Basic Radio Communications for Dispatchers

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BASIC RADIO COMMUNICATIONS
FOR DISPATCHERS
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Chapter 1
Canadian Radio Communications Regulations

Radio Communication Act (1989)
The Radio Communications Act (1989) is the legislation that empowers the Government of Canada to control all types of radio transmitting and receiving equipment. It assigns authority to Radio Inspectors to investigate and seize equipment being used illegally as defined under the act. It also provides severe penalties to persons abusing this legislation. Offences under this act include:

4. (1) No person shall, except under and in accordance with a radio authorization, install, operate or possess radio apparatus, other than:
   (a) radio apparatus exempted by or under regulations made under paragraph 6(1)(m); or
   (b) radio apparatus that is capable only of the reception of broadcasting and that is not a distribution undertaking.

Idem

(2) No person shall manufacture, import, distribute, lease, offer for sale or sell any radio apparatus, interference-causing equipment or radio-sensitive equipment for which a technical acceptance certificate is required under this Act, otherwise than in accordance with such a certificate.

Idem

(3) No person shall manufacture, import, distribute, lease, offer for sale or sell any radio apparatus, interference-causing equipment or radio-sensitive equipment for which technical standards have been established under paragraph 6(1)(a), unless the apparatus or equipment complies with those standards.

Industry Canada
Industry Canada is the government agency that applies the rules and administers the regulations concerning the licensing and regulation of telecommunication radio systems. It is the government body that ensures all radio installations – permanent, mobile, and portable radio devices – are licensed and operate within certain technical parameters.

All radio equipment capable of transmitting and receiving must be licensed. This means that every portable, mobile, base and repeater radio equipment must have a license that states within which frequencies the equipment is authorized to operate, its power output, and geographic coordinates.
This agency, formerly the Department of Communications, also applies rules concerning licensing of radio operators. Most persons who operate a radio transmitter must be licensed. Study guides are available from Industry Canada through their website: http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/h_sf06073e.html. Further information can be obtained by calling 1-613-998-4149. There is a small administration fee for the issuing of the license.

**Priorities of Communications – Radio Communication**

The order of priority for the transmission of messages in radio communication is:

- Distress communications
- Urgency communications
- Safety communications
- All other communications

**Secrecy of Communications**

Radio operators and all persons who become acquainted with radiocommunications are bound to preserve the secrecy of correspondence. No person shall divulge the contents, or even the existence, of correspondence transmitted, received or intercepted by a radio station, except to the addressee of the message or his/her accredited agent, to properly authorized officials of the Government of Canada, to a competent legal tribunal, or to an operator of a telecommunications system, as is necessary to forward or deliver the communication. These restrictions do not apply to a message of distress, urgency, safety or to messages addressed to "ALL STATIONS", that is, weather reports, storm warnings, etc.

Any person who violates the secrecy of communications is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both. In the case of a corporation, fines will not exceed twenty-five thousand dollars.
Control of Communications

In normal communication between a base station and a mobile station, the base station has control of communications, and the mobile station shall comply with all instructions given by the base station in matters relating to the order and time of transmission, the choice of frequency and to the duration and suspension of work. This does not apply in the cases of distress or urgency communications, where the control of the communications lies with the station initiating the priority call.

Superfluous Communications and Interference

Communications should be restricted to those necessary for the transmission of authorized messages. Profane or obscene language is strictly prohibited.

Any person who violates the regulations pertaining to unauthorized communications or profane language is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both, or, in the case of a corporation, to a fine not exceeding twenty-five thousand dollars.

All radio stations shall be installed and operated so as not to interfere with or interrupt the working of another radio station. The only situation under which you may interrupt or interfere with the normal working of another station is when you are required to transmit a higher priority call or message, for example, distress, urgency or other priority calls or messages.

Any person who, without lawful excuse, interferes with or obstructs any radiocommunication is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to imprisonment for a term not exceeding one year, or to both, or, in the case of a corporation, to a fine not exceeding twenty-five thousand dollars.

False Distress Signals

Any person who knowingly sends, transmits, or causes to be sent or transmitted any false or fraudulent distress signal, message, call or radiogram of any kind is guilty of an offence and is liable, on summary conviction, in the case of an individual, to a fine not exceeding five thousand dollars or to
imprisonment for a term not exceeding one year, or to both, or, in the case of a corporation, to a fine not exceeding twenty-five thousand dollars.

*From General Radiotelephone Operating Procedures, Industry Canada.*
Chapter 2:  
Radio Communication Protocol and Speech Techniques  

Protocol Needs  
Effective radio communication is the foundation for the exchange of accurate information among the communications centre, field personnel, and other agencies. Radio communications play a vital and active role in relaying needed information over the airwaves.

Radio communication is only effective when it is a two-way process. The primary purpose of communication is to establish a common understanding between sender and receiver. True communication can only be achieved if both parties understand the information or message being sent.

During the early stages of response, a large amount of air time is used. The communications centre is busy gathering and relaying information, and notifying appropriate personnel and agencies. Additional air traffic comes from fields units acknowledging duties or information, and communicating between themselves or with supervisors and the communications centre. In addition, the operator and field units constantly relay updates from the centre or the scene in an effort to keep all involved personnel informed of the status of the emergency. Unless correct radio discipline is maintained, critical information may get lost in the rush of on-air transmissions.

The radio operator’s job is to maintain radio control. It is not an easy one. During urgent situations, most people’s adrenaline and stress levels elevate. Each person with a radio believes the information they have to relay is more important than what the next person has to say. When many personnel try to talk at once, messages may not get acknowledged, transmissions may be cut off, and vital information may not be relayed to the person who requires it. The problem is compounded as personnel get angry or frustrated by being unable to perform their jobs because they are unable to get on the radio or use it properly. Proper radio discipline is vital to ensuring communication problems are kept to a minimum and do not interfere with the successful conclusion of a situation.
Established radio communication protocols ensure that messages are received and understood, and promote:

- personnel and public safety,
- effective use of outside resources,
- cooperation between agencies, and
- professionalism and pride.

**Personnel and Public Safety**

One of the greatest responsibilities of the communication operator is the safety of the field unit personnel and the general public. Effective radio communication allows the operator to know a field unit’s location at all times. Personnel can then quickly be advised of any updated information regarding additional services needed, safety hazards, and medical attention requirements. The relaying of new information assists agency personnel in making decisions or taking actions to ensure their own safety and that of the victim(s) or general public.

**Effective Use of Outside Resources**

Using standardized radio protocols simplifies communication with outside agencies in requesting their assistance, attendance, or cooperation at a scene or situation. Other emergency service agencies or resources are as busy as yours and will appreciate receiving as much information as possible, in the briefest manner possible, to relay to their own personnel. It is imperative always to acknowledge and confirm requests for attendance by outside resources, with an estimated time of arrival (ETA), if possible. If an outside resource requests your assistance, extend them the same courtesy.

**Cooperation between Agencies**

Effective radio communications make it easier for other agencies to understand your own departmental requirements. Using standardized radio protocol helps to eliminate costly and timely duplication of services among agencies attending the same emergency or situation.
Professionalism

Using established radio protocols and discipline demonstrates an agency’s commitment to a professional code of conduct within the industry. Each time a dispatcher transmits over the air, they in essence make a public broadcast. Professional conduct will assist in developing a better rapport between public safety agencies and the public. The manner in which an agency’s personnel communicate on the air may be the basis for how the agency is judged by the public and by other industries. Professionalism over the radio is essential for dispatchers.
Radio Communication Model

The radio communication model is a five-step model designed to ensure that radio transmissions are as brief and precise as possible. This model is a major element in the coordination of both routine and emergency incidents, and allows for confirmation and feedback between the sender (dispatcher) and the receiver (field unit) in ensuring messages are relayed and understood. The proper use of the model also reduces the amount of unnecessary on-air transmissions.

1. Sender Formulates the Message

Before transmitting anything over the air, the dispatcher needs to form a clear mental image of the exact information to send to the field unit. Messages must be clear, concise, and as brief as possible. Information should be relayed in a logical and sequential method. On-air transmissions from the communications centre should attempt to answer every question on-scene personnel may have. Anticipate the information that will be required, or request and relay it as soon as possible. If you are still attempting to gather information, relay your attempts to the field unit and the approximate time delay involved.
2. **Sender Establishes Communication with the Receiver**

When the decision is made to transmit the message, the sender must first listen to the transmissions already in progress and determine the priority of his/her message. Listen long enough to establish that your communication will not interfere with ongoing communications or with those of a higher priority. Radio communication is frequently a matter of common sense. If you need to interfere with other radio transmissions, wait for the first break in ongoing transmissions (*listening out*). Failure to *listen out* before transmitting is one of the most common errors in radio communications. Communicators need to be aware that different agencies have unique procedures or language used to interrupt or override radio communications.

In order to send a message or relay information, you must first gain the attention of the receiver. This is done by identifying the receiver with their call sign, identifying yourself, and then awaiting confirmation that they are ready to listen or copy. Each agency will have unique call signs or methods used to establish initial communications. Determine what they are and use them.

The identifier of the station being called is ALWAYS spoken first, followed by the words "THIS IS" and your own station identifier.

**Examples:**

COACH TWO FIVE ZERO

THIS IS

COMMUNICATIONS / CONTROL

OVER

An operator hearing a call directed to their station shall reply as soon as possible and advise the calling station to proceed with the message using the words "GO AHEAD".

3. **Sender Relays the Message/Information**

When the receiver indicates a readiness to have the message relayed, it must be done in the shortest time possible. Words or phrases that have no effect on
the meaning of the message, or to the information, should be avoided. Choose words that are distinct, forceful, and that convey a definite meaning. If longer messages are necessary, the sender should break at a natural point. This can be done by saying break or stop check. Breaks in long transmissions allow personnel an opportunity to request a repeat of information that has been missed, as well as allowing other units to interrupt if they become involved in a situation of higher priority.

Differences in word or phrase meaning are a common source of radio communication failure. An example is the word yes. Yes has many different meanings or interpretations, depending on how it is communicated or conveyed. Yes may mean, Yes, I have heard what you said, as opposed to Yes, I will do what you say. All doubtful words or phrases must be double-checked for accuracy and meaning.

4. Receiver Confirms the Message/Information and Provides Feedback

Always ensure that the transmission was understood. If the field unit does not acknowledge receipt of the message or information, check to make sure it was received and understood. Do this in the briefest manner possible. Always keep in mind that on-air time is valuable. Do not repeat the entire message if a simple Did you copy? will suffice.

Along the same lines, if only part of your transmission was lost or misunderstood, it makes more sense to determine which part needs to be repeated and only transmit from there. Often the phrase, “I say again from… (last part of communication that was understood)” is used.

**Example:**

Field unit needs clarification only on the street name.

**Unit:** “Say again name of street”

There is no need to repeat the full address if the unit only needs the name of the street.

This important and final step in radio communication protocol is one of the most frequently forgotten.

The sender and the receiver formally acknowledge the end of their communications by stating:
10-4, Out, or whatever specific term applies to your agency.

This acknowledgment serves two purposes. It allows both the sender and receiver to determine that no further transmissions are required or forthcoming, and that all messages or information have been received and understood. It also determines for others who are listening and waiting to transmit that the air is now clear, and that they are free to transmit their communications without interrupting others.

Accuracy, Brevity, Clarity, Security (ABC’S of Communication)

The ABC’S of radio communication are designed to maintain on-air discipline. Accuracy, Brevity, Clarity, Security (ABC’S) are the principles for effective, concise radio communication between operators and field units, which enable agencies to perform duties efficiently and in a professional manner.

A – Accuracy

Be precise in radio transmissions. One word or phrase can change the entire meaning of a transmission. Certain phrases may be unique to one industry or one agency within that industry. Be sure what you are saying is understood. Relay your information in such a way that the receiver will understand exactly what you are saying. If an operator is vague in relaying information, the receiver will need to ask for more details or clarification, thereby wasting valuable on-air time.

B – Brevity

It is essential to limit on-air radio communications. The reason for using brevity is obvious. Efficient radio transmissions are the essential communication link between persons requiring assistance and responding
agencies that are the source of that assistance. If a message or information can be relayed in three words and have the necessary impact, there is no need to say it in twenty-five words.

_C – Clarity_

When transmitting on air, speak each word or phrase plainly and clearly to prevent words from running together. Keep your speed, rhythm, and rate of speech constant, neither too fast nor too slow. Remember that the receiver of your message/information may be writing it down. Clear and concise enunciation and pronunciation is an advantage when words or phrases need to be spelled over the air. Use the phonetic alphabet as dictated by your agency. Pace yourself using the rhythm of ordinary face-to-face communications. When separating words or phrases, remember to use _break or stop check_ rather than using unnecessary sounds such as _er _or _um._

Use a moderate tone when transmitting. There is no need to shout, to accent syllables, or to speak rapidly. The pitch and quality of your voice must be easy to listen to. A voice that is too high can become extremely unpleasant to listen to, and a _voice that is too low may be difficult to understand._

_S – Security_

Almost every on-air transmission is equivalent to a public broadcast. Radio transmissions can be and are monitored by people who have scanners, including the news media. Be cautious and maintain a sense of confidentiality in incidents where sensitive information has to be sent or received. If information of a confidential or sensitive nature needs to be communicated, follow departmental policy, or request the receiver of the information to contact you by telephone if possible.

**Signal (or Radio) Checks**

When your radio station requires a signal (or radio) check, follow this procedure:

Call another station and request a radio check.
The signal check consists of "SIGNAL CHECK 1, 2, 3, 4, 5. HOW DO YOU READ ME? OVER."

Your station identification (call sign) should be transmitted during such test transmissions.

Signal checks should not last more than 10 seconds.

When replying or receiving a reply to a signal check, the following readability scale should be used:

1. Bad (unreadable)
2. Poor (readable now and then)
3. Fair (readable but with difficulty)
4. Good (readable)
5. Excellent (perfectly readable)

Examples:

COMMUNICATIONS
THIS IS
CAR ONE FOUR
REQUEST SIGNAL CHECK 1, 2, 3, 4, 5. HOW DO YOU READ ME? OVER
CAR ONE FOUR
THIS IS
COMMUNICATIONS
READING YOU STRENGTH FIVE
OVER
Professional and Proficient Radio Communications

Effective on-air radio communication is a critical skill that takes time and experience to develop. The role of any dispatcher carries with it enormous responsibility and is an integral part of an agency’s effectiveness in serving the public. The efficiency of an agency’s operation and customer service is often directly related to the call takers’ and dispatchers’ ability to fulfill their responsibilities.

Individual radio dispatchers are part of a team and will act, react, and interact with other members of that team in various ways. Members may have shared emotional reactions and responses to situations, but may also react and respond differently from other team members.

Regardless of any emotional responses, radio communicators must perform all their duties, in all situations, with professionalism and control. Communicators may find it difficult to control their emotions on the air when they are feeling pushed to their limits, or when they make errors and are embarrassed. Responding in a professional manner to an unprofessional remark, or appearing calm when feeling frustrated or angry by an incident, may be difficult, and it may require much time and effort to become skillful at staying in control in such situations, but it is absolutely essential. There is no room for egos, individualism, or cute remarks in radio communication.

Appropriate Words and Phrases

The efficient use of radio airtime depends to a large extent on articulation of words and phrases used by a dispatcher. Transmitting and receiving radio messages/information must follow a standard format. Using anything but the expected and anticipated phraseology will result in confusion. It may also result in unnecessary repetition of a message or inaccuracy of information.


Radio Courtesy

Radio operators should always assume gratitude. Please, thank you, and you’re welcome, have absolutely no place in the receiving or transmitting of messages or information. Avoid becoming too familiar with personnel on the
air. Remember that outsiders may be listening, and that charming or cute remarks are not so cute when played back from a recording.

Naturally, conflicts will happen on air. Always be professional while transmitting, and solve interpersonal conflicts later, either on the telephone or face to face. It is your responsibility as a dispatcher to maintain radio control in a professional manner. You will never regret adhering to this standard.

**Timing**

Before transmitting, pause, listen, and ensure that you are not about to interrupt or interfere with on-going communication or those of a higher priority. Use *breaks* or *stop checks* as needed in long transmissions. If you do need to interrupt a transmission already in progress, wait for a natural break to do so and be certain that what you are about to say is actually more important than what is already being communicated.
Chapter 3: 
Radio Code Systems

Radio Codes

The initial purpose for developing and implementing the use of radio communication codes was an attempt to shorten transmission of messages. Some agencies believe that the use of the 10 Code affords some degree of privacy. Over the years, different service agencies have implemented codes in radio transmissions in an attempt to relay information in secrecy to avoid unwanted detection by the public, the media, or other interested parties.

The main concern with the use of codes is the variations from one agency to another. Communication between agencies is often confusing, and the potential for misinterpretation is greater when relying on a code for radio transmissions. The implementation of digital radio systems has reduced the need for codes and many agencies are switching to plain language radio transmissions. Dispatchers must always be aware that radio codes relayed from another agency even within their own jurisdiction may have a totally different meaning.

A dispatcher who changes agencies or jurisdictions is often required to learn different codes for radio transmissions. During times of stress, this employee runs the risk of reverting back to a former and more familiar code. The potential for risking the safety of department personnel may have severe consequences.

The use of codes in radio communications is widespread and varies considerably from agency to agency. Codes have almost become part of the language and culture of many emergency services. For whatever reason, they have evolved to what they are today and are likely to stay in radio communication.

Alphabetic Letters and Numerals

The phonetic alphabet is a system of associating a specific word with each letter of the alphabet. Phonetic alphabets are used in radio broadcasting and voice communications to promote consistency among personnel and minimize errors in the understanding of verbal messages. Using the phonetic alphabet,
people can convey without ambiguity letters that are easy to misinterpret on the phone. In this way, “Sierra” and “Fox trot” are much easier to distinguish than S and F, which tend to sound alike over the telephone or radio. It is also more effective to convey difficult names with the phonetic alphabet. Also, the string of individual letters or numbers (alphanumeric code) that make up a model number, part number, vehicle identification number or serial number can be more accurately transmitted via radio or telephone through the use of a phonetic alphabet translation.

The I.T.U. (International Telecommunications Union) Phonetic Alphabet or International Phonetic Alphabet, is the system most commonly used in Canada.

**I.T.U. Phonetic Alphabet**

<table>
<thead>
<tr>
<th>Letter</th>
<th>Alphabet</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ALPHA</td>
<td>(al-fah)</td>
</tr>
<tr>
<td>B</td>
<td>BRAVO</td>
<td>(brah-vo)</td>
</tr>
<tr>
<td>C</td>
<td>CHARLIE</td>
<td>(char-lee)</td>
</tr>
<tr>
<td>D</td>
<td>DELTA</td>
<td>(del-ta)</td>
</tr>
<tr>
<td>E</td>
<td>ECHO</td>
<td>(eck-oh)</td>
</tr>
<tr>
<td>F</td>
<td>FOX TROT</td>
<td>(foks-trot)</td>
</tr>
<tr>
<td>G</td>
<td>GOLF</td>
<td>(golf)</td>
</tr>
<tr>
<td>H</td>
<td>HOTEL</td>
<td>(hoe-tell)</td>
</tr>
<tr>
<td>I</td>
<td>INDIA</td>
<td>(in-dee-ah)</td>
</tr>
<tr>
<td>J</td>
<td>JULIET</td>
<td>(jew-lee-ett)</td>
</tr>
<tr>
<td>K</td>
<td>KILO</td>
<td>(kee-low)</td>
</tr>
<tr>
<td>L</td>
<td>LIMA</td>
<td>(lee-mah)</td>
</tr>
<tr>
<td>M</td>
<td>MIKE</td>
<td>(mike)</td>
</tr>
<tr>
<td>N</td>
<td>NOVEMBER</td>
<td>(no-vehm-bur)</td>
</tr>
<tr>
<td>O</td>
<td>OSCAR</td>
<td>(oss-car)</td>
</tr>
<tr>
<td>P</td>
<td>PAPA</td>
<td>(pah-pah)</td>
</tr>
<tr>
<td>Q</td>
<td>QUEBEC</td>
<td>(kee-beck)</td>
</tr>
<tr>
<td>R</td>
<td>ROMEO</td>
<td>(row-me-oh)</td>
</tr>
<tr>
<td>S</td>
<td>SIERRA</td>
<td>(see-air-rah)</td>
</tr>
<tr>
<td>T</td>
<td>TANGO</td>
<td>(tang-go)</td>
</tr>
<tr>
<td>U</td>
<td>UNIFORM</td>
<td>(you-nee-form)</td>
</tr>
<tr>
<td>V</td>
<td>VICTOR</td>
<td>(vik-tar)</td>
</tr>
<tr>
<td>W</td>
<td>WHISKEY</td>
<td>(wis-key)</td>
</tr>
<tr>
<td>X</td>
<td>X-RAY</td>
<td>(ecks-ray)</td>
</tr>
<tr>
<td>Y</td>
<td>YANKEE</td>
<td>(yang-key)</td>
</tr>
<tr>
<td>Z</td>
<td>ZULU</td>
<td>(zoo-loo)</td>
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It is important to use this system as printed and not substitute alternate words. You must become so familiar with the system your agency uses that you begin to think in terms of the phonetic alphabet instead of individual letters or numbers.

It is common practice when broadcasting or speaking over the telephone, to first state the common pronunciation of the word, followed by the spelling of
it using the phonetic alphabet. For example you would say, “The surname is Smith, spelled Sierra, Mike, India, Tango, Hotel.” Never repeat the letter followed by the phonetic such as “S-Sierra, M-Mike, I-India, T-Tango, H-Hotel.” It does not flow, and becomes confusing to the person listening or trying to copy (“Is it ‘Smith’ or ‘Smmmitthh’ or something else altogether?”). If you are unable to pronounce a surname, state the first name and then, “Last name I spell...november, golf, uniform, yankee, echo, november” [NGUYEN].

With practise, you will be able to think in terms of the phonetic alphabet.

**Transmission of Numbers**

Numbers zero through nine should be pronounced as follows:

- 0 .................. (zee-ro)
- 1 .................. (wun)
- 2 .................. (too)
- 3 .................. (thu-ree)
- 4 .................. (fu-or)
- 5 .................. (fa-ive)
- 6 .................. (siks)
- 7 .................. (sev-ven)
- 8 .................. (ate)
- 9 .................. (nie-yen)

(or NIN-er as per the Industry Canada Study Guide for Radiotelephone Operator’s Restricted Certificate – Aeronautical)

Note: Use Zero instead of Oh, which is ambiguous.

Always enunciate clearly and do not group numbers together. All numbers except whole thousands should be transmitted by pronouncing each digit separately. Whole thousands should be transmitted by pronouncing each digit in the number of thousands followed by the word “thousand”.

**Examples:**

- 10 becomes .............. one zero
- 75 becomes .............. seven five
- 100 becomes .............. one zero zero
- 5,800 becomes .............. five eight zero zero
- 11,000 becomes .............. one one thousand
68.009 becomes............... six eight zero zero nine

A street address would be stated as follows:
“One four zero zero Bargen Drive, bravo, alpha, romeo, golf, echo, november.” (1400 Bargen Drive)

Broadcast vehicle plates as follow:
“Vehicle is a red late-model, four-door Jeep, BCL: whiskey, charlie, x-ray, one, seven, three” (WCX173).

When broadcasting alphanumeric information, state each numeric carefully with each alpha character followed immediately by its phonetic word.

For example, to broadcast “1B2G36T4”, state:
“One, Bravo, two, Golf, three, six, Tango, four.” Each number and letter is pronounced separately; in other words, you would not say “One, B-Bravo, two, G-Golf, thirty six, T-Tango, four.”

Numbers containing a decimal point shall be transmitted as above, with the decimal point indicated by the word “decimal”.

Example:

121.5 becomes............. one two one decimal five

Monetary denominations, when transmitted with groups of digits, should be transmitted in the sequence in which they are written.

Examples:

$17.25 becomes............. dollars one seven decimal two five
$.75 becomes............. seven five cents

Use of 24 Hour Clock

All times used in dispatching and in writing reports will be given in the 24-hour clock. Many public agencies commonly use the 24-hour-clock for dispatching and writing reports. This minimizes errors in reporting, and removes the need to add ‘a.m.’ or ‘p.m.’ after the time.

Midnight is both the starting and ending point on a twenty-four hour clock. Time measurements are displayed as four-digit numbers. Midnight is referred to as 2400 (twenty four hundred hours), but one minute after is 0001 hours.
(zero, zero, zero, one hours). The two rightmost digits register *minutes* (00 to 59), while the two leftmost digits register *hours* (00 to 24). For example, 3:15 a.m. is 0315 hours (pronounced “zero three fifteen”), 2 p.m. is 1400 hours (pronounced “fourteen hundred hours”), and 7:25 p.m. is 1925 hours (pronounced “nineteen twenty-five hours”).

Like the phonetic alphabet, twenty-four hour time is used for consistency and to minimize errors during radio transmissions and in written reports. In order to become efficient in your job, you must be thoroughly familiar with this system of time-keeping and learn to think about the passage of time in terms of a twenty-four hour cycle rather than a twelve hour one.

The quickest and easiest way to learn this system is to set your watch to this time and use it every day.

**Other Codes**

The following are examples of codes that may be used by some agencies. Although your agency may use plain language in radio transmissions, be aware that codes may differ.

CODES 1, 2, and 3 may be used by the dispatcher to indicate to the field unit the degree of urgency required in his/her response. The field unit may use the code to indicate to the communications operator how they are responding or wishes to respond to a situation encountered in the field.

CODES 4, 5, and 6 will be used by the field unit or the communications operator to indicate the known or suspected status of the situation.

- **CODE 1**........Routine
- **CODE 2**........Respond as quickly as possibly without using emergency equipment and complying with provisions of the Motor Vehicle Act
- **CODE 3**........Respond at once using emergency equipment
- **CODE 4**........Emergency operation/situation giving calling unit/base station air control
- **CODE 5**........Use CAUTION – situation/operation may be dangerous
- **CODE 6**........Hostage situation
The International Hospital Standard uses the following codes:

- CODE BLACK ..........Bomb threat
- CODE BLUE ...........Cardiac arrest
- CODE GREY ...........Shock trauma
- CODE GREEN ........Evacuation
- CODE ORANGE ......Disaster
- CODE RED ............Fire
- CODE WHITE ..........Aggressive/violent patient
- CODE YELLOW ......Missing patient

**Use of Codes**

New and inexperienced dispatchers often mix words or phrases with the use of codes. They might repeat the meaning of the code using additional or unnecessary words or phrases, defeating the reason for using the code. This should never be done as it is a waste of valuable air time.

**Examples:**

**Incorrect:**
- “Please 10-9 (Repeat) that last part, I didn’t get it all”

**Correct:**
- “10-9 all after…”

**Incorrect:**
- “Please 10-12 (Stand by) for a minute, I’m extremely busy right now”

**Correct:**
- “10-12 for 1 minute”

**Radio Communication Words and Phrases.**

**Procedural Words and Phrases**

Although it is difficult to set out precise plain language/clear text phraseology that is standard throughout all emergency services, slang expressions should not be used. Radio communicators are not air traffic controllers, amateur radio operators, or CBers and should not transmit as if they think they are. Refer to the *Industry Canada Study Guide for the Radiotelephone Operator’s Restricted Certificate (Aeronautic)* for appropriate and current terminology and usage.

<table>
<thead>
<tr>
<th>Word or Phrase</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGE .............</td>
<td>Let me know that you have received and understood this message</td>
</tr>
</tbody>
</table>
AFFIRMATIVE.................Yes, or permission granted
BREAK..........................Indicates the separation between portions of the message. (To be used when there is no clear distinction between the text and other portions of the message.)
CHANNEL .......................Change to channel ____ before proceeding
CLEARED .......................Authorized to proceed under the conditions specified
CONFIRM ..........................My version is … Is that correct?
CORRECTION ..........................An error has been made in this transmission (message indicated). The correct version is ....
DISREGARD ..........................Consider this transmission as not sent
GO AHEAD ..........................Proceed with your message
HOW DO YOU READ? ............Self-explanatory
I SAY AGAIN .......................Self-explanatory (use instead of “I SAY AGAIN REPEAT”).
MONITOR ..........................Listen on (frequency)
NEGATIVE ..........................No, or that is not correct, or I do not agree
OUT ...............................Conversation is ended and no response is expected
OVER ..............................My transmission is ended and I expect a response from you
READ BACK ..........................Repeat all of this message back to me exactly as received after I have given “OVER” (Do not use the word “REPEAT”).
ROGER ..............................I have received all of your last transmission
ROGER NUMBER .....................I have received your message number
SAY AGAIN ..........................Self-explanatory (Do not use the word “REPEAT”)
STAND BY ............................I must pause for a few seconds or minutes, please wait
THAT IS CORRECT ...............Self-explanatory
VERIFY ..............................Check coding, check text with originator and send correct version
WILCO ..............................Your instructions received, understood and will be complied with
WORDS TWICE ..........................(a) As a request: Communication is difficult, please send each word twice
(b) As information: Since communication is difficult, I will send each word twice
Basic Radio Communication for Dispatchers

*From Study Guide for the Radiotelephone Operator’s Restricted Certificate (Aeronautical)*
Plain Language/Clear Text

More and more emergency service agencies are using and relying on the use of plain language or clear text in their radio communications. This method of transmitting messages involves simple and straightforward use of the English language in single words or short phrases. It is generally agreed that the use of plain language/clear text phraseology takes no longer than the use of codes and is more efficient as there is no need to memorize specific codes that may become confusing and easily forgotten under stress. Using plain language/clear text phraseology also eliminates confusion and misinterpretation between agencies.

Example (Fire Service)

Field Unit: “Dispatch, this is Engine 3, Over”
Dispatch: “Unit 3, this is Dispatch, Go Ahead”
Field Unit: “Unit 3 has arrived, require hydro for wires down, Over”
Dispatch: “Unit 3 copy you’ve arrived, request hydro attend, Dispatch Out”

Example (Police Service)

Field Unit: “Radio, Bravo 4”
Dispatch: “Bravo 4”
Field Unit: “At scene, request hydro for wires down”
Dispatch: “Bravo 4, copy, will advise their ETA”

Combinations

Some emergency service agencies supplement plain language/clear text phraseology with the use of codes under certain circumstances. These combinations are often based on the standard 10 Code and/or the standard phonetic alphabet. Codes are often used to indicate injuries, deaths, bomb threats, arson or suspicious fires, or that a department member is in serious danger. Once these combination codes are transmitted, it is an indication that the situation is of a high priority and non-essential radio transmissions are to cease until the situation is under control.

Closely related to code words are call signs, which are used to identify field units and other agencies and units. Using call signs can provide an efficient
way of organizing and monitoring department resources. The communication centre base station may also have a designated call sign such as Control, Dispatch, Radio or Base.

As you can see, there is potential for confusion caused by a lack of standardized codes or identifying call signs among emergency agencies. Communications can break down easily. For this reason the use of plain language/clear text phraseology may have a distinct advantage over the use of codes, especially if secrecy is not an issue.
Chapter 4:  
Radio Dispatching Methods

Information to Dispatch a Call

To dispatch a typical report, you will need to have the following information recorded and forward it to the field units:

**Location of Incident**

When relaying descriptions of residences \ locations or direction of travel, do not use terms left or right, use proper directions, such as:

- Male requires assistance at the shelter at the northwest side of intersection
- Vehicle is disabled southbound Oak Street at King Edward in the curb lane
- The coach is located at the N.E. (north east) corner of the intersection.

In addition to the address, location information may include a physical description of the site, or landmarks to facilitate response by any personnel. For example, for the purpose of emergency services attendance, landmarks or cross streets would apply.

**Details of Incident**

The information from the call taker should supply all the needed information and incident details.

**Name of the Person to Contact**

The report for dispatching should make it clear which person should be contacted at the scene.

**Subject Description**

In broadcasting the physical description of the subject, **be specific.** It should include as much of the following information as possible.

- Age or approximate age.
- Sex of subject.
• Height and weight of subject.
• Race of subject.
• Colour, length and style of hair.
• Facial hair if any (beard, mustache)
• Indication if eye- or sunglasses worn.
• Specific clothing description from head to toe, including colour, style, foot wear, head gear.
• Any known accent or speech impediment.
• Indicate any jewelry noted on subject; may include earrings, visible wrist or neck jewelry.
• Distinguishing marks or tattoos. If tattoos, be specific in their descriptions and location on the body. Distinguishing marks may include pockmarks, acne or scars.
• WEAPONS – Was the subject seen carrying one or was the weapon simulated? If the weapon was seen, supply a full description of the type of weapon.
• In any situation that shows the slightest indication of violence or risk, or escalation to either, always include information about weapons whether or not seen or accessible.

**Vehicle Information Broadcast**

As with subject information, be specific in describing the vehicle. A vehicle description should be done in a logical format. For example: “silver 2001 Ford Mustang 2 door sedan, with BC license ABC123” relays all of the pertinent information in a simple format.

An easy way to ensure you gather all the information is to remember the acronym C.Y.M.B.A.L.S.

**C** Colour of vehicle.......*(If the vehicle is two-toned or multicolored, identify where the colours are on the vehicle.)*

**Y** Year of vehicle..........*(Specify year if known, or approximate age of vehicle as in “late-model Ford Taurus”.)*

**M** Make of vehicle.........*(Specify the make, as in Ford, and the model if known, as in Taurus.)*
Vehicle information would include the vehicle location at the time of the call or if the vehicle has left the scene. If it has left the scene, determine the direction of travel and the time delay involved in its departure.

Vehicle information includes the vehicle location at the time of the call, or whether or not the vehicle has left the scene. If the vehicle has left the scene, determine the direction of travel and the time delay involved in the departure of the vehicle.

Depending on the system in use at an agency, the above information may be dispatched from a completed form or by reading a screen.

**Call Information Dispatching**

Information may be supplied to an agency through any number of methods. It may be received electronically, through phone, radio, pagers, MDT, facsimile, or e-mail. It may come into the agency manually through mail, courier or memorandum, or more directly by a caller attending the office.

No matter how the information enters the agency, it will have to be recorded in some manner. Once the appropriate forms, screens or logs are completed, it is assigned or dispatched as any other call would be. The field unit may or may not need to be apprised of the method in which the information was received, depending on the circumstances.

Call information is always dispatched under the criteria of an agency’s SOGs (Standard Operating Guidelines), utilizing appropriate codes and radio language.
Dispatch Information Procedures

In a manual system, when a call enters an agency it may be recorded on a dispatch form or ticket, in an occurrence report, as well as in an incident log book.

The form is generally filled out for the dispatcher and will contain all the necessary information to assign a field unit or crew to the call, and will indicate any support or specialty sections that may also be required at the scene.

Many agencies record caller information, telephone conversations, and radio broadcasts on audio tapes. The dispatcher and call taker need to be aware that their communications may be recorded and may be scrutinized. Maintaining a professional manner in conversations, in inter-office communications, and while broadcasting is always a good idea for communicators.
Describe the Person

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many people?</td>
<td>______</td>
</tr>
<tr>
<td>Have they left?</td>
<td>______</td>
</tr>
<tr>
<td>On foot?</td>
<td>______</td>
</tr>
<tr>
<td>By vehicle?</td>
<td>______</td>
</tr>
<tr>
<td>Which direction?</td>
<td>______</td>
</tr>
<tr>
<td>Weapons? Type</td>
<td>______</td>
</tr>
<tr>
<td>• seen or simulated?</td>
<td>______</td>
</tr>
<tr>
<td>Name: SNME/G1/G2</td>
<td>______</td>
</tr>
<tr>
<td>D.O.B. or age</td>
<td>______</td>
</tr>
<tr>
<td>Sex</td>
<td>______</td>
</tr>
<tr>
<td>Race? White, Native-Indian,</td>
<td>______</td>
</tr>
<tr>
<td>East-Indian, Black, Asian,</td>
<td>______</td>
</tr>
<tr>
<td>other?</td>
<td>______</td>
</tr>
<tr>
<td>Age</td>
<td>______</td>
</tr>
<tr>
<td>Approximate height</td>
<td>______</td>
</tr>
<tr>
<td>Approximate weight</td>
<td>______</td>
</tr>
<tr>
<td>Build</td>
<td>______</td>
</tr>
<tr>
<td>Eye colour, glasses</td>
<td>______</td>
</tr>
<tr>
<td>Hair? Colour?</td>
<td>______</td>
</tr>
<tr>
<td>Style?</td>
<td>______</td>
</tr>
<tr>
<td>Facial hair, scars, limps, etc.</td>
<td>______</td>
</tr>
<tr>
<td>Clothing Worn By Subject(s)</td>
<td>______</td>
</tr>
<tr>
<td>Hat? type? colour?</td>
<td>______</td>
</tr>
<tr>
<td>Coat? style? colour?</td>
<td>______</td>
</tr>
<tr>
<td>Shirt? type? colour?</td>
<td>______</td>
</tr>
<tr>
<td>Pants? style? colour?</td>
<td>______</td>
</tr>
<tr>
<td>Shoes? boots? colour?</td>
<td>______</td>
</tr>
</tbody>
</table>

Additional Information

Person carrying anything? _____

Bag? Type? _________________

Other objects ________________

Was the person wet or dry? _____

(indicates if traveling on foot or by vehicle)

Any noticeable jewelry ______

Other _______________________

___________________________

___________________________
Vehicle Information

Colour(s)?
____________________________________________________________

Year? older? newer? ____________________________________________

Make? _______________________________________________________

Body Style? 2/4 door? ___________________________________________

Additional Info ________________________________________________

License plate __________________________________________________

State or province _____________________________________________

Condition of Vehicle?

Rust? Dent(s)? ________________________________________________

Light(s) or Signal(s) out? _______________________________________

Contents of Vehicle?

Driver alone? Passengers? _______________________________________

Anything noticeable in vehicle? ________________________________

Anything in back of pick-up? ________________________________

Direction of Travel? ________________

Direction Vehicle Parked? ________________________________

OTHER NOTES:
__________________________________________________________________________
__________________________________________________________________________