Essentials of Fire Fighting
6th Edition
Firefighter I

Chapter 3 — Fire Department Communications

Learning Objective 1

Explain the procedures for receiving emergency and nonemergency external communications.

Learning Objective 2

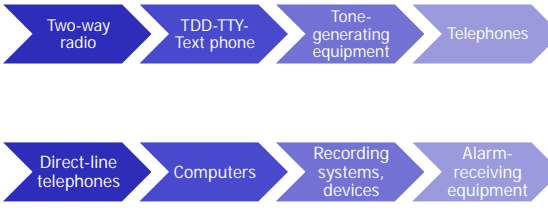Describe the information required to dispatch emergency services.

Emergency calls are received through two basic systems.

Emergency Service Specific Telecommunications Center

Public Safety Answering Point
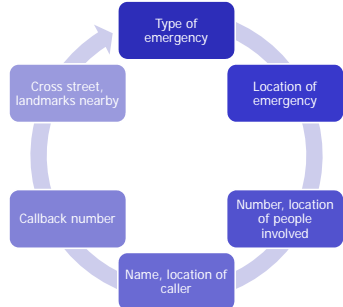
Communications centers contain a variety of equipment.

- Two-way radio
- TDD-TTY-Text phone
- Tone-generating equipment
- Telephones
- Direct-line telephones
- Computers
- Recording systems, devices
- Alarm-receiving equipment

Processing an emergency call requires gathering information.

- Type of emergency
- Location of emergency
- Number, location of people involved
- Name, location of caller
- Callback number
- Cross street, landmarks nearby

Emergency calls are reported to responders in a variety of ways.

Enhanced 9-1-1

Public Alerting Systems

- Radio
- Wired telegraph circuit box
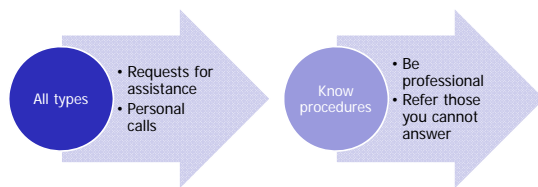- Telephone fire alarm box
- Radio fire alarm box

3–6

What is the procedure for receiving an emergency external communication?

3–7

Receiving nonemergency calls is also a part of station life.

All types
- Requests for assistance
- Personal calls

Know procedures
- Be professional
- Refer those you cannot answer

3–8

You must remain calm and courteous when handling angry calls.

Take information

Refer caller

PIO as contact

Be familiar with department

3–9

Some stations may have a watch room that is monitored at all times.

3–10

Emergency services dispatching begins with some form of alert.

Audible alarm

Pager

Alerting device

3–11

2

REVIEW QUESTION

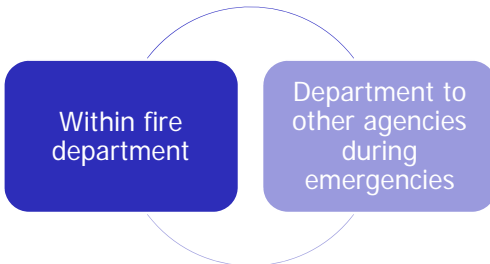What is the procedure for receiving a nonemergency external communication?

3–12

Learning Objective 3

Describe the systems used for internal communications.

3–13

Internal communications are transmitted to specific groups.

Within fire department

Department to other agencies during emergencies

3–14

Radio systems used to transmit messages vary based on location and size.

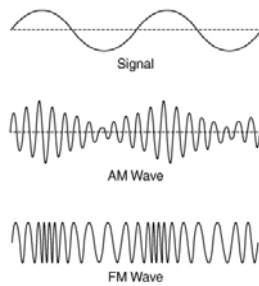Fixed location | Mobile | Portable

Courtesy of James Nilo

3–15

Radio signals transmit in either analog or digital format over two types of carrier waves.

Comparing AM and FM Radio Waves

Signal

AM Wave

FM Wave

3–16

Signal transmission occurs depending on the type of equipment in the system.

Simplex Radio System

One Frequency

Only One Can Transmit At A Time.

(Cont.)

3–17

Signal transmission occurs depending on the type of equipment in the system.

Half-Duplex System

(Cont.)

3–18

Signal transmission occurs depending on the type of equipment in the system.

Duplex Radio System

3–19

Modern fireground systems are designed to operate on multiple channels.
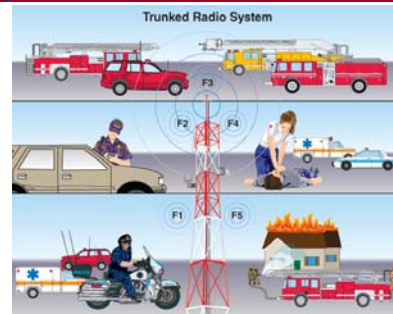
- Dispatching channel
- Command channel
- Unit to personnel channel
- Nonemergency channel for training

3–20

A trunked system uses repeaters to assign transmissions to available frequencies.

Trunked Radio System

3–21

REVIEW QUESTION

What types of systems are used for internal communication?

3–22

Radio communication and terminology are regulated by specific practices.

- Communications Commissions – Both U.S. and Canada
- Do not send personal messages over department channel
- Use clear text

3–23

4

Learning Objective 4

Explain radio limitations that may impact internal communications.

3–24

There are several radio limitations that can impact internal communications.

3–25

REVIEW QUESTION

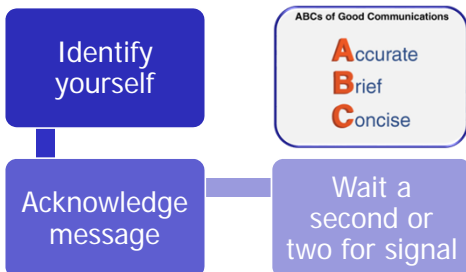What radio limitations can impact internal communications?

3–26

Learning Objective 5

Describe radio procedures used for internal communications.

3–27

Always follow local protocols when sending a message, these are part of the official incident record.

Identify yourself

ABCs of Good Communications

Accurate
Brief
Concise

Acknowledge message

Wait a second or two for signal

3–28

WARNING

DO NOT REMOVE YOUR FACEPIECE TO TALK INTO THE MIC.

1–29

REVIEW QUESTION

What radio procedures must be followed for internal communications?

3–30

Summary

- Fire department communications are a critical factor in the successful outcome of any incident.
- There is a direct connection between fireground communications and fireground safety: The better the communications, the safer the incident.

3–31

Learning Objective 6

Handle emergency and nonemergency calls.

This objective is measured in Skill Sheet 3-I-1.

3–32

Learning Objective 7

Use a portable radio for routine and emergency traffic.

This objective is measured in Skill Sheet 3-I-2.

3–33