

**THE PACIFIC TELEPHONE AND TELEGRAPH CO.**

**NORTHERN CALIFORNIA & NEVADA AREA  
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**SUPERVISOR'S GUIDE  
TOLL OFFICES**

## **SUPERVISOR'S GUIDE**

### **Toll Offices**

This Guide outlines methods for training and developing operators, and covers some of the more important phases of toll operating technique and practices requiring regular attention on the part of operating and supervisory employees.

The Guide has been prepared as an aid to supervisors in their day to day work and has been issued in loose leaf form to permit filing in supervisors' note books.

The supervisor's principal duties are threefold:

#### **1. Development of Operators**

The first responsibility of a supervisor is to develop in each operator in her division, technical skill; and to arouse individual and group interest and enthusiasm.

In this work, the supervisor should not forget the importance of commending an operator for good work. To be commended is pleasing, improves morale, and encourages a person to try to improve her work.

#### **2. Supervising the Movement of Traffic**

This involves the prevention of congestion and the clearing of congestion if it occurs. In clearing congestion, the supervisor must analyze its causes, and take the necessary corrective action promptly.

#### **3. Handling Calls from Customers and Operators**

In handling customer calls, the supervisor must remember that the Company's policy is to furnish the best possible service. The supervisor should be courteous and businesslike and do that which is most satisfactory to the customer; and at the same time keep within the limitations of Company practices and policies.

Calls from operators should be handled quickly and decisively and from the point of view of helping the operator in her work. The supervisor's manner determines in large measure the operator's attitude and willingness to cooperate.

# TABLE OF CONTENTS

## GENERAL

|  | Page |
|--|------|
| <b>Section I. Training and Developing Operators</b> .... | 4    |
| A. The Supervisor's Relation to the Operator .....       | 4    |
| B. Treatment of the Junior Operator .....                | 5    |
| C. Improving Operators' Work ....                        | 6    |
| D. Tone of Service .....                                 | 9    |
| <b>Section II. Service Program</b> .....                 | 12   |
| <b>Section III. Peg Count</b> .....                      | 13   |
| <b>Section IV. Completion</b> .....                      | 14   |

## DIVISION A—OUTWARD

|  |    |
|--|----|
| <b>Section I. Technique</b> .....  | 15 |
| A. Voice .....   | 15 |
| B. Handling Equipment .....  | 16 |
| C. Overlapping .....   | 20 |
| D. Teamwork .....  | 21 |
| E. Position Management .....   | 22 |
| <b>Section II. Order of Attention to Signals</b> .....   | 23 |
| <b>Section III. Answering Signals and Releasing</b> .....                                      | 24 |
| A. Answering Recording Signals .....   | 24 |
| B. Answering Cord Signals .....  | 24 |
| C. Answering TX Signals .....  | 25 |
| D. Releasing .....   | 25 |
| <b>Section IV. Recording</b> .....   | 26 |
| <b>Section V. Errors</b> .....   | 27 |
| A. Cut-offs .....  | 27 |
| B. Interruptions .....   | 27 |
| C. Wrong Stations or Parties Connected .....   | 28 |
| D. Incorrect Reports .....   | 28 |
| E. Rate and Charge Errors .....  | 28 |
| <b>Section VI. Irregularities</b> .....  | 30 |
| A. Operating Irregularities Which Lead to Errors .....   | 30 |
| B. Operating Irregularities Which Cause a Loss of Circuit Time ....                            | 30 |
| C. Other Operating Irregularities Which Keep the Service from Being Pleasing and Attractive .. | 32 |
| D. Ticket Irregularities .....   | 33 |

|   | Page |
|---|------|
| Section VII. Precedence of Calls, Reports or Orders ..... | 35   |
| Section VIII. Speed of Service .....                      | 36   |
| Section IX. Movement of Traffic .....                     | 37   |
| A. Improper or Inadequate Operator Assignment .....       | 37   |
| B. Circuit Shortage .....                                 | 38   |
| C. Unsatisfactory Service from Other Operators .....      | 38   |

## DIVISION B — INWARD AND THROUGH

|  |    |
|--|----|
| Section I. Technique .....   | 39 |
| A. Voice .....   | 39 |
| B. Handling Equipment .....  | 39 |
| C. Overlapping .....   | 40 |
| D. Teamwork .....  | 41 |
| Section II. Order of Attention to Signals .....  | 42 |
| Section III. Answering Signals and Releasing .....   | 43 |
| A. Answering Toll Line Signals ....  | 43 |
| B. Answering Cord Signals .....  | 43 |
| C. Releasing .....   | 44 |
| Section IV. Errors .....   | 45 |
| A. Cut-offs .....  | 45 |
| B. Interruptions .....   | 45 |
| C. Wrong Numbers .....   | 46 |
| Section V. Irregularities .....  | 47 |
| A. Operating Irregularities Which Lead to Errors .....   | 47 |
| B. Operating Irregularities Which Cause a Loss of Circuit Time ....                            | 48 |
| C. Other Operating Irregularities Which Keep the Service from Being Pleasing and Attractive .. | 48 |
| Section VI. Speed of Service .....   | 50 |

## DIVISION C — AUXILIARY 51

## GENERAL

### Section I. Training and Developing Operators

#### A. The Supervisor's Relation to the Operator

The development and training of operators is the supervisor's major responsibility. An operator who has finished her training course still requires considerable coaching and training. Furthermore, in operating, many conditions occur infrequently, and it is difficult for an operator to keep them all in mind without periodic review. Continuous development work with all operators is, therefore, necessary.

The supervisor's relationship to the operator is that of teacher and guide. She should not interfere with her, nor do her work. An operator should be permitted to work with as little assistance as possible, since better results are ordinarily obtained when she is allowed to proceed in her own way with the minimum of supervisory attention required to obtain satisfactory performance.

In discussing an operator's work with her, the supervisor should avoid an overbearing or dictatorial manner—should not attempt to discipline her. She should aid her to overcome her faults rather than criticize her for them. If an operator does not respond to this treatment, the supervisor should ask the chief operator for advice.

The supervisor is in a position to notice evidences of impaired health, nervousness, fatigue, irritability, worry, changes in the operator's general manner of talking or acting, or changes in weight. She should be alert to notice conditions, either physical or emotional, which might affect the operator's work, and should consider carefully what action, if any, should be taken. At times, it is well to appear not to notice an incident; at other times, it might be desirable, in connection with the same occurrence, to talk with the operator, giving her helpful advice or indicating sympathy and understanding, and at other times, to discuss the occurrence with the chief operator before doing anything.

The supervisor must have the respect of all the operators, maintaining a friendly relationship but avoiding any form or appearance of favoritism.

## B. Treatment of the Junior Operator

With the junior operator, the supervisor should recognize that she is responsible for maintaining the new employee's interest in her work and for developing in her a feeling of responsibility for telephone service. Almost everyone, when starting a business career, desires to do excellent work and only loses this desire by becoming discouraged, which is caused frequently by some failure of the supervisory organization.

Morale, or "spirit of service," is influenced greatly by the action and attitude of the supervisor, and the operator's opinion of the supervisor.

The junior operator usually has had little or no previous business experience, and she may not be accustomed to discipline and supervision. With her lack of experience, she will be unable to handle as many calls as an experienced operator and, as she has been taught only the conditions which occur most frequently, she will require a greater amount of assistance and instruction. These factors must be recognized by the supervisor in carrying on her training and development activities with the junior operator, and therefore she should:

1. Greet the junior operator cordially, welcome her to the section, and express a desire to be of assistance.
2. Appraise the junior operator's work on the basis of the progress made rather than on a comparison of her work with that of the more experienced operator.
3. Realize that pressure on the junior operator to carry call loads beyond her capacity may cause nervousness or discouragement.
4. Realize that the junior operator is curious about her new employment and frequently about the reasons for practices and routines. A question should be answered freely and fully and, if possible, at the time it is asked.

The way a junior operator is treated plays a major part in determining whether she will become a satisfied and efficient employee with a proper attitude toward her work and toward the Company.

## C. Improving Operators' Work

The supervisor should be enthusiastic, know her subject thoroughly, express her ideas clearly, and be willing to explain a practice that an operator does not understand, even though it has been explained previously. She should demonstrate or illustrate for the operator whenever possible, thus teaching through the sense of sight as well as the sense of hearing.

Instruction should not be haphazard, but should follow a scheduled program for observing and analyzing the operator's work, applying the proper corrective action, and checking the degree of improvement.

### 1. Observing Operators' Work

In the development of an operator, it is necessary to observe the proficiency with which she does her work. This requires, on the part of the supervisor, a complete knowledge of operating techniques and practices, a capacity to recognize operating faults, and skill to record the details of the work observed.

Ordinarily, observations should be made with the knowledge of the operator, and therefore, before starting an observation, the supervisor will usually inform her concerning its nature. The supervisor will not take observations more frequently than is necessary to help an operator to improve her work, whether Operator Development Plan observations or other types of observations.

The amount and nature of the details recorded will depend upon the purpose for which the observation is taken. In the case of the Operator Development Plan (Training Observations), instructions for the use of the record forms are contained in the material furnished. If other observations are necessary, the supervisor should obtain an adequate sample of the work of the operator.

### 2. Analyzing Operators' Work

If a fault has been observed, the first step is to determine the immediate cause and the second

is to decide the basic reason for the fault. For example, the immediate cause of a cutoff might be failure to trace cords manually, although the basic reason might be the operator's lack of knowledge, lack of skill, or failure to apply knowledge.

Although lack of knowledge occurs more frequently with inexperienced operators who encounter conditions which they have not been taught, experienced operators encounter conditions which they do not remember how to handle. Also, occasionally, a condition encountered may not be specifically covered by operating practices, and, in such cases, the operator is expected to use her best judgment. Many opportunities for giving personalized service are included in this category, and the failure of an operator to handle them properly may be an indication of lack of knowledge of Company policy.

An operator may understand an operation but may be awkward or unskillful. This is more likely to occur with less experienced operators, since they may not have acquired sufficient skill in handling the equipment. In some cases, however, an operator learns an incorrect technique which makes it difficult for her to operate in a skillful manner.

All other basic causes can be attributed to failure to apply knowledge. Carelessness, failure to concentrate, inattention, or lack of interest, are examples. If the supervisor decides that the operating fault occurred because of one of these reasons, she should determine what induced it before attempting to help the operator. For example, the operator's attitude may be due to poor health, to personal problems outside of the office, or to treatment in the office, such as (1) a feeling that proper consideration has not been given to her length of service in assigning hours, (2) that she has been unfairly criticized, (3) that she has had too much or too close supervision, (4) that she is required to work too hard or too fast.



### 3. Corrective Action

After the supervisor has analyzed the reasons for faulty operating, she must determine what corrective measures to take and when to take them. In reaching this decision, the operator's past record and length of service must be considered, as the problem of correcting an operator who usually does good work is quite different from the one that exists in the case of an operator who constantly needs correction. Likewise, different methods should be used in correcting a fairly new operator who is not sure of herself and an older one who is not so handicapped.

It is important to commend the operator for good work and, in the case of the operator whose work is usually satisfactory, it may be desirable to refrain from any discussion of relatively unimportant faults.

Personal traits of an operator should influence the supervisor in her discussion. Although most people are usually very reasonable, at times anyone may be timid, sensitive, slow, dreamy, inattentive, stubborn, bold or resentful. If the supervisor recognizes the presence of any of these traits, she should be guided accordingly in her discussion.

Following is a partial list of different individual types with some suggestions which may be found helpful in dealing with them. The suggested methods of approach pertaining to one type may apply equally well to another, but those suggested are more strongly applicable to the type indicated.

| Type                              | Suggested Treatment   |
|-----------------------------------|---|
| Good                              | Encourage.  |
| Timid or sensitive                | Encourage. Develop self-confidence.   |
| Slow but careful                  | Develop self-confidence. Drill in speed.  |
| Dreamy, talkative, or inattentive | Keep constantly occupied. Stress responsibility.  |
| Stubborn, contrary, or resentful  | Instruct through questioning. Appeal to sense of pride. Indicate necessity for cooperation. |
| Bold                              | Treat firmly.   |

The supervisor must not be dictatorial. Her relationship is always that of a teacher and guide.

Matters involving operating practices may be discussed at the switchboard if a few words only are sufficient, otherwise the discussion should be at the supervisors' chairs. A drill or demonstration should be conducted at a vacant position, usually at the end of the switchboard, and in the following manner: the supervisor will explain what she has in mind, then demonstrate, then ask the operator to practice, correcting any mistakes she makes.

If problems of a personal nature are involved, the chief operator should be consulted before action is taken. If the supervisor is then delegated to discuss the problem with the operator, it may be advisable to do so away from the section.

#### **4. Checking Results**

The supervisor's training job is not completed on a particular condition until she has followed up the operator's work and has determined that there has been improvement.

#### **D. Tone of Service**

The impression left in the customer's mind as to the quality of the service is often more dependent on the spirit with which it is furnished than on technical perfection. Therefore, it is the supervisor's responsibility to see that operators, in addition to furnishing accurate and speedy service, understand that every recording signal represents a waiting customer, and furnish by word and action a service that is individual and helpful.

The following material will help supervisors in training operators to give this type of service.

##### **1. Attitude and Manner**

An operator's manner should convey to the customer her willingness to be helpful. Her at-

titude is shown not only by what she does about the customer's request, but by what she says and how she says it. Each call should be approached with an individual interest in it and with a desire to be helpful. An operator should cultivate an easy, natural manner at all times; use good English and a good choice of words. Courteous attention, a business-like manner, good tone of voice and efficient performance are the means by which she can make the service most attractive.

## 2. Voice

An operator's voice should be clear, expressive, and natural, as it is her only means for expressing meaning, personality and attitude. Her pronunciation should be correct and distinct, her speech neither too rapid nor too slow, her inflection and emphasis expressive and natural.

## 3. Phrases

In general, the phrases in the operating practice should not be regarded as being fixed, although there is seldom reason to vary some of them, such as the answering phrases.

- a. Phrases should state facts correctly.
- b. Phrases should be said clearly and in good English. This permits contractions to a limited extent as sanctioned by good usage: "I'm" for "I am," "I'll" for "I shall," "don't" for "do not." Use of contractions should not lead to saying such words as "didja" for "did you," "ringin" for "ringing."
- c. Replies to questions should be direct. For example, if a customer should ask, "Will you get Walnut 5678 for me?", "I will," "I'll try," or "Yes, sir," is more personal and to the point than "Thank you."
- d. A phrase should be as short as possible and yet convey the idea to be expressed. However, it should be long enough and clear enough to make the meaning understood, and not sound curt.

Phrases may be adapted to the particular customer being served. Thus, with P.B.X. attendants who are familiar with telephone usage, it is possible to use the briefest phrases without being curt.

- e. When repeating a phrase, the wording may be changed. For example, "Your number, please?" might, on second request, be, "May I have the number of your telephone, please?", or, "What is your number, please?".
- f. If it is necessary to request the customer to repeat, it is desirable to recognize the fact in the request, as, for example, "Will you give me the number again, please?", or, "In what state did you say Springfield is located?".
- g. "Please," "Thank you," and "I'm sorry" should not be overworked, as doing so may cause them to lose their meaning.  
"Please" applies when the operator asks someone to do something.  
"Thank you" applies when someone has done something at the operator's request.  
"I'm sorry" should be used whenever desirable, as in expressing regret after a service difficulty has been reported, if a customer has been misunderstood, or when necessary to give several delay reports.
- h. "You're welcome," which is a natural response to the customer's expression and is a pleasant way of terminating a contact, should be used whenever there is an opportunity to do so.

## GENERAL

### SECTION II. SERVICE PROGRAM

A service program is designed to maintain service at a high level and to accomplish any necessary improvement in service results by selecting service and operating technique features which analysis indicates to be in need of attention and upon which the group effort of the operating force will be directed.

To accomplish the first objective, that is, to maintain service at a high level, it is important to review systematically service and operating technique items which might not otherwise receive sufficient emphasis.

To accomplish the second objective, that is, to improve service results, the service program is concentrated for a limited period upon specific features of service which observation and analysis indicate to be most in need of attention.

It will follow, therefore, that certain features of operation, such as errors, will be programmed more frequently than others.

The service program, unlike the Operator Development Plan (Training Observations), does not depend for its effectiveness upon work with an individual, but seeks to gain the desired result by short bulletin board discussions with groups of operators and follow-up of the discussion at the switchboard.

The success of the service program rests largely upon the supervisors, whose immediate responsibility is:

1. To make certain that each operator in the section not only knows what the central office service program items are, but also understands why the items are being programmed.
2. To concentrate on the programmed items while supervising in the section and, when necessary, to give any further instruction required.

## GENERAL

### SECTION III. PEG COUNT

Peg count is primarily a record of the number of calls handled in an office and is used for determining:

1. The amount of switchboard, building and other equipment required.
2. The number of operators necessary to handle the traffic each hour of the day.
3. The efficiency with which traffic is handled.

Regular peg counts, taken monthly, usually consist of an hourly count of outward calls for five days and an hourly count of inward and through calls for two days. Supplementary peg counts, ordinarily taken twice a year, and quarterly analyses, ordinarily taken four times a year, are detailed analyses which are used to determine the amount of work involved in handling calls.

As peg count records are the basic records used to determine the force and equipment required to handle the traffic, it is important that operators be carefully instructed and supervised in the work of counting. Inaccurate peg counts will result in provision of inadequate or excess force and equipment.

## GENERAL

### SECTION IV. COMPLETION

Since the Telephone Company's business is to complete calls between customers, uncompleted calls represent unsatisfactory service. Despite this fact, however, if a cancellation order is received, it should be accepted without question.

Good completion is dependent on accurate recording, proficient operating and a fast speed of service. Completion of calls is helped when operators are attentive, speak distinctly, display interest in the handling of calls, and exercise initiative and judgment.

Supervisors can aid materially in maintaining satisfactory completion. They should:

Be aware of delayed calls and bring the operators' attention to all such calls which are not being properly handled.

Make a special effort to see if business calls which have been delayed cannot be completed prior to the close of the business day.

Encourage operators to refer cases of particular difficulty or cases involving unusual conditions.

Some of the causes for unsatisfactory completion are:

1. Failure to ascertain whether the calling party wishes to talk with an alternate.
2. Failure to secure definite information which will permit of a later completion, from the calling or called station when delay in reaching the desired person is encountered.
3. Failure to follow up delayed calls promptly and properly.
4. Failure to keep the calling party advised as to the status of his call when a delay is encountered.
5. Failure to handle "ag (time)" calls as requested by the calling party.
6. Failure to take proper action on receipt of WH reports and AG requests.
7. Failure to make necessary changes in ticket directions.

## **DIVISION A. OUTWARD**

### **Section I. Technique**

#### **A. Voice**

A good voice is an important factor in improving public relations, and increasing accuracy and operating efficiency. Individual cases of unsatisfactory voice work, necessitating drills, should be referred to the chief operator.

Following are certain features of voice work, with the benefits accruing from their use.

##### **1. Enunciation**

To acquire distinct enunciation, it is important to give the proper form to all vowel and consonant sounds which make up every spoken word or syllable, and to develop considerable flexibility of the lips, tongue and jaw.

Distinct enunciation aids in preventing errors, reduces requests to repeat, and sets a good example to the public.

##### **2. Voice Placement**

All tones as they are spoken should be allowed to resound up in the head. This permits the tone to take on what is known as resonance, and gives it carrying power.

This prevents tiring of the voice and gives it a ringing quality which will make it more clearly understood. It is the ringing quality of the voice and not the volume which carries over the telephone.

##### **3. Volume**

Proper speech involves a controlled and even flow of the breath, the correct use of vocal cords, and good posture. An effort should be made to cultivate a quiet tone of voice.

This manner of speaking prevents voice strain, saves energy, and makes it easier to concentrate, to understand, and to remember. It also prevents customers from hearing reports given by adjacent operators, creates a pleasant and efficient atmosphere in the office, and indicates personal refinement.



#### **4. Voice Expression**

Good voice expression requires that emphasis and inflection be used.

Emphasis conveys the proper meaning by laying stress on important words.

Inflection is obtained by allowing the voice to rise or fall in pitch, usually on the last part of a word or syllable. Proper inflection gives expression to the voice. Rising inflection is used in asking a question, falling inflection when stating a fact. Combined rising and falling inflection indicates regret.

#### **5. Stile Strip**

The stile strip method of saying numbers is to separate the units and tens from the hundreds and thousands by emphasis.

This method aids the understanding and remembering of numbers and helps to prevent transposition of digits.

### **B. Handling Equipment**

The proper use of equipment is necessary to accurate operating, and contributes to the smoothness of the job.

#### **1. Handling Cords**

##### **a. Cord pick-up.**

The plug should be grasped between the index finger and thumb, as close to the keyshelf as possible. The middle finger should be placed near the base of the cord shell to act as a lever to move the cord to a proper slanting position. This method will avoid the necessity of tossing the cord to secure a better hold.

##### **b. Slanting approach and test.**

The plug should be held at a slant in locating all jacks. It should be carried slightly above and beyond the jack, with the tip pointing downward and with the hand turned sideways. On long reaches where it is difficult

to carry the hand above and beyond the jack, the hand should be held below and to one side of the jack with the plug pointing upward.

Testing should be performed by making a single contact between the tip of the plug and the rim of the jack with the plug held at a slant.

Slanting approach gives a clear view of the jack and permits a proper busy test which will prevent double connections.

c. Inserting plugs.

Plugs should be completely seated in one motion without releasing the grasp on the plug shell. Pressure on the cord near the base of the plug is unnecessary.

This method reduces the chances of false don't answer reports, reduces wear on the cords and saves time.

d. Pairing cords.

The cords should be drawn straight out and in front of other cords.

This method prevents cords from becoming tangled, and facilitates tracing and disconnecting cords, thus avoiding cutoffs.

e. Tracing cords.

To prevent cutoffs, the cord should be carefully associated with the cord signal and traced manually if there is any congestion of cords.

f. Removing plugs.

Plugs should be released by the shell. They should not be dropped nor released from the hand until near the cord socket, and should not be allowed to trail along the keyshelf.

The proper release of plugs prevents disturbing adjacent plugs, thus avoiding cutoffs, prevents unnecessary noise, reduces wear on the cords, prevents obscuring supervisory signals, and also prevents striking adjacent operators or one's self.

## 2. Handling Pencil

To facilitate making ticket entries, an outward operator should ordinarily keep the pencil in her hand at all times. When not in use, the pencil should be held under the palm with point toward the opposite side from the thumb but not projecting beyond the edge of the hand.

Proper handling of the pencil prevents pencil points from breaking and lodging in any jack and also prevents the possibility of injury to adjacent operators.

## 3. Handling Keys

Lever type keys, such as listening keys, should be operated with the thumb and index finger. Plunger type keys, such as coin collect keys, should be operated by a firm downward pressure of the thumb avoiding "snapping" of the keys.

Care should be taken not to have listening, monitoring and splitting keys in the operated position longer than necessary.

Collect and return keys should be held depressed for about one second after the coin pilot signal lights in order to allow time for the coin mechanism to operate.

When ringing on toll circuits and ringdown trunks, the first ring to operate a line signal should be at least one second and not longer than two seconds. All other rings should be two seconds.

When ringing a subscriber station manually, each ring should be two seconds unless a  $\frac{1}{2}$ -second short ring is required because of semi-selective or code ringing. Each manual ring or series of rings should be repeated at 10-second intervals.

When ringing a subscriber station on a machine ringing trunk, the ringing should be started by operating the ringing key for  $\frac{1}{2}$  second.

**Note:** In operating keys, the operator should train herself to judge intervals of time with a certain degree of accuracy.

On two-second rings, for example, the key is operated for the length of time required in saying, "Ring for two full seconds."

On short rings of half-second duration the key is operated for the length of time required to say the word "Ring."

Counting steadily at moderate speed it takes one second to say one hundred and one, and ten seconds to count from one hundred and one to one hundred and ten.

#### **4. Use of Dial**

To operate the dial, the index finger of the right hand should be used, with the other fingers folded toward the palm of the hand. The finger should be held firmly in the dial in a vertical position while dialing and should be removed from the dial immediately after coming in contact with the finger stop. While the dial is returning to normal, prepare for the next drive, holding the index finger above the proper numeral or letter.

#### **5. Use of Calculagraph**

The hand nearer the calculagraph should be used to insert tickets and operate levers. Tickets should be inserted completely and levers should be grasped firmly and operated to the limit of their movement.

Proper operation of the calculagraph will avoid illegible and crooked stamps and will result in quieter and smoother operating.

#### **6. Use of Cord Clips and Sleeves**

Cord clips and sleeves are reminders to operators of important action which might otherwise be overlooked.

##### **a. Cord Clips**

A cord clip should be attached to a cord (or to both cords) to indicate that some special action is to be taken before the line or circuit is released.

A cord clip should be attached to the trunk cord, about three inches above the key-shelf, to remind the operator to quote the time and charge on a paid call or secure and collect a deposit at a coin station.

A cord clip should be attached to the toll cord near the circuit jack as soon as the operator becomes responsible for the ringing clearance of a built-up circuit, or when the called station requests the time and charge on a collect call.

The cords of the pair should be fastened together with a cord clip at any convenient place as soon as the operator becomes responsible for the verbal clearance of a built-up circuit, or on private line and conference calls.

b. Sleeves

When switchhook supervision is not received from either the calling or called station, a sleeve with the white end up should be placed on the listening key to indicate that monitoring is required at one-minute intervals during the initial period. If conversation continues beyond the initial period, the sleeve is reversed with the red end up as a reminder to monitor at least every 15 seconds.

### C. Overlapping

The following operations can be performed as overlapping operations—that is, while doing other work.

1. Doing operating work, such as answering a signal while stepping into a position.
2. Picking up the next cord to be used while doing other work, such as answering a recording signal.
3. Sighting the circuit or ringdown trunk location while acknowledging the call.
4. Bringing the free hand to the ringing key while reaching for a circuit or ringdown trunk.
5. Restoring the listening key while stamping or entering the connect time.

6. Releasing the circuit or ringing to clear while stamping or entering the disconnect time.
7. Timing the ticket while answering a recall signal.
8. Grasping the plug of the toll cord while leaving word on direct circuit calls so as to be ready to release as soon as an acknowledgment is received.
9. Consulting position information while doing other work; for example, securing the rate while waiting for the called station to answer.
10. Making ticket entries and disposing of tickets.
11. Attaching and removing cord clips.
12. Placing, reversing, and removing sleeves.
13. Plugging into the circuit and ringing before entering the called place or number or address name provided these items are easy to remember.
14. Obtaining the calling number or name or both as soon as the terminating office operator acknowledges the order.
15. Securing the calling line after passing the call to the terminating office on all calls from manual offices.

#### **D. Teamwork**

In order that the operating force may perform most effectively, operators should cooperate and assist each other whenever possible. Some examples of work in which one operator can assist an adjacent operator are:

1. Answering TX signals.
2. Obtaining tickets from teamwork clips.
3. Removing tickets from receiving devices.
4. Quoting time and charge.
5. Pointing out cord supervisory signals.
6. Securing deposit of overtime or collecting coins on prepay calls.
7. Locating tickets.
8. Releasing cords on request.
9. Asking an adjacent operator to take over a call if a circuit becomes available while you are working on another call.

## E. Position Management

Good position management necessitates an orderly arrangement of movable equipment, such as cord clips and sleeves, and a systematic method of filing and inspecting tickets.

Some of the more important items of good position management are:

1. Allow nothing to obscure cord supervisory signals. This will permit prompt attention to cord signals and accurate timing of conversations.
2. Place tickets in the ticket holder corresponding to the pair of cords used. This will tend to prevent inaccurate timing.
3. Group and arrange tickets so that attempts can be made in the proper order of precedence and a particular ticket can be readily located if required.
4. Inspect tickets in the "Awaiting Completion" compartment, approximately every 20 minutes, and add those on which an attempt is due within the next 20 minutes, to the pack on the keyboard.

## DIVISION A. OUTWARD

### Section II. Order of Attention to Signals

Signals of the same kind should be attended to as nearly as possible in the order of their appearance.

If signals of different kinds are waiting, they should be given attention in the order outlined below.

1. A recall signal from a customer.
2. A signal from another operator.
3. A disconnect signal on which it is necessary to challenge or pass a verbal clearance order.

**Note:** Disconnect signals on which no challenge or verbal clearance order is required, should be handled as overlapping operations.

4. TX signals.

**Note:** Slow answers to TX signals can result in a serious loss of operating and circuit time. The answering of these signals should be given precedence over the making of subsequent attempts.

5. Recording signals, toll line and ring down trunk signals.



## **DIVISION A. OUTWARD**

### **Section III. Answering Signals and Releasing**

The appearance of signals can be noticed only when an operator is attentive to her work. When an operator is required to look away from her position, such as when testing a jack, referring to bulletins, etc., she should promptly return her glance to her own position. In order that an operator need not turn her head when talking to a supervisor, the supervisor should talk over the telephone set when it is practicable to do so. Calls for the supervisor should be answered promptly, as otherwise the operator is inclined to turn her head in order to attract the supervisor's attention.

#### **A. Answering Recording Signals**

The most frequent causes of slow answers to recording signals are:

1. Inattention.
2. Signals not answered in order of appearance.
3. Failure to perform overlap operations, particularly in making ticket entries.
4. Teamwork not developed.

#### **B. Answering Cord Signals**

The most frequent causes for slow answers to cord signals are:

1. Inattention.
2. Failure to glance at cord signals occasionally if delay is experienced in obtaining a switching trunk.
3. Concealing cord signals with tickets or hands.
4. Answering recording trunk signals before cord signals.
5. Failure to perform overlap operations properly.
6. Failure to point out cord signals to adjacent operators.
7. Failure to report dim supervisory signals.
8. Failure to remove from service equipment which is not working properly.
9. Failure to adjust lighting to avoid glare on the keyshelf.

### **C. Answering TX Signals**

The most frequent causes for slow answers to TX signals are:

1. Inattention.
2. Making subsequent attempts before answering TX signals.
3. Improper ticket arrangement.
4. Failure to perform overlap operations properly.
5. Teamwork not developed.

### **D. Releasing**

The most frequent causes of slow and improper releases are:

1. Inattention.
2. Concealing cord signals with tickets or hands.
3. Failure to perform overlap operations properly.
4. Failure to give ringing and verbal clearances when required.

## DIVISION A. OUTWARD

### Section IV. Recording

When a customer places a call, he should be treated attentively and courteously. Supervisors should encourage operators to keep the following principles in mind when recording a call:

Answer courteously, be attentive, ask necessary questions in an intelligent manner, indicate a willingness to be of assistance.

Record correctly, completely and legibly. Other operators and employees in other departments must be able to properly interpret the ticket entries.

Acknowledge in an appropriate manner, avoid any evidence of being abrupt or hurried.

Causes of slow and inaccurate recording are:

1. Failure to listen attentively to what the customer says.
2. Failure to write details at the time the operator is listening to the customer give them.
3. Unnecessary questioning or verification of details.
4. Failure to use proper abbreviations.
5. Cutting out of a connection while a customer is talking to do other work, such as answering a recall or collecting overtime.
6. Failure to determine the class of service desired.
7. Failure to record coin station designation.
8. Failure to record information which should appear in the "Spec. Inst." space.

## **DIVISION A. OUTWARD**

### **Section V. Errors**

Customers expect and are entitled to receive accurate service. If errors occur often, customers become critical of the Company and its personnel. Supervisors can do much to eliminate errors by studying the individual operator's work, and training her to avoid irregularities which lead to inaccurate service.

Operating errors are due generally to carelessness.

When an error occurs, a suitable expression of regret should be given the customer, and every effort should be made to complete his call satisfactorily.

Following are the more frequent causes of errors:

#### **A. Cut-offs**

1. Failure to associate the proper cord pair with the disconnect signal.
2. Failure to trace cords manually by slackening and tightening.
3. Disturbing plugs in adjacent jacks by failure, when required, to use both hands in disconnecting.
4. Releasing the circuit before answering a flashing supervisory signal from the customer.
5. Failure to wait for a response after challenging on calls from ringdown tributaries.
6. Careless use of the splitting key.

#### **B. Interruptions**

1. Selecting busy trunk or line due to improper testing.
2. Operating listening key to talking position or challenging during conversation.
3. Establishing connection on a circuit over which transmission is unsatisfactory.
4. Failure to report unsatisfactory transmission.
5. Ringing on a busy circuit.
6. Failure to report busy visuals which are not operating properly.
7. Announcing a call after the parties have started conversation.

### **C. Wrong Stations or Parties Connected**

1. Improper adjustment of operator's telephone set.
2. Failure to concentrate while receiving or passing calls.
3. Illegible recording.
4. Failure to verify a number or name not clearly understood.
5. Failure to pass orders clearly and distinctly.
6. Failure to use stile strip or rising inflection.
7. Transposing digits.
8. Failure to listen carefully to a number furnished by a distant inward or information operator, or failure to enter the number promptly.
9. Failure to verify the called number on calls to rural lines.
10. Failure to supervise properly the start of conversation on person calls.
11. Dialing improperly.

### **D. Incorrect Reports**

1. Passing an incorrect number to the distant operator or passing a correct number to a wrong distant operator, resulting in a false busy or don't answer report.
2. Passing an incorrect or incomplete address name, resulting in a false NF report.

### **E. Rate and Charge Errors**

#### **Rates**

1. Failure to speak clearly and distinctly.
2. Failure, when requesting a rate from a rate operator, to make it clear what rate is desired.
3. Failure to listen attentively to information given by the rate operator.
4. Tracing visually when referring to bulletins, rather than tracing manually, by using a ticket, etc.
5. Selecting incorrect calling and called point when referring to bulletin.
6. Failure to properly use corresponding rate tables.
7. Failure to enter the rate promptly on the ticket, when required.
8. Failure to add "Plus tax" when quoting a rate.

## Charges

1. Failure to read calculagraph stamp, time entries, or other necessary entries accurately.
2. Failure to observe the class of service.
3. Failure to use the computed charge table accurately.
4. Failure to add "Plus tax" when quoting charge.
5. Requesting incorrect initial deposit on coin calls.
6. Failure to attempt to secure the correct amount of initial and overtime deposit on a coin call when coin signals are not received for the full amount.

## **DIVISION A. OUTWARD**

### **Section VI. Irregularities**

Irregularities lead to errors, cause a loss of valuable circuit time, and keep the service from being pleasing and attractive. The dependability and attractiveness of the service can be safeguarded by studying each operator's work and training her to overcome irregularities.

#### **A. Operating Irregularities Which Lead to Errors**

1. Ignoring a correction by a customer, or repeating a wrong number or other detail after being corrected.
2. Ignoring information or directions given by the customer which are essential to the call.
3. Ignoring a customer's question.
4. Speaking indistinctly or so hurriedly as to be only partially intelligible.
5. Giving an incorrect report even though subsequently correcting it.
6. Interrupting the customer's attempt to start conversation because of failure to promptly announce a call, verify a number reached, or obtain a report.
7. Interrupting during conversation provided the interruption is of such short duration (5 seconds or less) that it is not considered as an error.
8. Causing a cut-off which is of such short duration (5 seconds or less) that it is not considered as an error.
9. Releasing the toll line before answering a recall from the calling customer, provided there is no resulting cut-off.

#### **B. Operating Irregularities Which Cause a Loss of Circuit Time**

1. Using an unauthorized route.
2. Failure to observe the proper ringing intervals when ringing on a circuit or ringdown trunk.

3. Failure to give promptly the name of the terminating toll center or via office in passing an order for a circuit to an intermediate operator.
4. Failure to pass the order promptly to the terminating toll center because the called number or address name was not secured before the circuit was taken.
5. Failure to dial the called number when possible to do so.
6. Delaying the call by being off the line or not addressing a customer or operator promptly.
7. Failure, before releasing the circuit, to try an alternate station, extension or party served by the same terminating toll center.
8. Failure to give a disposition to the called station after receiving a report of party delay or to make sure that a disposition is understood properly.
9. Failure to include the proper point-to-point position number when leaving word.
10. Failure to assist in starting conversation promptly, if necessary.
11. Failure to give either time or charge, or both, as requested, when the called party is waiting on the line on a collect call, or to advise the called party that he will be called.
12. Releasing the circuit or trunk without obtaining a station or party report after a call or order has been passed on a call on which switchhook supervision is not received from the called station.
13. Releasing the circuit or trunk without waiting a proper interval for the station to answer on a call on which switchhook supervision is received from the called station.
14. Cutting out or disconnecting without communicating with a customer or an operator when required to do so.
15. Failure to clear a circuit or giving an improper clearance.



**C. Other Operating Irregularities Which Keep the Service from Being Pleasing and Attractive**

1. Failure to acknowledge a customer's order, request or directions.
2. Interrupting a customer while he is giving information.
3. Failure to express regret when a customer reports difficulty or dissatisfaction.
4. Showing improper attitude to a customer or operator, such as by talking abruptly or indicating unwillingness to accept a statement.
5. Saying something which gives the customer a wrong impression of the Company's methods and practices; for example, if the customer requests a number and the operator tells him that she does not have a directory.
6. Failure to specify whether the rate quoted is the station or person rate when the customer has not specified the particular rate desired.
7. Failure to mention the number of minutes in the initial period when quoting a rate.
8. Failure to notify the customer that a higher rate will apply whenever required to do so.
9. Failure to obtain permission from the calling party before trying a number suggested by the called station.
10. Failure to notify promptly at the expiration of the initial or a stated period when required to do so.
11. Failure to request an initial deposit before the start of conversation.
12. Failure to give either time, or charge, or both, as requested, when the calling party is waiting on the line, or to advise the calling party that he will be called if such action is necessary.
13. Failure to pass "collect," failure to announce "collect," or failure to attempt to secure acceptance of the charge before establishing the connection on a collect call.

## D. Ticket Irregularities

It is essential to avoid failures which will result in revenue loss, make collection more difficult or will weaken the customers' confidence in the Company's billing and collecting methods. This can be accomplished best if the supervisors will stress the importance of ticket work and those other billing and collecting practices which must be performed by the operating forces.

Accurate and legible tickets are necessary, as they are the only record of the toll service furnished and must be used by the Accounting and Commercial Departments in billing customers, making collection efforts and adjusting claims.

1. Entering the calling place incorrectly, or omitting the calling place when an entry is required.
2. Entering the calling number incorrectly, incompletely or omitting this entry.
3. Omitting the calling name or firm name when given or when required.
4. Entering the called place or state incorrectly, omitting the called place or state when required, using an unauthorized abbreviation for the called place, or misspelling the called place so as to make it doubtful to other operators.
5. Entering the called number incorrectly, incompletely or omitting this entry.
6. Omitting, when required, the called name or name of alternate party, initials, given name, title, address name, street address or other identifying information such as the nature of business.
7. Entering incorrectly the title, street address or other identifying information, such as the nature of business.
8. Entering an extension or room number incorrectly or omitting this entry when given or when required.
9. Recording a station call when a person call is desired or vice versa.
10. Failure to record properly reports or directions as required, making associated time entries incorrectly, or omitting these entries.

11. Making an incorrect subsequent attempt time entry or omitting the subsequent attempt time entry.
12. Entering routing directions incorrectly or omitting these entries when required.
13. Failure to record codes such as "P," "rd," "MX," "T," "pre," and "col," or to encircle "T" or "C" or both when required.
14. Making calculagraph stamps or time entries which are too illegible to read; or showing elapsed time stamps or time entries if conversation does not take place, or vice versa.
15. Failure to write legibly.
16. Failure to line out ticket details or cancel the calculagraph stamp or time entries when required.
17. Failure to record correctly rate or charge entries when required.

## **DIVISION A. OUTWARD**

### **Section VII. Precedence of Calls, Reports or Orders**

It is essential for the operators to realize the importance of the precedence to which each call, report or order is entitled.

Calls, reports or orders of the same class should be handled in accordance with their precedence time, unless "MX Precedence" is claimed, in which case such a call, report or order should be given precedence over any other call, report or order of the same class.

If there are two or more different classes of traffic, the precedence should be as outlined below. To accomplish this precedence, operators should carefully follow the practices for challenging when meeting another operator on a circuit and should make certain to include the proper precedence class when leaving call orders or circuit requests.

The proper order of precedence is as follows:

1. Priority Calls and Emergency Calls.
2. Cut-offs and better connections.
3. Private line calls.
4. Overseas, marine service, conference, and attempts to complete appointment calls.
5. WH party reports.
6. Attempts on delayed calls to reach a station or party served from the originating toll center.
7. All other call attempts, reports and orders.

## **DIVISION A. OUTWARD**

### **Section VIII. Speed of Service**

The speed with which toll calls are handled is a very important consideration to the customer. Also, completion results are in great measure dependent on the speed of service.

Operators should perform quickly and with precision such operations as motions toward jacks, keys, dials, or plugs. However, the selection of the individual jack, key, or plug, should be deliberate and careful.

Some of the causes for unsatisfactory speed results are:

1. Failure to use overlap recording.
2. Delay in advancing call and securing station or party report.
3. Splitting connections unnecessarily.
4. Failure to use proper operating technique.
5. Unfamiliarity with bulletin information.
6. Unfamiliarity with location of circuit and trunk groups.
7. Failure to try an available "A" route immediately when the first route is NC.
8. Failure to report serious circuit congestion to the Chief Operator.
9. Slow auxiliary service.
10. Failure to report slow or inaccurate service at other offices, such as "B" boards.
11. Failure to report faulty operating by P.B.X. attendants to the Chief Operator.
12. Failure to watch for an available circuit when an NC condition is encountered.

## **DIVISION A. OUTWARD**

### **Section IX. Movement of Traffic**

Supervisors must keep themselves continuously informed of traffic volumes and circuit conditions in their division in order that measures to eliminate or reduce congestion or overload may be taken promptly.

The movement of traffic can be followed by observing the number of unanswered recording, TX, and cord supervisory signals, and the number of tickets awaiting completion.

When it is observed that traffic is becoming congested, the causes should be determined immediately and steps taken promptly to relieve the condition, usually with the advice of the Chief Operator. Whenever traffic is backing up, it is particularly important that correct operating techniques be followed, such as overlapping, teamwork and the proper handling of equipment.

Unsatisfactory movement of traffic usually results from one or more of the following conditions.

#### **A. Improper or Inadequate Operator Assignment**

It may be found that experience has not been properly apportioned between day, evening and night hours, or there may be an insufficient number of operators on duty. The situation sometimes may be immediately corrected by assigning additional operators to the work affected, such as to delayed call handling, or by interchanging operators to obtain more experience where needed. In any case, the supervisor should make sure that the best possible use is made of the available force and, if necessary, refer the matter to the Chief Operator.

## **B. Circuit Shortage**

In some cases, an inadequate number of working circuits may result from out-of-order conditions; in other cases, there may simply be an insufficient number of circuits. In either case, the supervisor should guard against operating failures which contribute to inefficient toll circuit usage some of which are:

1. Failure of operators to remain on the line.
2. Slow answers to supervising and toll line signals.
3. Slow release of circuits.
4. Failure to take action required promptly.
5. Failure to clear built-up circuits.
6. Faulty ringing.
7. Circuit held or released improperly.

In addition, supervisors should make sure that authorized routes are used and that proper overlapping and teamwork is employed. Supervisors at TX positions should assure that a prompt answer is given to TX signals and that WH reports are given prompt disposition.

## **C. Unsatisfactory Service from Other Operators**

Slow or inaccurate service from toll switching and auxiliary operators or from distant toll centers can sometimes be corrected quickly by referring the matter to the office involved. The supervisor should encourage the operators to be alert to notice and refer such a condition so that it may be taken up at once with the office involved and referred to the person in charge, if necessary.

## **DIVISION A. OUTWARD**

### **Section X. Timing of Tickets**

#### **A. Timing Technique**

The ticket should remain on the keyshelf until the operator hears the occurrence which indicates the start of conversation or when the called station answer is indicated by cord supervision on station calls not requiring an announcement, upon which she should promptly place the ticket in the calculagraph and stamp the start of conversation. After stamping the start of conversation the operator should place the ticket in the ticket holder in a position corresponding with the cord pair used in establishing the connection.

When a disconnect signal is received from either the calling or called station or the operator observes the end of conversation on a call on which switchhook supervision is not received, she should promptly reach for and stamp off the ticket with the hand nearest the calculagraph, and at the same time, if possible, release the toll circuit as an overlapping operation.

Care should be taken to insert the ticket in the proper position for stamping, using the same hand for stamping the start and end of conversation, leaving the other hand free for such overlapping work that may be required.

In stamping a ticket the operator should be careful not to strike the lever or hold it unnecessarily long. A steady even push and pull produces the best results and the lever should always be restored to its normal position.

#### **B. Timing Accuracy**

Where the results are unsatisfactory attention should be given to the following features:

1. Stamping the start of conversation promptly on the occurrence of the following events:
  - a. Station call—Calling station on line. As soon as the called station answers.
  - b. Station Call—Calling station released. As soon as conversation starts with anyone at the called station.



- c. Station Call—Verification or announcement required. As soon as conversation starts with the called station.
  - d. Person Call—As soon as conversation starts with the called party.
2. Indicating properly connections on which common battery supervision is not received and supervising at the intervals specified in the operating practices.
  3. Proper attention to cord signals.
  4. Position management, particularly the proper arrangement of tickets on the keyshelf and in clips to avoid signals being obscured and confusion on receipt of cord signals.
  5. Stamping off the ticket promptly upon receipt of a cord signal. The stamping of the ticket and the release of the toll line should be performed as overlapping operations on direct circuit calls if possible. If the same hand is required in both operations, stamping of the ticket should be given precedence. On built-up calls the stamping of the ticket and the ring on the toll line should be overlapped.
  6. Crooked or illegible stamps due to failure to insert tickets properly in the calculagraph or to improper manipulation of the levers.
  7. Noting and entering the correct connect and disconnect time on the ticket when clocks are used.
  8. Prompt releasing of the recording trunk from manual offices after securing the calling line.

## **DIVISION B. INWARD AND THROUGH**

### **Section I. Technique**

#### **A. Voice**

See Division A, Section I—Outward.

#### **B. Handling Equipment**

##### **1. Handling Cords**

The proper handling of cords makes the work easier and tends to prevent cut-offs.

##### **a. Rotating cords.**

Cords should be used successively, starting from the left of the position and continuing up to and including the last pair to the right. Then the first pair should again be used, or, if this pair is busy, the next idle pair to the right should be used.

A released cord pair should not be used until it is again reached in rotation.

The advantages of rotating cords are:

- (1) Tends to group cords so that the operator is in a position to know on which cords to ring, monitor, or expect cord signals. For example, on cords most recently used, the following conditions are likely to occur.

- (a) Busy back flashes.
- (b) Cord signals from other offices
- (c) Need for subsequent rings.

- (2) Enables the operator to more easily detect the following conditions on cords which have been in use the longest.

- (a) Disconnect signals.
- (b) Connections on which don't answer reports should be given.

##### **b. Other cord handling.**

See Division A, Section I—Outward.

## **2. Handling Keys**

See Division A, Section I—Outward.

## **3. Use of Dial**

See Division A, Section I—Outward.

## **4. Use of Cord Clips and Sleeves**

Cord clips and sleeves are reminders to operators of important action which might otherwise be overlooked.

### **a. Cord clips.**

A cord clip should be attached to a cord, or to both cords, to indicate that some special action is to be taken before the line or circuit is released.

A cord clip should be attached to the toll cord near the circuit jack as a reminder to challenge before disconnecting on a call connected to information or if challenge is requested by the distant operator.

The cords of the pair should be fastened together with a cord clip at any convenient place whenever it is necessary to identify a connection on private line, conference, special international and ship calls.

### **b. Sleeves.**

Sleeves should be used on the ringing keys to designate connections on which the called station has not answered and should be used on the listening keys to remind operators to monitor on connections to ringdown trunks or circuits.

## **C. Overlapping**

Operators should, if practicable, do other work while talking or waiting on a connection. They should be able to listen and write, or talk and write at the same time, and use both hands simultaneously whenever it is desirable to do so.

The following operations can be performed as overlapping operations.

1. Doing operating work, such as answering a signal while stepping into position.
2. Picking up a cord with one hand while operating the listening key with the other hand.
3. Picking up the next cord to be used while doing other work, such as answering a toll line signal, waiting for an order tone or passing the called number to the toll switching operator.
4. Sighting a toll switching trunk group while receiving the called number.
5. Sighting a trunk or circuit group or the multiple bank of the called line while acknowledging.
6. Ringing the called station while doing other work, such as answering a toll line signal.
7. Placing, reversing, and removing sleeves.
8. Attaching and removing cord clips.
9. Grasping the plug of the toll cord while challenging so as to be ready to release the circuit.
10. Disconnecting while doing other work, provided no challenge is required.

#### **D. Teamwork**

In order that the greatest effectiveness of the operating force may be obtained, operators should cooperate with and assist each other, such as by:

1. Indicating to operators reaching toward their position to answer signals, the signal which appeared first.
2. Releasing cords, when requested, for other operators.

## DIVISION B. INWARD AND THROUGH

### Section II. Order of Attention to Signals

Signals of the same class should be answered as nearly as possible in the order of their appearance.

If two or more signals of different kinds are waiting, they should be given attention in the order outlined below. By following this order of attention, an operator will be giving the correct precedence from the customer's point of view and will be recognizing that cord signals can be answered only by the individual operator. The proper order of attention to signals is as follows:

1. A recall signal from a customer.
2. A signal from another operator.
3. A disconnect signal on which it is necessary to challenge.

**Note:** Disconnect signals on which no challenge is required, should be handled as overlapping operations.

4. Toll line signals.

## **DIVISION B. INWARD AND THROUGH**

### **Section III. Answering Signals and Releasing**

The appearance of signals can be noticed only when an operator is attentive to her work. When an operator is required to look away from her position, such as when testing a jack, referring to bulletins, etc., she should promptly return her glance to her own position. In order that an operator need not turn her head when talking to a supervisor, the supervisor should plug in and talk over the telephone set when it is practicable to do so. Calls for the supervisor should be answered promptly, as otherwise the operator is inclined to turn her head in order to attract the supervisor's attention.

#### **A. Answering Toll Line Signals**

The most frequent causes of slow answers to toll line signals are:

1. Inattention.
2. Signals not answered in order of appearance.
3. Failure to perform overlap operations properly.
4. Teamwork not developed.

#### **B. Answering Cord Signals**

The most frequent causes for slow answers to cord signals are:

1. Inattention.
2. Failure to keep eyes on keyshelf.
3. Concealing cord signals with tickets or hands.
4. Answering toll line signals before cord signals.
5. Failure to perform overlap operations properly.
6. Failure to point out cord signals which have been waiting longest, to adjacent operators.
7. Failure to report dim supervisory signals.
8. Failure to remove from service equipment which is not working properly.
9. Failure to adjust lighting to avoid glare on the keyshelf.

### **C. Releasing**

The most frequent causes of slow and improper releases are:

1. Failure to keep eyes on keyshelf.
2. Concealing cord signals with tickets or hands.
3. Failure to perform overlap operations properly.
4. Failure to give ringing and verbal clearance when required.

## **DIVISION B. INWARD AND THROUGH**

### **Section IV. Errors**

Customers expect and are entitled to receive accurate service. If errors occur often, customers become critical of the Company and its personnel. Supervisors can do much to eliminate errors by studying the individual operator's work, and training her to avoid irregularities which lead to inaccurate service.

Operating errors are due generally to carelessness.

When an error occurs, a suitable expression of regret should be given the customer, and every effort should be made to complete his call satisfactorily.

Following are the more frequent causes of errors:

#### **A. Cut-offs**

1. Failure to remember that the color of the cord pair to be disconnected must correspond with the color of the disconnect signal.
2. Releasing the circuit before answering a flashing supervisory signal from the customer.
3. Failure to wait for a response after challenging.
4. Disturbing plugs in adjacent jacks by grasping the cord instead of plug, or by not using both hands, when required, in disconnecting.
5. Failure to trace cords manually by slackening and tightening.

#### **B. Interruptions**

1. Selecting busy trunk or line due to improper testing.
2. Operating listening key to talking position during conversation.
3. Failure to listen carefully before challenging.
4. Ringing on a busy circuit or trunk.
5. Failure to report busy visuals which are not operating properly.
6. Having two listening keys open at the same time.



### C. Wrong Numbers

1. Accepting doubtful orders.
2. Transposing digits, or confusion of digits, as:  
5 and 9; 2 and 3; 0 and 8.
3. Faulty ringing on party lines.
4. Dialing improperly.
5. Failure to concentrate while receiving or passing calls.
6. Selecting a wrong toll switching trunk group.  
Particular attention is required where there are two or more groups having the same central office name but different numerals.
7. Selecting a wrong line number in the subscriber multiple.
8. Failure to use stile strip or rising inflection.
9. Failure to make a memorandum of the called number when necessary.
10. Improper adjustment of operator's telephone set.

## DIVISION B. INWARD AND THROUGH

### Section V. Irregularities

Irregularities lead to errors, cause a loss of circuit time, and keep the service from being pleasing and attractive. The dependability and attractiveness of the service can be safeguarded by studying each operator's work and training her to avoid irregularities.

The following are inward and through irregularities. Those irregularities which apply only at inward boards are designated by an underlined item number.

#### A. Operating Irregularities Which Lead to Errors

1. Quoting a wrong number or referring the call to information on address name calls in cases where the called number is posted, provided there is no resulting wrong number.
2. Speaking so indistinctly or hurriedly as to be only partially intelligible.
3. Passing an incorrect number or passing a correct number to a wrong office provided there is no resulting wrong number.
4. Failure to include the office name on calls to a community dial office reached over straight-forward trunks provided there is no resulting wrong number.
5. Failure to attempt to comply with the order received, such as failing to ring a called number or called place when requested to do so provided there is no resulting cut-off.
6. Repeating a wrong number after the first repetition or advancement has been distinctly corrected provided there is no resulting wrong number.
7. Cutting out or disconnecting without communicating with a customer or an operator when required to do so.
8. Interrupting conversation between customers or between a customer and an operator provided the interruption is of such short duration that it is not considered an error.
9. Causing a cut-off which is of such short duration that it is not considered as an error.
10. Releasing one or both circuits improperly.

## **B. Operating Irregularities Which Cause a Loss of Circuit Time**

1. Failure to acknowledge an initial order, or, when required to do so, to advise the distant operator that transfer will be made to another operator, such as an information operator, or that the call will be routed to an office other than the one specified in the order.
2. Failure to pass the order when the order tone is heard; failure to repeat the order upon request of the toll switching operator or interrupting a distant operator's or calling party's effort to pass the order to a toll switching operator.
3. Releasing the toll line without giving a report of station delay on calls on which called station has not answered.
4. Passing an incorrect report.
5. Using an unauthorized route.
6. Establishing a connection to a wrong office.
7. Failure to give an NC report at the end of the proper interval after a call order is recorded and the circuit is held.
8. Failure to clear properly.

## **C. Other Operating Irregularities Which Keep the Service from Being Pleasing and Attractive**

1. Showing improper attitude to a customer or operator, such as by talking abruptly or indicating unwillingness to accept a statement.
2. Giving incorrect information when requested to check the class of service.
3. Failure to advise that the called station is a coin station and to connect to the proper point-to-point position on a collect call to a dial office.
4. Failure to pass "collect" to the toll switching operator on a collect call to a manual office.
5. Failure to include "cut-off" with the order when required to do so.

6. Voluntarily reringing the called station or a wrong number after the calling operator has finished dealing with it, provided the station answers.
7. Passing a DA report without monitoring for the ringing signal on a call completed over a machine ringing toll switching trunk.
8. Reporting DA at improper intervals.
9. Failure to interpret a DA report to a calling customer if the distant operator is off the line, or to direct the calling customer to signal his operator if necessary.

## **DIVISION B. INWARD AND THROUGH**

### **Section VI. Speed of Service**

Handling inward and through calls quickly and accurately is vital to the maintenance of a satisfactory speed of service. The best speed of service results are obtained through prompt answering and reporting, proper ringing, and alertness in the completion of call orders.

Operators should perform quickly and with precision such operations as motions toward jacks, keys, dials, or plugs. However, the selection of the individual jack, key, or plug, should be deliberate and careful.

Some of the causes for unsatisfactory speed results are:

1. Failure to follow the proper order of attention to signals.
2. Failure to ring properly.
3. Failure to give reports promptly.
4. Failure to observe cord supervisory signals.
5. Failure to make subsequent attempts at the proper intervals, when requested to reach a busy station (BY Call Order).
6. Failure to observe when a circuit becomes available in connection with the completion of NC call orders.
7. Failure to monitor at regular intervals where required to do so, thereby contributing to circuit delays.
8. Failure to report slow auxiliary or toll switching service.

## **DIVISION C — AUXILIARY**

Good auxiliary service is dependent to a great extent on the operators' familiarity with the data provided. Supervisors, therefore, should encourage operators to utilize any interval of waiting to familiarize themselves with this material and its arrangement.

Accuracy and speed of auxiliary operation are essential not only because of the direct effect on customer service, but also because other operators must depend on good auxiliary service.

The results of routing and directory errors on the part of auxiliary operators are obvious since they cause the reaching of wrong offices and wrong numbers. The effects of rate and charge errors, however, are not always immediately apparent. Supervisors, therefore, should spend considerable time on rate and charge work to prevent failures which may result in overcharge or undercharge; collection difficulties; and weakening of customers' confidence in the Company's billing and collection methods.

Following are the principal causes of rate and charge errors:

1. Failure to concentrate.
2. Failure to use a tracer.
3. Failure to select the proper calling and called points.
4. Failure to use corresponding rate tables properly.
5. Failure to speak distinctly.
6. Failure to include "other line" rate when required.
7. Failure to add, "Plus tax," when quoting a rate.
8. Failure to read accurately calculagraph stamp or time entries.
9. Failure to use the proper class of service rate when computing a charge.
10. Failure to use computed charge tables properly.
11. Failure to add "Plus tax" when quoting charge.
12. Failure to quote coin overtime charges properly.

## " DUTIES OF SUPV. PR. "

The duties of the Supervising Pr. which shall be performed at all times in accordance with authorized practices and procedures, shall include the following:

Foster and develop courtesy and promote cooperation and conduct among the force.

Instruct students and operators, make appraisals of their work and develop their understanding and observance of operating techniques and practices.

Inform operators of changes in operating practices and procedures and follow through on programs and other activities to effect service improvement and operator development.

Direct the handling of traffic in her division, maintain efficient operation and effective use of facilities and take the prescribed action in cases of traffic congestion.

Observe and report any irregular force conditions in her division or activity detrimental to good service.

Report to the Ch. Pr. any condition or activity detrimental to good service.

Answer supervising operator signals promptly and courteously, assist operators, other employees and customers, handle revenue claims and customer criticisms.

Give special attention to insure the proper handling of emergency calls.

Check and report any out-of-order equipment or equipment conditions requiring attention.

Operate at switchboard and handle miscellaneous non-supervisory assignments when directed.

Take charge of the office when assigned, such as on Sundays, holidays or other periods. substitute in higher positions when assigned.

The above outline covers generally the principal duties of the Supv. Pr. Other duties of the Same general type customarily performed are not listed, and their exclusion shall not be construed as limiting the duties to those listed above.



**TX NUMBERS**  
**NORTHERN CALIFORNIA AND NEVADA**

|           |              |               |
|-----------|--------------|---------------|
| 4 Hay     | 90 Mtry      | 163 Yre       |
| 6 S Mto   | 92 SLO       | 164 S Crz     |
| 10 S Mto  | 93 Plstn     | 168 S Rsa     |
| 11 L Ban  | 94 Pt Ar     | 170*Pso R     |
| 12 Frs    | 95 Plstn     | 171 Clnga     |
| 14 Frs    | 97 Plstn     | 172 Kg Cy     |
| 15 Hstr   | 98 Gnl       | 173 PA        |
| 16 Hay    | 100-120 Oak  | 176 Clnga     |
| 17 Frs    | 121 PA       | 177 Hldbg     |
| 19-29 SF  | 122 Kg Cy    | 182 Dsmr      |
| 30 Ftna   | 123 Oak      | 184 Chc       |
| 32 Ckt    | 124 Pso R    | 185 SLO       |
| 33 S Mto  | 126 Oak      | 198*Pso R     |
| 34 SJ     | 127 PA       | 199 Wlts      |
| 35 S Crz  | 128 Wlos     | 200 SF        |
| 36 Uki    | 130-131 Mtry | Overseas      |
| 38 Eur    | 132 Pso R    | 201 Pso R     |
| 39*Cp SLO | 133 Mtry     | 202 Hanf      |
| 40-49 SF  | 134 S Mto    | 207 Lvmr      |
| 50 Pet    | 135-136 Mdo  | 208 Tracy     |
| 54 Plstn  | 137 Slms     | 211 Nev Cy    |
| 56-57 SLO | 138-139 Lodi | 212*Cp Kohler |
| 58 Pet    | 140 SF       | 214 Trlk      |
| 60-69 SF  | 141 Mtry     | 217*Ft Ord    |
| 70-80 Oak | 143 Sra      | 220-229 Frs   |
| 81 SJ     | 144 Nman     | 230 Pitb      |
| 82 Mrtnz  | 145 Sel      | 234*Ft Ord    |
| 93 S Rsa  | 146 PA       | 236 Slms      |
| 84 Ft Bg  | 147 Rd Bf    | 238*Ft Ord    |
| 85 Sbpl   | 148 Dbm      | 240 Pitb      |
| 86 Clu    | 153 Rdg      | 241-243 Stkn  |
| 87 Oak    | 156 Pso R    | 246-248 Stkn  |
| 88 M Rio  | 158 Ovl      | 270 Jkn       |
| 89 Wats   | 160 Vsa      | 273 Pso R     |

\*APS

July 1945

|              |                   |
|--------------|-------------------|
| 282 Mdra     | 501-512 Sac       |
| 287 Ang Cp   | 533 Wint          |
| 297 Mdra     | 577 Dxn           |
| 301 Lkpt     | 601-609 Sac       |
| 305-306 SJ   | 616 Arvin         |
| 308 Msvl     | 620-629 Vjo       |
| 310-312 SJ   | 646 Thpi          |
| 314 Wldd     | 650-659 Napa      |
| 315-318 Reno | 660-669 S Rf      |
| 323 Msvl     | 670 Cstg          |
| 324 Elko     | 671 St Hln        |
| 334*Pso R    | 673 Ben           |
| 380 Trke     | 678*Hammer Fd     |
| 381 Ely      | 680*Plstn         |
| 382 Th Cy    | 688 Rsvl          |
| 383 Tlc      | 727 Msvl          |
| 384 Car Cy   | 747 Moj           |
| 385 Wmca     | 750 Ctld          |
| 386 Lvlk     | 760 Aub           |
| 387 Hom      | 780*Plstn         |
| 388 Prto     | 789*Frs           |
| 389 Bkwy     | 801*Cp Beale No.1 |
| 390 Qcy      | 802 " " No.2      |
| 401 Bkfd     | 803 " " No.3      |
| 402 Ptrvl    | 804 " " No.4      |
| 404 Tlr      | 805 " " No.5      |
| 408 Bkfd     | 811 Suis          |
| 410 Plcvl    | 860*Plstn         |
| 411 Bkfd     |                   |
| 414 Bkfd     |                   |
| 416 Vac      |                   |
| 420 G Vy     |                   |
| 422 Bkfd     |                   |
| 476-478 Vsa  |                   |
| 488-489 Mrcd |                   |

## DATA FOR DETERMINING TIME AT DISTANT POINTS

### A. NOTES

1. THE TIME AT A DISTANT POINT MAY BE DETERMINED BY ADDING TO PACIFIC STANDARD TIME, THE TIME INTERVAL SHOWN FOR THAT POINT UNDER TABLES "B" TO "E" FOLLOWING.
2. TABLE "F" - "TABLE OF CORRESPONDING TIMES" MAY BE CONVENIENTLY USED FOR DETERMINING THE TIME AT THE DISTANT POINT AFTER THE TIME INTERVAL HAS BEEN OBTAINED IN ACCORDANCE WITH "NOTE 1" ABOVE. THE FOLLOWING EXAMPLE ILLUSTRATES THE METHOD TO BE FOLLOWED:

THE PACIFIC STANDARD TIME IS 9 A.M.,  
WHAT IS THE CORRESPONDING TIME IN  
ENGLAND?

REFERRING TO TABLE "E", THE TIME INTERVAL TO BE ADDED TO PK IS FOUND FOR THE BRITISH ISLES TO BE 8 HOURS.

REFERRING TO TABLE "F", IT IS FOUND THAT THE TIME AT A POINT WITH A TIME INTERVAL VARIANCE OF 8 HOURS TO BE ADDED TO PK CORRESPONDING TO 9 A.M. PACIFIC STANDARD TIME IS 5 P.M. THE SAME DAY; THEREFORE IT IS 5 P.M. THE SAME DAY IN ENGLAND WHEN IT IS 9 A.M. PK.

3. SOME OF THE STATES IN THE UNITED STATES ARE IN TWO TIME ZONES AND TABLE "3" HAS ACCORDINGLY BEEN SET UP TO INDICATE THE GEOGRAPHICAL PORTION OF SUCH STATES AND THE IMPORTANT CITIES IN EACH OF THE TWO TIME ZONES INVOLVED. WHERE A STATE IS ENTIRELY IN ONE TIME ZONE A "—" IS ENTERED UNDER THE HEADING "IMPORTANT CITIES" IN TABLE "B" TO INDICATE ALL CITIES AS IN THE TIME ZONE SHOWN FOR THE STATE.
4. WHERE THE "DAYLIGHT SAVING PLAN" IS KNOWN TO BE IN EFFECT AT A DISTANT PLACE DURING THE SUMMER MONTHS, AN ADDITIONAL HOUR SHOULD BE ADDED TO THE TIME INTERVAL SHOWN FOR THAT PLACE IN THE FOLLOWING TABLES.

# DATA FOR DETERMINING TIME AT DISTANT POINTS (CONTINUED)

5. IF IT IS NECESSARY TO DETERMINE THE TIME AT A DISTANT POINT IN THE UNITED STATES AND INSUFFICIENT DETAIL IS INCLUDED IN THESE NOTES TO PERMIT ITS DETERMINATION, REFERENCE SHOULD BE MADE TO THE TIME MAP IF ONE IS PROVIDED IN YOUR OFFICE.

IF THE DESIRED INFORMATION IS NOT OBTAINED BY THESE METHODS AT OUTLYING OFFICES THEY SHOULD ATTEMPT TO OBTAIN IT FROM THE TRANS-CONTINENTAL OPERATOR AT SAN FRANCISCO, AND AT THE SAN FRANCISCO OFFICE ITSELF BY REACHING THE DISTANT POINT IN ACCORDANCE WITH THE TOLL OPERATING PRACTICE.

6. THE "TIME ZONE" ABBREVIATIONS ASSOCIATED WITH THE TABLES FOR THE UNITED STATES, CANADA AND MEXICO ARE AS FOLLOWS:

EASTERN STANDARD TIME - EK  
 PACIFIC STANDARD TIME - PK  
 CENTRAL STANDARD TIME - CK  
 MOUNTAIN STANDARD TIME - MK  
 CANADIAN PROVINCE  
 (NEW BRUNSWICK AND  
 NOVA SCOTIA) STANDARD  
 TIME - APK

## TIME INTERVALS TO BE ADDED TO PK

### B. UNITED STATES

| <u>STATE</u>    | <u>IMPORTANT<br/>CITIES</u> | <u>TIME<br/>ZONE</u> | <u>HOURS<br/>TO BE<br/>ADDED<br/>TO PK</u> |
|-----------------|-----------------------------|----------------------|--|
| ALA.            | -                           | CK                   | 2  |
| ARIZ.           |                             |                      |  |
| N. WEST         | KINGMAN                     | PK                   | 0  |
| N. EAST & SOUTH | ALL                         | MK                   | 1  |
| ARK.            | -                           | CK                   | 2  |
| CAL.            | -                           | PK                   | 0  |
| COLO.           | -                           | MK                   | 1  |
| CONN.           | -                           | EK                   | 3  |
| DEL.            | -                           | EK                   | 3  |
| D. OF COL.      | -                           | EK                   | 3  |
| FLA.            |                             |                      |  |
| N. WEST         | PENSACOLA                   | CK                   | 2  |
| N. EAST & SOUTH | ALL                         | EK                   | 3  |

DATA FOR DETERMINING TIME AT DISTANT POINTS  
(CONTINUED)

| <u>STATE</u> | <u>IMPORTANT<br/>CITIES</u>             | <u>TIME<br/>ZONE</u> | <u>HOURS<br/>TO BE<br/>ADDED<br/>TO PK</u> |
|--------------|---|----------------------|--|
| GA.          |   |                      |  |
| WEST         | COLUMBUS                                | CK                   | 2  |
| EAST         | ATLANTA, SAVANA                         | EK                   | 3  |
| IDA.         |   |                      |  |
| NORTH        | LEWISTON, MOSCOW                        | PK                   | 0  |
| SOUTH        | POCATELLO, BOISE                        | MK                   | 1  |
| ILL.         | -                                       | CK                   | 2  |
| IND.         | -                                       | CK                   | 2  |
| IO.          | -                                       | CK                   | 2  |
| KAN.         |   |                      |  |
| WEST         | NONE                                    | MK                   | 1  |
| EAST         | TOPEKA, WITCHITA                        | CK                   | 2  |
| KEN.         | -                                       | CK                   | 2  |
| LA.          | -                                       | CK                   | 2  |
| ME.          | -                                       | EK                   | 3  |
| MD.          | -                                       | EK                   | 3  |
| MASS.        | -                                       | EK                   | 3  |
| MICH.        |   |                      |  |
| EAST         | DETROIT ONLY                            | EK                   | 3  |
| N-S-W        | ALL OTHERS                              | CK                   | 2  |
| MINN.        | -                                       | CK                   | 2  |
| MISS.        | -                                       | CK                   | 2  |
| MO.          | -                                       | CK                   | 2  |
| MONT.        | -                                       | MK                   | 1  |
| NEB.         |   |                      |  |
| WEST         | NONE                                    | MK                   | 1  |
| EAST         | OMAHA, N. PLATTE                        | CK                   | 2  |
| NEV.         | -                                       | PK                   | 0  |
| N.H.         | -                                       | EK                   | 3  |
| N.J.         | -                                       | EK                   | 3  |
| N.MEX.       | -                                       | MK                   | 1  |
| N.Y.         | -                                       | EK                   | 3  |
| N.C.         |   |                      |  |
| WEST         | NONE                                    | CK                   | 2  |
| EAST         | ALL                                     | EK                   | 3  |
| N.D.         |   |                      |  |
| WEST         | RAWSON                                  | MK                   | 1  |
| EAST         | BISMARCK, FARGO                         | CK                   | 2  |
| OHIO         |   |                      |  |
| WEST         | DAYTON                                  | CK                   | 2  |
| EAST         | AKRON, CINCINNATI,<br>CLEVELAND, TOLEDO | EK                   | 3  |
| OKLA.        | -                                       | CK                   | 2  |
| ORE.         | -                                       | PK                   | 0  |
| PENK.        | -                                       | EK                   | 3  |
| R.I.         | -                                       | EK                   | 3  |
| S.C.         | -                                       | EK                   | 3  |

DATA FOR DETERMINING TIME AT DISTANT POINTS  
(CONTINUED)

| <u>STATE</u> | <u>IMPORTANT<br/>CITIES</u> | <u>TIME<br/>ZONE</u> | <u>HOURS<br/>TO BE<br/>ADDED<br/>TO PK</u> |
|--------------|-----------------------------|----------------------|--|
| S.D.         |                             |                      |  |
| WEST         | LEAD                        | MK                   | 1  |
| EAST         | PIERRE,<br>SIOUX FALLS      | CK                   | 2  |
| TENN.        |                             |                      |  |
| WEST         | ALL                         | CK                   | 2  |
| EAST         | NONE                        | EK                   | 3  |
| TEX.         | -                           | CK                   | 2  |
| UTAH         |                             |                      |  |
| WEST         | WENDOVER                    | PK                   | 0  |
| EAST         | ALL OTHERS                  | MK                   | 1  |
| VT.          | -                           | EK                   | 3  |
| VA.          |                             |                      |  |
| WEST         | NONE                        | CK                   | 2  |
| EAST         | ALL                         | EK                   | 3  |
| WASH.        | -                           | PK                   | 0  |
| W. VA.       | -                           | EK                   | 3  |
| WIS.         | -                           | CK                   | 2  |
| WYO.         | -                           | MK                   | 1  |

C. CANADA

| <u>PROVINCE</u>  | <u>TIME<br/>ZONE</u> | <u>HOURS TO BE<br/>ADDED TO PK</u> |
|------------------|----------------------|------------------------------------|
| ALBERTA          | MK                   | 1                                  |
| BRITISH COLUMBIA | PK                   | 0                                  |
| MANITOBA         | CK                   | 2                                  |
| NEW BRUNSWICK    | APK                  | 4                                  |
| NOVA SCOTIA      | APK                  | 4                                  |
| ONTARIO          | EK                   | 3                                  |
| QUEBEC           | EK                   | 3                                  |
| SASKATCHEWAN     | MK                   | 1                                  |

D. MEXICO

| <u>STATE</u>  | <u>TIME<br/>ZONE</u> | <u>HOURS TO BE<br/>ADDED TO PK</u> |
|---------------|----------------------|------------------------------------|
| AGUA CALIENTE | MK                   | 1                                  |
| CHIHUAHUA     | MK                   | 1                                  |
| COAHUILA      | MK                   | 1                                  |
| FED. DIST.    | MK                   | 1                                  |
| GUANAJUATO    | MK                   | 1                                  |
| HIDALGO       | MK                   | 1                                  |
| JALISCO       | MK                   | 1                                  |

## DATA FOR DETERMINING TIME AT DISTANT POINTS

(CONTINUED)

| <u>STATE</u>    | <u>TIME<br/>ZONE</u> | <u>HOURS TO BE<br/>ADDED TO PK</u> |
|-----------------|----------------------|------------------------------------|
| LOWER CAL.      | PK                   | 0                                  |
| NICHOACAN       | MK                   | 1                                  |
| MEXICO          | MK                   | 1                                  |
| NUEVO LEON      | MK                   | 1                                  |
| PUEBLA          | MK                   | 1                                  |
| QUERETARO       | MK                   | 1                                  |
| SAN LUIS POTOSI | MK                   | 1                                  |
| SONORA          | MK                   | 1                                  |
| TAMAULIPAS      | MK                   | 1                                  |
| VERA CRUZ       | CK                   | 2                                  |

E. TRANSOCEANIC COUNTRIES

| <u>COUNTRY</u>  | <u>HOURS<br/>TO BE<br/>ADDED<br/>TO PK</u> | <u>COUNTRY</u> | <u>HOURS<br/>TO BE<br/>ADDED<br/>TO PK</u> |
|-----------------|--|----------------|--|
| ALBANIA         | 10   | GIBRALTAR      | 8  |
| ARGENTINA       | 4  | GREECE         | 10   |
| AUSTRALIA       |  | HAWAIIAN IS.   | -2 30'                                     |
| NEW SOUTH WALES | 18   | HOLLAND        | 8 20'                                      |
| QUEENSLAND      | 18   | HUNGARY        | 9  |
| S. AUSTRALIA    | 17 30'                                     | ITALY          | 9  |
| VICTORIA        | 18   | JAPAN          | 17   |
| AUSTRIA         | 9  | JUGOSLAVIA     | 9  |
| BELGIUM         | 8  | LATAVIA        | 10   |
| BRITISH ISLES   |  | LITHUANIA      | 9  |
| ENGLAND         | 8  | LUXEMBOURG     | 9  |
| IRELAND         | 8  | MOROCCO        | 8  |
| ISLE OF MAN     | 8  | NORWAY         | 9  |
| SCOTLAND        | 8  | PANAMA         | 3  |
| WALES           | 8  | PARAGUAY       | 4 23'                                      |
| BRAZIL          | 5  | PHILIPPINE IS. | 16   |
| BULGARIA        | 10   | POLAND         | 9  |
| CHILE           | 3  | PORTUGAL       | 8  |
| CZECHOSLAVAKIA  | 9  | ROUMANIA       | 10   |
| CUBA            | 3  | RUSSIA         | 10   |
| DANZIG          | 9  | SPAIN          | 8  |
| DENMARK         | 9  | SWEDEN         | 9  |
| ESTONIA         | 10   | SWITZERLAND    | 9  |
| FINLAND         | 10   | TURKEY         | 10   |
| FRANCE          | 8  | URUGUAY        | 4 30'                                      |
| GERMANY         | 9  |                |  |

## 9

#### F. TABLE OF CORRESPONDING TIMES

TIME AT DISTANT POINTS, WITH KNOWN TIME INTERVAL VARIANCE  
FROM PK. CORRESPONDING TO PACIFIC STANDARD TIME.

| HOURS TO BE ADDED TO PK |    | -2:30           | 1  | 2  | 3  | 4  | 4:25  | 4:30  | 5  | 8  | 8:20  | 9               | 10 | 16 | 17 | 17:30 | 18 |
|-------------------------|----|-----------------|----|----|----|----|-------|-------|----|----|-------|-----------------|----|----|----|-------|----|
| PACIFIC STANDARD TIME   |    | A.M. (SAME DAY) |    |    |    |    |       |       |    |    |       | P.M. (SAME DAY) |    |    |    |       |    |
| A.M.                    | 12 | 9:30            | 1  | 2  | 3  | 4  | 4:25  | 4:30  | 5  | 8  | 8:20  | 9               | 10 | 4  | 5  | 5:30  | 6  |
|                         | 1  | 10:30           | 2  | 3  | 4  | 5  | 5:25  | 5:30  | 6  | 9  | 9:20  | 10              | 11 | 5  | 6  | 6:30  | 7  |
|                         | 2  | 11:30           | 3  | 4  | 5  | 6  | 6:25  | 6:30  | 7  | 10 | 10:20 | 11              | 12 | 6  | 7  | 7:30  | 8  |
|                         | 3  | 12:30           | 4  | 5  | 6  | 7  | 7:25  | 7:30  | 8  | 11 | 11:20 | 12              | 1  | 7  | 8  | 8:30  | 9  |
|                         | 4  | 1:30            | 5  | 6  | 7  | 8  | 8:25  | 8:30  | 9  | 12 | 12:20 | 1               | 2  | 8  | 9  | 9:30  | 10 |
|                         | 5  | 2:30            | 6  | 7  | 8  | 9  | 9:25  | 9:30  | 10 | 1  | 1:20  | 2               | 3  | 9  | 10 | 10:30 | 11 |
|                         | 6  | 3:30            | 7  | 8  | 9  | 10 | 10:25 | 10:30 | 11 | 2  | 2:20  | 3               | 4  | 10 | 11 | 11:30 | 12 |
|                         | 7  | 4:30            | 8  | 9  | 10 | 11 | 11:25 | 11:30 | 12 | 3  | 3:20  | 4               | 5  | 11 | 12 | 12:30 | 1  |
|                         | 8  | 5:30            | 9  | 10 | 11 | 12 | 12:25 | 12:30 | 1  | 4  | 4:20  | 5               | 6  | 12 | 1  | 1:30  | 2  |
|                         | 9  | 6:30            | 10 | 11 | 12 | 1  | 1:25  | 1:30  | 2  | 5  | 5:20  | 6               | 7  | 1  | 2  | 2:30  | 3  |
|                         | 10 | 7:30            | 11 | 12 | 1  | 2  | 2:25  | 2:30  | 3  | 6  | 6:20  | 7               | 8  | 2  | 3  | 3:30  | 4  |
|                         | 11 | 8:30            | 12 | 1  | 2  | 3  | 3:25  | 3:30  | 4  | 7  | 7:20  | 8               | 9  | 3  | 4  | 4:30  | 5  |
| P.M.                    | 12 | 9:30            | 1  | 2  | 3  | 4  | 4:25  | 4:30  | 5  | 8  | 8:20  | 9               | 10 | 4  | 5  | 5:30  | 6  |
|                         | 1  | 10:30           | 2  | 3  | 4  | 5  | 5:25  | 5:30  | 6  | 9  | 9:20  | 10              | 11 | 5  | 6  | 6:30  | 7  |
|                         | 2  | 11:30           | 3  | 4  | 5  | 6  | 6:25  | 6:30  | 7  | 10 | 10:20 | 11              | 12 | 6  | 7  | 7:30  | 8  |
|                         | 3  | 12:30           | 4  | 5  | 6  | 7  | 7:25  | 7:30  | 8  | 11 | 11:20 | 12              | 1  | 7  | 8  | 8:30  | 9  |
|                         | 4  | 1:30            | 5  | 6  | 7  | 8  | 8:25  | 8:30  | 9  | 12 | 12:20 | 1               | 2  | 8  | 9  | 9:30  | 10 |
|                         | 5  | 2:30            | 6  | 7  | 8  | 9  | 9:25  | 9:30  | 10 | 1  | 1:20  | 2               | 3  | 9  | 10 | 10:30 | 11 |
|                         | 6  | 3:30            | 7  | 8  | 9  | 10 | 10:25 | 10:30 | 11 | 2  | 2:20  | 3               | 4  | 10 | 11 | 11:30 | 12 |
|                         | 7  | 4:30            | 8  | 9  | 10 | 11 | 11:25 | 11:30 | 12 | 3  | 3:20  | 4               | 5  | 11 | 12 | 12:30 | 1  |
|                         | 8  | 5:30            | 9  | 10 | 11 | 12 | 12:25 | 12:30 | 1  | 4  | 4:20  | 5               | 6  | 12 | 1  | 1:30  | 2  |
|                         | 9  | 6:30            | 10 | 11 | 12 | 1  | 1:25  | 1:30  | 2  | 5  | 5:20  | 6               | 7  | 1  | 2  | 2:30  | 3  |
|                         | 10 | 7:30            | 11 | 12 | 1  | 2  | 2:25  | 2:30  | 3  | 6  | 6:20  | 7               | 8  | 2  | 3  | 3:30  | 4  |
|                         | 11 | 8:30            | 12 | 1  | 2  | 3  | 3:25  | 3:30  | 4  | 7  | 7:20  | 8               | 9  | 3  | 4  | 4:30  | 5  |
|                         |    | A.M. (NEXT DAY) |    |    |    |    |       |       |    |    |       | P.M. (NEXT DAY) |    |    |    |       |    |