

7.3.2* Communications centers that provide emergency dispatching protocols shall have at least two telecommunicators on duty at all times.

7.3.3* The AHJ and emergency response agencies shall develop standard operating procedures that identify when a dedicated telecommunicator is required to be assigned to an emergency incident.

7.4 Operating Procedures.

7.4.1* Ninety-five percent of alarms received on emergency lines shall be answered within 15 seconds, and 99 percent of alarms shall be answered within 40 seconds. (For documentation requirements, see 12.5.2.)

7.4.1.1 Compliance with 7.4.1 shall be evaluated monthly using data from the previous month.

7.4.2* Ninety percent of emergency alarm processing shall be completed within 60 seconds, and 99 percent of alarm processing shall be completed within 90 seconds. (For documentation requirements, see 12.5.2.)

7.4.2.1* Compliance with 7.4.2 shall be evaluated monthly using data from the previous month.

7.4.3* For law enforcement purposes, the AHJ shall determine time frames allowed for completion of dispatch.

7.4.4* Where alarms are transferred from the primary public safety answering point (PSAP) to a secondary answering point, the transfer procedure shall not exceed 30 seconds for 95 percent of all alarms processed. (For documentation requirements, see 12.5.2.)

7.4.4.1 The PSAP shall transfer alarms as follows:

- (1) The alarm shall be transferred directly to the telecommunicator.
- (2) The answering transferring agency shall remain on the line until it is certain that the transfer is effected.
- (3) The transfer procedure shall be used on emergency 9-1-1 calls.

7.4.5 All alarms, including requests for additional resources, shall be transmitted to the identified emergency response units over the required dispatch systems.

7.4.6 An indication of the status of all emergency response units shall be available to telecommunicators at all times.

7.4.7* Records of the dispatch of emergency response units to alarms shall be maintained and shall identify the following:

- (1) Unit designation for each emergency response unit (ERU) dispatched
- (2) Time of dispatch acknowledgment by each ERU responding
- (3) Enroute time of each ERU
- (4) Time of arrival of each ERU at the scene
- (5) Time of patient contact, if applicable
- (6) Time each ERU is returned to service

7.4.8* Where voice transmission is used as a dispatch method, the announcement for the emergency response shall be preceded by an audible warning or alerting signal that differentiates the emergency from routine radio traffic.

7.4.9 The first emergency response unit that arrives at the location of the alarm shall provide a brief preliminary report on observed conditions to the communications center.

7.4.10* A communications officer shall be assigned at major incidents.

7.4.11* All emergency response agencies shall use common terminology and integrated incident communications.

7.4.11.1 Integrated incident communications shall include a plan that provides for on-demand interoperability of communication methods among emergency response agencies.

7.4.11.2* The plan shall identify the communications links and protocols to be used among emergency response agencies at incidents, including the following:

- (1) Routine day-to-day coordination among fire, law enforcement, emergency medical services, and other emergency response agencies
- (2) Response to catastrophic incidents or disasters by multiple emergency response agencies
- (3)*Extended operations involving local, tribal, state/provincial, and federal agencies

7.4.11.3 The plan shall be written, distributed to all agencies identified in the plan, and reviewed at least annually by each agency identified.

7.4.12 The communication equipment involved in each alarm shall be restored promptly after each alarm.

7.4.13 When the device monitoring the system for integrity indicates that trouble has occurred, the telecommunicator shall act as follows:

- (1) Take appropriate steps to repair the fault
- (2) Isolate the fault and notify the official responsible for maintenance if repair is not possible

7.4.14 Standard operating procedures shall include but not be limited to the following:

- (1) All standardized procedures that the telecommunicator is expected to perform without direct supervision
- (2) Implementation plan that meets the requirements of 4.1.4.3
- (3) Procedures related to the CEMP
- (4) Emergency response personnel emergencies
- (5) Activation of an emergency distress function
- (6) Assignment of incident radio communications plan matrix
- (7) Time limit for acknowledgment by units that have been dispatched

7.4.15* Every communications center shall have a comprehensive regional emergency communications plan as part of the CEMP.

7.4.15.1* The emergency communications plan shall provide for real-time communications between organizations responding to the same emergency incident.

7.4.15.2* This plan shall be exercised at least once a year.

7.4.16 A distinctive alert tone signal shall precede the transmission of emergency message traffic.

7.4.16.1 A separate and unique alert tone shall be operated for emergency evacuation orders.

7.4.17 In the event that an ERU(s) has not acknowledged its dispatch/response within the time limits established, the telecommunicator shall perform one or more of the following:

- (1) Attempt to contact the ERU(s) by radio
- (2) Redispach the ERU(s) using the primary dispatch system
- (3) Dispatch the ERU(s) using the secondary dispatch system
- (4) Initiate two-way communication with the ERU's supervisor

7.4.18* The AHJ shall develop and implement standard operating procedures for responding to and processing TDD/TTY calls.

7.4.19 Calls received as an open-line or “silent call” shall be queried as a TDD/TTY call if no acknowledgment is received by voice.

7.5 Time.

7.5.1* The clock for the main recordkeeping device in the communications center shall be synchronized weekly to coordinated universal time (UTC).

7.5.2 All timekeeping devices in the communications center shall be maintained within ±5 seconds of the main recordkeeping device clock.

7.6 Recording.

7.6.1 Communications centers shall have a logging voice recorder with one channel for each of the following:

- (1) Each transmitted or received radio channel or talkgroup
- (2) Each voice dispatch alarm circuit
- (3)*Each telecommunicator telephone

7.6.2 Each telecommunicator position shall have the ability to instantly recall telephone and radio recordings from that position.

7.6.3 Alarms that are transmitted over the required dispatch circuit(s) shall be automatically recorded, including the dates and times of transmission.

7.7* **Quality Assurance/Improvement.** Communications centers shall establish a quality assurance/improvement program to ensure the consistency and effectiveness of alarm processing.

Chapter 8 Telephones

8.1* **Telephone Receiving Equipment.** The provisions of Chapter 8 shall apply to facilities and equipment that are needed to receive alarms that are transmitted by public use of commercial telephone systems, cellular or personal communications services (PCS) systems, and voice over Internet protocol (VoIP).

8.2 Directory Listing.

8.2.1 Where 9-1-1 service is not provided, all of the following requirements shall be met:

- (1) A specific telephone number shall be assigned for calls requesting emergency services.
- (2) The telephone number shall be publicized as such.
- (3) A separate number shall be assigned for business (non-emergency) use.

8.2.1.1 Where 9-1-1 service is provided, the telephone directory listings shall indicate that 9-1-1 is the number to call for all emergencies.

8.2.1.2 A separate telephone line with a number that is not listed shall be maintained for communication with other emergency service agencies and receipt of central station alarms.

8.2.1.3* A separate number shall be assigned for business (non-emergency) use.

8.2.2 Telephone directory listings shall be as specified in 8.2.2.1 through 8.2.2.5.

8.2.2.1 The text and symbols shown in Figure 8.2.2.1(a) through Figure 8.2.2.1(c) shall appear on the inside front cover or the page facing the inside front cover of the white pages directory.



or, where available,



FIGURE 8.2.2.1(a) Telephone Directory Listing for Fire Department.



or, where available,



FIGURE 8.2.2.1(b) Telephone Directory Listing for Police Department.



or, where available,

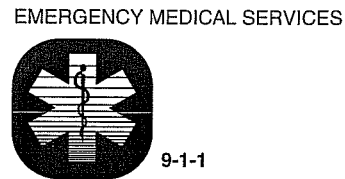


FIGURE 8.2.2.1(c) Telephone Directory Listing for Emergency Medical Services.

staffing, number of inbound emergency and nonemergency calls, and other operational statistics is necessary to allow a prompt receipt and processing of alarms.

A.7.3.1.1 The processing of N-1-1 calls or other nonemergency 7- or 10-digit calls should not degrade or delay the processing of any emergency calls.

A.7.3.2 Emergency dispatch protocols exist when telecommunicators have to provide prearrival instructions and are required to remain in communication with the caller.

A.7.3.3 The issue of communication capabilities and/or failures is cited by the National Institute for Occupational Safety and Health (NIOSH) as one of the top five reasons for fire fighter fatalities. The importance of an assigned telecommunicator for specific incidents is a critical factor in incident scene safety. The assignment process should be outlined in specific SOPs within each agency represented in the communications center. This assignment process is further assisted when a command/communications vehicle is being staffed at the incident scene.

A.7.4.1 Statistical analysis for performance measurement should be completed over a period of 1 month. See Figure A.7.4.1(a) and Figure A.7.4.1(b).

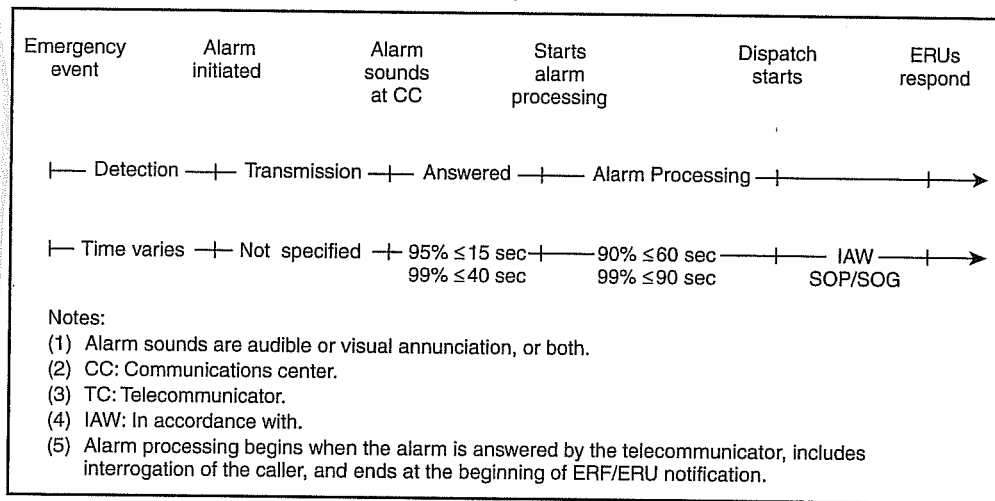
A.7.4.2 See Figure A.7.4.1(a).

A.7.4.2.1 The AHJ of the responding agency can allow certain types of emergency calls to be excluded from the requirements of 7.4.2 that require extra call interrogation time. All emergency calls of these types will be identified and reviewed by the AHJ on a monthly basis. Such calls could include but are not limited to:

- (1) Requiring language translation
- (2) Use of TTY/TDD or relay services
- (3) Dispatch equipment malfunction
- (4) Unusually high call volume due to unpredictable scenarios (weather events, earthquakes, etc.)

Exclusions should be reviewed and trends identified that need to be addressed for possible operational or technical solutions.

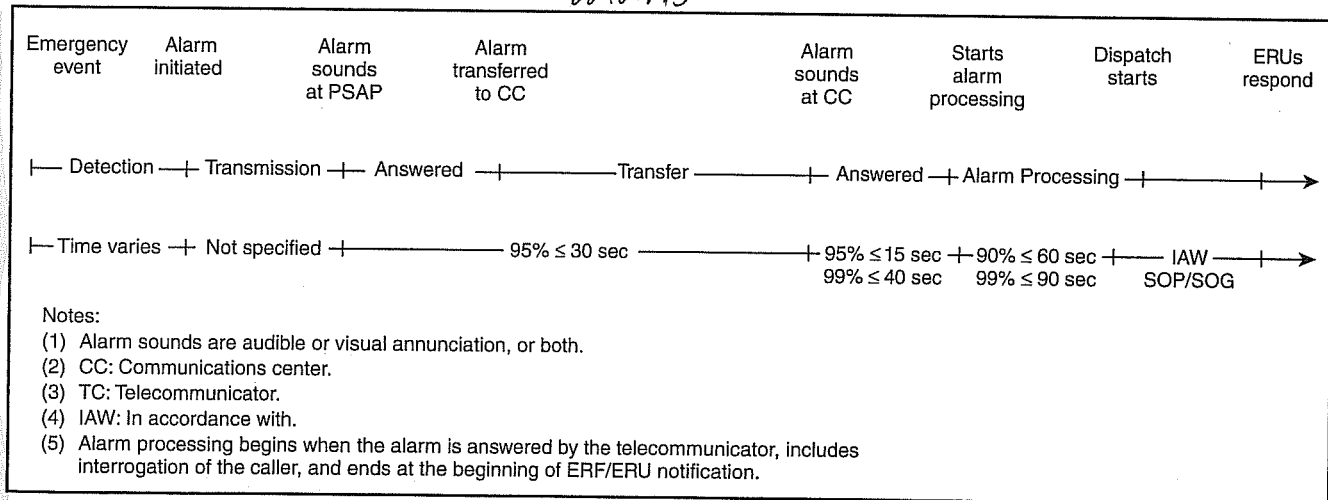
00:01:15



Fire Phone Panel Alarm Walk ins

FIGURE A.7.4.1(a) Alarm Time Line Where Primary PSAP Is Communications Center.

00:01:45



Lead ID 911 Transfer other

FIGURE A.7.4.1(b) Alarm Time Line Where Primary PSAP Is Other Than Communications Center.

A.7.4.3 Alarms should be retransmitted to emergency response personnel as soon as the location and general nature of the emergency have been ascertained by the telecommunicator. However, for some alarms involving criminal activity, the safety of emergency response personnel could require the telecommunicator to ascertain additional information from the caller, such as a description(s) of the suspect(s), a description(s) of the vehicle(s), the direction of travel, and the weapon(s) involved, which could make compliance with the 60-second time limit impractical. Therefore, the AHJ for each law enforcement agency served by the communications center should establish time frames for the dispatch of law enforcement personnel in accordance with the corresponding agency's SOPs.

A.7.4.4 See Figure A.7.4.1 (b).

A.7.4.7 The first unit to arrive at an emergency incident is responsible for notifying the communications center by radio of its arrival and for providing a brief description of the conditions observed and the precise location of the incident. The responding officer should report arrival and should establish the initial command post at the emergency. As soon as conditions allow, the incident commander should report supplementary information to the communications center and should make additional progress reports if operations keep the units at the emergency longer than a few minutes. An extended or complex emergency incident can necessitate the use of a communications unit for effective coordination, command, and control.

A.7.4.8 The audible warning or signal is typically a distinctive tone.

A.7.4.10 The assignment of a communications officer/unit leader to incidents that are more complex ensures that adequate communication is achieved using available telephone and radio systems. Such an assignment also ensures that the availability of existing frequencies or networks is maximized and that system overloading is minimized. An assigned communications officer can be particularly important and useful during multi-agency fires and other incidents. It can be necessary to establish specific nets and monitoring systems to guarantee communications in some situations. In complex incidents, communications discipline is critical in avoiding system overload.

A.7.4.11 The common emergency organization, that is, the incident management system (IMS), includes two important communications concepts as follows:

- (1) *Common Terminology.* All participating departments and agencies use clear text and established standard terms and phrases. In multi-agency emergencies, it is extremely difficult to guarantee that all agency and department codes represent identical meanings. To avoid potential misunderstandings between telecommunicators, the IMS requires clear text or plain language for all radio messages. Although this is a significant departure from public safety agency tradition, it has been found to be efficient in actual practice.
- (2) *Integrated Incident Communications.* Participating departments and agencies plan in advance for the use of integrated radio frequencies to tie together all tactical and support units assigned to an incident. To ensure the best possible use of all participating department and agency radios at major incidents, an Incident Radio Communications Plan matrix is developed. The matrix lists all available radio systems on an incident and aids in assigning

them to provide command, tactical, and logistical coverage for a complete operation.

Preparation of the matrix necessitates training and a knowledge of cooperating department and agency frequencies and radio components. Use of the matrix is greatly enhanced by the existence of a frequency-sharing agreement. (See *Annex B.*)

The Federal Communications Commission (FCC) has no prohibition against public agencies sharing frequencies during emergencies, provided that the responsible agency has granted permission to assisting agencies to do so. The agreement specifies the mutual permission of participating agencies to use other agency frequencies when providing assistance. The agreement lists the terms and conditions of use by others and includes all frequencies that can be made available under critical conditions. Such agreements facilitate better multiagency dispatching and incident communications and can be prepared by groups or agencies who work together frequently.

A.7.4.11.2 These communications links can include but are not restricted to a number of methodologies, including radio, data communication, face-to-face, satellite communication, or telephone. Such communication links permit units from multiple agencies to interact with one another and to exchange information according to a prescribed method in order to achieve predictable results. These links permit communications between agencies when needed but not necessarily with every unit involved at an incident at all times.

A.7.4.11.2(3) Extended operations can include long-term disaster recovery, security at major events, or criminal justice surveillance.

A.7.4.15 Effective communication among emergency response personnel during the initial response to any major incident and throughout its extended operations has a significant impact on the rapid mitigation to the affected population.

A plan should lend itself to rapid activation in case of an incident. These incidents include major storms, conflagrations, hazardous materials incidents, wildland fires, mass transit accidents, domestic terrorism, and other incidents that can overwhelm the agencies serving the community and their normal resources.

The plan should include all agencies that normally would be utilized to mitigate any major incident. The plan should also include the communication integration of all agencies into a command structure. Additionally, the plan should include the communications path for transition to the next level of support.

The plan should include SOPs that outline the following:

- (1) Activation of such plan
- (2) Radio systems to be utilized
- (3) Assigned radio frequencies and bandwidth for conventional or trunked systems
- (4) Talkgroups
- (5) Unit/agency designations
- (6) Talk paths to be utilized (e.g., gateway, cross band repeaters, and telecommunicator assisted)

The plan should define applicable continuous tone-coded squelch system (CTCSS) codes, in compliance with TIA-603-C, *Land Mobile FM or PM — Communications Equipment — Measurement and Performance Standards*, for analog channels designated for interoperability.