

# Springdale Fire Department

## Policy & Procedures Manual

### Volume 2 – Operations

#### Section 202 - Communications

#### 202.1 – SFD Radio System

All personnel shall be familiar with and possess a sound working knowledge of the SFD radio systems, the manner in which these systems operate, and the various frequencies and channels that are available. Personnel shall also be able to effectively identify and select the appropriate radio frequency for the various situations that may be encountered.

SFD utilizes UHF (450 MHz) radio systems that are repeater systems. Each repeater functions as an amplifier to increase the signal strength to increase the range of radio communications. SFD repeater systems receive a radio signal directly from the transmitting unit (portable or mobile) on a given frequency. The repeater then “repeats” that radio signal on a different frequency at a higher output wattage. These systems have an inherent delay from the time of reception of the unit’s signal (input), to the repeater’s transmission (output). All transmitting units are required to “key up” the microphone for two to three seconds before speaking to allow the system to “fire up”.

There is a potential that in certain areas of the city, or when transmitting from a portable radio inside a structure that the radio signal from the unit may not reach the repeater. Whenever personnel are working on an incident scene in these areas, where communications from a portable radio are intended to be received by a nearby unit, it may be advisable to utilize Talk Around. When a radio is switched to talk around, that radio bypasses the repeater and transmits on the same frequency as the repeater’s output. When a radio is transmitting in talk around any unit within close range of the transmitting radio can receive the signal, even though the repeater does not.

All SFD portable radios have a talk around mode that can be activated by pushing the "B" button. All personnel must be proficient in activating and de-activating the talk around mode.

The SFD radio system includes Fire Channel 1 and Fire Channel 2, which are used as the primary Dispatch frequency. These channels are the same frequency with different Private Line codes providing two different repeater sites. Only one of these repeaters can transmit at a time, although both repeaters can be used by two different units communicating with one another. In this situation it is imperative that all units do not “key up” the microphone until two to three seconds have passed after the other unit “un-keys”. Additionally the SFD radio system includes Tactical Channel 1, Tactical Channel 2, and Tactical Channel 3, which are primarily used for On Scene Operational Communications.