

Texas Fire Chiefs Association
DOCUMENT SUBMISSION FORM

Candidate Department: **Irving Fire Department**

Best Practice Standard: 9.09 Normal Radio Communications (V)

Proofs of Compliance Submitted:

1. Dispatcher operating at console
2. Emergency Operating Guideline 18.1 Radio-Computer Communications

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Date:

Evaluator's Review

Evaluator:

Date Accepted:

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18.1 – RADIO/COMPUTER COMMUNICATIONS

A. Terminology and Definitions

1. At: The company is in service at a location other than quarters. The company is available for calls via radio channel “Dispatch 1”. Dispatch is to be given the following information:
 - a. Exact location
 - b. When leaving the location, the company must transmit: “Clear from (location)”.
2. Back: The company has returned to quarters and is available for calls via the “Zetron” radio channel.

Note: Do not use this term when returning to quarters while “out of service” (OOS) due to staffing shortage, mechanical failure or the company is otherwise unavailable for calls.

3. Clear: The company is leaving the current location and is available for calls via Dispatch 1. When clearing, provide the destination in the report.
4. Out: The company is on the scene of an emergency and unavailable for assignment to another call. The term “out” shall be transmitted via MDC and verbally when the responding unit is parked at the location or physical address to which it was dispatched.

Note: When checking out, the company will give the location to which they are checking out prior to the size-up. This is done to confirm the correct location and aid the Dispatchers in keeping track of what companies are where.

5. Status: Availability of a company to respond to calls. There are only three (3) levels of status.
 - a. In Service (Back, Clear, At, In Service) – The company is available for calls via Dispatch 1.
 - b. Out of Service (Out, Out of Service) – The company is unavailable for response for reasons other than assignment to an emergency. The reason for being Out of Service and the estimated time for returning to service must be communicated to Dispatch.

c. Limited Response

- 1) Fire companies on limited response will be dispatched only in the following situations:
 - a) Heart attack
 - b) Unconscious person
 - c) Difficulty breathing
 - d) Major accidents
 - e) Structure fire alarms
 - f) At the discretion of the Dispatcher, considering call activity or excessive response times due to location of the next responding company
- 2) MICUs on limited response will be dispatched only in the following situations:
 - a) Heart attack
 - b) Unconscious person
 - c) Difficulty breathing
 - d) At the discretion of the Dispatcher, considering call activity or excessive response times due to location of the next responding company

Note: All companies are assumed to be in service until Dispatch has been notified otherwise and has confirmed same!

6. Transmit: Term used to request a first alarm response to a given location. If more than a first alarm response is desired, the Company Officer should state the request as, "Transmit a second (or third, etc.) alarm to (give the location)".
7. Transport Only: A request for additional MICU(s) will also receive the Shift Duty Officer and Battalion Chief unless this term is included in the request. This term is not intended to indicate patient status or needs.

8. Mission: The purpose for which a company is en route to a (non-Emergency) location. This information should be provided each time a company leaves one location en route to another and is necessary in order for the Dispatchers to maintain proper response coverage.
9. Dispatch:
 - a. Name given to identify the Irving Fire Department (IFD) Alarm Office or Alarm Office personnel.
 - b. To notify or send a company or equipment, by radio, of an emergency to which they must respond.
10. Simulcast or Simul-select: Procedure used by Alarm Office personnel to broadcast radio messages over multiple channels or talk groups simultaneously.
11. First Alarm: Refers primarily to structure fires and includes the following equipment:
 - a. Three (3) Engine Companies
 - b. Two (2) Truck Company
 - c. One (1) MICU
 - d. One (1) Battalion Chief
 - e. Shift Duty Officer
12. Radio Identification for Personnel
 - a. When speaking of a company as a whole, users of mobile radios will use an identifier corresponding to the company to which they are assigned (i.e. “Engine 5”, “Truck 2”, “Medic 4”, etc.).
 - b. When speaking as an individual of a company, users of mobile radios will use the following examples of identification:
 - 1) Officer – “Engine 8 Officer to _____”
 - 2) Driver – “Engine 2 Driver to _____”
 - 3) Firefighter

- a) Firefighter assigned position #3 (behind the Officer) – “Engine 1 Firefighter A to _____”
 - b) Firefighter assigned position #4 (behind the Driver) – “Engine 1 Firefighter B to _____”
- 4) MICU personnel
- a) MICU Driver – “Medic 4 Driver to _____”
 - b) MICU Attendant – “Medic 4 Attendant to _____”

B. Radio Channels

The IFD radio system is part of the City of Irving’s truncated 800 MHz system known as an EDACS. This system uses “talk groups” to separate communications between and within various departments utilizing the system. For continuity of terminology and keeping with tradition, the IFD will use the term “channel” when referencing a talk group. The following is a list and description of the purposes for the channels used within the Fire Department communications system.

Notes:

- Mobile (apparatus) and base station radios are programmed to display the name of the radio channel on the LED readout.
 - Portable (handheld) radios obtain the desired channel by placing the channel selector knob in the numbered position that matches the correct channel number. Some models of our portable radios also have a LED readout to display the name of the channel.
1. Zetron: This channel is available only on base radios located within the fire stations. It is used by the Alarm Office to open the station speakers in order to dispatch companies from quarters and to make general announcements. It is also used by companies when checking back and to report emergencies directly to Dispatch.
 2. Dispatch 1: The first position (1) on the portable radios.

The primary channel for use by “on air” companies. All companies will monitor and use this channel when out of quarters unless otherwise assigned by Dispatch.

3. Fireground 2: Second position (2) on portable radios.

The primary channel activated for use when companies are responding to or operating at a structure fire or any other incident requiring numerous radio transmissions. Whenever more than three (3) companies are on-scene (i.e. extrications, rescues, Mass Casualty Incidents (MCI), large grass fires, etc.), the Incident Commander (IC) should request a “Fireground Channel” from Dispatch.

4. Fireground 3 and 4: Third and fourth positions on the portable radios.

5. EMS 5 and 6: Positions 5 and 6 on the portable radios.

- a. These channels are reserved for incidents involving MCIs or other major events in which it would be advantageous to place all medical companies on a separate channel.
- b. These channels are not monitored by Dispatch until activated and authorized by Dispatch.

6. BioTel 7: Position 7 on the portable radios.

- a. This channel provides direct communication with BioTel Medical Control.
- b. Although this channel is recorded by the Alarm Office, Dispatchers do not monitor this channel. While using this channel, companies should ensure they have another radio set to monitor their assigned operational channel.

7. Training 8: Position 8 on the portable radios.

- a. This channel is reserved for use by the Training Division or companies actively involved in training exercises requiring the use of radio communications.
- b. Dispatch does not monitor this channel unless requested by the Officer conducting the training.

8. Fire Prevention: Position 9 on the portable radios.

- a. Members of the Fire Prevention Division will use this channel for communications within the Fire Prevention Division and at special events where Fire Prevention personnel are required.
- b. Dispatch will not monitor this channel unless requested.

Note: When an Inspector or Investigator is assigned to an incident, that member will be instructed by Dispatch as to which channel to use.

9. Fire Administration: Position 10 on the portable radios.

Reserved for use by Fire Administration and/or special operations such as staff communications on large incidents. Dispatch will not monitor this channel unless requested by a Chief Officer.

10. 8Call90, 8TAC91-8TAC94 (previously identified as NPSPAC 1-5)
Positions 11-15 on the portable radios.

- a. Established for use when operating outside of the City of Irving Radio System.
- b. There are strict rules governing the use of these channels. As such, these channels are not to be used unless designated to do so by Dispatch. The Dispatcher will advise the Incident Commander or Division/Group Officer which channel will be used and when to activate the channel.

11. Simplex: (Also known as “Talk Around”) Position 16 on the portable radio and uses the frequency designation of 866.550 MHz.

- a. This channel bypasses the EDACS system and stationary repeaters. Communications on this channel are directly from radio to radio.
- b. This channel provides a strong, short-ranged signal. This unique feature can provide improved communications within large structures or when operating below grade.
- c. The decision to use this channel should be made by the first-arriving company or the IC. When activating this channel, the IC should continue to monitor the fireground channel and immediately call for a PAR on Simplex. This will ensure effective communications and safety for all personnel on-scene.
- d. When Simplex is used, at least one (1) IFD member, with two (2) radios, (mobile and portable), must remain *outside of the structure*. The mobile radio is the most powerful and is used to monitor Simplex. The portable radio is used to monitor the fireground channel. This is necessary to ensure the safety of personnel inside the structure and maintain communications with Dispatch.
- e. In the event you are unable to secure communications on the fireground or other EDACS channel, Simplex may be used as a communications lifeline by turning the channel indicator knob fully to the right.

- 1) To help ensure transmissions on Simplex are heard, an additional mobile radio is now installed within the Battalion Chiefs, 520, and BCX vehicles.
- 2) These additional radios are always tuned to monitor Simplex. Whenever there is a transmission with the range of one of these radios, (vehicles), a red light will illuminate within the vehicle indicating to the operator that the current transmission is coming from Simplex.

C. Availability for Response

1. Before leaving their district, all companies shall contact Dispatch to report their mission and destination. The Dispatchers will coordinate out-of-district movement to assure adequate response coverage of the city.
2. Out-of-district companies shall report upon arrival at their destination and again on departure. Companies that have left the city shall notify Dispatch upon returning to the city limits.
3. The first company checking out on an emergency scene shall restate or confirm the address in their size-up. This will ensure that other responding units have the correct address and will help avoid any confusion should multiple companies check out simultaneously.
4. It is departmental policy for the closest company to respond. In district companies will always be dispatched as if closest to any incident occurring in that district. Companies on the air and not on assignment are required to monitor Dispatch 1. If an Officer believes his/her company is closer, that company will respond. The officer will not delay response and clutter the airwaves asking Dispatch if he/she should respond. Dispatch will intervene if they have specific information that clearly establishes the better response.

D. Communicating on the Radio

1. It is important that all radio communications be as clear and concise as possible. It is also important that a professional attitude be maintained at all times. Besides being monitored by citizens and the media, all radio messages are recorded and are subject to being subpoenaed for use in court. A flippant or joking attitude can be very damaging in a court case. The following radio follies should be avoided:
 - a. **RADIO PERSONALITY:** Great for DJs but not for Fire Department communications. All transmissions should be consistent in tone, pace, and content. Do not try to stand out.

- b. **THE RADIO HIGH FIVE:** Radio high five's put special emphasis on certain words or draw them out, such as "Truck Niiiiine, BACK!"
- c. **THE GOOD BUDDY:** Fire Department communications should bear no resemblance to CB chatter.
- d. **PERSONAL MESSAGES:** Inside jokes, first names, and other personal messages should be avoided. *Examples:* "Engine 1, go see Jimmy at the shop." "Engine 1, call the mechanics" is more professional.
- e. **FOUL LANGUAGE:** Under FCC regulations, foul language on the radio is **against the law.**

Examples of Appropriate Radio Terminology:

- a. **"Engine 1 clear Station 1, en route to the Academy for CE."**
 - b. **"Engine 1 at the Academy for EMS CE, on limited response."**
 - c. **"Engine 1 out of service, en route to Irving Hospital to retrieve personnel."**
2. There are many obstacles to effective radio communications. Background noise, static, other radio traffic and even the sound of a person's own heartbeat and breathing can become detrimental. We must all make an extra effort to be understood when speaking on the radio. We must be equally clear in our understanding of messages received. The following procedures will be used for radio transmissions.
- a. Press the PTT, (Push to Talk), button and wait for the mid-toned beep. If you do not receive this tone you have failed to access the EDACS system and you are not transmitting (see 3.a. below).
 - b. When transmitting on the mobile hand held microphone or the portable radio, the speaker's mouth should be approximately three (3) inches from the microphone. Speak slowly in a normal voice as clearly and succinctly as possible. Avoid "forceful" speech, (i.e. yelling, etc.), as this distorts the sound.
 - c. When transmitting on the mobile headset, the microphone should be about one (1) inch directly in front of the speaker's mouth.
 - d. When wearing the SCBA voice amplifier, hold the radio microphone approximately ten (10) to twelve (12) inches from the amplifier for best results.

- e. If you are told your volume is low, reposition the microphone closer versus speaking louder.
 - f. If you are unreadable, try eliminating background noise and/or move the microphone further away.
3. The EDACS system will prevent transmissions on the same channel from being “stepped on” with one exception:
- a. Any transmission from a Dispatch console will override any other transmission on the same channel. As a result, it is possible for you to hear an access confirmation beep and not actually transmit.
 - b. To prevent such “lost” messages, all transmissions must be properly acknowledged. The accepted method of acknowledging receipt of a message is to repeat the essence of the message back to the sender. If a message is not acknowledged, communication has not occurred.
4. Courtesy
- a. Do not try to “slip in” a radio transmission on the tail end of another company’s transmission. Unless you are declaring an Emergency Situation, (i.e. “Mayday”, “Emergency Traffic”), wait until Dispatch or other requested company has completed both sides of their communication message before interjecting your communication message.
 - b. Although appreciated in conversation, please and thank you are not parts of emergency radio communication.
 - c. Keep transmissions short and to the point. Know what you intend to say before keying the microphone. Someone else may need the open channel.
 - d. Emergency communications are best understood when conducted one at a time. Allow the receiver to acknowledge one instruction/request prior to beginning another transmission as often as possible.
5. Request for Additional Equipment
- a. If manpower is desired, request manpower, not an engine. This allows the Dispatcher to send the closest fire company versus the closest engine. Provide a brief description of the reason for the manpower request. This will allow the responders to properly prepare for the event such as wearing the proper personal protective equipment, (PPE), or bringing the appropriate equipment to the scene.

- b. If extrication is required, call for extrication, not for a truck. A request for extrication will receive the closest in-service company with extrication equipment, a Battalion Chief and the Shift Duty Officer, (and a MICU if one is not already sent).

Note: A request for a truck company *is not* a request for extrication equipment. The nearest truck company may not have the desired equipment available. This is true for all requests, (smoke ejectors, aerial ladder, forcible entry tools, etc.). Just because a truck or an engine normally carries the equipment desired does not ensure that equipment is available on that apparatus, when requested.

To ensure the correct equipment is dispatched, it is mandatory for all Company Officers to notify Dispatch **daily** of all equipment out of service. This will allow the Dispatcher to ensure the closest available equipment is dispatched to the emergency when requested.

- c. A request for additional MICU(s) will receive the MICU, the Shift Duty Officer, and a Battalion Chief. If the Shift Duty Officer and Battalion Chief will not be needed, the request for additional MICU(s) must include the phrase “Transport Only”.
- d. A request for a “HazMat” response must include a size-up of the situation – as detailed as possible. Along with the suspected or known product identification, include the estimated amount of release, the most desirable route to the location and the location of the Staging Area.

The standard response for a HazMat incident will include the district engine and Battalion Chief, Truck 8 and HazMat 8. If the assessment of the situation determines that full encapsulating PPE entry will be required, a MICU and the Shift Duty Officer shall also be requested.

6. Police Assistance

- a. The Irving Police Department (IPD) has established response codes for different emergencies, as does the IFD. If a Code 3 police response is desired, the reason for the response must be included or the response will be given a lower priority. The standard response to our Code 3 request will receive one (1) squad car Code 3 and one (1) automatic back-up unit sent Code 1.

Any unspecified request will receive one (1) IPD squad car, Code 1, without a back up.

b. To ensure the proper response from IPD to the emergency, the following information and procedures must be followed:

- 1) Transmit the purpose for IPD response, (i.e. traffic control, personnel protection, accident investigation, domestic violence, child welfare, crowd control, mental warrant, etc.).
- 2) Confirm the exact location where IPD is needed.

Example:

IPD needed for traffic control on a highway. Specify what ramps or lanes should be controlled or blocked and where the squad car(s) should go.

- 3) Number of Police Officers needed.

c. Response code to a threat situation

In situations where **any** IFD member believes that their life/health or a crew member's life/health is threatened to the point where IPD assistance is needed immediately, the following procedure has been established:

- 1) Transmission of the term "**Code Blue**": Dispatch will know there is immediate danger and will generate a Code 3 response from two (2) IPD Officers to the last known location of the member in peril.

If the member has the opportunity, any and all additional information should be given as previously described.

- 2) A Code Blue response places the responding IPD Officers and the public at risk. As such, the use of this request must be limited to only the most serious situations.

It is not possible to predict every situation that might arise. Good radio communication, like all good communication, requires good judgment, courtesy, and feedback. If in doubt, repeat the message or ask if you were received. If no one acknowledges a message, assume that it was not received.

Remember: Everything you say on the air is recorded and monitored by the media and the public.

E. Mobile Data Computer (MDCs)

1. MDCs are installed in most frontline equipment. In addition to standard computer functions, these computers are capable of performing many tasks to include:
 - a. Company status changes – the primary use of the MDCs
 - b. Receipt of incident specific information
 - c. Maps
 - d. CAD monitoring
2. The physical and mechanical aspects of performing functions on the MDC may change from time to time. Refer to the folder titled MDC Training on the Jdrive for definitions, explanations, changes and updates to these functions.
3. The following describes the details and required actions to ensure the MDC is made ready for use and used appropriately:
 - a. Each morning at shift change, the Station Officer will ensure all MDCs under their assignment have been “hard rebooted” and the Company Officer or MICU Attendant has logged on to the MDC.
 - b. If at any time the MDC loses connection or fails to connect, the Company Officer or MICU Attendant must report the loss of connection to Dispatch and perform a hard reboot at the earliest opportunity. If the reboot fails to establish connection, contact the Public Safety Information Technology representative at (972) 721-7748 at the first opportunity.
 - c. Operations personnel can affect a change in company status using the MDC by pressing the appropriate function key for the desired status. You may use either the actual key located on the top row of the keyboard or the virtual function key located on the touch screen. Using the touch screen requires first touching the virtual function key pad to activate the pad, then touching the appropriate box representing the desired change.
 - d. The status changes detailed below will be performed first on the MDC and immediately followed by a report on the radio. This is necessary because it is possible for the cellular technology used in our system to give you a false confirmation that your status change request has been successfully accomplished when in fact it has not. This acknowledgement only indicates the message is picked up by the cellular tower. Until this is successfully corrected, these critical status changes must occur on both the MDC and the radio.

- 1) En route – F1
- 2) On-scene (or out) – F2
- 3) En route to Hospital – F7 (MICU personnel must input information required by the pop-up dialog box)
- 4) At Hospital – F8 (MICU personnel must input information required by the pop-up dialog box)

Note: There may be occasions when a Dispatcher has observed a status change via the MDC/CAD and will acknowledge the status change prior to a radio report. This will most likely occur when reporting en route. In these instances, there is no need to make an additional radio report once the status change has been acknowledged by Dispatch. In the event you are not near the MDC when reporting a status change, include that information in the radio report so Dispatch will not prompt use of the MDC when it is not possible for you to do so.

- e. The following company status changes will be performed only on the radio:
 - 1) Out of Service (OOS)
 - 2) Delayed Response
 - 3) Limited Response
 - 4) Available in Area
- f. The following company status changes must be reported on the radio and may additionally be reported on the MDC:
 - 1) Clear – F9
 - 2) Back – F3
- g. Make no changes to the MDC settings other than using the day/night screen option.
- h. When moving to a reserve or extra apparatus, the MDC assigned to that company must also be moved.

- i. When a company is placed in service on another company's apparatus, (common after or during multiple alarm fires), the MDC will not be used until that company is returned to their own apparatus. As an example, the radio report should be as follows: "The crew of Engine 3 occupies Engine 7 and is in service as Engine 3".
- j. Station Officers are responsible to see that all personnel are trained in the use of the MDCs and that all personnel use their MDCs as outlined in this procedure.
- k. Each Battalion Chief is responsible to ensure all companies within their Battalion have successfully logged on to their MDC by 0800 each morning.
- l. The on duty Dispatch Lieutenant will report by email to the Assistant Chiefs all companies or personnel that routinely fail to follow the procedures outlined in this procedure.