

## Minutes of the "Ad Hoc" Committee on Emergency Communications and Dispatch

The "Ad Hoc" Committee on Emergency Communications and Dispatch of the McLean County Board met on Wednesday, February 7, 2003 at 1:00 p.m. in Room 700, Law and Justice Center, 104 West Front Street, Bloomington, Illinois.

Members Present: Chairman Sorensen, Members Renner, Johnson, Hoselton

Members Absent: Member Selzer

Other Members Present: County Board Chairman Sweeney, Members Ahart and Dean

Staff Present: Mr. John Zeunik, County Administrator;  
Mr. Terry Lindberg, Assistant County Administrator;  
Ms. Christine Northcutt, County Administrator's Assistant

Department Heads/  
Elected Officials Present: Sheriff Dave Owens; Mr. A.W. Cannon, Interim Director, MetCom; Chief Deputy Derick Love, Sheriff's Department

Others Present: Mr. Gary Huber, (retired) State Farm Insurance, Communications, The Honorable Walt Hetman, Mayor, City of Chenoa

Chairman Sorensen called the meeting to order at 1:11 p.m. Chairman Sorensen introduced the first speaker, Sheriff Dave Owens.

Sheriff Owens stated that he wanted to begin with a quick history of the radio situation. In 1991, the Emergency Telephone Systems Board (ETSB) was created by referendum to bring enhanced 911 (E911) services to McLean County. With the passage of the referendum, a \$1.25 per telephone line surcharge was collected to provide the funding to build the E911 System. As part of this plan in 1994, McLean County, the City of Bloomington, the Town of Normal and the ETSB entered into an intergovernmental agreement to create a County Wide Central Dispatching Center, (MetCom). The ultimate goal was to provide a Countywide enhanced 911 system, with a single central answering and dispatch point for all emergency telephone calls in McLean County.

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Prior to the formation of MetCom, the City, Town and County all operated independent dispatch centers. The City of Bloomington, the Town of Normal, the City of Chenoa, the City of LeRoy and Lexington operated basic 911 systems within their communities. With the creation of MetCom, all emergency call taking and dispatching went through MetCom.

Prior to MetCom, the City of Bloomington, and the Town of Normal operated their radio systems on a 400 MHz frequency band. The Sheriff's Office also operated on the 400 MHz frequency Band and used vehicle repeaters to enhance the coverage to rural areas of McLean County. The rural police and fire departments operated on the 100 MHz frequency band with dispatching through the McLean County Sheriff's Office. The exceptions, were Chenoa, LeRoy and Lexington, which maintained and operated their own dispatch and 911 centers. They depended on the Sheriff's Office dispatch center to provide them with LEADS information (Secretary of States electronic files).

No direct communications existed with the Illinois State Police at that time. When MetCom was created, the police agencies moved to a new radio system, which had been purchased by the ETSB. ETSB also provided a majority of the radios necessary to work on an *EF Johnson*-designed 800 MHz Simulcast Trunked radio system. The new system was supposed to provide interoperability between law enforcement agencies throughout McLean County. It also provided the ability to obtain and send data electronically. For the first time, officers in the field, were able to make inquiries electronically to the Secretary of State's office. The Illinois State Police and Illinois State University Police Department were not part of this system.

From the first day of operation (at the MetCom site), with the new radio system, there were problems with the system's quality and reliability. The ETSB and the MetCom boards tried to work with *EF Johnson* to solve the problems associated with the system, but *EF Johnson* did not provide adequate support to help resolve the problems. It was determined that the system, as provided, met the specifications, which were prepared and approved by the ETSB. With the lack of progress in obtaining viable solutions to the problems within the system, and continued system failures, the Normal Police Department, in 2001, went back to using the 400 MHz portable radios, which they still owned. The problems experienced with the radio had become an officer safety issue. The Bloomington Police Department also returned to a 400 MHz system for the same reason. Bloomington Police had not kept their old 400 MHz radios and had to build a system from scratch. The City declared an emergency and bypassed the normal bid procedures. The system cost the city in excess of \$350,000.

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These moves left the Sheriff's Office, rural police departments, Bloomington and Normal Fire departments and other city government agencies on the troubled 800 MHz *EF Johnson* Radio System.

In April, 2002, the Sheriff's Department requested approval to solicit competitive bids for a 400 MHz radio system. After seeking legal advice from the McLean County States Attorney's office, it was clear that it would not be possible to bypass the normal bidding process in my attempt to obtain a radio system, which provided the reliability and dependability that my deputies needed to do their jobs. The Justice Committee approved this request, but prior to a vote by the full board, this request was placed on hold while another system was checked. *Clear Talk* is an 800 MHz system, that is locally owned by Corn Belt Electric Company and two other co-op's in central Illinois. After extensive testing on the *Clear Talk* System, and review by staff, the Sheriff's Office determined that this system was the best possible replacement for the current *EF Johnson* System.

*Clear Talk* is an 800 MHz Motorola system that uses "Smart Zone" Technology. It is a trunked analog system which operates 13 tower sites in Central Illinois. This system, with its current infrastructure and with the use of an in-car repeater system, provided 98% coverage when tested throughout McLean County. The Sheriff's Department field-tested the system for about 6 weeks with outstanding results.

In August, 2002, The Sheriff's Department requested approval from the Justice Committee to solicit competitive bids on radio equipment which would work on the *Clear Talk* radio system. The Committee asked for estimated cost figures. Those figures were provided to the Justice Committee prior to their September meeting.

The Bloomington and Normal Police Departments are content for now to stay with their 400 MHz system. Currently, the Sheriff's Department cannot monitor or talk with either department. I have purchased three relatively inexpensive 400 MHz portable radios so that the deputies can monitor Bloomington and Normal radio traffic and communicate with them when necessary. The Sheriff's Department will need additional portable radios to allow us to keep in contact with the city agencies. The Department continues to experience severe radio problems on an on-going basis.

The Board understands the severity of the problems and the dangers associated with the current radio system that is being used by the McLean County Sheriff's office and other rural police departments.

The following is a summary report of the ETSB/MetCom Ad Hoc Radio Committee meetings to date:

1. The *EF Johnson* radio system is not a viable long-term solution to radio, voice communications for McLean County Law Enforcement, Fire, and EMS Agencies. (Cost to fix with no guarantees and no confidence by users are the primary reasons for this recommendation.)
2. Any long-term solution for a Countywide emergency communications system will need sufficient funding to be successfully implemented. The committee strongly recommends that all possible funding sources be identified and proper application is made to apply for this funding. Letters have been written to both state and federal legislators trying to obtain funds for this purpose
3. If sufficient funding is obtained, the committee makes the following recommendations:
  - A. The new system should be an APCO Project 25 compliant system. (APCO Project 25 means the system is digital, trunked, and non-proprietary.) Project 25 is the national standard in voice and data communications.
  - B. The system should have full interoperability between emergency and non-emergency agencies within McLean County.
  - C. The system should have as close to 100% coverage as possible. (Note: Most communications companies will not guarantee 100% coverage. Most will guarantee 95% coverage.)
  - D. Portables should be small, light, and equipped with patch microphones.
  - E. The system must have excellent building penetration with portable radios.
  - F. The system must have good audio quality.
  - G. The system must have emergency siren activation requirements.
  - H. The system must have radios that are watertight (Fire Service requirement).
4. Three options that should be considered:
  - A. Countywide 400 MHz radio system, trunked.
  - B. Build a completely new system using the existing system only to supply data links.
  - C. Move to "Clear Talk" as soon as practical and use as a Countywide system.

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Sheriff Owens stated that he was not a "technology" expert, but he does have substantial experience with the subject, and would attempt to answer any questions to the best of his ability.

Mr. Renner had two questions. Mr. Renner noted, that the Sheriff mentioned that the a Countywide radio system should be digital, but *Clear Talk* is an analog system. Sheriff Owens stated that a digital system is a long-term solution. By purchasing radio equipment that is compatible with an analog or digital system, the equipment will work with *Clear Talk*, and can be upgraded to *StarCom 21* in the future. An 800 MHz system offers flexibility, whereas a 400 MHz system is basically a dead end. *Clear Talk* offers options for the future. *StarCom 21* doesn't exist right now so it cannot be tested like *Clear Talk* was.

Sheriff Owens mentioned that if the County decides to build its own system, the costs would be enormous. For example, Kankakee County recently built its own system. It is a Motorola System with four tower sites. (Kankakee County is roughly half the size of McLean County geographically.) It took 3 years for them to implement and it cost \$4.4 million. Sheriff Owens stated that his best guess is that it would cost double (or more) to implement the same system here in McLean County. The Sheriff in Kankakee is very happy with the current system. They report 95% coverage. No radio system is going to guarantee 100%.

Mr. Renner asked why is there not an option to upgrade the *EF Johnson* with in car repeaters. Sheriff Owens replied that in car repeaters are only as good as your mobile reception. The Sheriff's Deputies do not have good reception Countywide. If you go to a rural area where the mobile radio doesn't work well, then your portable radio won't work well because you need to have a solid connection from the mobile to the base. *EF Johnson's* propagation studies suggested remedies totaling \$1.8 million.

Sheriff Owens stated that he could take the Committee to any number of rural locations in McLean County where, even with a mobile radio, there is terrible communications on the *EF Johnson* system.

Part of that problem is due to the interference from the overlap of the three tower locations. It changes with different climatic conditions and vegetation in different seasons. The other part of the problem is intermodulation (or noise) from the downtown tower site. That impacts the whole system to some degree. They built the downtown tower before Nextel cellular service came became prevalent.

Nextel transmits on 800 MHz and there is definite interference caused by the different antennas on that site. The other two tower locations are not as noisy and not as active as the downtown site. Sheriff Owens stated that, at times, he has better reception in Champaign than he does on Towanda-Barnes Road in Bloomington. Basically, the radio system, it is a line-of-sight system and the topography from McLean County to Champaign County is flat and the system will reach out better from that point. There is a moraine that covers a large portion of the eastern County which causes some topographical interference. There are both portable and mobile failures within the system.

Sheriff Owens continued, that there have always been problems at Spin Lake. *Clear Talk* is the only system that has been tested and has worked within this area.

Mr. Renner asked the Sheriff if there was any way that the *EF Johnson* system could be salvaged with in car repeaters and extra towers. Sheriff Owens replied by asking the how much money are you willing to spend. He stated that they could spend \$1.8 million and it may help Chenoa, Danvers and LeRoy, but it will not help his road deputies in Holder or on Route 9 East. The *EF Johnson* system will only take one more tower site within the existing system, without major modification. Additional tower sites could cost about \$1 million per tower site. That is high because that cost includes building a tower. The dilemma is that the location with the highest population is in Bloomington-Normal. That is primarily where most of the problems are because that is where it is most heavily used.

Mr. Hoselton stated that he took the time to read *EF Johnson's* original bid. *EF Johnson* made a good point from the beginning. A gentleman named Ron Vegamast wrote the bid specification. He designed the system with three towers that we presently have. *EF Johnson* stated there should be four more. They also said that what they were installing met the minimum requirements that were specified. *EF Johnson* did not recommend the system the way it was specified in the bid document. They even had the County hire an engineer to test the tower sites to be sure they met the criteria. They listed four more sites that should have towers. Mr. Hoselton continued that *EF Johnson* knew from the beginning that the system was not going to work properly.

He asked Sheriff Owens if he thought that Rhode Island had only three towers because they are relatively the same size as McLean County. Sheriff Owens replied that the infrastructure that is in place is inadequate. The problem is, in his opinion, that *EF Johnson* has not been responsive to this problem or helpful with solutions to this problem. The Sheriff's Department did implement some of the less costly suggestions. It helped in some situations, but in most situations the system still functions poorly.

Mr. Hoselton said that he thought the life-span of most radio systems is around 10 years. He asked Sheriff Owens how long we have had the current system. Sheriff Owens replied that the Department went live with the *EF Johnson* system in April of 1997.

Sheriff Owens advised the Committee that the *EF Johnson* system is not a viable system Countywide. Bloomington and Normal Police Departments will not be a part a Countywide Johnson system. He added there will be much resistance from his staff as well, due to the problems that they incur day after day.

Ms. Johnson stated that she read through all of the available material and understood that, clearly, the system is in need of additional tower sites, but did not get them due to budget constraints. She continued that if, in fact, additional tower sites were built, why would the current *EF Johnson* system not work. Sheriff Owens replied that the current system is linked between the base station and the tower sites by T1 lines. The recommendation is microwave, which is more expensive. *Clear Talk* uses microwave technology. Ms. Johnson replied that she understands *Clear Talk* uses T1 lines as well. Sheriff Owens replied that, in some cases, systems use a mix of both T1 and microwave. He stated that there is a cost factor to consider. There has never been any money available to invest in the system from MetCom's perspective. He stated that the taxpayers would have a problem investing \$2 – \$3 million in the system which is more than was originally invested.

Ms. Johnson asked if the County invested that money and put up the extra tower sites, would the current system then work. Sheriff Owens replied that the question is, IF. Ms. Johnson said that there are no guarantees that *Clear Talk* or *Star Com 21* will work either. Sheriff Owens said he disagrees with that point because he and his officers have personally tested *Clear Talk*.

Ms. Johnson stated that *Clear Talk* operates 13 tower sites in Central Illinois. Ms. Johnson asked Sheriff Owens how many are in McLean County. He replied that there are none. He said he would demonstrate to the Committee why it works differently from the *EF Johnson* system. We have three tower sites which are roughly 300 ft. high. There are five Clear Talk sites which influence McLean County. They have one on Waterson Towers at ISU, one is in Congerville (which is a 600 ft. tower), one is in Pontiac (also 600 ft.), one is northeast of Decatur (600 ft.), and Champaign has one which is roughly 200 ft. Sheriff Owens stated that he does not know the height of the tower at Waterson. It is a line-of-sight system so the higher in the air the tower is, the better the coverage. The *Clear Talk* system would need to add one tower site north of LeRoy to improve coverage in Southeast McLean County. Ms. Johnson asked if there would only need to be one site in McLean County. Sheriff Owens replied that is correct. Ms. Johnson asked if others would have to be built in the future. Sheriff Owens replied that the *Clear Talk* system works to 98% coverage with the existing infrastructure that is in place, based on the Sheriff's Department's independent tests. He stated that another problem with the current system is service and cooperation from the vendor.

Chairman Sorensen asked if Ms. Johnson or any of the other Committee Members had anything else for Sheriff Owens. He stated that they needed to move the meeting along and additional questions could be asked at the closing of the meeting. Ms. Johnson said she was finished. Sheriff Owens stated that if anyone had any questions for him to please call and he would be happy to answer questions at any time.

Chairman Sorensen introduced Mr. Gary Huber, the next speaker.

Mr. Huber read the following prepared statement to the Committee Members.

1. The following comments are my personal and professional thoughts regarding proposed *Clear Talk* solution for the Sheriff's Department and the existing County public safety radio system. I make these comments with no remuneration of any kind from any individual or organization. I am not now nor have I ever been an employee or agent of Motorola or any of its affiliates or any other provider of radio equipment or services. Nothing I am about to relate should be considered official policy or position of my former employer, State Farm Insurance.

2. It is my professional opinion that you should support Sheriff Owens' request for *Clear Talk* communications service for his Department with the following reservation; radios used shall be ASTRO Analog and Digital Trunking with Mutual Aid compliant with mil-spec and factory Mutual-Intrinsically Safe ratings.
3. Mr. Chairman; Expecting questions and requests for clarification and "expansion" from the media and challenges from representatives of radio product and service organizations regarding the following statements, I request that questions be limited to members of this Select Committee unless submitted in writing. Questions will be answered in kind and my written statements will have precedence over media interpretation of verbal comments I make to this committee.
4. Radio has long been my avocation and vocation. My early interest in my pre-teen years was building and using radio receivers to listen to short wave broadcasting and amateur radio operators. Almost thirty years ago, I became a licensed (FCC) amateur radio operator. I spent twenty years researching radio products and services for State Farm Insurance, developing radio applications for life safety, productivity enhancement, improved customer service, and expense reduction. A significant portion of my previous work was developing a total cost of ownership and return on investment figures for radio systems. While most of my early repeater systems were in the UHF (450 MHz) range, the last fourteen years, I've worked with Motorola 800 MHz radio repeater systems that were used by *Clear Talk*.
5. We are discussing providing a short-term radio solution for the Sheriff's Department because the present County radio system cannot provide the level of service and reliability demanded for life safety communication. The current county system was designed with the primary focus of requirements set forth by those paying his fee. The resulting design is more geared to public works (street maintenance and garbage collection) high power truck mounted radios rather than low power hand held or belt worn radios used by police and fire agencies.
6. I see no political or economic advantage in trying to rebuild the current Johnson system. It is well into its life cycle with mean time between component failures becoming shorter and mean time to repair increasing as the radios age and various thermal, mechanical, and electrical stresses take their toll. The telephone links to the tower sites are a significant flaw in the system design causing poor audio and synchronization problems. It appears to me that another \$10 million could be put into the existing system and it would still not be accepted by public safety officers. Any decision made concerning radio equipment for the short term should provide the best return on investment by being compatible with the analog and digital repeater systems the County may choose in the future.

7. Given than, it is time to acquire the communication service and radio equipment for the Sheriff's Department that meets their needs today, but can be migrated into the future County radio system. You should recognize that the selection of Motorola radio equipment by purchase or lease – buy for the Sheriff's Department for the short term may well mean the pre-selection of Motorola as the prime manufacturer of future County radio system equipment in order to insure communications compatibility and avoid additional equipment expense.
8. Because *Clear Talk* utilizes a Motorola repeater technology called Smart Zone, which allows Motorola type II trunking radios to operated on a network of digital and analog repeaters. And because of the new *StarCom 21* digital radio network being built by Motorola for the Illinois State Police and other public safety groups; compatibility and interoperability with these networks limits your choice to Motorola and their 800 MHz ASTRO compatible radios.
9. I acknowledge that I have a bias for Motorola radio equipment as the result of doing business with them on behalf of my former employer. Over the years at State Farm, I recommended the purchase of, deployed and operated approximately 100 Motorola repeater systems and thousands of portable radios. This equipment was not the lowest cost equipment available, nor the cheapest Motorola radios. It was, however, the most reliable, military specification, factory mutual intrinsically safe (FM-IS), and public safety quality equipment I could acquire for a negotiated price. Then as now, I did not want to tell a family member that I was responsible for the death of injury to their loved one because I was stupid or cheap and bought a poor piece of equipment that failed when someone depended on it to avoid a dangerous situation. I've found that there are few people who want the liability of employees' injury or death, yet they are willing to chance those very situations with a cheap radio if they can pass on the responsibility.
10. There are mechanical and electronical specifications of components and sub-assemblies and quality workmanship on the inside of Motorola "public safety" radio equipment that are a significant contribution to product reliability that are absent from consumer products and other manufacturers' radios. When FM-IS options are ordered for a portable radio and its accessories, there is a reduced liability for radio operations in explosive atmospheres and near flammable gasses. Mil-spec options provide equipment seals to avoid moisture and dust intrusion and added resistance to shock vibration, the result is a radio with less down time and one that can be used by a Police Officer, Fireman, City Electrician, or Public Works operator.

11. If this Select Committee's responsibilities are limited to finding an interim radio solution for the Sheriff's Department, I recommend that you proceed with a two or three year contract for service from *Clear Talk*. The radios used may be acquired from any source, but should be ASTRO analog and Digital Trunking with Mutual Aid compliant with milspec and Factory Mutual – Intrinsically Safe ratings.
12. If this Select Committee's responsibilities include long-term solutions including, but not limited to implementing a reliable public service communications system, the re-aggregation of various law enforcement communications on a common platform, inter-operability between agencies, and total cost of ownership reduction through economy of scale principles; then I advocate the proceeding paragraphs and authorization for the committee to proceed in the endeavor to replace the *EF Johnson* system with a Motorola ASTRO Smart Zone system, designed for both rural and city operations perhaps in partnership with *Clear Talk*.
13. In either situation the short-term results are the same; a relatively minimal investment in portable radios and in car repeaters systems that utilize *Clear Talk's* seven linked radio tower sites within McLean County provide a needed lifeline of communications for the Sheriff's officers in rural areas. The additional benefit is the validation of the multi-tower 800 MHz Countywide radio communications system concept without a large infrastructure investment by the County; the acceptance of an 800 MHz radio system by Bloomington and Normal police officers is only going to happen when they see one working for another local law enforcement agency.
14. In closing, I want to thank the Select Committee for this opportunity to comment on an issue that I have a great passion for, Life Safety Radio Communications Requirements. Should you need an independent consultant for the replacement of or migration from the *EF Johnson* system, I will be available on a fee basis.

Chairman Sorensen asked if there were any initial questions from the Committee Members. Chairman Sorensen asked if Mr. Huber would stay until the end of the presentation and Mr. Huber agreed.

Chairman Sorensen introduced the next speaker, the Honorable Walt Hetman, Mayor of Chenoa. Mr. Hetman thanked the Committee for the opportunity to speak. Mr. Hetman stated that, along with everyone else, the rural communities have experienced much frustration with the radio system. The current system (EF Johnson 800 Mhz) works well for the City of Chenoa. They have taken additional steps to enhance the system by placing repeaters in all units.

They have bought small portables. They are not as durable as larger ones, but they work fine. Cost has created problems for them in the past. They received one 800 MHz radio per car and spent the City's money to update all of the cars to carry low band 100 MHz radios, 400 MHz radios and portables. Chenoa is a small city and with a very limited budget. They took the time to apply for a grant to update their system to the 400 MHz system. It was then decided that this was not going to be the Countywide system. So Chenoa had \$13,000 that they had to spend on radios. So they updated the *EF Johnson* radios to smaller portable radios and put repeaters in each car. Mr. Hetman said he has a problem with the *Clear Talk* system because their radios will not work on that system. It would cost \$15,000 to \$19,000 per unit to equip his cars with this system. In addition to that there is a monthly fee per unit to stay on the system. It is roughly \$35 per unit. For every car that the City has, there is a mobile radio and a portable radio. That is \$70 per car per month. The *StarCom 21* system has a similar pricing structure, but their fees are even higher. So for each car there would be a \$140 monthly fee. To Chenoa that is a large sum of money. The *EF Johnson* system works well for them. Mr. Hetman stated that the Sheriff's Department decides to go with another system, he hopes the *EF Johnson* system is left in place for the rural communities. He stated that he believes Gridley and Lexington would continue to use it as well.

Mr. Hetman stated that it is not fair for EF Johnson to get a bad rap, because they met the design specifications. The system was just under-designed from the beginning. *EF Johnson* has been very good with customer service for the City of Chenoa.

Mr. Hoselton stated that often times, the Sheriff's Department is not available to respond and the Chenoa Police Department provided mutual assistance as far as Bellflower. Mr. Hoselton asked if they ever have problems with the radios out that far. Mr. Hetman replied that they do not. He also admitted that there were things that are done wrong within the system. As Sheriff Owens said, it is a line-of-sight system. The system was tested in the winter and the system is affected by the color green (i.e. foliage) so it was not a fair representation at that time. He asked that the Sheriff's Office keep them in mind when making a decision and to allow the *EF Johnson* system to stay up and running.

Chairman Sorensen asked for Sheriff Owens, Mr. Huber and Mr. Hetman to answer questions from the Committee.

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Mr. Hoselton stated that he never saw the bids or other documentation before now. He stated that he knows that the County doesn't have the money right now to make a change in the radio system. He also informed the Committee that there are a lot of small communities that are married to the *EF Johnson* system and don't have the money to make a change either.

Mr. Hetman agreed and made an offer to the Sheriff's Department that he would make a unit and an officer available to try out the repeater system anywhere in the County.

Mr. Renner stated that the assumption is that we would need more in car repeaters and towers if the *EF Johnson* system is to work.

Mr. Hetman said that at least you can verify if the repeater system is any better than what they have now. If the tower is the issue and the mobile is not working, like Sheriff Owens said, the repeater is not going to do any good. If the issue is that the mobile works and the portable doesn't, then the repeater will help.

Sheriff Owens stated that they tested the *Pyramid* repeaters with the *Clear Talk* system and they did not work well. They did not test the *Pyramid* repeaters with the *EF Johnson* system.

Mr. Hetman asked Sheriff Owens what type of repeater the *Clear Talk* system uses.

Sheriff Owens stated that *Clear Talk* uses a *FutureCom* repeater, that is the same repeater recommended for use with the *StarCom 21* system.

Sheriff Owens stated that if he had not sold the old 400 MHz system, he would be using it. It worked much better than the *EF Johnson* system does. He stated he did test the *Pyramid* repeaters with the 400 MHz system with varying degrees of success. In comparison, the *FutureCom* repeater performed much better. The only problem is that they do not work with the *EF Johnson* system. The *Pyramid* repeater is around \$1,000 and the *FutureCom* system is between \$4,000 to \$6,700.

Mr. Hetman stated that the *Pyramid* system cost them \$2,000.

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Mr. Hoselton asked Sheriff Owens if he was refusing to perform the test that Mr. Hetman had offered. Sheriff Owens said that he was not refusing, but he could call *Pyramid* and have the repeater system put in his car for their own independent test. Or if Mr. Hetman would lend the Sheriff's office a vehicle he would be glad to perform the test. Mr. Hetman said he would loan a vehicle with an officer, not just a vehicle.

County Board Chairman Sweeney stated that several Board Members would not support the *Clear Talk* system due to the negative feed back that they received from other police officers and utility workers. Chairman Sweeney asked Sheriff Owens and Mr. Huber why they thought there would be so much negative feed back on this product.

Mr. Huber said he could not address the negative comments. He stated that he could address why he was giving *Clear Talk* positive comments. Mr. Huber said that the Sheriff has had success testing the system. He added that he is not an engineer, but has had maps and data that show him the signal levels and he is able to tell when a radio will work or not.

Mr. Huber advised the committee that *Clear Talk* is able to provide an infrastructure that 800 MHz radios will work on. Portable radios and cell phones need infrastructure. He stated that if the County has \$15 million, he would build the infrastructure that will work and ultimately save the County money.

Mr. Huber stated that the people who built the current system were telephone engineers, not radio engineers, and they under-designed the system. He said it would be \$15 million to start from scratch and build a whole new infrastructure, but since the County does not have the money, the next best choice is *Clear Talk*.

Sheriff Owens stated that he has talked with several people that currently use *Clear Talk* and all of the feed back that he has received has been positive. In any segment of the population, there will be positive and negative feed back.

Mr. Huber stated that *Clear Talk* is a consortium of co-op power companies. It originated as a Special Mobilized Radio operation when power companies were trying to acquire national frequencies and expand into other markets.

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Chairman Sorensen asked Mr. Huber if the *Clear Talk* system was analog rather than digital. Mr. Huber replied that it is analog. All of its radio signals are analog signals. When they speak about analog, they are talking about modulating the FM radio with your voice in an analog manor. Digital radio turns your voice into ones and zeros much like a digital telephone does. What you wind up with on a radio channel is just a phase-shift as it moves from ones to zeros. If you listen to it with a regular analog radio, all that you will hear is just a bunch of noise. Most of the officers will probably be resistant to using a digital radio because you cannot do the things in audio recovery, with a digital radio that you do with an analog.

Chairman Sorensen asked then why does it appear that the future of radio communication is digital. Mr. Huber answered that you can add additional capacity on a radio channel by using digital and you can also run digital text type information.

Chairman Sorensen thanked Sheriff Owens, Mr. Huber and Mayor Hetman for their time and information.

Chairman Sorensen stated that the next order of business is to discuss where the Committee should go from here.

Mr. Hoselton stated that he would like to hear from a representative from *EF Johnson*.

Mr. Renner noted that if you invite EF Johnson, then you are obligated to invite a representative from Motorola or *Clear Talk* as well.

Mr. Hoselton stated that he is not informed on the subject of radios and would like to be better informed on the entire subject before making any decisions.

Chairman Sorensen stated that the Committee will plan to invite *EF Johnson*, *Clear Talk* and Motorola to the next meeting.

Ms. Johnson said she agrees that they should invite EF Johnson, but she has already spoken with Clear Talk and does not need to hear from them.

Mr. Renner stated that for the purpose of gathering information, the Committee should invite *Clear Talk* as well. Ms. Johnson agreed.

Mr. Renner stated that he would also like for Sheriff Owens to test the in car repeaters that Mr. Hetman had offered. Sheriff Owens agreed to do so.

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Chairman Sorensen stated that he was defending a process. He stated that, in fairness, all vendors should be available to represent their companies.

Mr. Huber stated that in doing so, you will be opening the door to Kenwood, General Electric, and other manufacturers that also have similar products to offer.

Chairman Sorensen stated he appreciated the feed back.

Mr. Renner stated that the representatives are from the firms that are currently involved in this process.

Chairman Sorensen agreed with Mr. Renner. It was decided that representatives from *EF Johnson*, *Clear Talk* and Motorola would be invited to the next meeting.

There being nothing further to come before the Committee at this time, Chairman Sorensen adjourned the meeting at 2:34 p.m.

Respectfully submitted,

Christine S. Northcutt  
Recording Secretary