

City Council Information Form



DATE: 11/05/2015
ASSIGNED STAFF: Teresa Treece
DEPARTMENT: Police Department

TYPE OF FORM: Presentation

Form No.: 5108

APPROVALS:

dept:
98513
10/30/2015

ISSUE/REQUEST:

Regional Radio System Integration

KEY ISSUES:

- In 2010, a no tax increase bond was passed, which upgraded the radio system to meet the federal narrowbanding mandate deadline
- We are still operating on a conventional UHF/VHF system
- We experience interoperability issues and coverage outside of Lee's Summit
- Future narrowbanding regulations pending from FCC

PROPOSED COMMITTEE MOTION:

PROPOSED CITY COUNCIL MOTION:

BACKGROUND:(including location, programs/departments affected, and process issues)

1. 2008 - Notified City radio system did not meet the federal mandate for narrow banding from 25 mhz to 12.5 mhz.
2. 2009 - Radio Feasibility Study was conducted - narrowbanding required
3. 2010 Bond Election
4. 2010-2012 - Bids, Agreements/Contracts, and Upgrades Completed
5. Met the January 1, 2013 federal mandate for narrow banding

IMPACT/ANALYSIS:

TIMELINE

Start:

Finish:

OTHER INFORMATION/UNIQUE CHARACTERISTICS:

STAFF RECOMMENDATION

OTHER BOARDS AND COMMISSIONS ASSIGNED: Not Applicable

DATE:

ACTION:

COUNCIL COMMITTEE ASSIGNED: Not Applicable

DATE:

ACTION:

List of Reference Documents Attached

1. Presentation

City of Lee's Summit

REGIONAL RADIO SYSTEM INTEGRATION



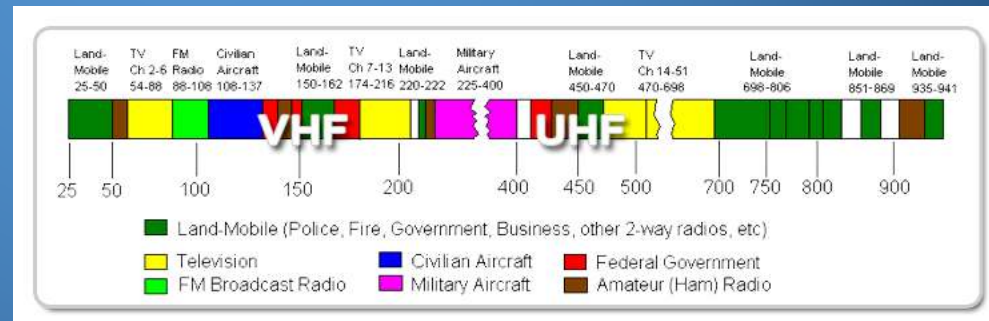
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Current City Radio System

- Conventional UHF/VHF system
- Managed in-house for decades
- 2009 Tusa Consulting Study



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2010 Bond Issue

- Police training facility
- Radio improvements



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Bond Issue Fixes

- Issues identified and repaired
 - Radio reliability (partial)
 - Mutual aid (partial)
 - Unit/emergency identification (partial)
 - Maintenance plan



Bond Issue Fixes

- Issues identified and repaired
 - FCC licensing
 - Grounding/equipment
 - Single point of failure/redundancy (partial)
 - 2013 narrowbanding deadline (partial; non-digital)
 - Partial useable infrastructure



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Concerns Today

- Concerns
 - Interoperability
 - Coverage outside of Lee's Summit
 - Redundancy
 - Further narrowbanding from FCC pending
 - City-wide integrated system
 - "Island"



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MARRS

- Metropolitan
- Area
- Regional
- Radio
- System



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History

- Conceived in 2006-7
- Perfect storm
 - New systems Independence and Johnson County
 - Kansas City and others rebanding



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“System of Systems”

- Build one system for the region
- Estimated costs \$80 to \$100 million
- Ownership issues



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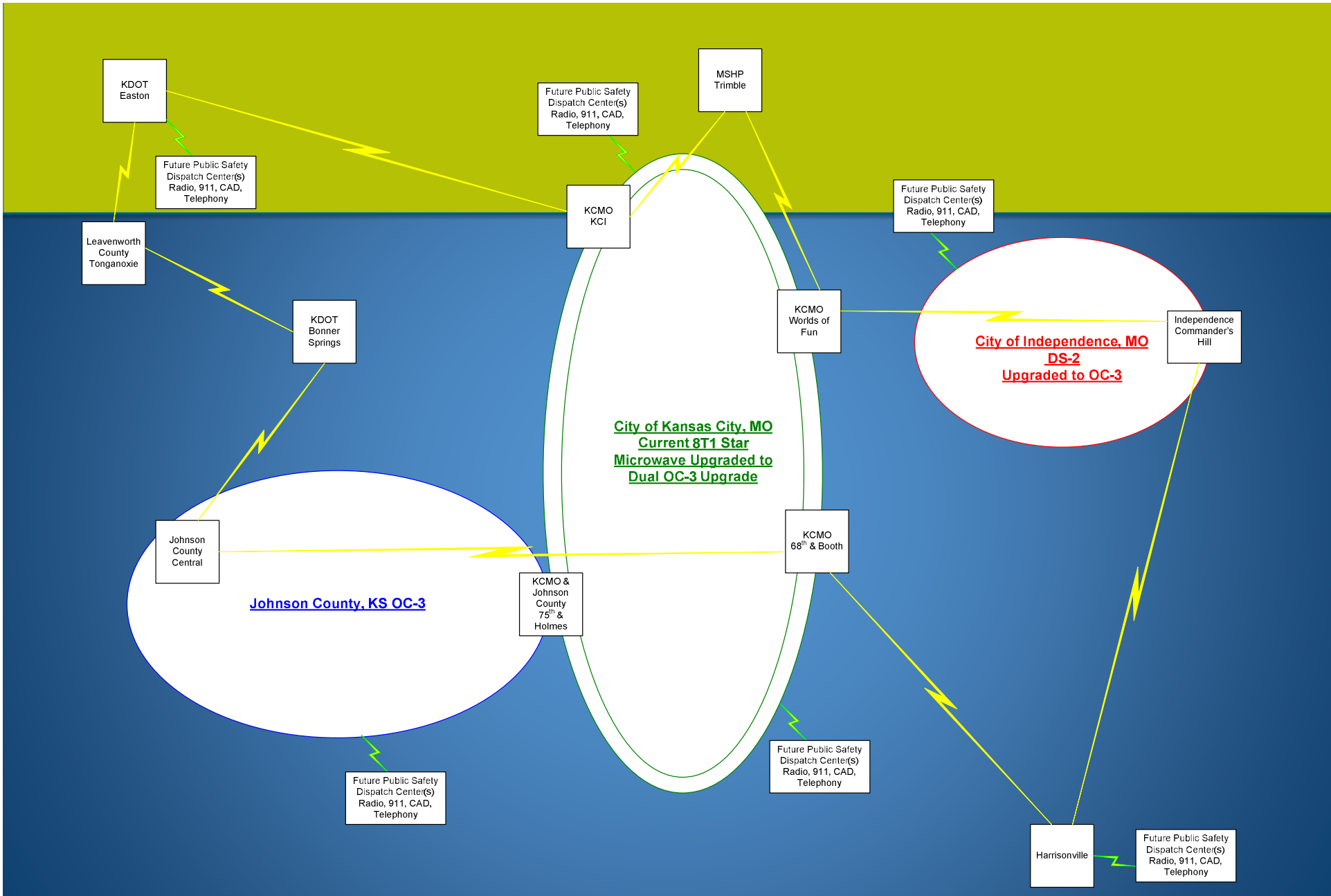
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“System of Systems”

- Host agencies and User agencies
- Master site controllers
- Hub and Spoke
- Independent operations
- Cost reductions



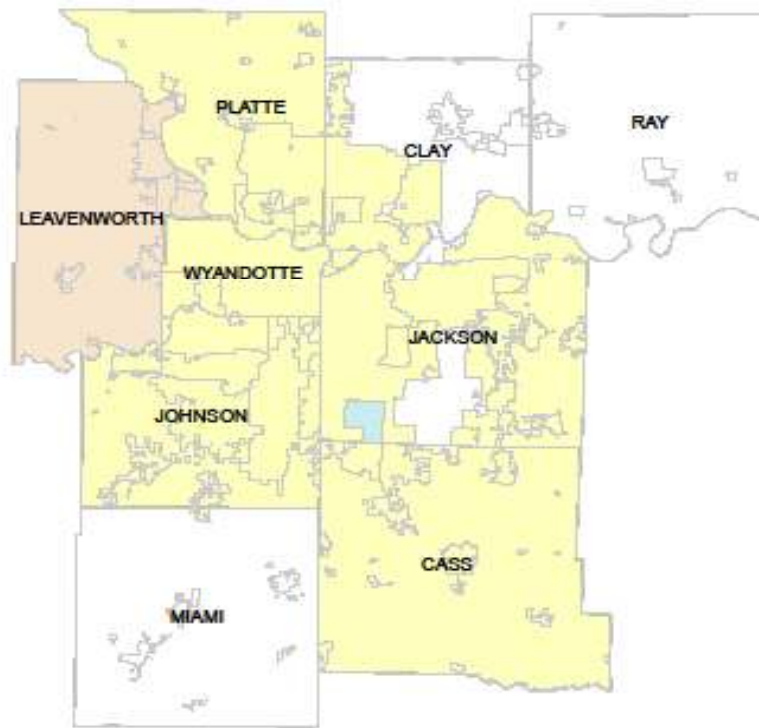


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MARRS Agencies



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Governance

- Memorandum of Understanding
 - MARC
 - Kansas City
 - Johnson County
 - Independence



Radio Equipment



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Interoperability

- 28,000 radios can operate on MARRS
- 14 Regional Common Talk groups
- Operational rules
- No encryption on common talk groups
- Ability to communicate with MO state network

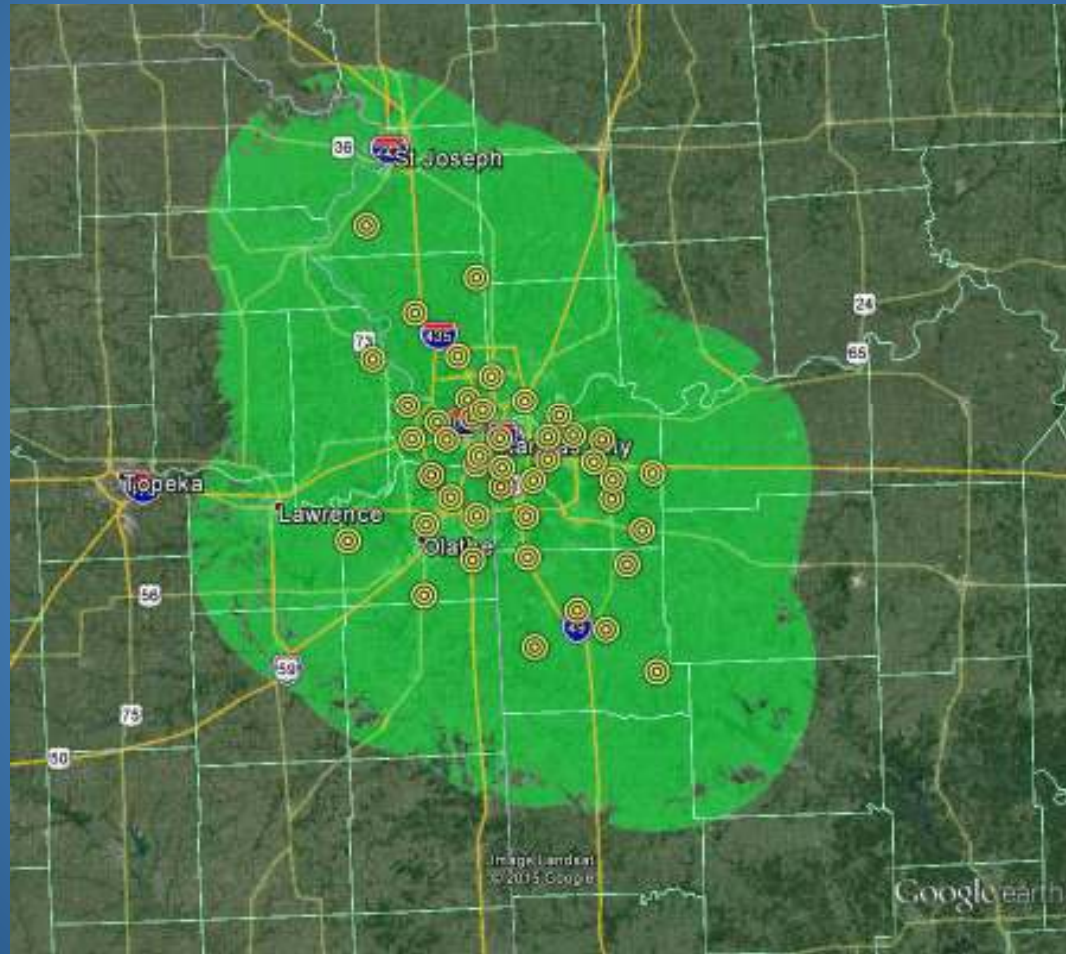


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MARRS mobile

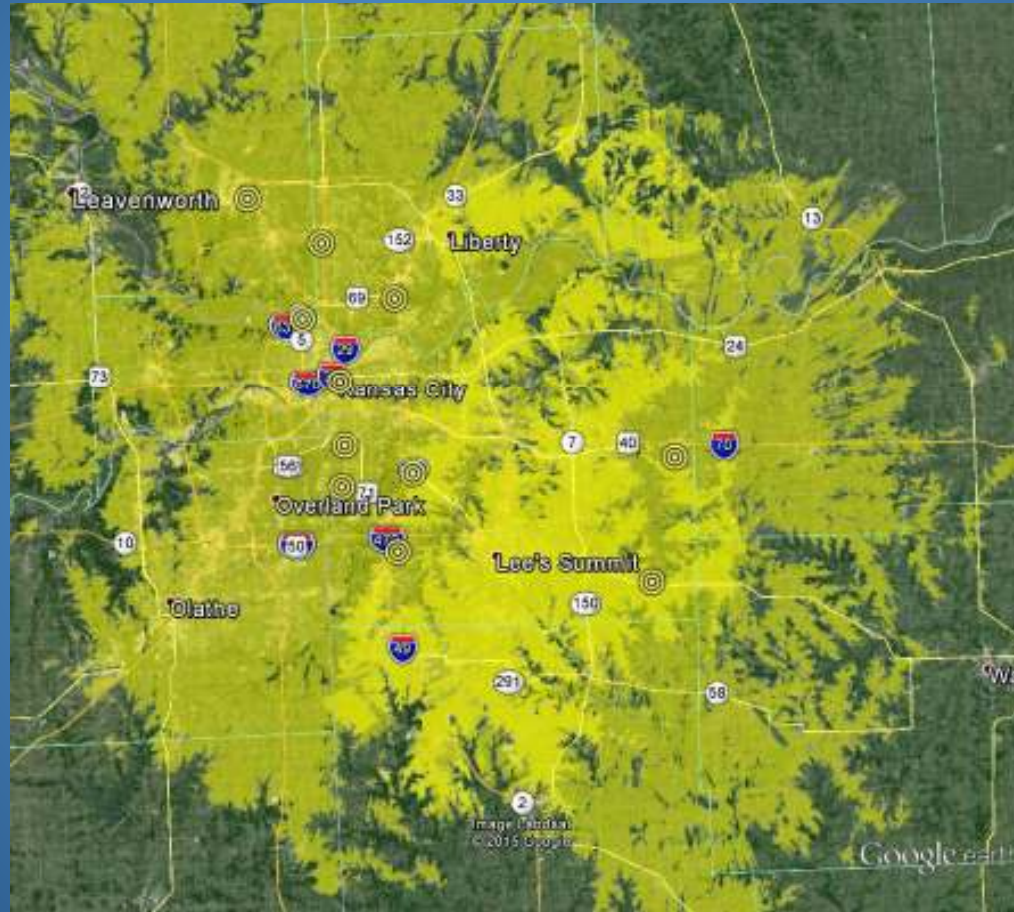


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MARRS Outdoor Portable

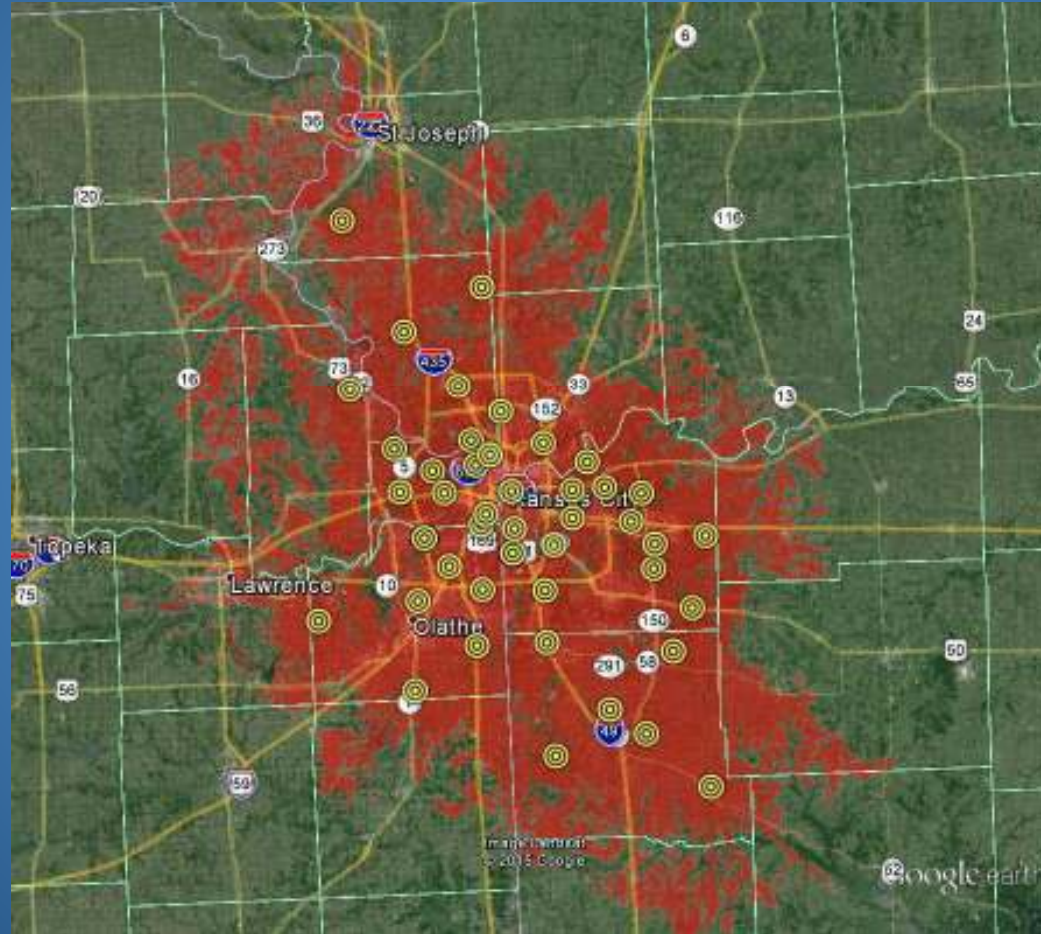


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MARRS (In Building)

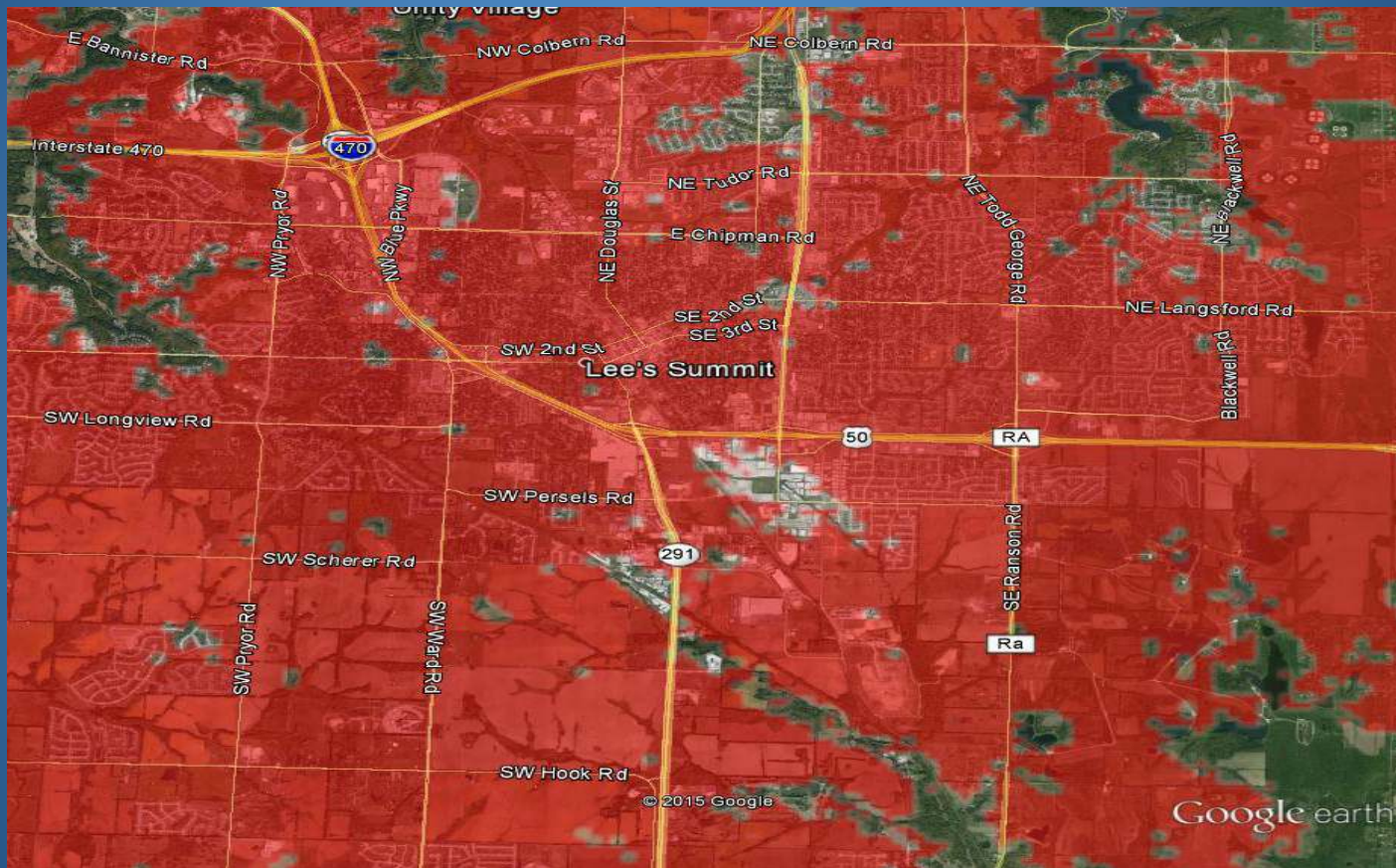


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Lee's Summit (In Building)



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Recommendations

- Joining MARRS allows
 - Improved interoperability metro and state-wide
 - Increased personnel safety
 - Redundancy
 - Compliance with narrowbanding



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Recommendations

- Joining MARRS allows
 - Capitalization of regional partnerships
 - City-wide radio system
 - Vastly improved coverage
- Estimated cost: \$6.5 - \$7.5 million



City of Lee's Summit

- Questions?



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