

# REPORT TO THE CITY COUNCIL

February 16, 2017

**FROM:** Steven Brandau, Councilmember  
Council District 2

## **SUBJECT**

..Title

Request Council direct Fire Department to bring an AAR at the next council meeting to authorize expenditure of funds in Communications Savings Account to be spent on 370 Vote Scan add-ons for existing radios and 25 mobile radios.

..Body

## **RECOMMENDATION**

Direct Fire Department to bring an AAR at the next council meeting to authorize expenditure of funds in Communications Savings Account to be spent on 370 Vote Scan add-ons for existing radios and 25 mobile radios.

## **EXECUTIVE SUMMARY**

This item requests staff bring an AAR to transfer \$126,560 from the Communications Savings Account to the Fire Department to purchase 370 Vote Scan add-ons for existing radios and 25 mobile radios

## **BACKGROUND**

The following summary reflects the efforts and results of testing by Fresno Fire Department personnel and ISD Technicians to assess the possibility of installing a Vote Scan Function on Fire department radios to improve on scene communications and safety.

Fire Department and ISD personnel established a group of tests over the months of December and January to conduct a proof of concept on vote scan functionality. The tests were conducted at three locations through the City of Fresno (COF) to test the interaction between on scene radios and the infrastructure components of the COF radio system.

Vote Scan is an add-on firmware modification that the Fire Department radio supplier can install for approximately \$85.00 per unit. The Vote scan function allows a hand held radio to scan for multiple frequencies at one time, and select the strongest signal. Communications on scene use two separate frequencies to communicate with the infrastructure of receivers and transmitters. The vote scan feature allows the radios to scan frequencies directed to the inputs of the receivers and also frequencies coming in from the transmitters. This ability is a radical departure from the previous technology which only allowed us to use one of the two aforementioned frequencies. During testing, staff found that the ability to scan both transmit and receive frequencies provided vast improvement for fireground communications.

The three areas tested (known communication problems) were, Fair-Winds at Friant and Ft. Washington, the Old Gottschalk's building basement on Fulton mall and an apartment complex at Kings Canyon and Peach. In all three locations, the infrastructure has difficulty receiving signals from portable radios as well transmitting to portable radios. The vote scan feature allowed the hand held radios to select between the best signal coming from the infrastructure or hand held radios on scene without compromising the involvement of the dispatch center, incoming equipment and our ability to record the communications at scene.

The attached documentation provides quantitative assessments of the test material. Based on the test results and the relatively low cost of the upgrades to the current system, it is our recommendation to immediately upgrade to fire department portable radios and replace 30 mobile radios.

The cost of the upgrades is approximately \$85.00 per portable radio (370) costing \$31,560 and approximately 25 new mobile radios costing \$95,000, for a total implementation cost of approximately \$126,560. It will take approximately 3 months to upgrade every radio, to include firmware and employee training. This training is incorporated into the cost per unit.

The vote scan upgrade also fits into the broader system upgrades recommended in multiple options by CDX. Any upgrade to the existing VHF system will involve a vote scan function. Installing the upgrade now, will shorten install time and reduce training time for fire personnel. Should the City move towards a 700 MHz upgrade, the vote scan function on the VHF system will still serve the fire department well in the future as a secondary communications system, as well as maintain continuity with our regional agencies that choose to remain with the VHF systems.

It is recommended that the funding for this project come from the currently existing Communications savings account, set aside by Council approximately 1-1/2 years ago with \$825,000 in the account.

## **ENVIRONMENTAL FINDINGS**

This item is not a project for the purposes of the California Environmental Quality Act.

## **LOCAL PREFERENCE**

Local preference was not implemented because this item does not include a bid or an award of a construction or services contract

## **FISCAL IMPACT**

The Communications savings account will decrease by \$126,560.

Attachment: Firefighter Transmitting Adler & Montecito graphic