

# 911

## SYSTEM STANDARDS AND PLANNING GUIDELINES MANUAL

SE

TION



STATE OF CALIFORNIA

67505

# TABLE OF CONTENTS

GLOSSARY .....	NCJRS .....	i-iii
INTRODUCTION .....		1
CHAPTER I — STANDARDS FOR 911 SYSTEMS	APR 24 1980	
A. Need for Mandatory 911 System Standards .....		3
B. Mandatory Standards .....	ACQUISITION	3
C. Nonmandatory Features .....		3
CHAPTER II — PLANNING FOR THE 911 SYSTEM		
A. Planning Considerations for 911 .....		5
1. 911 System Definitions .....		6
a. Basic 911 System .....		6
b. Selective Routing .....		6
c. Sophisticated 911 Systems .....		6
2. System Configurations .....		7
a. Basic 911 Decentralized .....		7
b. Basic 911 Centralized .....		9
c. Selective Routing .....		10
3. Methods of Response .....		11
CHAPTER III — 911 PLANNING ACTIONS		
A. Getting Started .....		13
B. Organizing the 911 Plan .....		13
C. Planning Activities Check List .....		13
D. Equipment Considerations .....		14
E. Technical Information Regarding Equipment .....		14
F. Cost Estimates .....		15
G. Summary of 911 Planning Considerations .....		15
CHAPTER IV — PREPARING 911 FINAL PLANS		
A. Format and Contents of Plans .....		17
B. Required Procedures .....		17
C. Plan Forms .....		17
CHAPTER V — IMPLEMENTATION AND CONTINUED 911 OPERATIONAL CONSIDERATIONS		
A. Implementation Activities .....		23
B. Assessing Continued Operational Considerations .....		23
APPENDICES		
A. The California 911 Program Timetable .....		25
B. The California 911 Program Law .....		27
C. Joint Powers Agreement Guide .....		33
D. Advisory Committee .....		35
E. 911 Manual Revision Record Sheet .....		37

# GLOSSARY

This glossary is provided to establish a uniformity of terms and terminology as used in this Manual. All plans, reports, and other communications to or from Communications Division, State of California, must use the following definitions.

**AB 515 (1972)** — The California Assembly Bill which required the implementation of 911 throughout the State by December 31, 1982.

**AB 416 (1976)** — Follow-on legislation amending AB 515 and adding part 20 to the Revenue and Taxation Code. Refer to Appendix B.

**ADJACENT AGENCY** — See *Contiguous Agency*.

**ADVISORY COMMITTEE** — Advisory Committee on the State Emergency Telephone Number established by AB 416 to assist General Services. See Gov. Code 53115.1, Appendix B.

**ALI** — Automatic Location Identification: identifies address of calling party's telephone number.

**ALTERNATE ROUTING** — To have separate physical routes for 911 lines from the central office to the Public Safety Answering Point (PSAP).

**ANI** — Automatic Number Identification: identifies originating telephone number of the incoming call.

**ANSWERING POSITION** — Location where incoming 911 calls are answered.

**AREA CODE** — The three-digit code used when dialing calls from one Numbering Plan Area (NPA) to another.

**AUDIBLE SIGNAL** — A sound to indicate an incoming call.

**AUTOMATIC CALL ROUTING** — See *Selective Routing*.

**AUTOMATIC CALL DISTRIBUTOR** — Equipment to distribute in the order received, large volumes of incoming calls to answering positions not already working on calls and to "store" calls until positions become available.

**BASE RATE** — The established telephone exchange service rate, exclusive of mileage, for main telephone, auxiliary line, or trunk line service.

**BASE RATE AREA** — That portion of the exchange area within which exchange service, other than rural line service, is offered at base rates for each grade of service without mileage or construction charges.

**BASIC SYSTEM** — Allows a person dialing 911 to be connected to a PSAP via normal telephone facilities.

**CALLED PARTY HOLD** — Enables the public safety answering point to control the telephone connection for confirmation and tracing of a call.

**CENTRAL OFFICE** — Sometimes called a wire center; the smallest switching center subdivision within the telephone system which has relatively permanent geographic boundaries. It may serve more than one prefix.

**CENTRAL OFFICE AREA** — The geographic area that receives its regular telephone service from a particular central office.

**CENTRAL OFFICE IDENTIFICATION** — Dedicated trunking from the central offices serving the PSAP.

**CENTREX** — A type of private branch exchange in which incoming, outgoing, and intercom calls can be dialed direct without an operator's assistance.

**CID** — Centralized Interrogating/Dispatch.

**CIT** — Centralized Interrogating/Transfer.

**CNIL** — Calling Number Identification and Location; sometimes used by the telephone industry in referring to the combination of automatic number identification and automatic location identification.

**COMMUNICATIONS DIVISION** — California Department of General Services, Communications Division.

**CONFERENCE TRANSFER** — Primary answerer remains connected with a caller after the caller is transferred to a subsequent agency.

**CONTIGUOUS AGENCY** — An agency whose area of responsibility is adjacent to the 911 plan area.

**DDD** — Direct Distance Dialing; telephone service which permits subscribers to dial their own long distance calls.

**DEDICATED FACILITY** — Telephone circuits assigned exclusively to an operation.

**DEFAULT ANSWERING** — Answering at a specific alternative PSAP when the primary PSAP cannot be contacted in selectively routed systems.

**DIAL TONE FIRST** — Allows a 911 call from a coin telephone to be completed without the deposit of a coin.

**DID** — Direct Inward Dialing; an incoming call dialed directly to an extension without an operator's assistance.

**DIRECT DISPATCH METHODS** — All call answering and dispatching is done by the personnel at the public safety answering point.

**DISTINCT TONE** — A 120 IPM tone at the PSAP if an abandoned call is answered or an idle trunk is seized by the operator.

**DOD** — Direct Outward Dialing; an outgoing call dialed directly without an operator's assistance.

**EAS** — Extended Area Service; telephone service that allows subscribers in an exchange area to pay flat monthly or measured rates instead of long distance charges for calls to nearby exchange areas. See *Exchange*.

**EMERGENCY CALL** — A call that requires immediate action.

**EMERGENCY MEDICAL SERVICES (EMS)** — Those communications, transportation, medical, and related services rendered in response to the perceived individual need for immediate medical care in order to prevent unnecessary suffering, disability, or death.

**ESS** — Electronic Switching System; a modern central office with programmable telephone switching logic.

**EXCHANGE** — A defined area, served by one or more telephone central offices.

**EXPANDED 911 SYSTEM** — See *Selective Routing*.

**FINAL PLAN** — That plan which must be filed with California Communications Division and telephone industry by July 1, 1978. It must describe the 911 system's technical and operational features in compliance with the mandates of the California law.

**FIRM ORDER** — An order for a 911 system as approved by the Communications Division to the appropriate telephone company or companies.

**FORCED DISCONNECT** — The capability of the 911 PSAP to disconnect a 911 call.

**FOREIGN EXCHANGE SERVICE** — A telephone line served by an exchange or central office foreign to the exchange or central office in which it is installed.

**GENERAL SERVICES** — California Department of General Services.

**INCREMENTAL COST** — Non-telephone 911 costs. See *Chapter IV, Incremental Costs*.

**INTERCEPT** — A call to a specific number, which cannot be completed by the switching equipment (for other than a busy condition), is routed to either a recorded announcement or an operator.

**JOINT POWERS AGREEMENT** — An agreement that agencies may make for 911 systems which cross jurisdictional (political) boundaries and other contiguous systems. (See *Section 53118 of the California law and Appendix C, Joint Powers Agreement Guide*.)

**KEY TELEPHONE SYSTEMS (KTS)** — Systems that are made up of instruments that have the capability of multiple line terminations. Each line is accessed by depressing its associated button (key).

**KTS** — See *Key Telephone Systems*.

**LOCAL PHONE SERVICE AREA** — That area that can be called without incurring multmessage units or a toll charge.

**MESSAGE UNIT** — The unit of measurement for charging for local message use, based upon time and distance.

**MULTIJURISDICTIONAL SYSTEM** — A system covering more than one political area or agency.

**NETWORK** — A series of points interconnected by communications channels.

**911 LAW** — Government Code Sections 53100-53118 and Revenue and Taxation Code Sections 41001-41150.

**NO COIN DIALING** — See *Dial Tone First*.

**NON-PUBLISHED NUMBER** — A telephone number which is not listed in any telephone directory or in Directory Assistance records available to the general public.

**OVERFLOW ANSWERING** — Backup answering positions for every 911 call arriving at a PSAP.

**P LEVEL OF SERVICE** — Percentage of busy responses encountered by callers in a system. (P.01 = one busy per 100 attempts.)

**PABX** — Private Automatic Branch Exchange; see *PBX explanation*.

**PARTICIPATING AGENCY** — A public safety agency which provides emergency services as part of a 911 plan.

**PBX** — Private Branch Exchange; a telephone switchboard with many stations not individually identifiable to the telephone company's switching network.

**PSAP** — Public Safety Answering Point; the initial answering location for a 911 call.

**PUBLIC AGENCY** — "Public agency" means the state, any city, county, city and county, municipal corporation, public district, or public authority located in whole or in part within this state which provides or has authority to provide firefighting, police, ambulance, medical, or other emergency services.

**PUBLIC SAFETY AGENCY** — "Public safety agency" means a functional division of a public agency which provides firefighting, police, medical, or other emergency services.

**REFERRAL METHOD** — Calling party referred to a secondary number in nonemergency cases.

**RELAY METHOD** — The call is answered at the PSAP where the pertinent information is gathered and then the interrogator relays that information to the proper public safety agency for their action.

**RING BACK** — Permits the answering point to ring the hung up telephone on a held circuit.

**SELECTIVE ROUTING** — A feature that automatically routes the 911 call to the proper PSAP serving its community regardless of municipal and telephone company wire center boundary alignments.

**SOPHISTICATED SYSTEM** — See *Chapter II, Section A-1-C*.

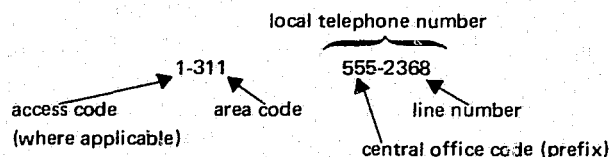
**SUBSEQUENT AGENCY** — A participating agency in a plan whose calls are all handled by transfer or relay rather than by direct dispatch.

**SWITCHED NETWORK** — A complex of diversified channels and equipment that automatically routes communications between the calling and called person or data equipment.

**SWITCHHOOK STATUS** — Enables the PSAP to determine, by means of supervisory lamps, whether a calling 911 line is on-hook or off-hook at any time after the connection has been established.

**TELEPHONE LINE** — A line from a telephone company central office that is connected to key or nonkey telephone equipment.

**TELEPHONE NUMBER** —



**TENTATIVE PLAN** — As used in the California law, a document which was filed with the California Communications Division and the telephone industry serving area by January 1975.

**TRANSFER METHOD** — The PSAP interrogator determines the proper responding agency and connects the caller to the agency that will dispatch the necessary emergency service in accordance with prearranged plans with cooperating agencies.

**TRUNK** — A line from a telephone company central office to a subscriber's PBX or PABX equipment.

**UNLISTED** — See *Non-Published Number*.

**WIRE CENTER** — See *Central Office*.

# INTRODUCTION

## HISTORY OF 911

Nine-One-One (911) is the three digit emergency telephone number adopted by the telephone industry as the nationwide emergency number. The universal emergency number concept was initially introduced in Great Britain in the late 1930's when "999" was designated the nationwide telephone number to be used in emergencies.

The American Telephone and Telegraph Company (AT&T) announced on January 12, 1968 that 911 would be made available throughout the country in response to urgings of concerned citizens and officials for a universal emergency telephone number.

## ADVANTAGES OF 911

The three digit number 911 replaces seven-digit emergency numbers which are more difficult to remember. It is important to note that 911 is a short, easy-to-remember telephone number that will shorten the time in the total emergency response cycle between the detection of an event and the dispatch of assistance to that event. In some situations, implementation of 911 can result in a reduction of costs to an agency or agencies and the elimination of some duplicated services.

The Emergency Telephone Number 911 contains three major advantages for the citizen seeking emergency aid: (1) It relieves citizen doubt about the proper emergency response agency. One call can bring multiple agency responses when necessary; (2) It is easier to remember the same number for all emergencies, and the number will be universal throughout the State; (3) It is easier and faster to dial under adverse conditions than a seven-digit number.

Citizens often dial "operator" to report an emergency. The telephone operator must interrogate the caller and then find and dial the number for the appropriate service agency and

transfer the call. It is sometimes difficult to reach a telephone company operator because of busy conditions on the system. A 911 Public Safety Answering Point (PSAP) operator, on the other hand, is a specialist in emergency requests and has direct access to speeding emergency services to the assistance of the citizen calling 911.

## PROGRAM OBJECTIVE

California's 911 Program objective is to provide a rapid and effective means to request emergency help from any telephone in the State.

Government Code 53100 provides for implementing 911 emergency telephone systems throughout the State. These systems will establish uniform emergency telephone communications for emergency police, fire, medical, and ambulance services.

The 911 Law was amended by the Legislature in 1976. The amendment provided for subvention funding for the 911 program to assure availability of 911 to all Californians by December 31, 1984. (See *Appendix B*)

## THE MANUAL AND ITS USE

This manual has been prepared with the cooperation of many public safety agencies and the telephone industry to clearly describe 911, and assist planners and implementers to meet the requirements of the California law.

The intent of the manual is to make 911 planning and implementation as easily understood as possible. This manual describes 911 planning requirements and State assistance available for 911 system implementation. It outlines the program responsibilities of local and State agencies. Elements of the 911 program which may be covered by State subvention are also indicated.

# CHAPTER I — STANDARDS

## A. NEED FOR MANDATORY 911 SYSTEM STANDARDS

The primary impetus for the State 911 Program is the Legislature's recognition of the statewide need to provide a simple means to speed telephone requests for emergency services.

A critical factor in any emergency is the time delay between the detection of an incident and the notification of the proper public safety agency. The time lapse caused by indecision, use of wrong numbers, or in looking up the appropriate seven-digit emergency number for the various emergency services will be minimized by implementation of 911.

These standards are mandatory requirements for all 911 Systems. The standards were developed in cooperation with local public safety agencies and the telephone industry. The State of California, Communications Division, will be responsible for updating and distributing revisions in each even-numbered year and whenever necessary.

## B. MANDATORY STANDARDS

1. The primary published emergency number shall be 911, and will be the only emergency number published on the "Emergency" page of the public telephone directory. A 7-digit emergency backup number must be maintained for each PSAP.
2. The telephone companies shall take annual service measurements, or as required by the local agency, on the 911 terminating line/trunk groups to determine the actual grade of service being experienced to satisfy the agency's answering requirements. The telephone companies will provide the involved agencies and the State of California, Communications Division with an appropriate report on the results of these service measurements.
3. All 911 lines shall have visual and audible indication of an incoming call. Tone signals (audible ringing, busy tone, and all trunks busy) will be provided to the 911 calling party in the normal manner.
4. Each PSAP shall be responsible for 911 calls 24 hours per day, 7 days per week. 911 lines/trunks may be switched to another answering point in systems with low call volume during slack periods.
5. When employing the Transfer Method, procedures will be developed to advise the calling party that the call is being transferred and to remain on the line.
6. All PSAP's will maintain interagency communications capabilities for emergency coordination purposes.
7. All PSAP's will be responsible for all 911 calls they receive, ensuring the proper public safety agency is notified of the emergency.
8. The telephone companies shall provide mechanical intercept of 911 calls from non-participating central offices contiguous to a 911 serving central office whenever equipment arrangement code conflicts are not involved. The intercept recording will inform callers that 911 is not available from their telephones.
9. All facilities associated with 911 service shall be equipped at all exposed terminations, including central office distributing frames, with protective devices that prevent accidental workman contact. Each protected termination shall be marked so as to make it easy to identify circuits.
10. Safeguarded circuits shall not be opened, grounded, short circuited, or manipulated in any way by telephone company workmen until the local test desk obtains prior circuit release from the appropriate 911 PSAP.
11. Telephone company supervision shall assure that all telephone company employees, whose normal activities may involve contact with facilities associated with the 911 service, are familiar with the procedures of safeguarding these facilities.

## C. NONMANDATORY FEATURES

The following is a list of nonmandatory features. Agencies who have the resources should, where appropriate, consider these features to enhance their operations.

1. During the average busy hour of each shift of the busy day, all calls be answered within 10 seconds.
2. Written procedures and appropriate training be provided to the operators and documented.
3. The date and time of receipt for each 911 emergency call be documented (written or tape recorded) and retained for at least 90 days or for that period of time established by local requirements.

4. Access control and security of PSAP's and associated dispatch centers be designed to prevent disruption of operations.
5. Sophisticated system features (where not part of the line/trunk rate).
6. Automatic Number Identification ANI.
7. Automatic Location Identification ALI.
8. Default Answering.
9. If all incoming PSAP positions are busy, the calls waiting should reach a recorded message informing the caller that:
  - a. The 911 emergency number has been reached, and an operator will answer as soon as possible.
  - b. Major emergency incidents, once reported, will be placed on the recorder to advise callers action has been taken. The caller will be advised to remain on the line if the call is nonrelated to this incident.
10. A short-term recording and replay capability be provided for each operator position.
11. Alternate means of communicating with public safety agencies.
12. Physical environmental factors affecting human effectiveness be engineered to provide the best possible lighting, acoustics, air conditioning, etc.
13. Emergency electrical power (battery and/or emergency generator) be provided for the PSAP environment that will ensure continuous operations and communications (telephone, radio, etc.) during a commercial power outage.
14. Alternate entrance route for primary power to the PSAP.
15. Alternate central office telephone cable routes to and from the PSAP.



## CHAPTER II — PLANNING FOR THE 911 SYSTEM

### A. PLANNING CONSIDERATIONS FOR 911

There are many factors to be considered for 911 to be successful. This chapter discusses some of the major issues involved in 911 planning.

Multijurisdictional cooperation is essential during planning to assure the development and implementation of an effective and successfully operated 911 system. The law mandates cooperative answering of all police, fire, and medical emergency calls at a central PSAP. Systems should be aligned with emergency services dispatch systems to minimize delays caused by call transfer, relay, or referral. Centralization and coordination are encouraged and should be considered during the planning stages for 911 implementation. The telephone company central office (wire center) boundaries are the smallest manageable unit for 911 purposes. Political boundaries are rarely concurrent with central office boundaries.

Overlapping political and central office areas present no real problem with regard to almost any other telephone service. With 911, however, these areas require adequate planning and cooperation among the participants to assure that calls reach the appropriate agency. Those central office areas which lie wholly within a jurisdiction present no particular problem in providing 911 service to that jurisdiction, although a number of

telephone exchanges may be involved. There will be central offices (wire centers), however, which serve several adjacent communities. Citizens in adjacent communities using the same central office could dial 911 and instead of reaching their own police or fire department, would get that of another agency.

Interjurisdictional cooperation is paramount in this situation in that procedures must be established to answer the calls from another community and then dispatch, transfer, relay, or (for nonemergencies only) refer them to appropriate local emergency service agencies. Cooperation among the police, fire, and medical emergency services of participating jurisdictions is essential throughout the planning process to assure adherence to the minimum standards.

Careful consideration should be given to planning a 911 system in order to provide the minimum number of transfers between the calling party and the responding emergency service agency.

The following section defines and illustrates the common 911 system configurations and the four approved methods of communication between the Public Safety Answering Point and responding emergency service agencies. Local 911 system designs may be combinations of these illustrated systems if they satisfy the State 911 Standards in Chapter I.

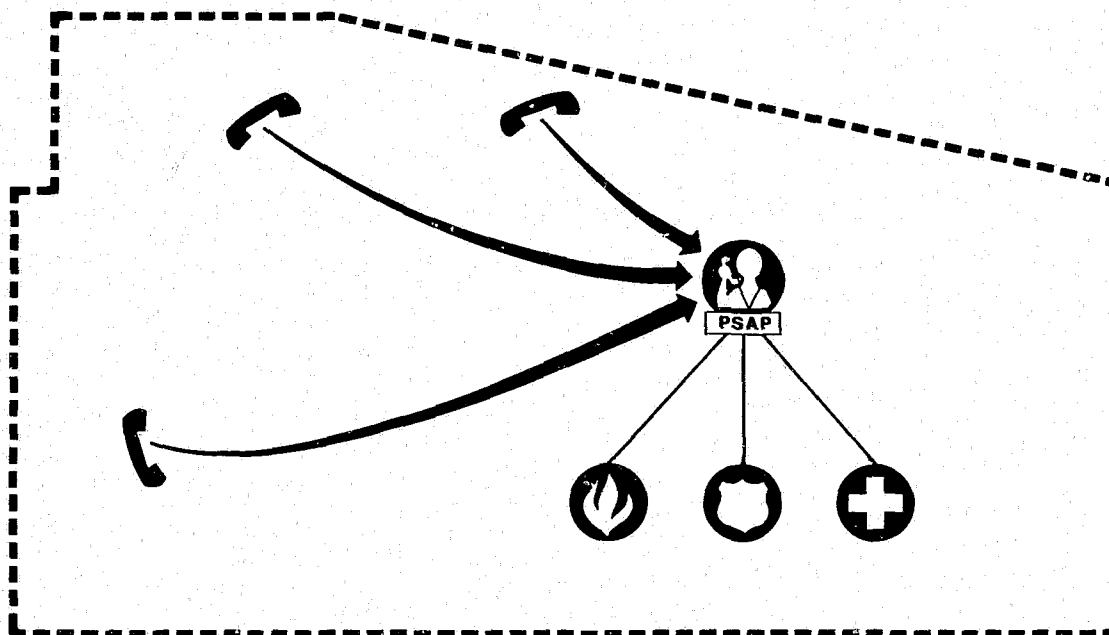
## 1. 911 System Definitions

### a. Basic 911 System

The "basic 911 system" allows a person dialing 911 to be connected to a PSAP via normal telephone facilities. All 911 calls from lines served by a central office or central offices will be routed to one PSAP. The following illustration depicts a basic 911 system. Consideration should be

given to public education of telephone subscribers located within the 911 planning area but served by other central offices. They should be informed that until adjacent jurisdictions have 911, they should use a designated seven-digit emergency number. Stickers or other means of showing the special number should be provided for the appropriate telephones.

### BASIC 911 SYSTEM



Legend:

PSAP — Public Safety Answering Point  
Central Office (CO) Boundary (Telephone number prefix)

### b. Selective Routing

Selective Routing is a telephone arrangement which will automatically route calls from a predetermined geographical area to a PSAP serving that area regardless of municipal and central office boundary alignments.

### c. Sophisticated 911 Systems

Sophisticated telephone system features may enhance the command and control capabilities of a PSAP.

(1) The following Sophisticated System features will be authorized for State financial reimbursement if they are not included in telephone company basic line/trunk rates:

- *Central Office Identification* — When a PSAP serves more than one central office, dedicated lines or trunks are used to identify each central office.
- *Distinct Tone* — Differentiates between a caller who abandons a 911 call before the PSAP answers and a caller who is connected but cannot speak.
- *Forced Disconnect* — Allows PSAP operators to force release of the 911 incoming line.
- *Called Party Hold* — Enables the PSAP operator to control the connection for confirmation and tracing of a call (requires dedicated trunks).

(2) Additional Sophisticated features which are not included in telephone company basic line/trunk rates or authorized for state reimbursement, are as follows:

- *Switchhook Status* — Alerts PSAP operator when calling party hangs up.
- *Ringback* — Enables PSAP to ring back a calling telephone party in conjunction with Called Party Hold.
- *Automatic Number Identification (ANI)* — Automatically displays the

calling telephone number at the PSAP.

- *Automatic Location Identification (ALI)* — Automatically displays the address of the calling telephone at the PSAP.

## 2. System Configurations

### a. Basic 911 (Decentralized System) Configuration

Figure 1 illustrates basic decentralized 911 with three telephone central offices and three cities.

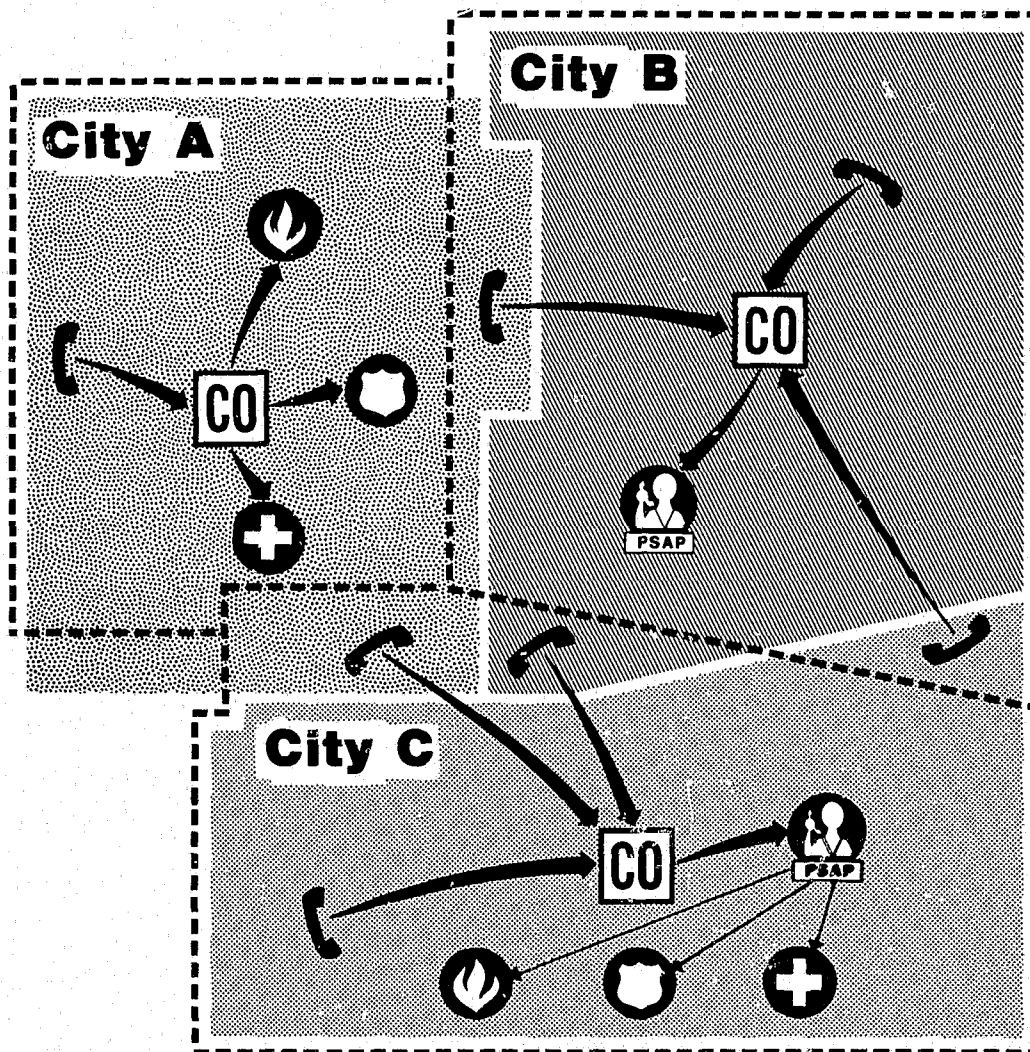


FIGURE 1

#### Legend:

- PSAP — Public Safety Answering Point
- CO — Telephone Central Office
- — Central Office (CO) Boundary

- (1) In City A (Figure 1) where 911 has not been implemented, calls for fire, police ambulance services are dialed direct using separate seven-digit numbers. The public should be informed and provided with seven-digit emergency number telephone stickers.
- (2) City B (Figure 1) is a system that utilizes the Direct Dispatch method from a single PSAP. There are telephones that are within City B boundaries and outside of the City B boundaries, but all of them are within the same telephone wire center (dotted line).

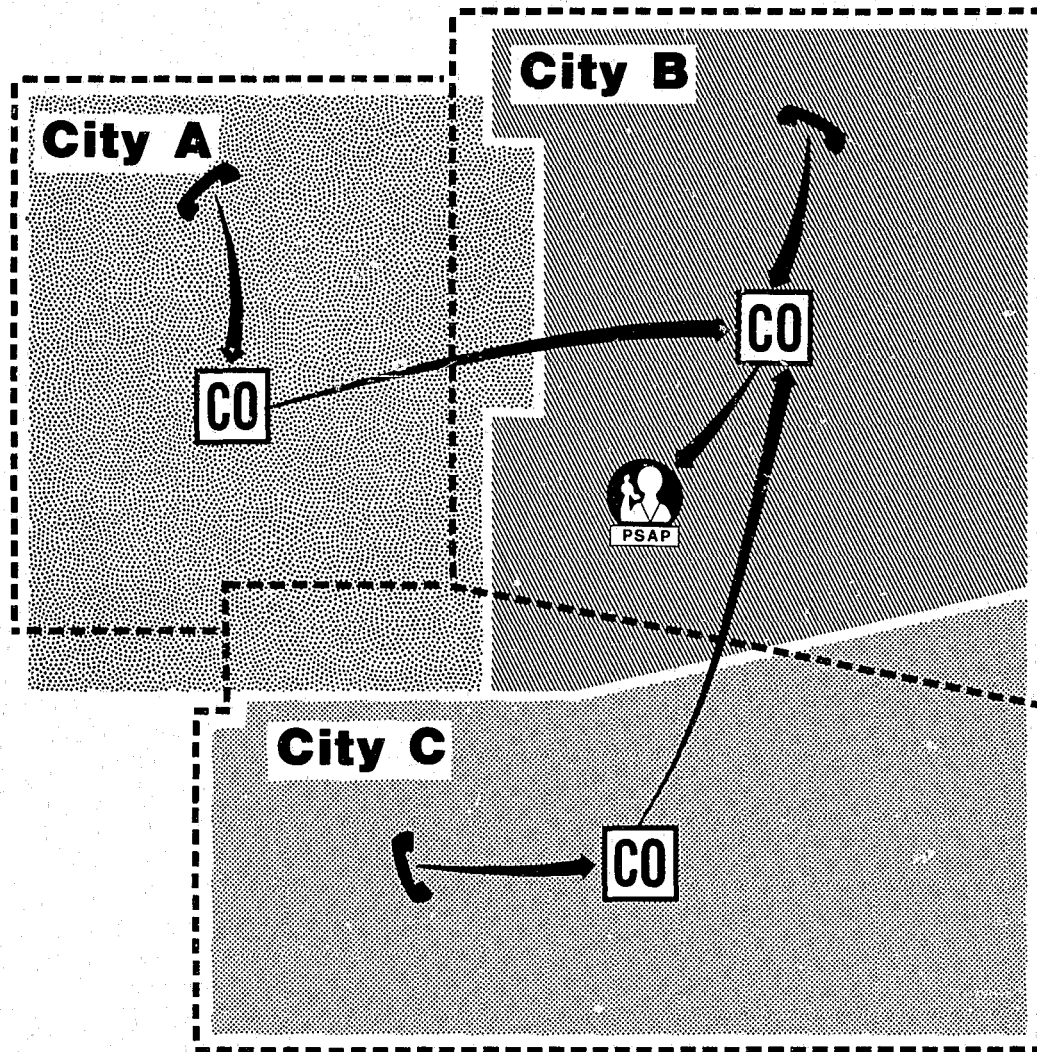
When 911 is dialed from any one of these telephones, the call is routed to City B's PSAP since a central office cannot differentiate between city boundaries. Direct transfer lines to adjacent agencies are provided.

- (3) City C (Figure 1) depicts a system utilizing the Transfer Method. The caller dialing 911 reaches the PSAP where the call is transferred to the proper agency. Again, out-of-jurisdiction calls would be transferred, relayed, or referred (for non-emergencies only) to the proper PSAP.

b. **Basic 911 (Centralized System) Configuration**

Figure 2 illustrates a basic centralized 911 system with the same three telephone central offices and cities employing one central PSAP. All 911 calls for the three

cities are answered at a central PSAP. Each city would then be served by a combination of the four response methods of Direct, Transfer, Relay, or Referral (Government Code 53103 to 53106 and 53112).



**FIGURE 2**

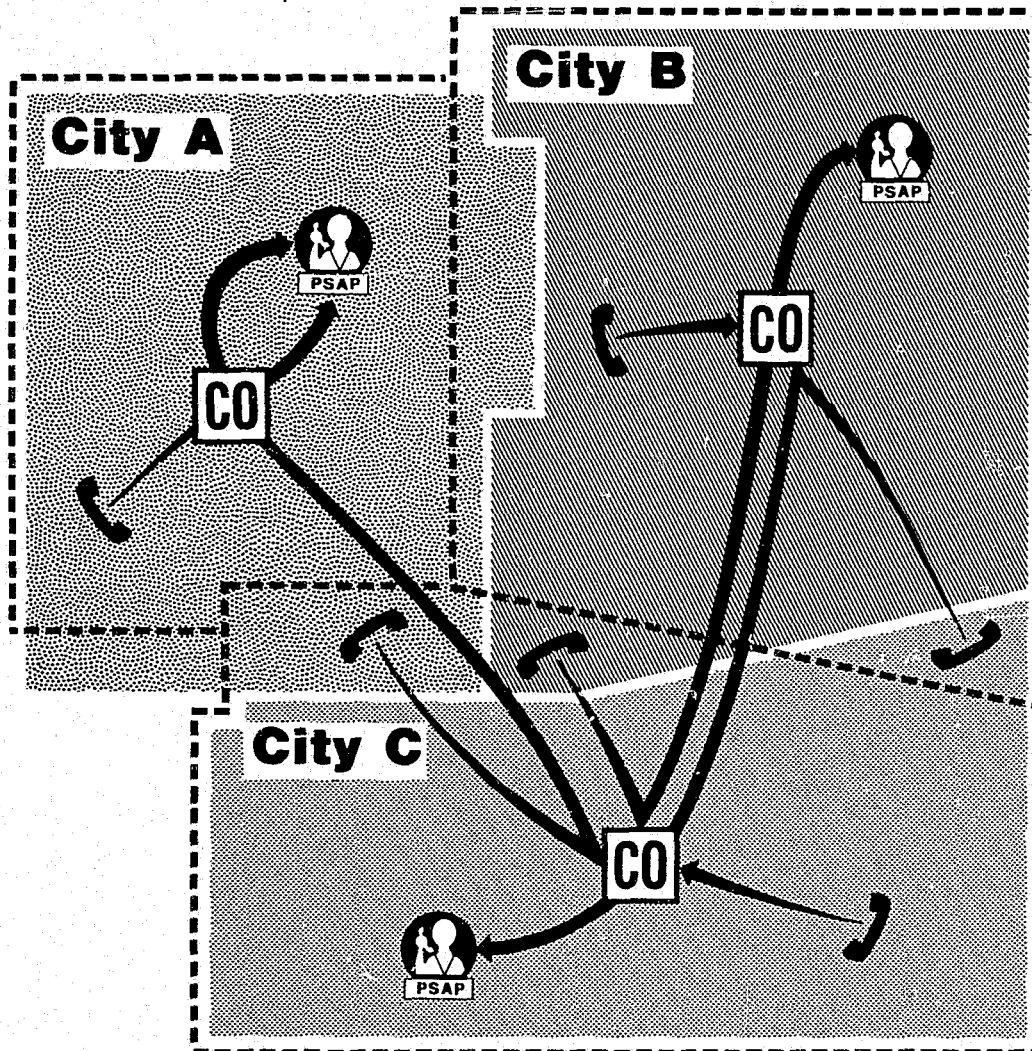
**Legend:**

- PSAP — Public Safety Answering Point
- CO — Telephone Central Office
- — Central Office (CO) Boundary

c. **Selective Routing Configuration**

Figure 3 illustrates three cities having a sophisticated 911 system utilizing selective routing features, where, regard-

less of city and telephone central office boundary alignments, the call is automatically routed to the proper PSAP serving the caller's city.



**FIGURE 3**

**Legend:**

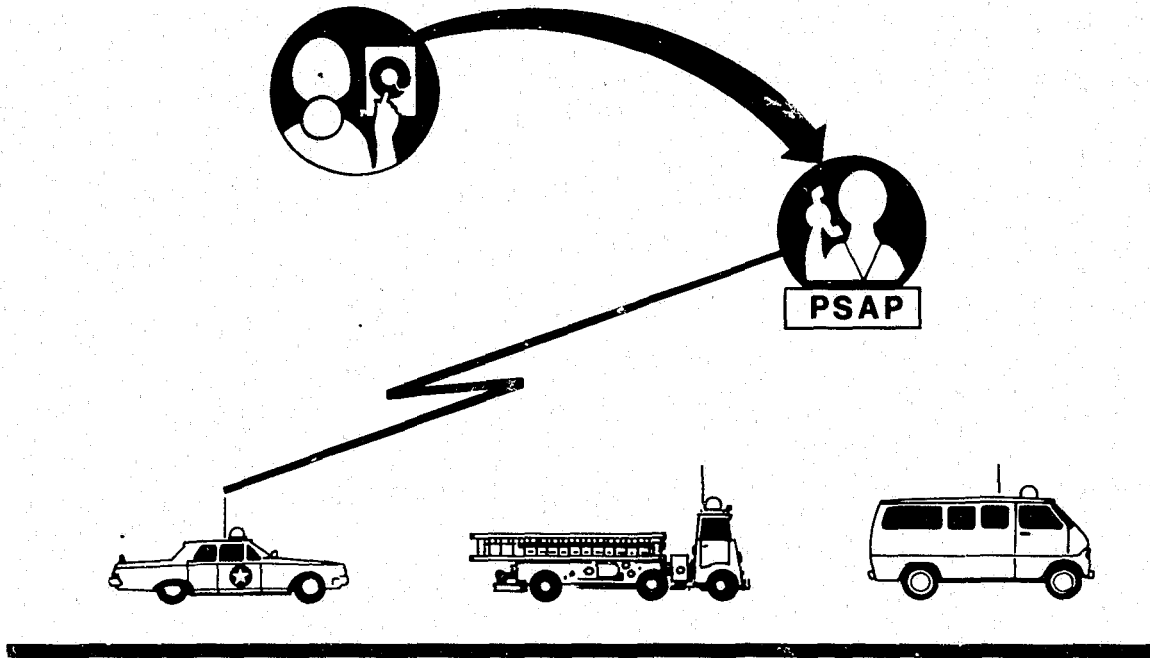
- PSAP — Public Safety Answering Point
- CO — Telephone Central Office
- — Central Office (Co) Boundary

### 3. Methods of Response

There are four methods of response for a PSAP to communicate the need for service to the responding emergency service agency. California law requires all systems to employ three of the following methods:

- a. **Direct Dispatch Method.** In the "Direct Dispatch Method", all call answering and dispatching is done by the personnel at the PSAP.

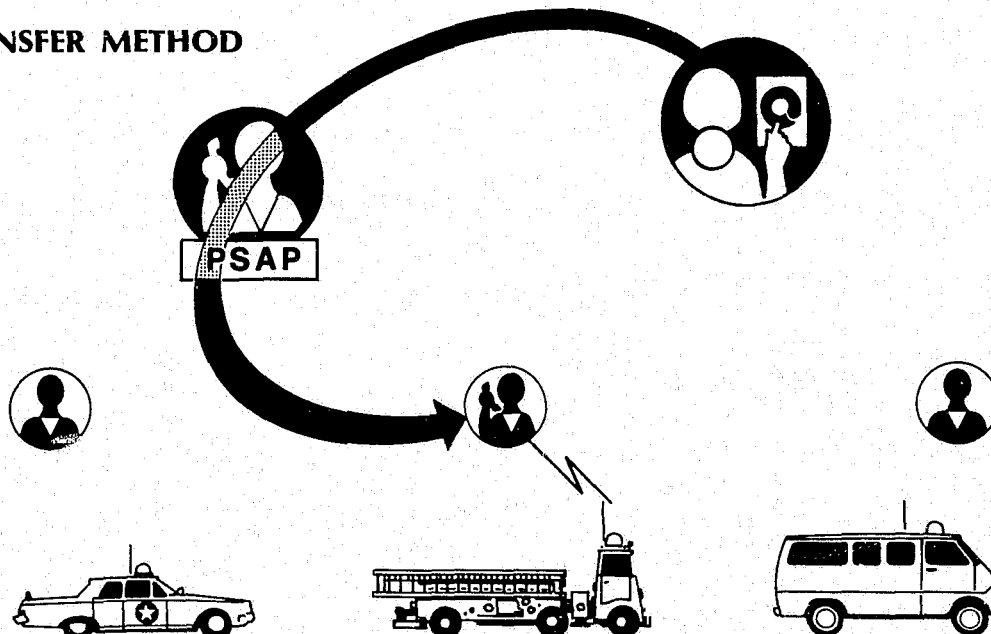
#### DIRECT DISPATCH METHOD



- b. **Transfer Method.** In the "Transfer Method," personnel of the PSAP determines the proper responding

agency and transfer the caller to that agency for further interrogation and for dispatch of the appropriate response.

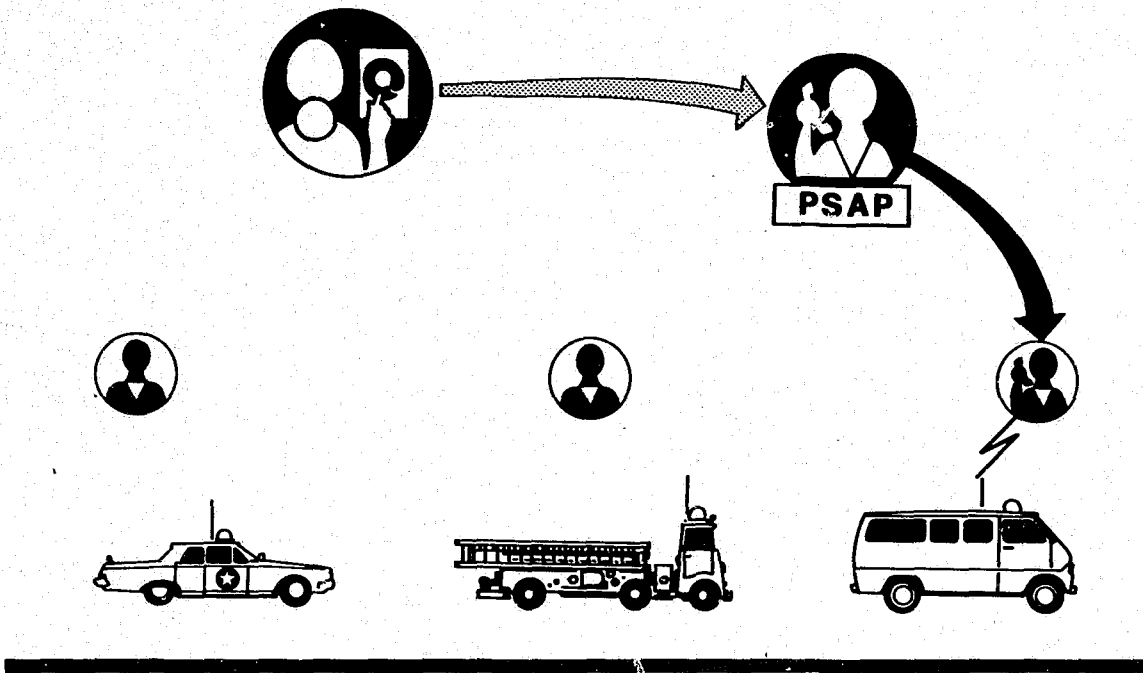
#### TRANSFER METHOD



c. **Relay Method.** In the "Relay Method" of response, the call is answered at the PSAP where pertinent information is

gathered; and then the PSAP personnel relay that information to the proper public safety agency for their action.

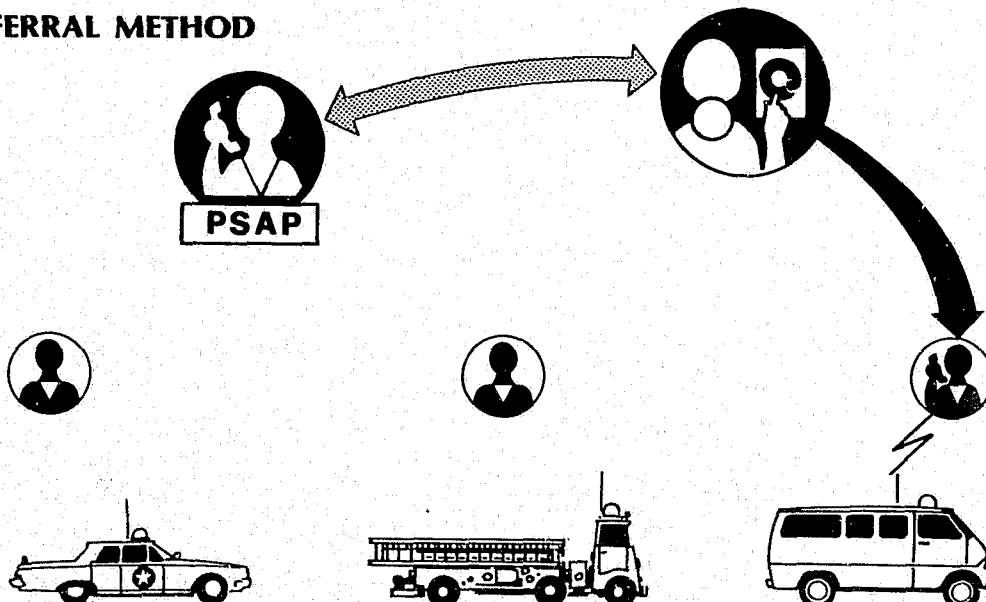
### RELAY METHOD



d. **Referral Method.** The "Referral Method" is restricted to handling nonemergency calls only. In the "Referral Method," the call goes to the PSAP where personnel

determines the nature of the call and refers the caller to the telephone number of the proper agency. The caller then reinitiates the call.

### REFERRAL METHOD





## CHAPTER III — 911 PLANNING ACTIONS

### A. GETTING STARTED

The first step in 911 planning is to determine the affected geographic areas. A planning task force should be established with representatives of the participating local governments and emergency services. The task force should select a program manager, a users technical committee, and an executive operations committee. Committee members should be able to make decisions about how their respective organizations will operate within the planned 911 system. Each city, county, and emergency service agency is responsible to satisfy the requirements and time schedules specified by the 911 law.

Resolutions from the governing bodies of participating jurisdictions may be appropriate early in the plan development. The first resolution would be to participate in system planning. Later resolutions regarding division of responsibility and accepting the system design will be required in the final plan.

### B. ORGANIZING THE 911 PLAN

The following checklists are provided as a guide to the activities which are usually necessary in order to develop a 911 system. Not all the activities listed here will apply to every community.

#### 1. 911 Participants

The participants in a 911 system in the State of California must include:

- All law enforcement emergency services within the 911 system
- All fire emergency services within the 911 system
- Emergency medical and ambulance services within the 911 system
- a. Participants providing other emergency services may be included, for example:
  - Poison control
  - Suicide prevention
  - Civil defense
  - Public utilities for calls reporting dangerous conditions such as fallen power lines or gas leaks
  - Drug abuse centers

#### 2. Composition of a Planning Task Force

- Chief or Director of a Communications Agency

- Law Enforcement representatives
- Fire Service representatives
- Emergency Medical representatives
- Telephone Company representatives
- State of California, Division of Communications 911 Coordinator
- Others as needed

#### 3. Sources of Information

- Review of existing information on 911
- Tentative plans
- Contacts with communities already having 911
- California 911 Coordinator, Communications Division
- Information provided by local telephone company

#### 4. Decisions About Area

- Central office boundary considerations
- Single or multijurisdictional participation
- 911 calls from foreign exchange lines
- Costs

#### 5. Inventory of Emergency Services in the Proposed 911 Area

- Fire Services: Local, State, and Federal
- Law Enforcement Agencies: Local, State, and Federal
- Ambulance services
- Hospitals
- Poison control centers
- Suicide prevention centers
- Drug abuse centers
- Civil defense agencies
- Weather warning stations
- Public utilities
- Others

#### 6. Selection and Location of PSAP

- Law enforcement headquarters
- Fire station
- Separate communications center
- Other public safety locations

#### 7. Decide Answering Center Modes of Operation

- Direct dispatch
- Transfer
- Relay
- Referral (for nonemergency calls only)
- Combination of above

### C. PLANNING ACTIVITIES CHECKLIST

1. Coordination with contiguous agencies.

- Arrangements for sharing responsibility for operating answering center.
  - Accountability for service quality.
  - Cost sharing arrangements.
2. Assignments of Responsibilities and Drawing Up of Cooperative Agreements with Participating Agencies.
  3. Establishment of Procedures for Handling 911 Calls.
    - For emergency calls
    - For multilingual calls
    - For nonemergency calls
    - For nuisance or false alarm calls
    - Overflow calls
    - Others
  4. Planning of Publicity Campaign.
    - 911 publicity coordinated with telephone company directories
    - Decals or signs painted on public safety vehicles
    - Telephone stickers
    - Dial access procedures for dial PBX, PABX, and Centrex systems.
    - Television, radio, newspapers
    - Printed materials
    - Presentations to school and citizens' groups
    - Other publicity activities, banks, utilities

#### D. EQUIPMENT CONSIDERATIONS

Emergency telephone traffic studies must be made as soon as the participating agencies and geographic boundaries of the planned system are determined. Local telephone companies will install line counters for a fixed charge and collect the data needed to determine the number of 911 lines and telephone answering positions that are needed.

1. There are many factors to be considered in 911 equipment needs. The following list provides a framework which will aid operational agencies in identifying their equipment needs:
  - Number of emergency lines required.
  - Compliance with minimum State 911 standards.
  - The number and location of participating emergency agencies involved.
  - The use and integration of presently available and planned communications facilities, such as two-way radio, teletype, etc.
  - Expected amount of emergency traffic and answering positions required to handle it during normal and peak periods.

The specific equipment needs will be dictated by features of a basic or sophisticated 911 system.

2. Features eligible for approved State financing are described in Chapter IV.
3. The California law requires, as a minimum, that three of the four response methods described in Government Code Sections 53103 through 53106 must be employed at the PSAP. These methods cover the procedure for handling an emergency call. They are:
  - Direct dispatch
  - Transfer
  - Relay
  - Referral (used only for nonemergency calls)

Each one of these methods requires certain types of equipment considerations. Communications Division and telephone industry representatives can provide assistance and guidance in equipment needs for a particular situation.

#### E. TECHNICAL INFORMATION REGARDING EQUIPMENT

The following technical information outlines descriptions of equipment that could be used in a 911 system. Complete information must be obtained from local telephone company representatives.

1. **Terminating Considerations.** The basic equipment required for call answering can range from an individual pushbutton-type telephone to a large pushbutton answering system, multiple switchboard, or automatic call distribution system. Most of the equipment can be furnished by the telephone industry under their current tariff schedules. Where certain configurations of required equipment are not offered in current industry tariffs, special assembly tariffs or contracts will be developed for a specific application. Also, there is a variety of equipment available from private vendors which may suit individual system needs.
2. **Pushbutton Telephone Equipment (KTS).** Incoming 911 lines, two-way lines, and direct tie lines are terminated on pushbuttons. The pushbutton modules are wired to an associated telephone set, headset, handset, or speaker-phone. An incoming call on a line is noted by a flashing lamp associated with a pushbutton and, an audible signal. Pushing the button answers the call. Pushbutton operated holding features allow calls to be held while other calls are answered or originated.

3. **Switchboard Equipment.** Switchboard's PBX's, and PABX's are available in manual and automatic versions and also in cord type or cordless, i.e., pushbutton or lever switch, attendant operation.
4. **Emergency Reporting Switchboard Equipment.** These switchboards are designed to answer calls from streetside emergency telephones as well as central office lines and usually are (or can be) equipped to "transfer" calls to other locations. Calls are answered by both pushbutton and cord and jack methods described above.
5. **Automatic Call Distributor.** Equipment to distribute large volumes of incoming calls to attendants not already working on calls and to "store" calls until attendants become available. It records call volume for traffic management purposes.
6. **Centrex.** A type of private branch exchange in which incoming calls can be dialed direct to any extension without an operator's assistance. Outgoing and intercom calls are dialed by the extension users.
7. **Specialized 911 Switching.** Switching equipment specially designed to serve 911 PSAP's by providing both basic and sophisticated features.
8. **Conferencing.** This feature in a PBX or Centrex system facilitates conference-style transfers of 911 calls.
9. **Called Party Hold.** Enables the public safety answering point to control the telephone connection for confirmation and tracing of a call and requires direct trunking from the calling party's central office to the public safety answering point.

#### F. COST ESTIMATES

There is a general agreement among the telephone companies in California that they will make central office modifications to provide 911 capability without charge. Additional costs will be incurred for a sophisticated 911 system depending on what features are implemented. There will be no charge to the citizen for placing 911 calls.

A system designed for multijurisdictional or regional operation which provides for the consolidation of services can, in many instances, result in cost savings and efficiencies. Local agencies are encouraged to investigate the advantages of consolidation.

Cost estimates will be based on the 911 system design and staffing needed to meet the operational requirements of all participating agencies. Telephone equipment costs will be estimated by the telephone company representative. Incremental non-telephone costs may be estimated by appropriate local experts in communications, construction, personnel, and public works. Cost estimating forms are provided in Chapter IV.

#### G. SUMMARY OF 911 PLANNING CONSIDERATIONS

- Establish the local planning and policy organization.
- Identify the agencies and/or services to be included.
- Define the 911 system service boundaries.
- Define the serving telephone company(s) capabilities.
- Define and adopt appropriate response time criteria.
- Identify interagency and/or service intercommunications requirements.
- Prepare peak hour traffic requirements for initial implementation and future growth.
- Analyze and adopt a 911 system design concept for basic, expanded, sophisticated, or progressive upgrading.
- Identify and adopt procedures and policies for dealing with nonemergency calls.
- Define and adopt procedures and policies for dealing with fire and/or intrusion alarm servicing.
- Prepare initial and continued 911 operation personnel training.
- Provide for alternate back-up procedures, lines, power, etc.
- Determine the "host" or agency responsible for management and operation of the 911 system.
- Prepare uniform operational procedures, policies, and manuals.
- Identify and provide for the financial resources for implementing, expanding, and operating the system.
- Prepare an effective public information and education program.
- Identify and comply with all legal requirements.
- Prepare procedures which assure documentation of all aspects of the system planning, implementation, and operation.
- Provide for the secure operation of the system.
- Prepare for system flexibility and expansion requirements.
- Identify new communications technology.

## CHAPTER IV — PREPARING FINAL PLANS

### A. FORMAT AND CONTENTS OF PLANS

The following planning form pages must be completed and signed by authorized local officials for all 911 plan submissions. These forms provide the information necessary to ensure compliance with State law and to expedite review and approval by the Communications Division.

### B. REQUIRED PROCEDURES

Plans submitted by local agencies for State financial assistance with their 911 system costs can be approved if the following conditions are met:

Before any claims for costs can be filed, the plans for the system to be implemented must have been approved by the Communications Division. Government Code Section 53115(b) establishes the following dates as deadlines for certain actions:

1. July 1, 1978. Each agency must have provided the final plans of its system for the Communications Division approval by this date. The Communications Division will provide the following forms on which the details of the plans will be set forth.
2. July 1, 1979. By this date, a firm order for the system must have been placed, as approved, by the Communications Division.
3. December 31, 1984. All systems must be implemented by this date.
4. Once the plan for a system is approved and that system is implemented, bills for installation services and claims for incremental costs can be submitted.
  - a. Claims are to be submitted on the form prescribed by General Services (Government Code Section 41141).
  - b. These forms must be submitted to the Communications Division by July 1 to be eligible for payment one fiscal year later. This deadline will be strictly adhered to since the budget for the following year is prepared based upon the receipt of such bills.
  - c. It must also be remembered that before payment can be made, all claims for incremental costs must be recommended for approval by the Advisory Committee and the Communications Division. (Government Code Section 41137(d).)

5. Plans and claims for 911 cost reimbursement must be submitted on the following plan forms as explained below. Forms are available from Communications Division 911 Coordinators.

### C. PLAN FORMS

The following forms must also be used for describing existing 911 systems as required by law for reimbursement. Incomplete plan forms will be returned to the submitting jurisdiction for correction.

It is important to briefly describe each of the alternative system configurations that were considered, and why they were rejected in favor of the selected system.

The signed plan and two copies must be submitted within the time frame described above. One will be returned indicating Communications Division approval or rejection. The format for the plans are as follows:

#### 1. Cover Sheet (Form 280)

- This information identifies the city and/or county responsible for submitting each plan. It identifies the system director responsible for contractual agreements filed, and for administering the financial portion of the 911 system. Telephone representatives consulted are also to be listed.
- Participants — Identify all participating agencies which provide the public safety services required for the 911 plan area. Appropriate officials must sign the plan for each agency involved in the 911 system. Contiguous agencies are those responsible for adjoining jurisdictions. Show which of the methods of response will be used to handle 911 calls to each of the participating and contiguous agencies.

#### 2. Telephone Cost Forms

- These forms must completely show all of the 911-related telephone costs authorized below. Unauthorized or omitted costs will not be eligible for reimbursement through the State 911 Program. The telephone companies will assist the local agencies in completing this form. Attach a copy of the telephone company(ies) proposal showing cost breakdown as summarized on the final plan.

3. The California Department of General Services will reimburse telephone costs of approved 911 Systems as follows:

- a. Central office lines/trunks that fall under either a basic system, a basic system with central office identification, or a system with selective routing (see *Chapter II, Section 1-A-3*).
  - b. PSAP terminal telephone equipment (telephone sets) including common control equipment (lights, line hold, automatic call distributors, etc.) and transfer arrangements.
  - c. Transfer circuits to subsequent public safety agencies and contiguous PSAPs.
  - d. Toll or multmessage units of calls transferred over the telephone network.
  - e. Terminal telephone equipment at subsequent public safety agencies.
4. Incremental Cost Form
    - a. This form will not be required until the question of incremental cost support is answered.

Incremental costs will be considered for

approval and reimbursement to local agencies when such costs are reasonable and necessary for the implementation of an efficient 911 system. Plans submitted by local agencies which include incremental costs will be submitted to the State Emergency Telephone Number Advisory Committee for their review and their recommended action to Communications Division. In reviewing incremental cost requested, the Advisory Committee and Communications Division will take into consideration the operational efficiencies as well as the cost effectiveness to be derived from those requested items or system features which fall within the category of incremental costs. The schedule for the reimbursement of incremental costs will be subject to the availability of funds.

5. Description of the Planned System (summarize in 200 words).

- Describe the type of system being planned and why it was selected. Use diagrams for clarification.
- Summarize other alternative configurations considered and why each one was rejected.



**PSAP TELEPHONE COSTS**

 COM-280 (NEW 5-77)  
 REVERSE

 If more space is needed, attach additional  
 sheet(s) indicating item(s) that apply.

PAGE

OF

PUBLIC AGENCY RESPONSIBLE FOR OPERATION

PSAP LOCATION

		QUAN- TITY	UNIT PRICE	MONTHLY CHARGE	INSTALLATION CHARGE
1. PSAP ANSWERING TERMINAL(S)	PRESENT				
	PROPOSED				
	PRESENT				
	PROPOSED				
2. 911 CENTRAL OFFICE LINES/TRUNKS	PRESENT				
	PROPOSED				
3. FOREIGN CENTRAL OFFICE LINE/TRUNK GROUPS FROM:	A.	PRESENT			
		PROPOSED			
	B.	PRESENT			
		PROPOSED			
	C.	PRESENT			
		PROPOSED			
	D.	PRESENT			
		PROPOSED			
	E.	PRESENT			
		PROPOSED			
4. 7-DIGIT BACKUP LINES/TRUNKS	PRESENT				
	PROPOSED				
5. PSAP TO PSAP LINES TO:	A.	PRESENT			
		PROPOSED			
	B.	PRESENT			
		PROPOSED			
	C.	PRESENT			
		PROPOSED			
	D.	PRESENT			
		PROPOSED			
6. COMMON CONTROL EQUIPMENT	A. LINE HOLD	PRESENT			
		PROPOSED			
	B. LINE LIGHTS	PRESENT			
		PROPOSED			
	C. SYSTEM LIGHTS	PRESENT			
		PROPOSED			
	D. ACDS	PRESENT			
		PROPOSED			
	E. TRANSFER ARRANGEMENTS	PRESENT			
		PROPOSED			
	F. COMLINE(S)	PRESENT			
		PROPOSED			
	G.	PRESENT			
		PROPOSED			
	H.	PRESENT			
		PROPOSED			
I.	PRESENT				
	PROPOSED				

PUBLIC AGENCY RESPONSIBLE FOR OPERATION			PSAP LOCATION		
AGENCY		QUAN-TITY	UNIT PRICE	MONTHLY CHARGE	INSTALLATION CHARGE
1. ANSWERING TERMINALS	PRESENT				
	PROPOSED				
2. PSAP TRANSFER CIRCUITS	PRESENT				
	PROPOSED				
3. 7DIGIT BACKUP LINES/TRUNKS	PRESENT				
	PROPOSED				
4. COMMON CONTROL EQUIPMENT	A. LINE HOLD	PRESENT			
		PROPOSED			
	B. LINE LIGHTS	PRESENT			
		PROPOSED			
	C. SYSTEM LIGHTS	PRESENT			
		PROPOSED			
	D. ACDS	PRESENT			
		PROPOSED			
	E. TRANSFER ARRANGEMENTS	PRESENT			
		PROPOSED			
	F. COMLINE(S)	PRESENT			
		PROPOSED			
		PRESENT			
		PROPOSED			

AGENCY		QUAN-TITY	UNIT PRICE	MONTHLY CHARGE	INSTALLATION CHARGE
1. ANSWERING TERMINALS	PRESENT				
	PROPOSED				
2. PSAP TRANSFER CIRCUITS	PRESENT				
	PROPOSED				
3. 7DIGIT BACKUP LINES/TRUNKS	PRESENT				
	PROPOSED				
4. COMMON CONTROL EQUIPMENT	A. LINE HOLD	PRESENT			
		PROPOSED			
	B. LINE LIGHTS	PRESENT			
		PROPOSED			
	C. SYSTEM LIGHTS	PRESENT			
		PROPOSED			
	D. ACDS	PRESENT			
		PROPOSED			
	E. TRANSFER ARRANGEMENTS	PRESENT			
		PROPOSED			
	F. COMLINE(S)	PRESENT			
		PROPOSED			
		PRESENT			
		PROPOSED			



If more space is needed in item 4, attach additional sheet(s) indicating agency that applies.

PUBLIC AGENCY RESPONSIBLE FOR OPERATION

PSAP LOCATION

AGENCY		QUAN- TITY	UNIT PRICE	MONTHLY CHARGE	INSTALLATION CHARGE
1. ANSWERING TERMINALS	PRESENT				
	PROPOSED				
2. PSAP TRANSFER CIRCUITS	PRESENT				
	PROPOSED				
3. 7DIGIT BACKUP LINES/TRUNKS	PRESENT				
	PROPOSED				
4. COMMON CONTROL EQUIPMENT	A. LINE HOLD	PRESENT			
		PROPOSED			
	B. LINE LIGHTS	PRESENT			
		PROPOSED			
	C. SYSTEM LIGHTS	PRESENT			
		PROPOSED			
	D. ACDS	PRESENT			
		PROPOSED			
	E. TRANSFER ARRANGEMENTS	PRESENT			
		PROPOSED			
	F. COMLINE(s)	PRESENT			
		PROPOSED			
		PRESENT			
		PROPOSED			

AGENCY		QUAN- TITY	UNIT PRICE	MONTHLY CHARGE	INSTALLATION CHARGE
1. ANSWERING TERMINALS	PRESENT				
	PROPOSED				
2. PSAP TRANSFER CIRCUITS	PRESENT				
	PROPOSED				
3. 7DIGIT BACKUP LINES/TRUNKS	PRESENT				
	PROPOSED				
4. COMMON CONTROL EQUIPMENT	A. LINE HOLD	PRESENT			
		PROPOSED			
	B. LINE LIGHTS	PRESENT			
		PROPOSED			
	C. SYSTEM LIGHTS	PRESENT			
		PROPOSED			
	D. ACDS	PRESENT			
		PROPOSED			
	E. TRANSFER ARRANGEMENTS	PRESENT			
		PROPOSED			
	F. COMLINE(s)	PRESENT			
		PROPOSED			
		PRESENT			
		PROPOSED			

## **CHAPTER V — IMPLEMENTATION AND CONTINUED 911 OPERATIONAL CONSIDERATIONS**

### **A. IMPLEMENTATION ACTIVITIES**

The planning of a 911 system should provide a logical base for the implementation of the system. Important factors to be considered in implementation are:

1. Responsiveness and accountability to the system users — Emergency service agencies and citizens.
2. Budgeting for 911 system — Consideration and mutual understanding of responsibilities for funding the 911 system must be documented.
3. Public education programs — Continuous review of programs and updating must be considered.
4. Telephone equipment modifications — These must be thought out and designed for operational agency needs.
5. Training of 911 operators — The type of training, duration, and responsibility must be delineated and understood by all.

6. Priority for accepting 911 calls — These procedures have to be documented and established at the beginning.

7. Discouraging nonemergency use of 911.

8. Record keeping activities — The types of records maintained and uses have to be understood and documented. Records regarding usage, time, number of calls, etc., have to be planned for implementation of 911.

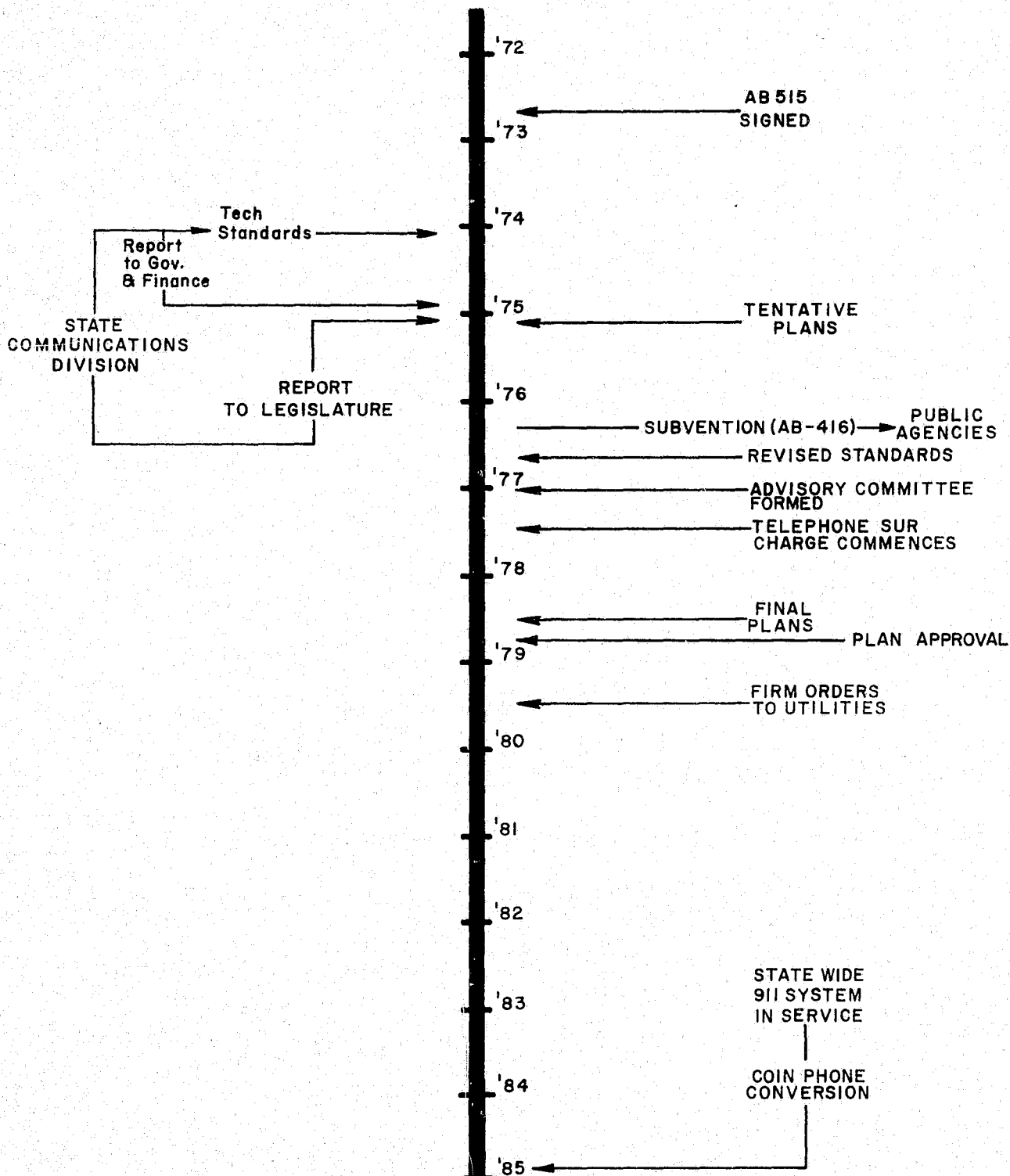
### **B. ASSESSING CONTINUED OPERATIONAL CONSIDERATIONS**

Once the 911 system has been implemented, a program for continued assessment and performance should be enacted. These activities are essential to assess future needs of a 911 system.

- Ongoing Training
- Expansion Considerations
- Workload and Performance Measurements
- Statistics and Records
- Public Education Programs

## APPENDIX A

# 911 TIME TABLE



## APPENDIX B

### EMERGENCY TELEPHONE NUMBER 911 LAW

#### Article 6. Local Emergency Telephone Systems

**53100.** (a) This article shall be known and may be cited as the Warren-911-Emergency Assistance Act.

(b) The Legislature hereby finds and declares that it is in the public interest to shorten the time required for a citizen to request and receive emergency aid. There currently exist thousands of different emergency phone numbers throughout the state, and present telephone exchange boundaries and central office service areas do not necessarily correspond to public safety and political boundaries. Provision of a single, primary three-digit emergency number through which emergency services can be quickly and efficiently obtained would provide a significant contribution to law enforcement and other public service efforts by making it less difficult to quickly notify public safety personnel. Such a simplified means of procuring emergency services will result in the saving of life, a reduction in the destruction of property, quicker apprehension of criminals, and ultimately the saving of money. The Legislature further finds and declares that the establishment of a uniform, statewide emergency number is a matter of statewide concern and interest to all inhabitants and citizens of this state. It is the purpose of this act to establish the number "911" as the primary emergency telephone number for use in this state and to encourage units of local government and combinations of such units to develop and improve emergency communication procedures and facilities in such a manner as to be able to quickly respond to any person calling the telephone number "911" seeking police, fire, medical, rescue, and other emergency services.

**53101.** "Public agency," as used in this article, means the state, and any city, county, city and county, municipal corporation, public district, or public authority located in whole or in part within this state which provides or has authority to provide firefighting, police, ambulance, medical, or other emergency services.

**53102.** "Public safety agency," as used in this article, means a functional division of a public agency which provides firefighting, police, medical, or other emergency services.

**53103.** "Direct dispatch method," used in this article, means a telephone service providing for the dispatch of an appropriate emergency service unit upon receipt of a telephone request for such services and a decision as to the proper action to be taken.

**53104.** "Relay method," as used in this article, means a telephone service whereby pertinent information is noted by the recipient of a telephone request for emergency services, and is relayed to appropriate public safety agencies or other providers of emergency services for dispatch of an emergency service unit.

**53105.** "Transfer method," as used in this article, means a telephone service which receives telephone requests for emergency services and directly transfers such requests to an appropriate public safety agency or other provider of emergency services.

**53106.** "Referral method," as used in this article, means a telephone service which, upon the receipt of a telephone request for emergency services, provides the requesting party with the telephone number of the appropriate public safety agency or other provider of emergency services. The use of the referral method shall only be used for non-emergency situations.

**53107.** "Basic system," as used in this article, means a telephone service which automatically connects a person dialing the digits "911" to an established public safety answering point through normal telephone service facilities.

**53108.** "Sophisticated system," as used in this article, means a basic system with the additional capability of automatic identification of the caller's number, holding the incoming call, reconnection on the same telephone line, clearing a telephone line, or automatic call routing or combinations of such capabilities.

**53108.1.** "Incremental Costs," as used in this article, mean any costs necessary for the establishment of a system required by this article and recommended for reimbursement by the advisory committee established by Section 53115.1 other than costs for (1) a basic system, (2) a basic system with telephone central office identification, or (3) a system employing automatic call routing, which are reasonable, necessary and unique for the planning and efficient implementation of a local agency's 911 system.

**53108.5.** "Communications Division," as used in this article, means the Communications Divisions of the Department of General Services.

**53109.** Every local public agency within its respective jurisdiction shall establish and have in operation by December 31, 1984, a basic system as provided in this article, or be part of such a system.

The establishment of such systems shall be centralized to the extent feasible. Nothing in this article shall be construed to prohibit or discourage in any way the formation of multijurisdictional or regional systems, and any system established pursuant to this article may include the territory of more than one public agency or may include a segment of the territory of a public agency.

**53110.** Every system shall include police, fire-fighting, and emergency medical and ambulance services and may include other emergency services, in the discretion of the affected local public agency, such as poison control services, suicide prevention services, and civil defense services. The system may incorporate private ambulance service. In those areas in which a public safety agency of the state

provides such emergency services, the system shall include such public safety agencies.

**53111.** The digits "911" shall be the primary emergency telephone number within the system, but a public agency or public safety agency may maintain a separate secondary backup number, and shall maintain a separate number for nonemergency telephone calls.

**53112.** All systems shall be designed to meet the specific requirements of each community and public agency served by the system. Every system, whether basic or sophisticated, shall be designed to have the capability of utilizing at least three of the methods specified in Sections 53103 to 53106, inclusive, in response to emergency calls. The Legislature finds and declares that the most critical aspect of the design of any system is the procedure established for handling a telephone request for emergency services.

In addition, to maximize efficiency and utilization of the system, all pay telephones within each system shall, by December 31, 1984, enable a caller to dial "911" for emergency services, and to reach an operator by dialing "0", without the necessity of inserting a coin. At those "911" public safety answering points serving an area where 5 percent or more of the population, in accordance with the latest United States census information, speak a specific primary language other than English, operators who speak each such other language, in addition to English, shall be on duty or available through interagency telephone conference procedures at all times for "911" emergency services.

**53113.** The Legislature finds that, because of overlapping jurisdictions of public agencies, public safety agencies, and telephone service areas, a general overview or plan should be developed prior to the establishment of any system. In order to insure that proper preparation and implementation of such systems is accomplished by all public agencies by December 31, 1984, the Communications Division, with the advice and assistance of the Attorney General, shall secure compliance by public agencies as provided in this article.

**53114.** The Communications Division, with the advice and assistance of the Attorney General, shall coordinate the implementation of systems established pursuant to the provisions of this article. The Communications Division, with the advice and assistance of the Attorney General, shall assist local public agencies and local public safety agencies in obtaining financial help to establish emergency telephone service, and shall aid such agencies in the formulation of concepts, methods, and procedures which will improve the operation of systems required by this article and which will increase cooperation between public safety agencies.

**53114.1.** To accomplish the responsibilities specified in this article, the Communications Division is directed to consult at regular intervals with the State Fire Marshal, the State Department of Public Health, the Governor's Office of Traffic Safety, the Office of Emergency Services, the California Council on Criminal Justice, the public utilities in this state providing telephone service, the Associated Public Safety Communications Officers,

the Bureau of Emergency Medical Service, the California Highway Patrol, and the State Division of Forestry. Such agencies shall provide all necessary assistance and consultation to the Communications Division to enable it to perform its duties specified in this article.

**53114.2.** Technical and operational standards for the development of the public agency systems shall be established and reviewed by the Communications Division on or before December 31, 1973, after consultation with all agencies specified in Section 53114.1. On or before December 31, 1976, and each even-numbered year thereafter, after consultation with all agencies specified in Section 53114.1, the Communications Division shall review and update technical and operational standards for public agency systems.

**53115.** (a) On or before January 31, 1975, all public agencies shall submit tentative plans for the establishment of a system required by this article to the public utility or utilities providing public telephone service within the respective jurisdiction of each public agency. A copy of each such plan shall be filed with the Communications Division.

(b) On or before July 1, 1978, all public agencies shall submit final plans to the Communications Division for approval. On or before July 1, 1979 all public agencies shall place a firm order as approved by the Communications Division to the utility or utilities providing telephone service to the public agency, and shall make arrangements with such utilities for the implementation of the planned emergency telephone system no later than December 31, 1984.

(c) If any public agency has implemented or is a part of a system required by this article on a deadline specified in subdivision (a) or (b), such public agency shall submit in lieu of the tentative or final plan a report describing the system and stating its operational date.

(d) Plans filed pursuant to subdivisions (a) and (b) shall conform to minimum standards established pursuant to Section 53114.2.

(e) The Communications Division shall monitor all emergency telephone systems to ensure they comply with minimal operational and technical standards as established by the division. If any system does not comply the Communications Division shall notify in writing the public agency or agencies operating the system of its deficiencies. The public agency shall bring the system into compliance with the operational and technical standards within 60 days of notice by the division. Failure to comply within such time shall subject the public agency to action by the Attorney General pursuant to Section 53116.

**53115.1.** The Advisory Committee on the State Emergency Telephone Number is hereby created and established in the Department of General Services. The Communications Division shall provide staff services to the advisory committee.

It is the intention of the Legislature that the advisory committee will assist the Department of General Services in resolving conflicts between state and local government and the communications industry relating to implementation of the

emergency telephone number system when requested by the Communications Division.

It is the purpose of the advisory committee to evaluate requests from local agencies for state assistance for incremental costs and to recommend to the Chief of the Communications Division, Department of General Services when appropriation for reimbursement to a local agency for such incremental costs should be made. The advisory committee will be formed on or before January 1, 1977. A majority vote of the membership of the advisory committee shall be required for approval of plans referred to the committee. The committee shall elect a chairman and meet at the call of the chairman. The committee shall consist of nine members and shall be appointed in the following manner:

(a) Three of the members shall be selected from the largest service suppliers of intrastate communications services in the state to represent all service suppliers, to be appointed by the Director of General Services.

(b) Three of the members shall be selected from local agencies to be appointed by the Director of General Services. Urban and rural local agencies shall be represented.

(c) One member shall represent the Department of Finance, selected by the Director of Finance.

(d) Two of the members shall be representatives of the Legislature. One shall be designated by the Speaker of the Assembly and one shall be designated by the Senate Rules Committee.

The members of the advisory committee shall receive no compensation for their services, but shall be reimbursed for any actual and necessary expenses incurred in connection with the performance of their duties. Members shall serve one-year terms subject to reappointment. If a member misses two successive meetings without approval by the chairman, then in that event that member's position shall be considered vacant. Prior to the next meeting a new member to fill the vacancy shall be appointed.

**53115.2.** The committee shall only review final plans which have been referred for consideration for incremental funding by the Communications Division at the request of a local agency. The committee shall make a recommendation to the Communications Division regarding state appropriation for payment or reimbursement for incremental costs.

The committee may also act in a general advisory capacity to the Communications Division relative to the implementation of any "911" system.

**53116.** The Attorney General may, in behalf of the Communications Division or on his own initiative, commence judicial proceedings to enforce compliance by any public agency or public utility providing telephone service with the provisions of this article.

**53117.** (a) On or before February 16, 1975, the Communications Division shall report to the Legislature the progress in the implementation of systems required by this article. Such reports shall contain its recommendations for additional legislation.

(b) In December of 1973 and in December of 1974 the Communications Division, with the advice and assistance of the Attorney General, shall submit recommendations to the Department of Finance and to the Governor specifying amounts necessary to further implement the organization of telephone systems specified in this article during the succeeding fiscal year. The report specified in this subdivision shall contain, in addition, an estimate of the fiscal impact to local public agencies which will be caused by implementation of the provisions of this article.

**53118.** The Legislature declares that a major purpose in enacting this article is to eliminate instances in which a responding emergency service refuses to render aid to the requester because the requester is outside of the jurisdictional boundaries of the emergency service. A public safety agency which receives a request through the system for emergency services outside its jurisdictional boundaries shall transmit the request to the proper public safety answering point or public safety agency utilizing the methods described in Sections 53103 to 53105, inclusive. In the event an emergency is dispatched in response to a request through the system, such unit shall render its services to the requesting party without regard to whether the unit is operating outside its normal jurisdiction boundaries until properly relieved by the public safety agency responsible for that geographical area. Public agencies within a single system and public agencies in different systems but whose jurisdictional boundaries are contiguous are authorized to enter into joint powers agreements or any other form of written cooperative agreement to implement this requirement. These agreements may further provide for a public safety agency to render aid outside its normal jurisdictional boundaries when need arises on a day-to-day basis.

# REVENUE AND TAXATION CODE DIVISION 2 — PART 20

## Article 2. Disposition of Proceeds

**41135.** All amounts required to be paid to the state under this part shall be paid to the board in the form of remittances payable to the Board of Equalization of the State of California. The Board shall transmit the payments to the State Treasurer to be deposited in the State Treasury to the credit of the State Emergency Telephone Number Account in the General Fund, which is hereby created.

**41136.** Funds in the State Emergency Telephone Number Account shall, when appropriated by the Legislature, be spent solely for the following purposes.

- (a) To pay refunds authorized by this part.
- (b) To pay the State Board of Equalization for the cost of the administration of this part.
- (c) To pay the Department of General Services for its costs in administration of the "911" emergency telephone number system.
- (d) To pay bills submitted to the Department of General Services by service suppliers or communications equipment companies for the installation and ongoing communications services supplied local agencies in connection with the "911" emergency phone number system:
  - (1) A basic system.
  - (2) A basic system with telephone central office identification.
  - (3) A system employing automatic call routing.
  - (4) Approved incremental costs.
- (e) To pay claims of local agencies for approved incremental costs, not previously compensated for by another governmental agency.
- (f) To pay claims of local agencies for incremental costs and amounts, not previously compensated for by another governmental agency, incurred prior to the effective date of this part, for the installation and ongoing expenses for the following communication services supplied in connection with the "911" emergency phone number system:

- (1) A basic system.
- (2) A basic system with telephone central office identification.
- (3) A system employing automatic call routing.
- (4) Approved incremental costs. Such incremental costs shall not be allowed unless such costs are recommended by the advisory committee and concurred in by the Communications Division.

**41137.** The Department of General Services shall pay, from funds appropriated from the State Emergency Telephone Number Account by the Legislature, as provided in Section 41138, bills submitted by service suppliers or communications equipment companies for the installation and ongoing costs of the following communication services provided local agencies by service suppliers in connection with the "911" emergency telephone number system:

- (a) A basic system.
- (b) A basic system with telephone central office identification.

(c) A system employing automatic call routing.

(d) Approved incremental costs which have been recommended by the advisory committee and concurred in by the Communications Division.

**41137.1.** The Department of General Services shall pay, from funds appropriated from the State Emergency Telephone Number Account by the Legislature, as provided in Section 41138, claims submitted by local agencies for approved incremental costs.

**41138.** The department shall pay such bills as provided in Section 41137 only under the following conditions:

(1) The department shall have received the local agencies "911" emergency telephone number system plan by July 1 of the prior fiscal year and approved such plan by October 1 of the prior fiscal year.

(2) The Legislature has appropriated in the Budget Bill an amount sufficient to pay such bills.

(3) The amounts to be paid shall not exceed the contract or established tariff rates for the costs of telephone equipment.

(4) The amounts to be paid shall not exceed approved incremental costs.

**41139.** From funds appropriated by the Legislature from the Emergency Telephone Number Account, the department shall begin paying such bills as provided in Sections 41137, 41137.1, and 41138 in the 1977-78 fiscal year for plans submitted by local agencies by July 1, 1976 to the department which the department has approved.

**41140.** The Department of General Services shall reimburse local agencies, from funds appropriated from the Emergency Telephone Number Account by the Legislature, for amounts not previously compensated for by another governmental agency, which have been paid by such agencies for approved incremental costs or to service suppliers or communication equipment companies for the following communications services in connection with the "911" emergency phone number, provided such local agency plans had been approved by the department:

- (1) A basic system.
- (2) A basic system with telephone central office identification.
- (3) A system employing automatic call routing.
- (4) Approved incremental costs.

**41141.** Claims for reimbursement shall be submitted by local agencies by July 1 to be eligible for payment in the following fiscal year. The department shall prescribe the form on which the claims shall be made and shall reduce the claim for charges which exceed the approved incremental costs, approved contract amounts or the established tariff rates for such costs. No claim shall be paid until funds are appropriated by the Legislature.

**41142.** Notwithstanding any other provision of this article, if the Legislature fails to appropriate an



amount sufficient to pay bills submitted to the Department of General Services by service suppliers or communications equipment companies for the installation and ongoing communications services supplied local agencies in connection with the "911" emergency phone number system, and to pay claims of local agencies which, prior to the effective date of this part, paid amounts to service suppliers or communications equipment companies for the installation and ongoing expenses in connection with the "911" emergency phone number system, the obligation of service suppliers and local agencies to provide "911" emergency telephone service shall terminate and such service shall not again be required until the Legislature has appropriated an amount sufficient to pay such bills or claims. Nothing in this part shall preclude local agencies from purchasing or acquiring any communication equipment from companies other than the telephone service suppliers.

### **Article 3. Notices**

**41144.** A certificate by the board or an employee of the board stating that a notice required by this part was given by mailing or personal service shall be prima facie evidence in any administrative or judicial proceeding of the fact and regularity of the mailing of personal service in accordance with any requirement of this part for the giving of notice. Unless otherwise specifically required, any notice required by this part to be mailed or served may be given by mailing or personal service in the manner provided for giving notice of a deficiency determination.

### **Article 4. Purpose**

**41150.** The Legislature hereby declares and finds that to enable public agencies to implement "911" emergency phone systems required by the

provisions of Chapter 1005 of the 1972 Regular Session [Article 6 (commencing with Section 53100) of Chapter 1 of Part 1 of Division 2 of Title 5 of the Government Code] it is necessary that a surcharge be imposed upon amounts paid by every person in the state for intrastate telephone communication services in this state. The bill will provide funding for basic 911, basic 911 (including telephone central office identification) 911 with selective routing or a combination of the above. These services will include incoming 911 lines/trunks, 911 answering positions including common control equipment, transfer lines and transfer positions. In addition, this part will provide funding for incremental costs.

**SEC. 8.** The funding for any additional requirements shall be borne by local agencies.

**SEC. 9.** Notwithstanding Section 2231 of the Revenue and Taxation Code, there shall be no reimbursement arising out of the enactment of Part 20 of Division 2 of the Revenue and Taxation Code or of the rules and regulations that are adopted pursuant thereto for the administration thereof by the State Board of Equalization.

**SEC. 9.5.** There is hereby appropriated from the General Fund to the Department of General Services, for the 1976-77 and 1977-78 fiscal years, the sum of one million two hundred twenty-two thousand dollars (\$1,222,000), to pay bills as provided in Sections 41136, 41137, 41137.1, 41138 and 41140 of the Revenue and Taxation Code, as added by Section 7 of this act.

**SEC. 10.** If any provision of this act or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision or application, and to this end the provisions of this act are severable.

**SEC. 11.** This act provides for a tax levy within the meaning of Article IV of the Constitution and shall go into immediate effect.



## **APPENDIX C**

### **JOINT POWERS AGREEMENT GUIDE**

Government Code Section 53118 permits public agencies within a single system or different systems whose jurisdictional boundaries are contiguous to enter into joint powers agreements in order to implement the requirement that an emergency unit will render services to the requesting party regardless of whether the unit is outside its normal jurisdictional boundaries. These agreements may further provide for a public safety agency to render aid outside its normal jurisdictional boundaries when need arises on a day-to-day basis. It is up to each individual agency to tailor its own individual written cooperative agreement to its own needs and situation. However, generally, all joint powers agreements must have certain provisions as required by Government Code Sections 6500, et seq.

Provisions for strict accountability of all funds, detailed fiscal procedures, the duration of the agreement, an agreed list of specific activities and functions to be performed, equipment to be used, the level of service to be provided, the administrative unit or units offering or performing the service and responsible for its administration, and any limitations or restrictions imposed upon the performance of the service or the function are among the important, but by no means total, areas to be considered. For this reason, it is recommended that each agency consult with its respective city attorney, county counsel, or other legal advisor concerning the advisability of such agreements, keeping in mind that each local agency's circumstances will require different attention and emphasis.

## **APPENDIX D**

### **ADVISORY COMMITTEE ON THE STATE EMERGENCY TELEPHONE NUMBER**

#### **I. ADVISORY COMMITTEE AUTHORIZATION**

Section 53115.1 of the Government Code created the Advisory Committee on the State Emergency Telephone Number. The Committee is made up of nine members as follows:

- a. Six members appointed by the Director of the Department of General Services.

Three members appointed from the largest suppliers of State communications services.

Three members appointed to represent urban and rural local government agencies.

- b. One representative appointed by the Director of the Department of Finance.
- c. One representative appointed by the Speaker of the Assembly.
- d. One representative appointed by the Senate Rules Committee.

#### **II. ADVISORY COMMITTEE RESPONSIBILITIES (AS DEFINED BY LAW)**

- a. Evaluate requests for incremental costs and issue recommendations to Communications Division as to when reimbursement would be appropriate.
- b. Act in a general advisory capacity to the Communications Division regarding implementation of any 911 system.
- c. Review final 911 plans which have been referred for consideration for incremental funding by Communications Division at the request of a local agency.
- d. Assist when requested in resolving conflicts between local governmental agencies, the State, and the Communications Division.

# APPENDIX E

## 911 GUIDELINES MANUAL

### REVISION RECORD SHEET

JUNE 1977

This updated Revision Record Sheet is provided with each distribution of manual revisions. It will

provide a ready check for the currency of the manual in Appendix E.

**Example:**

**DATE**  
12/1/77  
1/1/78

**REVISION  
NUMBER**  
1  
2

**CHAPTER**  
1  
1

**PAGE**  
3  
3

**DATE OF  
REVISION**

**REVISION  
NUMBER**

**CHAPTER**

**PAGE**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**END**