

Daily Herald

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Naperville tries to allay fears over new radio network

By **MARIE WILSON**

Radio transmission interference. Gaps in coverage. Garbled communication.

Naperville resident Bill Eagan says he warned councilmen about these issues and more before they authorized a \$10 million contract with radio vendor Harris Corporation for an OpenSky digital radio network.

After reading of continued radio problems in a Daily Herald news story March 10, Eagan spoke to council Tuesday night calling for the city to reconsider several aspects of the contract and bring the issue up for fuller discussion.

Eagan said Naperville radio users may not be getting prompt enough response to their reports of failed communication within buildings, signal interference and inaudible messages because the city already has paid most of the contract amount.

The city is holding back \$2.6 million in payments to Harris — about 25 percent of the contract amount — until officials are satisfied the system and individual radios are functioning as expected, said telecommunications manager Dan Voiland.

Even without making the last payment, City Manager Doug Krieger said engineers with Harris have been responding to the city's concerns.

"I can assure that we have their attention," Krieger said.

Representatives of the company hold biweekly meetings with officials and radio users from Naperville and Aurora, which also switched to a Harris OpenSky radio network Dec. 1.

Harris also has made several software fixes to the Naperville system and sent new antennas that will improve in-building coverage, Krieger said. The antennas arrived Tuesday.

"Harris will continue to work with the city to improve overall system performance, even if it is determined that the system is being affected by outside interference," said Victoria Dillon, communications director for Harris Public Safety and Professional Communications. "Since transitioning to this new system, Naperville radio users have successfully sent or received millions of communications using this system."

Radio users recognize the new system is succeeding in many cases, and also recognize it replaces an aging analog system that wasn't perfect, either, said John Sergeant, vice president of the Naperville Professional Firefighters union.

Union members know changes are being made, but their safety concerns — which they filed in an official document to the fire chief March 8 — remain.

“What we’re concerned about is we’re losing communication with incident commanders on the scene of fires,” Sergeant said. “That’s a serious issue and the city doesn’t discount it.”

Eagan said rank and file police and firefighters should be involved in the decisions of whether and when to give the OpenSky network final approval and pay Harris the remaining \$2.5 million of the contract.

Krieger said rank and file employees “absolutely” will be involved in those decisions and already have made their concerns heard by tracking every glitch they’ve encountered.

“If it’s not performing, we need to be honest about that,” Sergeant said. “We don’t want this system to fail. Failure is not really an option; it needs to perform.”

Eagan also called for council to add the radio system to an upcoming agenda for further discussion. But councilman Doug Krause said there’s nothing to discuss; the contract already is approved and staff are working with the vendor to get the system performing at an acceptable level.

Still, Eagan fears his earlier warnings — that other cities had experienced problems with Harris digital radio systems — may not have been heard.

“My concerns were pretty much dismissed with an attitude that ‘We are Naperville; we can do it better,’” Eagan said Tuesday night. “I had hoped you’d be correct.”

Fears: City says they will withhold final payment until concerns satisfied

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Radio woes trigger safety concerns in Naperville, Aurora

Naperville, Aurora responders say system is faulty

By **MARIE WILSON**

Problems with a new radio system continue to plague emergency response teams in Naperville and Aurora and may be putting police and firefighters in jeopardy.

The Naperville firefighters union this week filed a "safety concern" with the city complaining that the Harris OpenSky radio system in use since Dec. 1 is falling dangerously short of expectations.

Naperville Professional Firefighters union President Dan Smith said members are concerned about coverage issues, transmission interference and garbled communications that have occurred at critical moments.

Some examples:

• "Keying up" a radio, or attempting to communicate over it, has activated lights and sirens in police cars, including undercover vehicles.

• Keying up a radio in a Naperville electric utility substation inadvertently activated a switch and temporarily cut power to 1,200 customers.

• Naperville firefighters lost all communication with crews inside Naperville Central High School during a small fire on Feb. 28.

"The latest issue with the high school pretty much sent us over the edge because we had crews operating inside that we lost contact with," Smith said.

Naperville Fire Chief Mark Puknaitis said he received the union's safety concern and is aware of technical issues with the radios that cause reception problems in some areas.

Although other groups haven't filed official concerns, Vince Clark, president of Naperville's patrol officers union, said his co-workers see continued radio glitches as "safety-related issues."

"The public safety radios are one of the most important tools we rely on and our confidence in them has expired," Clark said.

Dave Schmidt, president of Aurora's patrol officers union, said radios now function better than they did immediately after being installed, but the system is far from perfect.

"A lot of the problem areas have gotten better, but sometimes, for whatever reason, during peak hours when everyone's using their cell phones, it's knocking the radios out," Schmidt said. "We're still having problems because sometimes people sound like they're underwater."

The cities switched to OpenSky, a digital radio network, because their analog systems were outdated and difficult to maintain, officials said.

Aurora spent about \$14 million on its radio system, including an \$11 million contract with Florida-based Harris Corp., which manufactured the radios and set up the system, Chief Technology Officer Ted Beck said. Naperville's contract with Harris totals about \$10 million.

The two systems are interoperable, meaning Aurora's can function with Naperville's and vice-versa.

Technology directors in both cities say they continue to work with Harris to find the cause of problems with coverage, audio levels and inaudible communications.

"Part of it seems to be interference from sources outside of our system," said Dan Voiland, Naperville's communications director. "We're looking to find out where the interference is coming from."

When a radio on a digital network such as OpenSky experiences interference, that unit essentially stops functioning and becomes unable to send or receive messages, Voiland said. Cell phones or radio amplifiers in warehouses that operate on similar frequencies to the ones used by OpenSky could be causing some of the interference, he said.

Aurora's Beck said dealing with interference is part of the ongoing maintenance of any radio system, so the problems may never disappear completely.

A statement from Harris presents another possibility for addressing interference issues: hiring a consultant.

"The cities have also informed Harris that they have hired an independent firm to determine the source(s) and full scope of the problem and how to address it," Victoria Dillon, communications director for Harris Public Safety and Professional Communications, said in the statement.

But Naperville City Manager Doug Krieger said there are no plans at this point to hire such a consulting firm.

Beck said Aurora is evaluating services that could be performed by California-based SATCOM, a satellite and wireless technology consulting firm recommended by Harris. If a consultant is hired, the cities will do so jointly using funds already provided in the contracts with Harris, he said.

"If we end up having to hire the consultant, part of that scope of work is to put software and test equipment in place permanently so we can address this concern moving forward," Beck said. "We would certainly be looking for them to find current sources of interference and depending on what those sources are, the method of enforcement and remediation can be quite different."

For example, if cell phone carriers are interfering with radio signals, the Federal Communications Commission likely will step in, Beck said. But if an amplifier inside a warehouse causes interference, asking the business owner to check if the equipment is malfunctioning could solve the problem.

Aside from the interference issue, some radio glitches have been solved — in Naperville, at least, Voiland said. Beck and other Aurora officials say they are making progress on their list of problems as well.

Lights and sirens in 40 Naperville police vehicles no longer come on when a radio is used inside the car after the city repaired control boxes for the visual and audible signals the first week of March, Voiland said.

Future power outages will be avoided by advising electric workers not to communicate via radio within power substations and having the manufacturer of the power grid's safety switches ensure the devices have proper shields to prevent them from flipping because of radio communications.

But Naperville Fire Chief Puknaitis said radio transmission inside buildings may never reach 100 percent — making the union's concerns about the lack of communication inside Naperville Central more challenging to solve.

"The problem that we have with this is we need to have 100 percent radio communications and it's unacceptable for us or anyone to have a radio system that's 95 percent effective," Puknaitis said.

With the OpenSky system in use for slightly more than three months, Smith of the Naperville firefighters union said he hopes the safety concern his organization filed will bring about faster improvements.

"We're hoping it'll put a little bit of pressure on Harris themselves to work a little more diligently in fixing this problem," Smith said. "I know they're working, but we're not seeing the changes as fast as we'd like."

In the meantime, both cities have withheld some payments from Harris and will not pay the full contract amount until they are fully satisfied with how the radios are functioning. Aurora has paid Harris about \$8 million so far and is waiting to pay the remaining \$3 million of the contract price upon final approval of the system, Beck said.

"We're a little bit happy that it's getting better," Aurora Police Chief Greg Thomas said. "We're not satisfied that it should have been better than this sooner than this."

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Aurora, Naperville emergency radios prove glitchy

Daily Herald: On Guard

By **MARIE WILSON**

Problems with the new radio system used by public safety officials and city employees in Aurora and Naperville seem to be hitting police patrol officers the hardest, authorities say.

But firefighters and public works employees say they're also keeping track of glitches with the system that is supposed to provide enhanced communication capabilities both indoors and outside.

Critics of the new system say they've been losing signals in so-called "dead zones" and experiencing problems with radio volume and clarity.

Officials in both cities admit the digital radio system has been less than perfect, but insist they are confident it will function effectively after the provider makes the necessary tweaks.

"We need a reliable, consistent communication system for the fire department. Nothing else will work," Naperville's acting Deputy Fire Chief Robert Bush said. "This system will work. It's working now; it will work better."

Like police officers, Naperville firefighters have lost signals and the ability to communicate in some "dead zones," Bush said.

While officials are working to eliminate such problems, Bush said the system provides one advantage over previous ones: it alerts users when they enter an area with no signal.

"It tells us now when we lose signal, which is a huge difference. With the old system, unless you keyed up the radio, you did not know you lost communication," Bush said. "People are definitely more conscious of it now."

Aurora Assistant Fire Chief Tom Greiner said radio signal issues affect firefighters less often than police officers, because fire crews are not constantly patrolling the streets.

The same is true for Aurora's operations employees, who perform duties such as graffiti removal, street maintenance and water and sewer repairs.

When the two cities switched to the new radio system, called OpenSky, on Dec. 1, Aurora operations employees had problems talking with each other because the old radio system was still operational, city spokesman Dan Ferrelli said. Some employees also needed additional training on the new radios because they were not as familiar with the technology as first responders.

"Things have gotten much better since the initial crossover as far as operations are concerned," Ferrelli said.

A few individual equipment issues were the biggest problems for Naperville public works employees, operations team

supervisor Tim Cardella said.

"I would say it's gone very well for us," Cardella said. "The functionality of the system has not impeded our ability to communicate when we're doing critical functions like snow removal."

The two cities contracted with Florida-based Harris Corp. in 2008 for installation of the system. Naperville's contract amounts to about \$10 million, while Aurora's totals about \$14 million. The two systems are interoperable, which means Aurora's system can function with Naperville's and vice versa.

The OpenSky radio system sold by Harris also has caused difficulties for public safety employees in other municipalities, including Milwaukee.

Local officials charged with implementing the new system, including Naperville telecommunications manager Dan Voiland, said they were aware of its issues elsewhere, but still believed OpenSky was the best option to replace aging radios.

Aurora's Ferrelli agreed.

"We were aware of some of the other municipalities that experienced issues," Ferrelli said. "We talked with them, they told us some of the issues that they had and what they thought they could have done better in hindsight, and we took their feedback and obviously put it into our plans."

One problem in Milwaukee related to acquiring sites for the transmitters necessary to provide complete signal coverage, Voiland said. Milwaukee police Chief Edward Flynn said in a memo in July that the department worked to fix the problem by adding new transmitter sites. But Naperville already had access to all the sites it would need, Voiland said, making Milwaukee's problems less of a concern.

"The decision was not made in a vacuum. We had very specific guidelines, our contracts are very clear in terms of coverage, system performance, which Harris has to meet," Voiland said.

The most significant glitch remaining in Aurora relates to the way handheld radios find a signal, Ferrelli said.

"The biggest problem is locations that have coverage from multiple sites that overlap and the system has problems deciding which site the radio should affiliate with," Ferrelli said.

Harris employees made progress on a similar problem in Naperville last week by editing the system's software, Voiland said.

"The new, enhanced system is operating as intended, though not without some technical issues that are to be expected with any new system," Harris Corp. officials said in a statement. "We understand the concerns that have been expressed during this transition to the new system and we will continue to work with Naperville and Aurora first responders to provide a world-class communication system."

Making sure the system works perfectly is the highest priority for Bush of the Naperville Fire Department.

"I sit in an office; it works for me every time," Bush said. "I need it to work for the boots on the ground."

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Radio glitches worry Naperville, Aurora cops

By **MARIE WILSON**

When Aurora and Naperville switched to a new police and fire radio system Dec. 1, officials heralded the technology for its enhanced capability to communicate inside buildings and outdoors.

Almost a month later, some system users say they've been losing signals in certain "dead zones" and experiencing problems with radio volume and clarity.

"There have been some missing radio transmissions, and some users have been saying that the system, the radios, were not staying connected to the system," Naperville police Chief David Dial said Thursday. "It's not unusual with new technology. I think you can expect some issues to arise."

In Naperville, officers found so-called "dead zones" inside the Target store at Route 59 and Jefferson Avenue, as well as near 75th Street and Book Road, and on 95th Street near Route 59, Dan Voiland, the city's telecommunications manager, said.

But by working with the project manager from Florida-based Harris Corporation, which manufactured the radios and set up the systems for both cities, Voiland said signal strength now is much better.

He said the project manager edited the system's software Wednesday to make sure each radio finds a signal from the closest available tower, instead of searching for tower locations that are farther away.

Voiland said officials visited the "dead zones" Thursday morning after the updates and "the communications were how we expected them to be."

In Aurora, patrolman Dave Schmidt said officers have struggled to keep a signal in some buildings on the near east side and on Orchard Road on the city's west side.

"The system is worse than it was before," said Schmidt, who also serves as president of the union representing Aurora patrol officers. "It's dangerous. It's affecting our safety."

Aurora police Lt. Nick Coronado said the new, \$14 million system actually is performing better than the old Motorola one, which Aurora used since the mid-1990s. He said glitches arise with any new communication system, especially inside buildings.

"We do have to tweak some things. We are looking at some coverage areas that need to be improved," Coronado said. "There's going to be problems in any building ... As the structures are being built with more concrete or more steel, radio waves have a harder time traveling through concrete and steel."

Coronado declined to specify the location of any radio "dead zones" in Aurora. He said police are working to test and troubleshoot the system inside all schools and hospitals in the city and are making changes to the individual radios and the system when necessary.

Voiland said none of the glitches remaining with the radio system in Naperville are “showstoppers,” but they still must be fixed to ensure emergency responders can communicate clearly in all situations.

“Any time an officer misses a radio transmission, that does affect their safety,” Voiland said. “We have tried to limit that through the whole implementation here.”

But Vince Clark, president of the union that represents Naperville patrol officers, said communication problems occur so frequently that officers often have to ask each other to repeat themselves.

If an officer loses a signal or can't hear a few words spoken over the radio, Coronado said that officer must rely on training and instincts to keep doing his job safely and effectively.

Schmidt said Aurora patrol officers think the process of fixing the glitches is taking too long.

“We didn't know what to expect,” Schmidt said. “We came into it with an open mind thinking it was going to be a good system, and it hasn't even been close.”

Aurora Chief Greg Thomas and a spokesman for Harris Corporation did not return phone calls Thursday.

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