

**PIMA COUNTY WIRELESS INTEGRATED NETWORK (PCWIN)
USER COMMITTEE / TECHNICAL COMMITTEE
JOINT MEETING**

Pima County Sheriff's Department
Administration Building, Sheriff's Operations Center, 3rd Floor
1750 E. Benson Highway, Tucson, Arizona
Wednesday, January 13, 2010
1:00 p.m.

SUMMARY OF MEETING

Note: The following is a summary of what transpired at the January 13, 2010 meeting.

I. Call to Order: Mr. Larry Sayers, Technical Committee Chair, calls the meeting to order at 1:08 p.m.

Roll Call: Catherine Hanna, Pima County Sheriff's Department

Quorum is established for the Technical Committee with a total of 11 members present.

Quorum is established for the User Committee with a total of 12 members present.

Members Present Technical Committee

Larry Sayers, Chair, Pima County Wireless Services
Rick Brown, Marana Police Department
Gary Bynum, Drexel Heights Fire District
Steven Campbell, Drexel Heights Fire District
Scott Ferguson, Pima Community College DPS
Joseph Jakoby, City of Tucson IT
Pat Joy, Pima County Sheriff's Department
Ted Martin, Pima County Sheriff's Department IT
Gregory McNeal, City of Tucson IT
John Moffatt, Pima County Office of Strategic Planning
Robert Morton, City of Tucson Communications

Members Not Present – Technical Committee

John Armstrong, Tucson Police Department
Ken Boynton, University of Arizona
Mike Bullock, City of Tucson Communications
Jeff Guthrie, Pima County OEM & Homeland Security
Gary Schmitz, Oro Valley Police Department
Isaiah Twombly, City of Tucson Communications
Paul Wright, Jr., Northwest Fire District

Others Present

John Bowers, Motorola
Paul Punske, Motorola
Rodney Siemiawski, Motorola
Mike Sumnicht, Motorola
Paul Wilson, Pima County Sheriff's Department

Members Present User Committee

Gary Bynum, Co-Chair, Drexel Heights Fire District
Mike Sacco, Co-Chair, Pima County Sheriff's Department
Nancy Anderson, Oro Valley Police Department
Fred Bair, Tucson Fire Department
Bill Bohling, Green Valley Fire District
Orchid Jones, City of Tucson (Tucson General Services)
Wren Keller, Corona de Tucson Fire District
Jim Long, Northwest Fire District
Joseph Martinez, Tohono O'odham Tribal Police
Hector Olivo, Pascua Yaqui Police Department
Angela Spencer, City of Tucson
Carlos Valencia, Pima Community College DPS

Members Not Present – User Committee

Patrick Abel, Golder Ranch Fire District
Manny Amado, Pima Community College DPS
Larry Anderson, South Tucson Fire Department
Dean Barnella, Mount Lemmon Fire District
Sheila Blevins, Marana Police Department
Lee Bucklin, Rincon Valley Fire District
James Craig, Helmet Peak Fire Department
Jeff Guthrie, Pima County OEM & Homeland Security
Charles Hangartner, Tohono O'odham Tribal Police
Charles Kmet, Tohono O'odham Fire Department
Henry Leyva, Sahuarita Police Department
Tom Nix, Avra Valley Fire District
Luis Puig, University of Arizona Police Department
Ernie Robles, Picture Rocks Fire Department
Larry Stevens, Oro Valley Police Department
David Tibbitt, Ajo/Gibson Volunteer Fire Department
John Williams, Three Points Fire District

II. Approval of Minutes
Mr. Larry Sayers, Chair, Technical Committee

Mr. Sayers asks members if there are any suggested changes for the December 1, 2009, joint meeting minutes. Mr. Martin moves to accept and approve the minutes. Dr. Moffatt seconds the motion. Motion unanimously carries.

Materials provided: User/Technical Joint Meeting Summary for December 1, 2009.

III. Radio System Project Status Report
Captain Paul Wilson, Pima County Sheriff's Department

Work continues on the work breakdown structure (WBS) and master project schedule. Staff is continuing work in the detailed design review (DDR) process, and has scheduled the DDR workshops for February 1st and 2nd. The WBS will be complete by the end of January 2010.

IV. RECOC Project Status Report
Captain Paul Wilson, Pima County Sheriff's Department

The next schematic design workshop is scheduled for January 26th and 27th. We have not received official notice, but the City of Tucson has completed their evaluation of the Thomas Price Service Center (TOPSC) to meet the needs of the police and fire dispatch, where they can remain in that facility, with assistance and funding from the County.

The County is awaiting official notice from the City Manager's Office, where it will be taken to the EMC for discussion regarding the funding issue, for approval.

V. Contracts/Agreements Status Report
Captain Paul Wilson, Pima County Sheriff's Department

AECOM's contract extension is complete. On January 5th, the Board of Supervisors approved Ceragon Networks' contract, which has been selected as the microwave vendor for the project. Staff is awaiting the Board Chairman's signature on the contract, which is expected at the end of the week.

VI. Business Plan Update
Captain Wilson Pima County Sheriff's Department

The EMC approved the provisions to the Business Plan, as it relates to the voice radio system, in December 2009. The Business Plan has been published and hard copies have been distributed to PCWIN participant agency chief executives for review. Electronic CD copies will be distributed to the User and Technical Committee representatives following the meeting.

Captain Wilson encourages representatives to share the information within the Business Plan, and distribute copies of the Business Plan throughout their agencies, as the material is open to the public and posted on the PCWIN website, www.bonds.pima.gov/wireless/index.htm. It is the responsibility for Committees to ensure their executives are well informed about the project.

Intergovernmental agreements for tower sites and tower site access will soon be sent out. Staff has sent out Right of Entry requests to agency property owners. Pima County Cultural Resources and Development Services are in the process of contacting those site owners to begin the cultural, environmental, and construction studies necessary to satisfy the site specifications.

Dr. Moffatt encourages all members to keep their agency executives apprised of the project activities, as he's found that some agencies are unaware of the progress being made in the project.

County Staff and Pima County Procurement have modified the process to procure construction services for each site. The boiler plate language is being revised in regards to site development.

VII. Executive Session

Captain Paul Wilson, Pima County Sheriff's Department

NOTE: No public noted in the audience. Motorola is agreeable that executive session is not needed. A number of coverage maps will be displayed for Committee members to consider and make decisions at the end of the presentation. These maps are considered *confidential* by Motorola, so no copies have been distributed. Information regarding the coverage maps are to remain confidential.

AECOM representatives, Dr. Ken Ballard, and Mr. David Anderson are present via video conference. Motorola representatives are available for questions throughout the presentation.

Staff will provide their recommendations to the Committees for consideration following the presentation. The Committees will be asked to deliberate and make some decisions regarding site selection and radio coverage service.

The Committees will see references to the coverage test requirements (percentage building loss), and the definition of that came from AECOM's conceptual design; **not Motorola's definitions**. The definitions are as follows:

- Outbound is the radio signal from the repeater site (the radio system) to the subscriber unit. Inbound is the radio signal from the subscriber to the repeater site (the system).
- **Light Buildings:** Light buildings include typical homes, stores and office structures of less than three stories, constructed of brick veneer, frame or block and others buildings with similar radio signal penetration characteristics. These structures are characterized by a loss of 8 dB in the 800 MHz band.
- **Medium Buildings:** Medium buildings include small-to-medium size apartment buildings, commercial buildings, small "strip malls," schools and others with similar radio signal penetration. Typical sizes for these buildings are two to six stories, but exclude large "box stores." Generally, these structures are characterized by a loss of 12 dB in the 800 MHz band.
- **Heavy Buildings:** Heavy buildings include large high-rise buildings (more than six stories), steel covered warehouse buildings, "big box stores," enclosed shopping malls, prisons, hospitals, large hotels, and others with similar radio signal penetration characteristics. These structures are characterized by a loss of 20 dB in the 800 MHz band.

Valencia Standpipe / Eagle's Nest

During the December 1, 2009 User/Technical Committee meeting, the Committees approved a motion to accept site changes from Valencia Standpipe to Eagles Nest, and redefine coverage test sector 11. All other site changes were tabled.

Ruby Road

The Ruby Road site will be a trunked site, with four (4) frequencies, run by solar power and generators. The generators will power the site and recharge solar batteries, as well as provide "stand-by" power. The site will also have microwave connectivity. The Ruby Road site is proposed for economic and accessibility reasons.

Mildred Peak and Cerro Colorado

Mildred Peak is proposed as an alternate to Fraguita Peak. The project will benefit from lower site development costs by locating at an existing site. Relocating to Ruby Road and Mildred Peak results in decreased radio coverage in the Arivaca and Sasabe areas. Staff proposes adding a site at Cerro Colorado to provide additional coverage. The Mildred Peak and Cerro Colorado sites will be conventional fill-in sites.

Staff proposes to eliminate the Pima West site. Resources, which were to be used at the Pima West site, will be moved to the Cerro Colorado site, providing better coverage around the Arivaca area.

Predicted Reliability Coverage Map Changes (including Cerro Colorado)

***Preliminary numbers have not been approved by Motorola*

- Sector 5 (Arivaca, Sells, Sasabe areas)
 - Outbound In-Building coverage reliability changed from 95% to 94%
 - Inbound In-Building coverage reliability changed from 95% to 92%
- Sector 7 (Arivaca, Sells, Sasabe areas)
 - Outbound Portable Outdoor coverage reliability changed from 95% to 94%
 - Inbound Portable Outdoor coverage reliability changed from 95% to 93%
- Sector 8 (Eastern Pima County)
 - Outbound Mobile On Street coverage reliability changed from 95% to 94%
- Revised Sector 11 (Western Pima County)
 - Outbound Mobile On Street coverage reliability changed from 95% to 91%
 - Inbound Mobile On Street coverage reliability changed from 95% to 91%

Out-of-Range Indication

The trunked radio will automatically roam to the nearest trunked site. If the user travels through an area where there is no trunked radio coverage, the radio will give an "out-of-range" indication. The user will then have to manually switch to another channel. The "out-of-range" can be audible and visual, and can be programmed on each individual subscriber unit.

Motorola is asked to explain what the user community can expect once they roam near the end of the signal range. Mr. Siemiawski explains that digital transmissions will simply drop off, as opposed to analog transmissions, where the signal becomes fuzzy. Motorola encourages user training when changing from analog to digital.

Contingencies are included in the PCWIN budget to purchase in-building applications if the resulting coverage from the system's design doesn't meet PCWIN's needs for specific buildings.

Recommendation

Staff's recommended changes for the Committees' consideration:

- Replace the Arivaca North site with the Ruby Road site;
- Replace the Fraguita Peak site with Mildred Peak site;
- Remove the Pima West site;
- Add Cerro Colorado site

Motion – Technical Committee

Division Chief Bynum motions to accept Staff's recommended site changes. Ms. Joy seconds the motion. Motion unanimously carries.

Motion – User Committee

Captain Bair motions to accept Staff's recommended site changes. Mr. Long seconds the motion. Motion unanimously carries.

Committee members express their appreciation to Motorola for answering questions and clarifying information over the last several weeks.

Materials provided: PCWIN Tower Site Locations Presentation, dated January 13, 2010.

VIII. New Business, Mr. Larry Sayers, Technical Committee Chair

Mr. Sayers asks if Committee members request agenda items for presentation at the next meeting. Lt. Sacco would like to add an item regarding plain language talk on the radio for the next User/Technical Committee meeting.

IX. Call to the Public, Mr. Larry Sayers, Technical Committee Chair

Mr. Sayers asks if anyone from the public would like to address the Committees. He receives no response.

X. Date-Time-Location of Next Meeting(s)

Joint User/Technical Committee Meeting

Wednesday, March 17, 2010, 1:00 PM

Pima County Sheriff's Department

Administration Building, 3rd Floor

1750 E. Benson Highway, Tucson

XI. Adjournment

Division Chief Bynum makes a motion to adjourn the meeting. Ms. Joy seconds the motion. Motion unanimously carries. Meeting adjourns at 2:25 p.m.

Minutes prepared by: Catherine Hanna