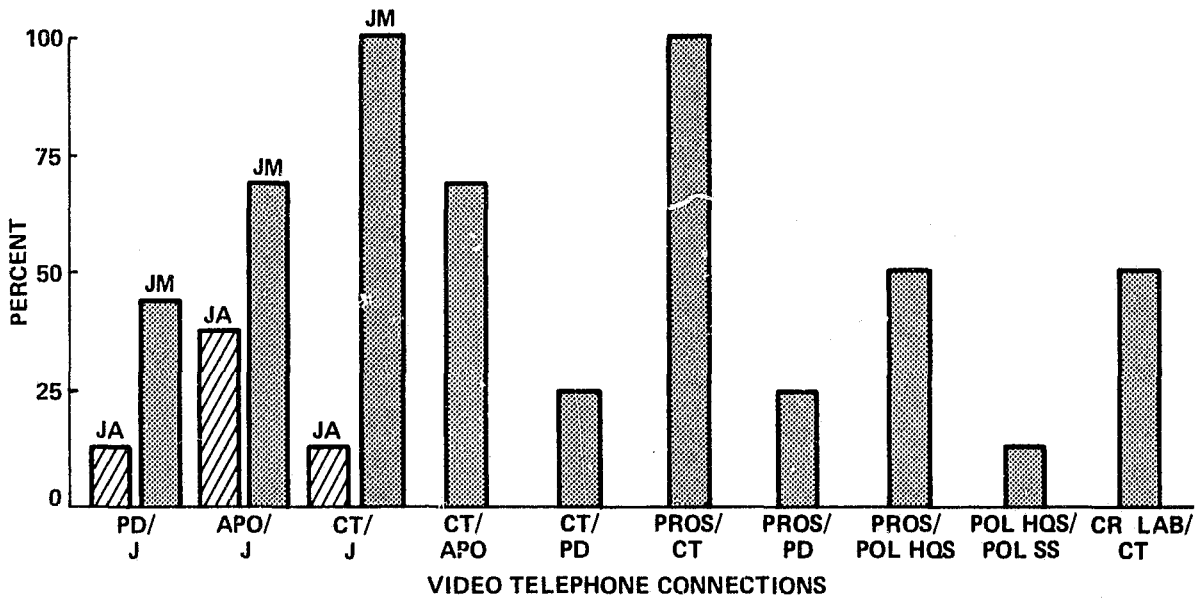
Figure 29 is a chart showing the percentage of the sample of 20 communities that had equal or greater distances than in Phoenix. The values vary from a low of about 12 percent, for the distance between the public defender's office and the jail annex, to a high of 100 percent for the distance between the Superior Court and the jail. This latter means



LEGEND:			
APO	= ADULT PROBATION	JM	= MAIN JAIL
CT	= COURT	PD	= PUBLIC DEFENDER
CR LAB	= CRIME LAB	POL HQS	= POLICE HEADQUARTERS
J	= JAIL	POL SS	= POLICE SUBSTATION
JA	= JAIL ANNEX	PROS	= PROSECUTOR
—	= DISTANCE IN PHOENIX		

\*A RANDOM SAMPLE OF 20 CITIES FROM THE POPULATION RANGE 144,000 TO 900,000

FIGURE 28  
DISTANCES AMONG CRIMINAL JUSTICE AGENCIES IN U.S. CITIES



LEGEND:			
APO	= ADULT PROBATION	JM	= MAIN JAIL
CT	= COURT	PD	= PUBLIC DEFENDER
CR LAB	= CRIME LAB	POL HQS	= POLICE HEADQUARTERS
J	= JAIL	POL SS	= POLICE SUBSTATION
JA	= JAIL ANNEX	PROS	= PROSECUTOR

\*A RANDOM SAMPLE OF 20 CITIES FROM THE POPULATION RANGE 144,000 TO 900,000

FIGURE 29  
FRACTION OF SAMPLE HAVING GREATER DISTANCE THAN IN PHOENIX

that the distance between the Superior Court and the jail in Phoenix was exceeded by the distances for 100 percent of the communities in the sample.

These findings suggest that to the extent that usage is influenced by the distance that has to be traveled to make an in-person visit, the findings in Phoenix were not abnormal and were perhaps somewhat conservative compared to the potential in other cities. Clearly, other factors influence the usage also, but conversations with lawyers, judges and police personnel from across the country suggested that except where legal restrictions dictate otherwise, the greater the distance the greater would be the personal urge to use the video telephone.

## SECTION VII

### CONCLUSIONS

The video telephone is an example of a developed technology seeking a role in society. The basic form of the device has been around for decades and was used in a criminal justice context as long ago as 1962 when a one-way, closed circuit television system was used as a training tool in Michigan to allow law students to observe court proceedings. It was another ten years before it was installed as an integral part of the criminal justice process when it was used by bail court judges in Cook County, Illinois, to confer with arrested suspects.

This is certainly a modest pace for technological innovation when compared, for instance, with the pocket calculator, which went from essentially zero to millions of users in the same period. It is a cautious advance, which avoids what Bermant and Jacobovitch, in their concern for over-ready acceptance of videotape technology in the courts, call "the rush to pick the legal fruits of [the] technology."<sup>1</sup> It offers an opportunity to explore the role of the video telephone in the criminal justice process while the initiative is still in the hands of the researchers. This was the intent of the Phoenix project.

The network of dial-up, video telephones installed in Phoenix and Maricopa County covered many of the principal criminal justice offices and facilities in the area and was available to hundreds

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<sup>1</sup>Bermant, Gordon, and M. Daniel Jacobovitch, "Fish out of Water: A Brief Overview of Social and Psychological Concerns About Videotaped Trials," The Hastings Law Journal, Vol 26, February 1975, p. 1000.



of personnel of the criminal justice system. It also gave remote access to hundreds of prisoners held in the county jails. The project was designed to focus on selected applications for the video telephone in order to explore the usability of the device in the types of criminal proceedings that would be familiar anywhere. Barriers to acceptance were reduced as much as possible through the use of planned calling-protocols for each application and through cooperative training sessions with all potential users.

After 16 months of operation the network was being used at a rate of over 1000 calls per month, many apparently for applications quite unrelated to the selected ones for which data were taken. Most of the use was for administrative or non-adversarial interchanges, although some involved the ultimate test of legal acceptability, remote testimony in criminal trials.

Savings in time and money were shown to be possible under the kinds of tariff rates that might prevail if the video telephone were generally available and widely used. Whether the results in Phoenix would apply to other jurisdictions is not clear but it was established that the network in Phoenix and Maricopa County involved distances that were generally less than exist in similar sized jurisdictions across the United States. This suggests that to the extent that the personal convenience of not having to travel influences the usage rates, the results in Phoenix might be conservative.

It seemed to be generally agreed that the video telephone would be used wherever it offered an advantage in administrative and non-adversarial interchanges, and that consequent improvements in the efficiency of the interchanges could, if used properly, result in earlier and better case dispositions.

There was also agreement that appellate decisions regarding the constitutionality of "remote confrontation" will determine the acceptability of the video telephone in criminal trials and hearings. There was some feeling on the part of the users and other observers that failure to gain acceptability in the courts may redound on other applications and act as a damper on all use of the video telephone in the criminal justice process. This implies that the future of the video telephone in criminal justice may depend on attitudes and legal strictures and that a sufficiently negative response might set the video telephone aside for all time. On the other hand, Clarke points out that "the number of kilowatt hours [expended] on the shortest journey would power several lifetimes of chatter between the remotest ends of the earth."<sup>2</sup> He concludes that since man is a communicating animal, "any major advance in communication that can be conceived can be realized in practice, and . . . will come into widespread use as soon as it is practicable." Nothing learned in Phoenix refutes this.

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<sup>2</sup> Clarke, Arthur C., "Communications in the Second Century of the Telephone," Technology Review, May 1976, pp. 33-41.

PART B

REPORT OF THE AD HOC COMMITTEE TO EVALUATE  
THE USE OF VIDEO TELEPHONES IN THE  
CRIMINAL JUSTICE PROCESS IN PHOENIX

DONALD M. MC INTYRE  
THE AMERICAN BAR FOUNDATION

## PREFACE

To consider what the findings and observations of the video telephone project in Phoenix and Maricopa, Arizona, might mean and what the potential for acceptance of the video telephone in the criminal justice process might be, a forum of selected criminal justice professionals and researchers was convened in Phoenix near the end of the project. The individuals participating are as follows:

The Honorable Robert C. Broomfield  
Presiding Judge  
Maricopa County Superior Court  
Phoenix, Arizona

Professor Norman Lefstein  
School of Law  
University of North Carolina  
Chapel Hill, North Carolina

Professor B.J. George, Jr.  
Center for the Administration  
of Justice  
Wayne State University  
Detroit, Michigan

William Lucas, Sheriff  
Wayne County Sheriff's Department  
Detroit, Michigan

Elliott Golden  
Chief Assistant District Attorney  
Kings County, New York

Donald M. McIntyre  
Associate Executive Director  
American Bar Foundation  
Chicago, Illinois

Dr. Michael Greenwood  
National Center for State Courts  
Denver, Colorado

Dr. Gerald R. Miller  
Michigan State University  
East Lansing, Michigan

Philip A. Hubbart  
Dade County Public Defender  
Miami, Florida

The Honorable Leo Oxberger  
Judge, Fifth Judicial District  
Des Moines, Iowa

John A. LaSota, Jr.  
Chief Assistant Attorney General  
Phoenix, Arizona

The Honorable R.T. Scales  
Judge, 195th Judicial District Court  
Dallas, Texas

The committee was presented with a summary of the findings and observations of the project and was encouraged to debate the arguments for and against widespread acceptance and use of the video telephone in the criminal justice process. While no consensus was sought on any point raised, the thrust of the discussions was recorded and interpreted by Mr. Donald M. McIntyre, a participant in the debate. The following is the report submitted by Mr. McIntyre:

REPORT OF THE AD HOC COMMITTEE TO EVALUATE THE USE OF VIDEO  
TELEPHONES IN THE CRIMINAL JUSTICE PROCESS IN PHOENIX

The ad hoc committee to evaluate the use of video telephones in the Phoenix, Arizona criminal justice system convened at 3 p.m. on Friday, May 21, 1976, in Phoenix. At that time the committee was shown a demonstration of how video telephones are used in the "calendar call" of the court having jurisdiction over felony cases. The judge, prosecuting attorney and public defender, each located in their respective offices, communicated the business of setting cases for trial. (Privately retained attorneys stationed themselves in the judge's chambers for this process.)

Next the committee was introduced to a videotape replay, on black and white television in the court room, depicting the use of video telephones in the handling of "arraignments" of felony defendants pleading not guilty, including some oral arguments on pretrial motions. Then the committee viewed a videotape telecast of a preliminary hearing on which a police witness testified by way of video telephone, and the trial testimony of a jail inmate by video telephone. In all such instances the committee saw and heard what the parties (court, counsel, defendant and witnesses) saw and heard at the proceedings.

The following day, Saturday, the committee convened at 8:30 a.m. to discuss the presentations it had seen and to review materials distributed by the MITRE Corporation containing descriptions of the various uses of the video telephone in the Phoenix experiment, an analysis of data indicating the extent of its use, the problems encountered in the experiment, and its effects including the saving of time and money. The committee had also been provided with reading materials on the use

of videotapes in court procedures and a report prepared by Genevieve Coleman, entitled Video Technology in the Courts, which outlines the development of the law relating to video technology. On Sunday, May 23, the committee met from 8:30 a.m. until 11:00 a.m. to continue its deliberations.

Members of the committee in attendance were: Professor B.J. George, Jr., Elliott Golden, Dr. Michael Greenwood, Philip A. Hubbart, John A. LaSota, Jr., Professor Norman Lefstein, Sheriff William Lucas, Donald M. McIntyre, Professor Gerald R. Miller, Judge Leo Oxberger and Judge R.T. Scales.

Presiding at the meeting was the Honorable Robert C. Broomfield, Presiding Judge, Maricopa County Superior Court. Also attending the meeting were representatives of the MITRE Corporation who prepared most of the material for the committee and who reviewed it with them. Representatives of the American Telephone and Telegraph Company were also in attendance in order to explain the technical aspects of the video telephone.

Before reviewing the material prepared and presented by the MITRE Corporation, and prior to the committee's deliberations, the scope and purpose of the committee was briefly reviewed, as follows: the basic parameters of the committee's task was to discuss the overall implications of video telephone use in the criminal justice process and to formulate recommendations regarding:

1. Guidelines that may be required,
2. Legal issues that must be resolved,
3. Further research that may be required.

It was understood that the committee was to give emphasis to the identification of problems, areas of agreement and issues on which there were differing viewpoints. The committee made no concerted effort to reach consensus on the policies and issues submitted for consideration.

The following report is therefore a summary of views and, where appropriate, indications of any agreements or disagreements.

Threshold Questions about the Availability of the Video Telephone and the Effect of that Availability on the Criminal Justice System.

It was recognized at the outset that there is a strong tendency, even a desire or willingness, for functionaries in the criminal justice system to take advantage of technological advances in communication. That is a normal desire. In addition, the increasing crime rate adds to the case loads of prosecutors, defense services, courts and correctional facilities, which is not usually met with an adequate, corresponding increase in the personnel of these agencies; in order to keep abreast of cases more efficient means of communication must be utilized. The video telephone represents such a means. There was agreement, therefore, that its availability, combined with its need, will doubtless result in its use.

Support for this premise can be found in other uses of video-communication which preceded the video telephone experiment in Phoenix-- notably the use of videotapes in civil litigation. Appellate courts, when presented with the question of whether videotape satisfies the requirements of law, have been much inclined to favor its use. These decisions, however, have not significantly involved the use of electronic communication in criminal trials. The right of criminal defendants under the Sixth Amendment to confront their accuser and witnesses adds

an important dimension to, and restriction on, the use of videotapes in criminal court proceedings. Moreover, statutes and court rules requiring the presence of criminal defendants at critical "decision making" points in the process accentuates the sensitivity on this subject as it is applied to the criminal proceedings.

With the basic assumption that video telephones will be used, in some form, the committee focused much of its attention throughout the meeting on ways in which the video telephone would most likely interfere with the defendant's basic rights.

Identification of Sacrifices with Video Telephone - Is there a "trade off" on its use?

It is clear that the video telephone permits criminal justice agents to have a greater frequency and a larger number of communications not only with one another but with the clients they serve. Equally clear is the time saved in this process, particularly the reduction of travel time and "dead time"--waiting in courthouse corridors. The acquisition of certain kinds of information such as that obtained by interviews and examination of documents can be achieved as easily by video telephone as by face-to-face encounters. These advantages, however, suffer from whatever loss or gain there is in the subtle nuances of "in presence" verbal communications. In the examples just cited, the loss would be minimal, if there is a loss at all. For other examples described--such as hearings and trials--the loss or perception of loss becomes much more significant.

Another form of trade off discussed by the committee was the cost of reproducing video images as close as technologically possible to an "in presence" setting. Although technological communication can never be the same as "in person," the screen could be enlarged to provide a panoramic view, in color, of the room and background in which the communicator is located. The audio fidelity could approach lifelike



quality. Technologists insist moreover that almost any communication requirement can be satisfied and that when such equipment receives widespread use there is bound to be a corresponding reduction in its cost. But until there is broad acceptance of the video telephone, the cost of producing near lifelike communication may not be worth the money expenditure for it. In other words, at this time, an "in presence" trial in the traditional sense would be cheaper than the equipment required to approximate live witness testimony. That being the case, when and where should the video telephone be used in its present limited form?

#### Specific Uses and Problems

As indicated, the committee recognized that much of the time and energy expended by criminal justice personnel is perfunctory and routine, not involving a defendant's rights to any appreciable degree, at least from a constitutional sense, and the presence of the defendant being of little or no value to the decision makers. Several activities and decisions exemplify such occasions: interviews at the investigatory stage, deciding whether to charge a crime, discussing possible defenses, and the exchange that occurs between the judge, prosecutor and defense counsel in order to set a date for trial, (where there is no dispute on the date, or where a case is to be continued on the court docket upon agreement of all the parties). In each of these examples, however, the committee detected problems and dangers.

(a.) Interviews Between Counsel and Defendant. Communications between the public defender and his incarcerated client increased 60% after the introduction of the video telephone. While this was deemed to be advantageous both to defense counsel and his client, concern was expressed over the possible deleterious impact it might have on the defendant. It was felt generally that the attitude and mood of defendants, especially those in custody, be given more consideration. The committee

asked: Does the video telephone have a corrosive effect on the attorney-client relationship? Are defendants less likely to speak frankly and freely with their counsel? (Would the defendant be excessively cautious because he can't see who is in the background?) Are defendants apt to have the requisite confidence in their counsel to be satisfied with the representation provided? Does the remoteness of the communication add to or aggravate the defendant's sense of isolation?

Since there were no data to answer these questions the committee felt that this subject was one of the more important areas for additional research. Moreover a majority of the committee was of the opinion that the initial interview between defense counsel and his client should be "in person" and not by video telephone. At this time counsel could, among other things, explain the advantages of subsequent use of the video telephone. A personal initial encounter with counsel would provide a basis on which the defendant could more easily identify with his attorney even though he would later see and speak to him on a television screen.

There is some evidence that what this new system of communication lacks in a "personal touch," it makes up for in the frequency of contacts. Based on some limited interviews with defendants, they may be as fascinated and willing to experiment with the video telephone as anyone else. It may even give them a greater sense of participation or even, as one committeeman put it, give them a feeling that their use of the video telephone is a significant "social event." Interviews with corrections officers also suggested that there was an improved "atmosphere" in the jail which could be attributed in part to the greater access to counsel by inmates.

(b.) Preliminary hearing. The further along a case is perfected and developed toward final disposition, the more the committee became

concerned about the use of the video telephone. At the preliminary hearing, for example, the introduction of evidence by the state to establish "probable cause" is an important stage of the process. But is this stage sufficiently important as to be designated "critical" in the sense that the defendant should always exercise his right to confront his accuser and prosecution witnesses?

The committee was divided in its opinion on this question. One viewpoint was that if the preliminary hearing is limited to its traditional function of having a magistrate determine probable cause, with no introduction of evidence by the defense, the video telephone would be appropriate. In Arizona, liberal discovery rules preclude the need for defense to engage in a protracted cross-examination of witnesses at the preliminary hearing and therefore the preliminary hearing is confined to the narrow "probable cause" finding.

Another viewpoint was that the preliminary hearing is the point at which witnesses frequently identify the accused and physical evidence. It is therefore a stage critical enough to require a literal confrontation between the accused and his accusers, in open court, so that defense counsel can be in the best position to challenge such identifications. Credibility of witnesses is frequently at issue at preliminary hearings. Indeed, one of the videotapes shown to the committee was of a preliminary hearing in which the arresting officer, in addition to his account of the incident, identified the defendant and a weapon taken from him. The committee was not satisfied in this episode that the defendant's rights were adequately protected.

The committee was unanimous in its agreement that hearings and procedures adversarial in nature are not easily susceptible, at this stage at least, to the use of the video telephone. If there is a dispute,

or likely to be a dispute, over the credibility of witnesses, identification or admissibility of evidence, then the video telephone is an inadequate substitute for live testimony from witnesses if they are otherwise available. If unavailable--such as the hospitalization of a key witness--then video telephone communication at the preliminary hearing would be valuable.

(c.) Arraignments. The foregoing concerns were considered in assessing the utility of the video telephone in the process by which defendants are arraigned on felony charges, another of the major uses of the video telephone in the Phoenix project. The committee was shown a videotape (the day before) depicting the manner and method of that use. Only defendants, in custody, who were prepared to offer not guilty pleas were included in this form of arraignment, and only then after they had signed a written waiver, on advice of counsel, of their right to appear personally in court for the arraignment. Guilty pleas are not taken by video telephone.

It appeared to the committee that the video telephone was a satisfactory medium for "not guilty" arraignments because there was nothing adversarial about the process and because, more specifically, there were no critical decisions to be made affecting the defendant's rights. It was questionable, however, that arraignments by video telephone would be appropriate in other jurisdictions whose practices, for example, are to explain in detail, and for the record, the charge, to review the amount of bail and other release possibilities, and to hear motions. In those circumstances, where there is likely to be a dispute between the defense and prosecution, the video telephone would be of questionable utility.

(d.) Arguments on motions. The presentation of oral arguments on motions via video telephone was also discussed. The committee was split in its opinion on this use. There was general agreement, however, that

uncontested motions requiring no real interchange of ideas, and which are perfunctory, could be productively handled by video telephone. At the other extreme, where motions must be supported by the introduction of evidence, it was also generally agreed that there was need for "in presence" interchanges between counsel and the court.

No agreement was reached on motions simply requiring arguments on the law. Some committee members placed little stress on the need for "personal charisma" or the "emotional appeal" sometimes made by lawyers on purely legal arguments. Indeed the pursuit of truth and justice on law arguments can be best attained without these influences.

Others gave emphasis to the importance of allowing lawyers to present arguments "persuasively" which can only be done in person. Unbiased judges allow themselves to be persuaded and a face-to-face argument carries a flavor unattainable by video telephone. Those advancing this argument questioned whether counsel, in the interest of his own convenience, would actually render himself ineffective by agreeing to video telephone argument. This would be especially true of defense counsel since, in practice, they are normally the "moving" parties and must therefore satisfy burden of proof requirements.

The committee was not sure of the quantitative dimensions of this question. It was estimated by one member of the committee, a judge, that around 90% of motions are or can be disposed of without a great deal of argument, especially arguments involving emotional appeals. Before the matter could be explored further information and research would be needed to clarify this question.

(e.) Examination of Police Records. The committee had no trouble with video telephone transmission of police records--photographs, written

orders and evidence--with the possible exception of technological difficulties which occasionally make some copies less legible than needed. Problems of that sort can be resolved by the technicians.

What are other possible uses of the video telephone?

One or two committee members felt that privately retained defense counsel (especially the well paid ones) would resist use of the video telephone for interviewing their clients in jail. Nevertheless any project calling for its use should make the equipment available, in some convenient location, to the private defense lawyer. Although the video telephone was not available to private practitioners in the Phoenix experiment, a few private practitioners did avail themselves of its use in the Public Defenders Office. This lack of use was viewed as insufficient proof of the private defense bars attitude.

It was proposed that plea negotiations between the prosecutor and defense counsel might find real utility in the use of the video telephone. This would be particularly true with regard to negotiations between the prosecutor and public defender because of the high volume of cases each handles. Once a settlement in the case has been reached defense counsel could conceivably communicate this to his client by video telephone.

The fixing of bail is another area in which the video telephone could be used as it is in Chicago.

The prosecutor's responsibility for charging crime--that is, the conferences he has with investigating officers--could be accomplished by video telephone. In that process the prosecutor in his own office could examine documents and witnesses at the police station. This would be an obvious saving for the police since it would avoid a trip

to the prosecutor's office by the officer and witnesses. Presumably the prosecutor's office and courts would also benefit significantly in view of the potential for early screening of cases.

On perfunctory or routine matters, how important is it that there be visual contact between communicators? When would a telephone conversation suffice?

In the dynamics of communication, the ability of the communicators simply to see one another was recognized as important. But the degree of this dimension varies a great deal depending upon the nature of the communication. A question arose, during a discussion of the use of video telephones for the felony "calendar call," as to whether such arraignments could as easily have been handled by telephone. One member of the committee advanced the notion that arraignments on felonies could be effected by written notices and pleadings if the sole purpose is to receive from the defendant, through counsel, a plea of not guilty and to assign a trial date.

As a general proposition, being able to see the individual with whom one is communicating is an advantage but the necessity of this is not altogether clear. Much depends upon the need or likelihood that documents are to be examined, a need to identify the person with whom one is communicating, and the appreciation one has for the feeling that seeing the individual will make a more impressive and longlasting impression about a communication with that person.

In this connection the video telephone can, in appropriate circumstances, serve as an effective means of identifying criminal suspects (either at the police station, the prosecutor's office or in Court) by the crime victim or witnesses.

Perhaps the chief disadvantage of the video telephone for police "line up" identification is the limited scope of the television screen. "Head and shoulder" images are obviously unsatisfactory where the full image on the screen is to capture several persons at one time, as in a lineup. Whereas it would be possible to have a screen to focus on several individuals, full length, the clarity of the picture as to facial characteristics would suffer.

In this connection the positioning of the individuals to be identified in a line up must be carefully managed. In order to establish the credibility of the identification it would be important for counsel, both prosecution and defense, to insure the fairness and the accuracy of the procedure. Hence counsel should be heavily involved in this process.

More fundamentally, the question of identification accuracy and fairness was addressed by the committee. There was no dissent from the notion that proper lighting, camera angle and so forth are vital to accommodate the accuracy question. On the matter of fairness, the committee took strong exception to the practice of having the camera focus on the defendant when the identifying witness is asked by the prosecutor, "Can you now identify the man who. . . . ?"

In line with the committee's general position that the video telephone has greatest utility in "administrative" (i.e., non adversarial) matters, it was suggested that certain aspects of juvenile court procedures and certain communications in dealing with mentally ill people, including some steps in commitment procedures, would be materially aided with the video telephone. It was suggested by one or two committee members that parole and probation revocation hearings are sufficiently "administrative" to be candidates for video telephone use.



Finally, the committee fully recognized the time and money savings of the video telephone in civil cases, where the rights of the defendants, such as sixth amendment rights to confrontation, offer no serious legal impediments. Despite the "confrontation" problem in criminal trials, the committee explored possible uses of video telephone testimony (and videotape, as well) where the witnesses are simply unable to appear because of disability or the location of the trial make the witness inaccessible. In the interests of justice, use of video communication at the trial may well be appropriate in these circumstances. In any event it would be better than written depositions.

To what extent will the public accept the use of video telephones for use in the criminal justice system, and who, specifically, should bear the cost of their installation?

Several factors are likely to win public acceptance and support for the video telephone. One is a demonstration that it will allow criminal justice agencies to process more cases at less cost, with no appreciable sacrifice in quality. Another is that cases can be processed faster and thus satisfy the public demand for "swift justice." The material presented to the committee illustrated how these costs and time savings can be presented. Although there was considerable evidence that the quality of justice had not declined in Phoenix by the use of the video telephone (indeed there were indications that it had improved), the committee recognized that this was a new experiment and that additional experience is needed to adjudge the quality question.

There was division of thought on who--that is, what agency should bear the cost of the video telephone equipment. On one hand, an apparent majority of the committee felt that since the criminal justice system is, at least in theory, a unified unit of government, the cost should be borne by the governmental agency generally supporting the system--the county government in most jurisdictions.

On the other hand there was some sentiment for the proposition that the agencies actually using the video telephone should pay for their own specific use. At this early experimental stage, the necessary degree of confidence for predicting its acceptance is not clear. Therefore agencies not deriving a benefit from it should not be "taxed" for its use by others.

Also considered by the committee was the need to place this technological innovation in the context of the broad range of other possible experiments and improvements that might be offered for the system of criminal justice. In listing all of the things that might be done for the system, where does the use of video telephones stand in order of priority? That question could not be answered within the framework of the committee meeting.

#### Need for additional research and demonstration

Previously mentioned was the committee's viewpoint that more data are needed to cast light on the attitudes of defendants about the use of video telephones. More also needs to be known about the attitudes of the systems functionaries. For example, it is assumed that the introduction of video telephones will result in change both in the practice and the attitudes of people involved in that practice. What are these changes in terms of the attorney client relationship?

- is more information actually required by counsel?
- is counsel able to adjudge the mood and inhibition of his client?
- is counsel able to assess the accuracy of information given in a video telephone interview?
- what are the subjective satisfactions, if any, derived from such interviews?

The influence of the video telephone on the "triers of fact"--the judge or jury or both--should also be studied. For example, the committee thought it important to know the importance juries attach to sophisticated electronic equipment in terms of assessing the accuracy and credibility of information so transmitted. To what extent are there changes in their decisions and verdicts and how they are arrived at? What kinds of decisions are made before and after video telephone? Are the changes attributable to different assessments of witness credibility or the absence of emotional appeal and pathos?

Answers to questions such as these are necessary, in the committee's judgment, before the video telephones can be used with confidence, especially for procedures that have a direct bearing on the defendant's rights and protections.

Finally, the committee considered and discussed the effects of video telephone use on the entire system of criminal justice. Answers to many of the questions raised took the form of speculations since the Phoenix experiment, at this stage, has sparked more questions than the data produced by the experiment can answer. Use of the video telephone by one agency is likely to have an influence on, or make change in, another agency down the line. What is this influence? The whole question of preserving if not improving the quality of justice (hopefully at the same time providing greater efficiency and convenience) is in need of additional experimentation, demonstration and research. Not only should this research be conducted by government agencies, or institutions supported by public monies, but also by private industry whose aim is to manufacture and sell the videotelephonic equipment to a market whose needs and justifications for that equipment are clear in some instances but not others.