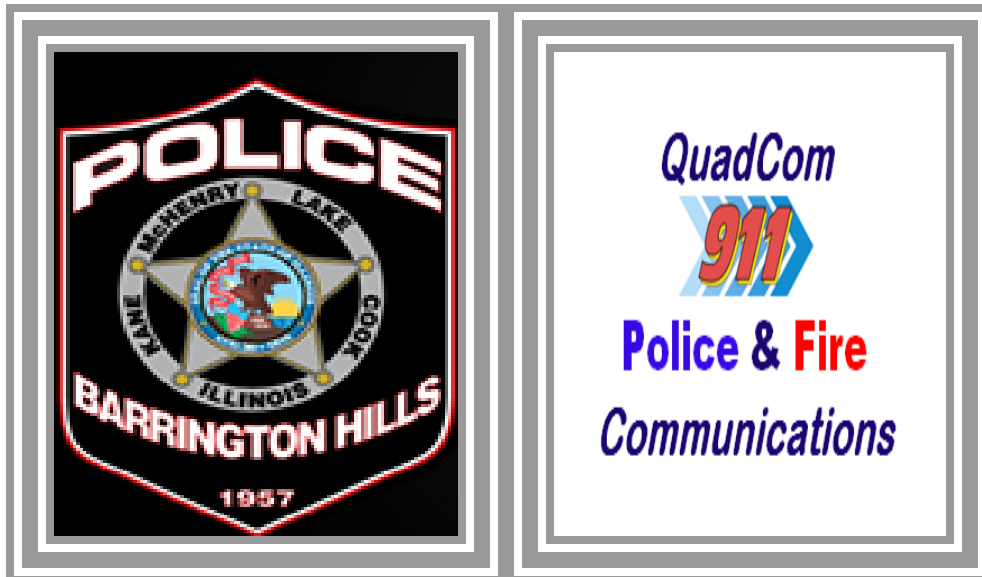


A Supplemental Analysis to Outsource Barrington Hills Police Communications or Retain Services In-House



March 27, 2015



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Executive Summary

Project Overview

PSAP Concepts and Solutions LLC, (PCS), a public safety communications consultancy located in the Chicago metro area, is pleased to provide the Village of Barrington Hills this supplemental report to PCS's feasibility study of September 2014 in order to assist the village board with its continuation of evaluating the option to either outsource village police communications to the QuadCom Regional Dispatch Center, located in neighboring Carpentersville, or to retain village police communication services in Barrington Hills at its current location.

Scope of Services

This study includes a supplemental analysis and recommendations relative to the two (2) alternative options being considered in order to assist the Barrington Hills Board of Trustees in making a decision between these two options. The analysis and recommendations include:

- Identification and discussion of the pros/cons and costs/benefits of the two alternatives;
- Identification and analysis of the costs of updating Village of Barrington Hills outdated in-house technology and replacing equipment and facilities that are at or near end-of-useful-life;
- Answer and address village board member questions/issues relative to the QuadCom option from the initial PCS study;
- Render an opinion regarding the recommended course of action and reasoning behind the recommendation.

Project Coordinators

The single points of contact for both PCS and Barrington Hills were:

- Richard Tuma was designated as the overall PCS Project Coordinator.
- Chief of Police Richard Semelsberger was the point of contact on behalf of the Village of Barrington Hills.

Client Contacts

As was expected Barrington Hills and QuadCom appointed a single contact that would be responsible for providing data for this study, answer questions, and to supply any additional requested documents. We are pleased to report that both organizations and their designated contacts provided the necessary data in a timely manner.

Timely Response

The collection of data and other documentation is extremely critical to meeting the projected timelines for the final report. Given the extremely short time frame to gather and analyze the data necessary, failure of any of the participants to fully cooperate in this process could have extended the production of deliverables. PCS is thankful for the professionalism and dedication of the two entities staff in providing the documentation in a timely manner.

Estimated Timelines

Because of the short time frame to complete the study, PCS agreed to commence work on the project on the same day as approval was received to proceed from the Village of Barrington Hills. PCS considered this report a top priority and make every available effort to complete it on-time.

PCS has delivered one bound and one unbound copy of the completed study to the Village of Barrington Hills before the end of the business day March 27, 2015 as agreed upon.

Meeting Attendance

PCS acknowledges that the Barrington Hills Village Board requests that a PCS representative(s) attend the March 30, 2015 village board meeting to provide a brief summary presentation of the study and its recommendations and to answer any questions from the board. Both Richard Tuma and Sherrill Ornberg from PCS are scheduled to attend this meeting.

Report Structure

Four bullet points were listed by the Village of Barrington Hills in the scope of services they asked PCS to address. Some of those bullet points will be cross referenced in a number of sections as some of the issues raised must be addressed in one or more of those points. PCS has taken a structured approach in the body of this report to reflect a logical and progressive methodology.

The four bullet points identified in the Scope of Services will be addressed in the following five sections:

Section One: Answer and address village board member questions/issues relative to the QuadCom option from the initial PCS study.

Section Two: Identification and analysis of the costs of updating Village of Barrington Hills outdated in-house technology and replacing equipment and facilities that are at or near end-of-useful-life;

Section Three: Identify and discuss the costs/benefits of the two alternatives.

Section Four: Identification and discussion of the pros/cons of the two alternatives.

Section Five: Render an opinion regarding the recommended course of action and reasoning behind the recommendation.

Summary of Findings:

PCS is pleased to present the following recommendations to the Trustees of the Village of Barrington Hills concerning the two options which were identified in the RFP:

PCS recommends Barrington Hills become a member of QuadCom for the following reasons:

PCS believe membership in QuadCom offers the **quality of service** benefits of:

- Highly trained dispatchers.
- Personnel who are managed by a director who is a communications center professional.
- Personnel whose sole job is 9-1-1 call taking and dispatching of public safety personnel.
- A PSAP that has more than one dispatcher on duty at a time provides a depth of resources not currently available to Barrington Hills.
- Dispatchers that are trained in and provide EMD (emergency medical dispatching and pre-arrival instructions) to callers who may be stricken with life threatening situations where every second counts.
- Access to some of the latest technology at a fraction of the cost if Barrington Hills retained their current PSAP.
- A savings in costs every year compared to maintaining the status quo.

PCS recommends Barrington Hills join QuadCom because the financial savings is substantial.

PCS offers the following **financial benefits** of membership in QuadCom:

- Sharing the costs of providing 9-1-1 call-taking and dispatching of public safety personnel with other surrounding communities and public safety organizations.
- Eliminating the need to spend approximately \$757,900 to replace Barrington Hills' aging PSAP equipment.
- A potential savings between \$333,300 and \$422,800 annually.
- A potential savings over a 60 month period of approximately \$2,459,374
- QuadCom has a buy-in policy that provides Barrington Hills the opportunity to share in the capital infrastructure which is already in place and allows for a two-year period to pays those costs.

PCS recommends that Barrington Hills negotiate with the QuadCom Board of Directors that they will not be held responsible for any pre-existing legal actions.

PCS recommends Barrington Hills join QuadCom because the structure of their governance is one of the best models available.

PCS offers the following logic:

- The best form of governance is one in which all the members have a voice in the direction, control and financial decisions of the organization.
- Barrington Hills becomes a full member with all the rights and responsibilities of QuadCom's current members.
- Barrington Hills has the same voting rights as all other QuadCom members.
- Many consolidated PSAPs have a client based structure, where there is no "seat at the table". PCS believes that membership in a consortium is far more advantageous.

PCS does not recommend Barrington Hills upgrade their current PSAP.

PCS offers the following logic:

- The costs to upgrade Barrington Hills current PSAP is approximately \$730,200 for equipment in addition to the on-going non-personnel costs such as 9-1-1 trunks, and current maintenance contracts.
- The projected costs for personnel next year is approximately \$530,000.
- The projected cost for membership in QuadCom for the first year, including buy-in, project management, and assorted other costs is \$262,282.

PCS recommends Barrington Hills maintain a limited staffing of two of its police assistants.

PCS offers the following logic:

- By retaining two police assistants, the residents and visitors to Barrington Hills will have a level of customer service which is desirable and customary.
- The costs of maintaining two police assistances has been calculated in the costs estimates.
- The number of administrative calls can be handled by maintaining staff at the police department during the hours of higher call volume. An auto attendant can be utilized for those hours when the administrative call load is significantly less.

PCS recommends QuadCom because it enhances Barrington Hills' police interoperability.

PCS offers the following logic:

- By joining QuadCom, the police department's radios will be re-programmed to QuadCom's existing radio network, which will provide communications interoperability to the police agencies that are dispatched by QuadCom and who border the Village of Barrington Hills.
- Barrington Hills' police will still have access to their current radio frequency which provides communications interoperability to the Village of Barrington's Police Department.

Section One: Answer and address village board members, Emergency Telephone System Board and residents' questions/issues relative to the QuadCom option from the initial PCS study.

Village Outsourcing 9-1-1 Proposal
Background and Comments
Jan. 23/ 2015

1. Are you familiar with the proposal to outsource our Village's 9-1-1 operation? In 2014, the Village contracted with a consulting firm (PCS) to "outline the costs, savings and procedures if the Village joined a joint answering facility for 9-1-1". While not comparing the quality of service that an outsourced operation would provide with our current in-house 9-1-1 operation, the resulting report estimated that the Village could save approximately \$350,000 to \$400,000 per year by becoming a member of QuadCom, a regional dispatch operation. Unfortunately, no other options or alternatives were considered, such as joining other dispatch organizations used at Centers in or evaluating our current in-house operation to streamline costs.

2. **Response from BH PD:** Northwest Central Dispatch was interviewed and considered but was rejected after the preliminary meeting due to the fact that they dispatch for too many villages, are located too far from Barrington Hills, and their radio systems were not compatible with BHPD, which would result in BHPD purchasing all new radios. Cencom was also considered (not interviewed) but was rejected due to numerous complaints from a user agency, and it also considered too far away from Barrington Hills.

Response from PCS: PCS was directed by the former police chief to consider only QuadCom in their study. PCS understands that a number of options were previously investigated by the Village Police Department and that they came to the conclusion that the best option for Barrington Hills was to partner with an agency that serviced similar size agencies and was in close proximity to the Village with a dispatch center that has agencies that border the Village.

2. A copy of the PCS report is available on the Village's web site. Why is this approach not beneficial to the Village? The outsourcing of our dispatch operation will result in at least the following changes:

2.1. The termination of potentially all six of our in-house dispatch operator employees.

Response from BH PD: This is the most difficult part of the decision in my opinion however, BHPD would like to retain two of the six to ensure that administrative calls are answered by a 'live' person as well as tending to 'walk in' traffic.

Response from PCS: PCS agrees with the Chief's comments. If Barrington Hills does retain two out of the six police assistants to staff their facility the remaining four may decide to apply at QuadCom as they will be increasing staff by two, which if hired could potentially soften the impact of job loss.

- 2.2. Assumption of past financial obligations of QuadCom that the Village did not directly incur.

Response from BH PD: Agreed, but the Village will also benefit from using equipment that has been purchased, installed, and field tested at QuadCom's expense over the lifetime of the organization. In addition BH will gain from the training and experience of their dispatchers.

Response from PCS: See Appendix D

3. Loss of direct Village control over a critical part of our public safety operations.

Response from BH PD: While it is true that BHPD will lose TOTAL control of our 911 operation, we will retain a very important vote of both the Executive Board and Board of Directors. QuadCom also has assured us that they can 'tailor' their dispatch procedure to each agency.

Response from PCS: Just as the Village of Barrington Hills has to abide by decisions made by the Villages Trustees, State Statutes, Federal Legislation, and other rights and responsibilities given it that influence/govern the operations of the village police department, so does QuadCom, its Board of Director, its Executive Director and member agencies. Each department, by policy, can tailor the type of response it wants to each type of event and has, by majority vote, the ability to change, modify, delete and add to the by-laws of the QuadCom organization.

4. Reduction or elimination of the Village's non-emergency telephone contact answering service, which handles a large volume of resident calls each month.

Response from BH PD: BHPD does not plan to eliminate non-emergency telephone contact, in fact the system will be enhanced to allow direct transfer to any employee as well as the Watch Commander via cell phone who is outside working the road.

Response from PCS: PCS conducted a review of the Barrington Hills administrative phone line activity for calendar year 2014.

- The least busy days are Sunday and Saturday with Sunday having about 50% and Saturday having 63% of the activity typically occurring Monday through Friday.

- By hour, the busiest times of the day are 7 AM to 3 PM followed by 3 PM to 8 PM. From 8 PM until 7 AM the incoming phone calls to the administrative lines drop to approximately 23% of the activity from 7 AM to 3 PM.
5. The sale of Village owned dispatch operational equipment (currently state of the art), will make it virtually impossible to return to an in-house operation.

Response from BH PD: Correct, the recently purchased 911 phone system would be sold, (AT&T has offered a buy-back option) however our current 3 position radio console is far from “state of the art”. It was purchased in 2003 and is operating on Microsoft XP, which is no longer supported and needs complete replacement ASAP. The radio consoles have an end of life in 2017 (parts become obsolete).

Response from PCS: Nothing in the Bylaws of QuadCom prohibit a member from leaving the operation; however it would be in the best interest of Barrington Hills to make a commitment for a number of years while reviewing annually their satisfaction with services provided by QuadCom.

6. From a practical standpoint, this makes a decision to join QuadCom long term and a very important one.

Response from BH PD: Agreed

Response from PCS: While it is very rare for a community to leave a consolidated PSAP operation it is an option for Barrington Hills should they become dissatisfied with QuadCom. In the unlikely situation that would happen, the options include membership in another consolidated PSAP or design, install and implement their own again. Since all the expensive equipment in Barrington Hills needs to be replaced or updated now, except for the phone system, purchasing new equipment in the future could remain a possibility should Barrington Hills decide they preferred to be integrated back into the police department.

7. The cost savings are substantial, why shouldn't we proceed? The cost savings estimates contained in the report are incomplete, and in some cases inaccurate. For instance:
- 7.1. The report contains a ten year projection of costs under QuadCom. It includes the very desirable cost of retaining two Village dispatchers for non-emergency calls. However, it only adds one dispatcher to QuadCom's 9-1-1 operation (one shift x 5 day's coverage?). Is one additional dispatcher at QuadCom adequate to meet our needs?

Response from BH PD: The Feasibility Study addresses this issue and recommends that QuadCom hire either 1 to 2 additional dispatchers which they are currently evaluating.

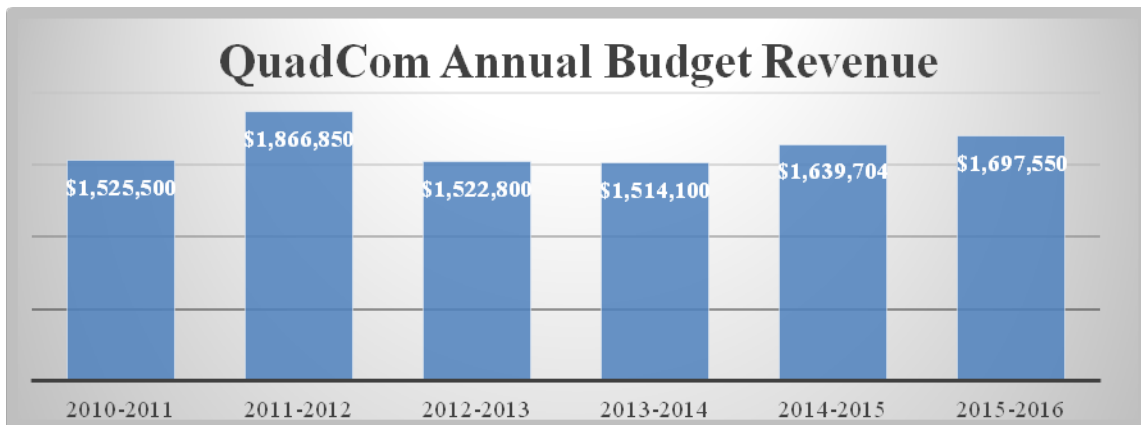
Response from PCS: The QuadCom Director has stated that she will be adding two additional emergency communications operators to the staff. By doing so, QuadCom could staff two shifts with a minimum of three dispatchers and one shift with a minimum of two.

8. The original report assumed that the Village's costs for QuadCom would increase by only 1.5% per year. However, QuadCom budgets for 2014 and 2015 (the only information provided in the report) projects a year over year increase of 8.4%. This will also adversely impact the potential cost savings.

Response from PCS: This addendum includes additional data to better estimate costs for Barrington Hills to continue operating their own PSAP vs joining QuadCom. Instead of using the same percent of increase for both Barrington Hills and QuadCom, PCS obtained the last five years' budgets for both organizations and calculated each of their average increases of budget revenues over that time period and applied those percentages to projected costs for a more accurate five year period. The follow charts contain a summary of the 5-year budget activity of both entities:

QuadCom Budgets	Amount	Percent Increase
2010-2011	\$1,525,500	
2011-2012	\$1,866,850	22.38%
2012-2013	\$1,522,800	-18.43%
2013-2014	\$1,514,100	-0.57%
2014-2015	\$1,639,704	8.30%
2015-2016	\$1,697,550	3.53%
2015-2016 with VBH	\$2,014,779	
Average Increase	from 2010-2015	3.04%

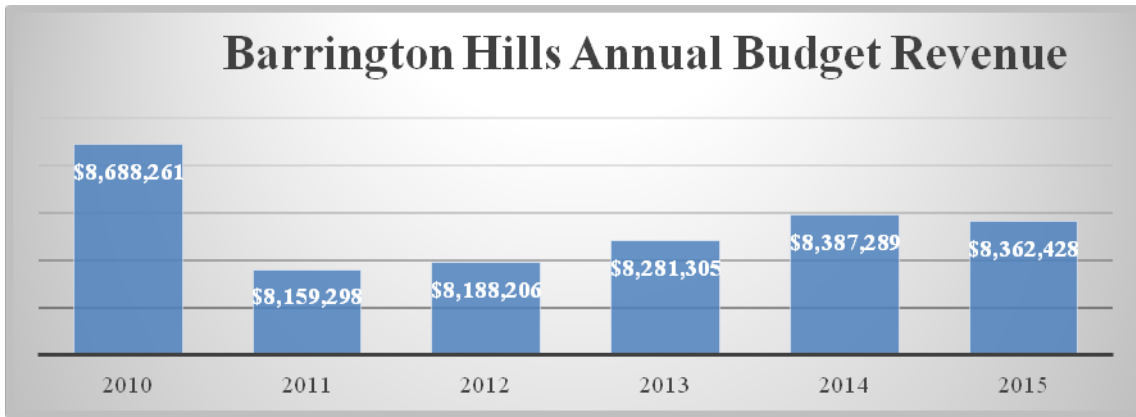
Figure 1



Graph 1

Barrington Hills Budgets	Amount	Percent Increase
2010	\$8,688,261	
2011	\$8,159,298	-6.09%
2012	\$8,188,206	0.35%
2013	\$8,281,305	1.14%
2014	\$8,387,289	1.28%
2015	\$8,362,428	-0.30%
Average Increase	from 2011-2015	0.49%

Figure 2



Graph 2

9. QuadCom requires a "buy-in" by the Village of approx. \$147,000. It appears excessive, especially so since there is no explanation of what benefits the Village receives for this fee. Is this fee to be applied to capital expenditures, current operating expenses, or added to their reserves?

Response from BH PD: The benefits are explained in the QuadCom By-Laws which states that "All property acquired by QuadCom shall be owned in common by the parties to the QuadCom Public Safety Communications System Agreement unless otherwise determined in writing by all parties." The buy-in would allow BHPD to have some limited ownership rights to the infrastructure that QuadCom has built over the past 28 years.

Response from PCS: It is the policy of QuadCom Regional Dispatch Center to require all new members to pay a reserve contribution fee. The objective of this policy is to establish a fair method for the new member to "buy-in" to the value of the existing building and equipment (capital assets) in order to equalize a new member's interest to that of an existing member.

The “buy-in amount is determined by the QuadCom By-Laws and is based on the fact that a “new” member enjoys the benefits of the others members contributions from previous years. Since Barrington Hills did not join in 2014, the 2015 buy-in costs are now based on the 2014 audit and have increased primarily because last year QuadCom purchased a new state of the art 9-1-1 phone system. See the comparisons below:

Buy-In Costs Based on Annual Audits	2014	2015
QuadCom’s Net Capital Assets	\$1,289,316.00	\$1,853,562.00
Barrington Hills’ Fixed Cost 25%	\$32,233.00	\$46,339.05
Barrington Hills’ Member Share 75%	\$110,237.00	\$160,981.86
Barrington Hills’ Total Reserve Contribution Fee	\$142,470.00	\$207,320.91
(Annual Amount First Two Years)	\$71,235.00	\$103,660.46

Figure 3

10. The estimated Village costs to implement outsourcing to QuadCom are incomplete, as it does not include the costs of a program manager, as well as a contingency for unexpected expenses.

Response from BH PD: A separate quote for a Program Manager has been obtained. If consolidation was approved, we would then put out an RFQ to request other quotes.

Response from PCS: PCS had submitted a quote for Project Management earlier this year for \$19,900. That amount has now been included in the cost estimates for Barrington Hills to join QuadCom.

11. The employment termination costs for the Village dispatchers, such as severance pay, are also not included in the report. These costs could amount from \$20,000 to \$50,000.

Response from BH PD: Agreed, an exact severance package was not included in the study. It has been informally discussed but it was considered premature as we did not want to send to the wrong message to our employees that the consolidation was a forgone conclusion.

Response from PCS: The Village of Barrington Hills has provided an estimate of a potential severance package of \$82,631, which is based on 4 out of the 6 current police assistants being terminated. The Barrington Hills Village Treasurer also provided an estimate of approximately \$7,500 for the unemployment costs, which would impact the 2016 budget year.

12. What other financial considerations are issues if the Village joins QuadCom? Unlike other public safety dispatch organizations that provide a "fee for service", QuadCom is a membership based organization. By joining QuadCom, the Village takes on substantial financial risk, including:

12.1. The QuadCom Membership Agreement requires that each member assume a pro rata share of QuadCom's total debt obligations as well as any costs of past or future litigation. The debt obligations total over \$740,000 currently and there is at least one pending law suit against QuadCom. The Membership Agreement contains a "joint and several liability" clause that, if the Village joins, could under extreme circumstances, make the Village solely responsible for all of QuadCom's past and future debt, as well as unknown liabilities arising from lawsuits. In this event, the Village would be in the unfortunate position of being held responsible for financial liabilities of an operation that the Village does not directly control.

Response from BH PD: I believe that Trustee Gohl brought this concern to the Village Board at the Jan. 26th meeting and it is currently being researched.

Response from PCS: Earlier this year the QuadCom attorney forwarded a document to the Barrington Hills attorney which stated new members would not be liable for any past litigation, however PCS recommends that this item be negotiated with QuadCom and included in any forthcoming membership agreement. (See Appendix D).

13. We currently have an in-house dispatch operation that has high fixed costs but low variable costs, which is well understood from many years of budgeting for this expense. Under QuadCom, the Village will replace this with an out-sourced operation with high variable costs, as 75% of QuadCom's expenses are born by the member agencies based upon each member's pro-rata share of the total call-outs that QuadCom incurs. This can result in large variances to the Village's budgeted costs once actual call-outs are known, and will be a difficult item for the Village when planning and budgeting.

Response from BH PD: While it is true that the BHPD portion of the QuadCom Budget can vary from year to year, that variance is offset by the 10 other QuadCom member agencies. I have obtained a 5 year historical perspective of the yearly budget for QuadCom and South Barrington (a similar agency to BHPD) which is attached to this reply.

Response from PCS: PCS has determined that the average increase to the QuadCom budget has been approximately 3%. It is true that a member's costs can vary from that because a portion of their annual costs are based on the previous year's activity, but when analyzed over a longer time period they equal out.

14. Why should all this financial analysis be performed by the Village prior to making a decision? The primary justification for a decision to join QuadCom is not to provide a better quality of service, but is based on cost reduction. It is critical that the Village conduct a proper analysis prior to making a fully informed decision.

Response from BH PD: I believe that the decision will be based on BOTH cost savings and quality of service. QuadCom clearly will provide cost savings due to the operational costs being shared by 10 agencies. As for the quality of service, both agencies provide an exceptional level of service. I personally have monitored the QuadCom frequency for almost 26 years and have always been impressed with their professionalism under some incredibly stressful situations. I have also never heard a QuadCom member officer speak badly of QuadCom.

Response from PCS: Since Barrington Hills does not have a formal or informal quality assurance program in place it is not possible to compare “scores” with QuadCom. While state law requires quality assurance reviews of emergency medical dispatch (EMD) calls, Barrington Hills does not provide dispatching services for paramedics. Even though quality assurance reviews of police call-taking and dispatching of incidents is not mandated by law, it is certainly considered “best practices” and is the only mechanism for ensure that staff is following policy and procedures, in addition to quality customer service. QuadCom does have a formal process (see Appendices #E & F) for assessing the performance and behavior of their staff in the following:

- Police call-taking
- Police dispatching
- Fire call-taking
- Fire dispatching
- Emergency medical call-taking
- Emergency medical dispatching

15. The only QuadCom budget information available is for FY2013 and FY2014 years, which indicates an 8.4% year over year increase. This increase is substantially larger than the 1.5% annual projection used in the earlier report, and compounded over a 5 or 10 year period would substantially reduce the economics of joining QuadCom.

Response from BH PD: Again, any budget increase is offset by the other 10 member agencies.

Response from PCS: PCS obtained 5 years of budget data from both Barrington Hills and QuadCom and based it projected increases on the 5 year average for each entity. In addition,

this addendum report used the method of compounding increases to better reflect the 5 year picture.

16. A multi-year side-by-side financial comparison between the QuadCom offer and our in-house operation, using the best available data, is critical to a correct understanding of the economics of joining QuadCom.

Response from BH PD: I believe this issue is addressed in the Feasibility Study.

Response from PCS: This was completed in this report as shown in Sections 2 and 3.

17. Are there changes to the Village's public safety ongoing operations and procedures that will occur as well?

17.1. Changes to Village internal public safety operating procedures, while certain to occur, are not well addressed in the report.

Response from BH PD: BHPD is a Nationally Accredited Agency and does not plan to substantially change our operating procedures. QuadCom has assured us that they will tailor their dispatch procedures to suit our agency needs.

Response from PCS: PCS reviewed confirmed that QuadCom will customize their procedures to ensure that the Village's operating procedures are intact.

18. From residents' perspective, the Village will no longer have a dispatcher presence at the Village Hall 24 hours a day by seven days a week. Retention of two dispatchers to handle non-emergency calls received each month will likely result in availability only on Monday to Friday from 7:00 AM to 10:00 PM, with no availability on overnight or weekends. If none of the dispatchers are retained, this service may not be retained in any form.

Response from BH PD: Our preference would be to retain two employees to handle administrative calls and walk in's during peak times similar to the hours you mentioned. If none of the six are retained, we would adjust the duties and hours of other personnel to accommodate the calls. As previously stated, an automated 'call attendant' would also be added to direct callers to either the Watch Commander working the road or to a supervisor's desk.

Response from PCS: PCS conducted a review of the Barrington Hills administrative phone line activity for calendar year 2014 in order to help then administration of the Barrington Hills police determine the proper staffing to handle administrative calls to the police department.

- The least busy days are Sunday and Saturday with Sunday having about 50% and Saturday having 63% of the activity typically occurring Monday through Friday.
- By hour, the busiest times of the day are 7 AM to 3 PM followed by 3 PM to 8 PM. From 8 PM until 7 AM the incoming phone calls to the administrative lines drop to approximately 23% of the activity from 7 AM to 3 PM.

Based on the call activity identified staffing for specific days and time frames would be the prudent thing to do.

- 19.** If a non-emergency call becomes a true emergency there will be no tools or systems for the remaining call handlers to gather map and caller information and directly dispatch. Can this change be implemented smoothly with no interruption to ongoing public safety operations? The retention of a project management team (costs not yet determined) that is experienced in this type of activity will be helpful in anticipating problems, but there are always events that can occur unexpectedly. This may also result in operational problems or additional costs.

Response from BH PD: If a non-emergency call becomes an emergency the BHPD call taker will be able to transfer the caller directly to QuadCom who then would dispatch officers. BHPD also plans to retain a 'desk top' radio console to communicate directly with officers on the road via radio from the station if the need arises.

Response from PCS: PCS agrees with the comments made by the Chief of Police. This potential event exists with the current members of QuadCom and they have successfully dealt with it since 1979. Also, the process as the Chief describes is a best practice and has been recommended by PCS to other municipalities in their consolidation studies.

- 20.** What other actions should be taken by the Village prior to a decision to join QuadCom? In addition to a side-by side financial analysis, there are many additional actions that the Village should undertake PRIOR TO entertaining a decision to join QuadCom. These include at least the following:

- 20.1.** Financial modeling of various scenarios beyond the one in the report to better understand the limits of the Village's financial obligations under QuadCom.

Response from BH PD: What scenarios specifically would be beneficial to see that are not included in the report? This request would need to be accomplished by the Village Treasurer or contracting with an accounting firm as it is beyond the limited resources and staffing of the Police Department.

Response from PCS: This information is beyond the scope of the study.

21. Budget forecasting accuracy of QuadCom must be determined through discussions with other current members of QuadCom to determine how accurately QuadCom forecasts expenses (budgeted to actual expenses).

Response from BH PD: While we do not have an assessment of the accuracy of the past QuadCom budget forecasts, as a member, BHPD would have membership and voting rights in determining future QuadCom budgets. It is also important to note that each member agency's cost is partially dictated by their 'calls for service' from the previous year. This number is impossible to forecast.

Response from PCS: PCS looked at a five year history of both Barrington Hills and QuadCom to determine a more accurate picture of their budget histories and then used those actual averages to forecast future costs.

22. Understand QuadCom's approval procedures which require a unanimous vote of all the members to approve items such as the annual budget. Failure to obtain unanimous approval could result in disruptions to operation.

Response from BH PD: There is no historical evidence of a QuadCom service interruption based on lack of decisiveness or failure to obtain "unanimous approval".

Response from PCS: "In the time I have represented QuadCom, almost 25 years, they have never failed to adopt a budget prior to May 1, the start of their fiscal year. However, if that were to happen, they would operate on the basis of the prior year budget and move to adopt a new budget as quickly as possible. Typically, the Board has adopted its budget at the February meeting, well in advance of May 1." John H. Kelly, Ottosen Britz Kelly Cooper Gilbert & DiNolfo, Ltd.

Regarding approval of the budgets, QuadCom's By-Laws states the following:

Voting

- a. A quorum shall be a majority of the members of the Board of Directors,
 - b. Each member in attendance shall have one vote,
 - c. Proxy votes shall not be allowed,
 - d. A majority of the members of the Board of Directors shall be necessary for any action unless otherwise provided for in these By-Laws.
23. Quality of service measurements that QuadCom currently provides to their customers residents and businesses, and a comparison with our current in-house operation to ensure that the Village will not suffer from a lower quality of service.

Response from BH PD: I am not exactly sure how this would be accomplished other than sending out a survey to all residents in the QuadCom communities which would be a very costly and time consuming venture. We have spoken with several chiefs, elected officials, and officers who all have reported exemplary service from QuadCom.

Response from PCS: PCS agrees with the Chief's comments.

24. Review QuadCom's procedures for both normal and emergency operations to ensure that they meet the Village's standards. As an example, QuadCom says their dispatcher remains on the line until a unit arrives, but average call holding time is only 1.4 minutes. How can a unit normally arrive in only 1.4 minutes?

Response from BH PD: All police calls for service do not require the dispatcher stay on the line, only major 'in progress' calls meet that requirement. This accounts for the low average reported.

Response from PCS: QuadCom remains on the line with certain callers based on the type and severity of the call and not on every call. They are following best practices of the emergency communications profession. The 1.4 number is an average of all the calls.

25. Review QuadCom's technology to ensure that it meets all standards and provides a "state of the art" operation.

Response from BH PD: QuadCom's specializes in providing quality dispatch services to its member agencies. They have the resources and staffing to focus on that mission as that is all they do. BHPD's main function is the police operations side, dispatch exists as a support to police operations. We currently do not have the resource or staffing to laser focus on dispatch.

Response from PCS: One of the most important factors in considering consolidation is the fact that QuadCom's entire attention is emergency communications (police, fire and emergency medical service). Their staff members have no other responsibilities, which allow them to concentrate on providing superior customer service to both the public and their public safety partners.

26. Review QuadCom's plans for including the Village in their operation, including the need for additional facilities to accommodate the Village's additional load of 1,500 calls per month.

Response from BH PD: No additional facilities are needed. Several visits and inspections of the QuadCom facility have been completed by BHPD Staff, Village Trustees, and the Village President.

Response from PCS: PCS agrees with the comments from the Chief and based on their evaluation of the QuadCom facilities and other data concur that additional space is not needed.

27. Site inspection of QuadCom's facility should be done, reviewing their infrastructure for items such as power grounding, access to fiber and other capabilities that may limit their ability to move toward new technology such as NG9-1-1 efficiently and without large expenditures.

Response from BH PD: Competed, see answer 26.

Response from PCS: Addressed in #26 of this report.

28. Document the results of these actions, thus creating a "paper-trail" so that residents have access to better understand the Board's decision-making process (transparency under FOIA).

Response from BH PD: Agreed, however this task will require resources greater than currently available to the Police Department.

Response from PCS: All written documents from PCS are available through the Village of Barrington Hills.

29. Are there other practical considerations that should be a part of this decision?

29.1 PRIVACY CONCERNS are important to Village residents that have occasion to interact with QuadCom representatives, and are not specifically addressed. For example, there was an indictment filed against QuadCom's Director, charging that he used QuadCom facilities to conduct background searches on individuals for personal use.

Response from BH PD: The indictment referenced is from 2008. QuadCom took action immediately upon learning of the misuse of information. The employee involved was terminated, charged, convicted, and did jail time. This is a clear example of QuadCom's professionalism and dedication to complete transparency.

Response from PCS: Concur with the Chief's statement. Additionally, Appendices G & H clearly define QuadCom's policies and procedures concerning issues of privacy.

30. PERSONNEL DECISIONS have major impact on the operation of any public safety center. Under QuadCom, the Village will have limited ability to assess the capabilities of the candidates, and select the best qualified.

Response from BH PD: Correct, that responsibility would be left to the QuadCom Director who has almost 30 years' experience as a 911 operator, supervisor, and now as director.

Response from PCS: QuadCom utilizes a number of professionally focused tools in screening applicants. The Director clearly understands the importance of hiring candidates who exhibit both innate abilities and courteous attitudes.

- 31. FUTURE COSTS** for the Next Generation 9-1-1 ("NG9-1-1") equipment, network access and personnel training are not well understood at this time and therefore cannot be discussed in this report.

While these costs impact either an in-house or an out-sourced dispatch operation, the Village, under a QuadCom agreement, will not have direct control (decision-making authority) to approve upgrading to newer technology. In other states where NG9-1-1 is under consideration, the question about consolidation was open to study.

Response from BH PD: Correct, that cost and decision making responsibility would be shared by the collective knowledge of 10 experienced local area police and fire chiefs.

Response from PCS: The consortium of QuadCom chiefs has made all the important decisions on technology upgrades since the PSAP's inception in 1979. The CAD system is a tier 1 product, the 9-1-1 phone system is brand new, the radio system is up to date and their two mapping systems are state of the art. QuadCom also has a 5 year capital improvement program.

- 32. The ONLY National NG 9-1-1 trial, the Illinois CSI Pilot for NG9-1-1, all counties/ETSBs** resulted in the agencies retaining their current PSAP and dispatch operations. Training took 2 days, and knowledgeable PSAP personnel were able dispatch to the same EMS, police and fire in their local jurisdictions as before. The only consolidation was with the core NG9-1-1 fully redundant technology which allows the 21 PSAPs to fully back each other up in an emergency. This configuration saves a minimal amount of cost of operating a PSAP.

Response from BH PD: Correct, however this does not address the ongoing and escalating costs of additional employees needed for NG 911, health care cost, or retirement costs for these employees.

Response from PCS: Comparing this Barrington Hills study to what is occurring in southern Illinois is not a fair and accurate comparison. The situation in southern Illinois is very limited in scope and only deals with the 9-1-1 network as it is influenced by NG9-1-1 and telephone equipment. This Barrington Hills study also includes the other very important and essential systems, equipment, and personnel.

33. PUBLIC SAFETY is a top priority with Village residents, and to date it must be implemented accordingly. As a result, the Village's public safety department has a state of the art operation that, for each of the last several years, has received law enforcement commendations (CALEA) for providing exemplary service.

Response from BH PD: Again, as previously stated, only our 911 phone system has been updated recently. Our three position radio console is far from “state of the art” (installed in 2003) and needs replacement ASAP. The CALEA Accreditation is based on police operations and not just dispatch. A separated CALEA Accreditation is available for dispatch operations however BHPD does not currently have that accreditation.

Response from PCS: We absolutely concur with the Chief. The components of the CALEA Accreditation that focus on dispatch functions have been reviewed with the QuadCom Director. All of the required facets are already in place at QuadCom.

34. LOCAL KNOWLEDGE that our in-house dispatchers have and their experience in dealing with the unique aspects of our Village, such as our fire number system, dealing with brush or barn fires, etc. Will our public safety department under a QuadCom dispatch operation be able to perform in a timely and responsible way for Village Residents? There is no guarantee that any of the current Village dispatchers will be hired by QuadCom, thus losing a collective 75 years of knowledge about our Village's unique needs.

Response from BH PD: While I agree that our dispatchers have “local knowledge” of the unique aspects of our village we must also understand that our police officers also have that knowledge and moreover they are the employees that actually go to the calls and locate the homes. We also must note that all of our dispatchers obtained this knowledge from working the job which is exactly what would occur over time if QuadCom was to provide dispatch service. QuadCom also has advised that they intend to have all their dispatchers do a ‘ride along’ with our officers to learn the area.

Response from PCS: Concurs with the Chief

35. If the Village decides to join QuadCom, what else should be done? In the event that a decision is made to join QuadCom, there are many actions that the Village should undertake in negotiating any agreement, including at least the following:

35.1. PERFORAMANCE METRICS - These measurements are critical to ensuring that the quality and level of dispatch service provided to Village residents will not be degraded from what we have currently experienced under the in house operation.

Response from PCS: Addressed in #14 of this report.

- 36. FINANCIAL LIMITS** - Unlike other regional dispatch operations that provide a contract fee-for-service on an annual basis, the Village becomes a full member, and is liable for at least a portion of ALL QuadCom's costs. Under certain circumstances, the Village could be responsible for much more. Limits are needed in any Agreement to ensure that the Village's liability for future QuadCom costs and debt are bounded.

Response from PCS: Addressed in #2.2 and Appendix D of this report.

- 37. TECHNOLOGY EVOLUTION** - We currently have a state of the art in-house dispatch operation. Assurances are needed in the contract that QuadCom will migrate to improved technology on a timely basis, and will ensure concurrency with Federal, State and other agency standards such as Association of Police Communications Officers (APCO).

Response from PCS: Addressed in #31 of this report.

After PCS began developing this addendum report it received additional questions. Because PCS received these documents in a variety of formats they were converted and inserted into the "WORD" format of this report.

**Open Questions from Trustee Harrington
Relative to Outsourcing the Police Emergency Response Dispatch to QuadCom**

- 38. Inherited Liabilities** — Will VBH be liable for past and future QuadCom financial and legal liabilities?

Response from PCS: Addressed in #2.2 & Appendix D of this report.

- 39. Update/clarify financial analysis to include costs for:**

39.1. Dispatcher termination Addressed in #11 of this report.

39.2. Project manager, Addressed in #10 of this report.

39.3. Moving costs, none

39.4. Any equipment we will need to update/maintain for retaining non-emergency call capability for the current Barrington Hills administrative phone system

Per Scott Ivy of AT&T, the current Barrington Hills administrative telephone system has outbound transfer capabilities. The system can be programmed so a caller could be prompted to select a specific number (ie. Press 1 for dispatch). If a resident calls the administrative (non-emergency) police department telephone

and requires a dispatch, the caller can press 1 and the caller will be automatically transferred to QuadCom where the dispatcher can radio a police unit to respond.

- 39.5.** QuadCom additional facilities costs that may be incurred by BH (pg.18), **There are no facilities costs**
 - 39.6.** Cost of non-emergency calls that go to QuadCom (12,958 in 2013) which may go up if we don't staff non-emergency lines 24/7, **Addressed in #39 of this report.**
 - 39.7.** Cost estimate for consultant to do impact study for QuadCom (billed to VBH); **Already completed in September 2014 as part of the original Feasibility study.**
 - 39.8.** Review of QuadCom's general financial condition and budgeting process; **The 2014 QuadCom audit can be located in Appendix I.**
 - 39.9.** Quality of service metrics comparison — QuadCom vs. VBH current and standards and determination of methodology for ongoing measure and monitor of Quality of Service metrics; **Addressed in #14 of this report.**
- 40.** Final determinations:
- 40.1.** QuadCom staff additions **Addressed on page 38 of this report.**
 - 40.2.** VBH staffing for non-emergency call capability, **Addressed in #2.1 and page 8 of this report.**
 - 40.3.** Equipment and shift/staffing needs and costs; **Addressed in # 31 and on pages 39 & 40 of this report.**
 - 40.4.** Does QuadCom have fiber in place to move to NG911? **Addressed in #48 of this report.**
 - 40.5.** Privacy policies and protections; **Addressed in Appendices G & H of this report.**
- 41.** What are QuadCom historical and predicted cost/expense growth trends? **Addressed in #8 of this report.**

**Questions from Mr. Hennelly
QuadCom facility**

Electrical/Mechanical infrastructure

- 42.** Does QuadCom own the building? **Yes**
 - 42.1.** If leased, who is responsible for infrastructure maintenance and/or upgrades? **N/A**
- 43.** Visited building on 3/12/15 and noted the call center appears to be fed from a single a 112 1/2KVA transformer. Is this the only ComEd service? **Yes**
 - 43.1.** What is the maximum metered load in kW that the call center has drawn? ComEd can provide information. **Unable to determine**
 - 43.2** Projected additional load caused by the addition of VBH membership. **None**

- 43.3** Is building fed from a ComEd automatic throw over device? **The building power line is monitored by a transfer switch that automatically starts the emergency generator when it detects an outage. During the period from loss detection to the generator taking over (approximately 30 seconds), all mission critical equipment is powered by a U.P.S. system.**
- 44.** Visited building on 3/12/15 and noted the call center has a 30kw backup generator. Is this correct? **Yes, as addressed on page 65 of the original report.**
- 44.1.** What critical loads are being powered by the generator? **All mission critical equipment (ie: phones, radios, recorders, CAD, HVAC)**
- 44.2.** Average number of loss of utility power per year? **Unknown (Minimal)**
- 44.3.** Age of generator? **15 years**
- 44.4.** Accumulated operating hours? **Unknown**
- 44.5.** Average percent load during testing? **Refer to an electrical engineer**
- 44.6.** Does the generator backup any of the HVAC equipment? If so, what? **Yes, the generator backs up the HVAC equipment**
- 44.7.** Projected additional load caused by the addition of VBH membership? **None**
- 45.** Size of uninterruptible power supply (UPS) serving critical equipment **See Appendix J**
- 45.1** Average percent loading on UPS? **Refer to an electrical engineer**
- 45.2** Is the UPS configured with redundancy? **No**
- 45.3** Current battery retention time? **Replaced every 4 to 5 years**
- 45.4** Age of batteries? **1 year**
- 45.5** Projected additional load caused by the addition of VBH membership? **None**
- 46.** Size of HVAC system? **Sufficient for 7/24 service**
- 46.1.** Number of HVAC units? **4 (1) 12,000 BTU, (1) 15,000 BTU, (2) 18,000 BTU**
- 46.2.** Age of HVAC system? **15 years**
- 46.3.** Expected date of next maintenance overall? **2 times a year in the spring and fall**
- 46.4.** Calculated loading **Refer to an electrical engineer**
- 46.5** Current loading? **Refer to an electrical engineer**
- 46.6** Projected additional load caused by the addition of VBH membership? **None**
- 47.** Number of AT&T 9-1-1 trunk lines? **5-Wireline, 3-Wireless**
- 48.** Fiber and copper capabilities
- 48.1.** Number of trunk groups by type, wireline and wireless and the number of trunks in each group? **See Appendices A & C**
- 48.2.** Does each building have fiber to the premises from any external carrier network or wholly owned fiber or copper facilities? **Yes, fiber is connected to the Carpentersville Village Hall and is privately owned. QuadCom is scheduled to**

be tied to the Kane County fiber network. All PSAPs in Kane County will be tied together when the fiber network is complete (4 PSAPs are complete now).

48.3. If fiber, what is the available bandwidth, if copper, is it a T1 or higher bandwidth?
Internet Connection - Comcast 40MB Down 10MB Up.

Fiber to Carpentersville - 100MB
Sleepy Hollow T1 - 1.44MB

48.4. Networks of the future preferably have MPLS or Ethernet over Fiber. **The current 9-1-1 trunks are not on T1's, they are individually conditioned EMNC trunks as required by the ICC.**

49. Redundant routing capabilities? **See Appendix A for the current QuadCom telco trunk configuration and Appendix C for the proposed routing of the AT&T 9-1-1 network if Barrington Hills joins QuadCom. Kane County's fiber network is complete from Montgomery to Elgin at this time (Aurora, Elgin, Tri-Com, and KaneComm are connected). Kane County's fiber network routing provides alternate routing capabilities. Roger Fahnestock (Kane County IT Director) heads up the project.**

50. Redundant routing capabilities? **See Appendices A and C for present routing config.**

Questions from Mr. Colosia

51. A Village review of QuadCom's operational procedures to ensure compatibility with our Public Safety operation. **Addressed in #33 of this report.**

52. A review of QuadCom's Privacy policy. **Addressed in Appendices G & H of this report.**

53. A review of QuadCom's training program and compliance procedure. **QuadCom utilizes the Association of Public-Safety Communications Officials (APCO) training program, which is the professional standard and best practice.**

54. What will QuadCom do with 911 calls that they deem non-emergency? **Addressed in #39.4 of this report.**

55. The Village must determine the costs that were not included in the PCS report, such as:

55.1. Project manager costs for the transition **Addressed in #10 of this report.**

55.2. Severance costs for the current Village dispatchers, **Addressed in #11 of this report.**

55.3. Increased insurance costs due to the Village assuming a portion of QuadCom's debt and liability. **BH would become a party to the current QuadCom insurance liability policy.**

- 55.4.** Cost for a Village resident "awareness campaign" (there are clearly differences in how 911 and non-emergency calls will be handled under QuadCom). **Outside the scope of this report, as it would be difficult to calculate such a cost until the village makes a decision on what the awareness campaign would consist of. In some respects there are ways to get the word out without cost (ie: website).**

Questions from Ms. Kemp

	<u>VBH</u>	<u>Notes</u>
56 Power Main Electrical	ComEd	Normal PS Priority
56.1. Status July 2011	PSAP online	
56.2 Fuel Agreement	Natural Gas	None needed
57 Building Ground		Yes / According to Harry Crawford of Geary Electric of Northbrook, Illinois, did the grounding work as recommended by an insurance company audit. The grounding work is not certified.
58 Equipment Ground	Yes	Not certified R56
59 Heating		
59.1 Equipment Room	Not Alarmed	
Can Manager see 24 by 7 by 365?	No	
59.2 PSAP Center	Staffed 24 x 7	
Can Manager see 24 by 7 by 365?	Yes	
60 Air Conditioning		
60.1 Equipment Room	Not Alarmed	
Can Manager see 24 by 7 by 365?	No	
60.2 Dispatch Room	Staffed	
Can Manager see 24 by 7 by 365?	Yes	
61 Synchronization		
61.1 Equipment to Network	Yes, Spectracom Netclock	
61.2 What controls synchronization?	U.S Bureau of Standards Atomic Clock	
62 Bandwidth	See Appendices A & C	
63 Is the building		
63.1 NG9-1-1 Ready for the future	Phone system is capable	
64 Cable Category Cat 5		
64.1 NG9-1-1 Ready for the future	Partially Ready	
64.2 e2K Circuits for Data	Question is unclear	

65 Trunking Capacity

- 65.1 Wireline 2
- 65.2 Wireless 3

66 Based on the stated trunks and groups in Appendices A, B, and C of the study, why does VBH need more wireline trunks for 50 calls per month than for the wireless calls of 5000 to 6000 calls per month? I assume wireless includes VoIP and wireless, wireline includes CLEC and LEC. **Trunking diagrams and engineering provided by John VanderWerken of AT&T. Yes, all inclusive. The number of wireless trunks were increased because Barrington Hills works out of the AT&T Lombard router and QuadCom works out of the Geneva router. Geneva trunks were added for Barrington Hills routing to QuadCom.**

67 Could VBH save annual trunk costs with AT&T by asking for usage data? **Outside the scope of this report; (note 9-1-1 trunks are provided under a special 9-1-1 tariff).**

67.1 How much annually? **Outside the scope of this report.**

67.2 The question has also to do with the future consolidation model. Only AT&T can answer some of this. Did PCS consultants use AT&T data?. **Yes.** If so, please provide. Network diagram supplied ATT and phone call data provided by BH. **See Appendix A,B, C**

68 We are in 4 counties. What percentage of our residents are in each County?

2010 BH County Census

• Cook	2,171	51.31%
• Kane	137	3.23%
• Lake	601	14.21%
• McHenry	<u>1,322</u>	<u>31.25%</u>
Total	4,231	100.00%

69 What do we have to do to prepare our dispatchers? They already take our 9-1-1 calls which include police, fire and EMS requests. **All Police Assistants would need to pass the required instruction and become certified as Emergency Medical Dispatchers in addition to the training addressed on page 28 of the original report.**

	<u>QuadCom</u>	Notes
70 Power Main Electrical	ComEd	Priority – normal public safety
70.1 Status July 2011	UPS Malfunction	Affected radios-corrected
70.2 Fuel Agreement	Natural Gas	None Needed
71 Building Ground	Yes	According to John Larson of Chicago Communications (QuadCom’s vendor) a R56 grounding survey has been

conducted and QuadCom is certified as R56 compliant.

- 72 Equipment Ground Yes Same answer as #71 above**
- 73 Heating**
- 73.1 Equipment Room Yes**
Can Manager see 24 by 7 by 365? **Yes**
- 73.2 PSAP Center Staffed**
Can Manager see 24 by 7 by 365? **Yes**
- 74 Air Conditioning**
- 74.1 Equipment Room Alarmed**
Can Manager see 24 by 7 by 365? **Yes**
- 74.2 Dispatch Room Staffed**
Can Manager see 24 by 7 by 365? **Yes**
- 75 Synchronization**
- 75.1 Equipment to Network Yes, Spectracom Netclock**
- 75.2 What controls synchronization: U.S. Bureau of Standards Atomic Clock**
- 76 Bandwidth See Appendices A & C**
- 77 Is the building**
- 77.1 NG9-1-1 Ready for the future Yes**
- 78 Cable Category Cat 5**
- 78.1 NG9-1-1 Ready for the future Yes**
- 78.2 e2K Circuits for Data Unclear question**
- 79 Trunking Capacity**
- 79.1 Wireline 5**
- 79.2 Wireless 3**

Additional Questions Outside of Scope Of This Study

- 80 Revenue from sale of BH equipment**
- 81 Review of QuadCom contract by legal counsel to determine if any contract issues;**

- 82** Physical Engineering technical assessment of QuadCom facility - power, grounding, timing and synchronization.

- 83** The engineers may have more questions - in the case of NG9-1-1, only the PSAPs need the onsite equipment. E2K circuits come from the Data Center. Did the PCS team inspect or has the ETSB answered these questions. Inspection would be required by qualified engineers in most cases.

- 84** The yellow highlights are the bottom line for Fire and EMS - How much safer will we be with QuadCom.

- 85** How much safer could we be if we directly dispatch for Barrington Countryside Fire Protection District?

- 86** What would it take to dispatch for Countryside from VBH?

Section Two: Identification and analysis of the costs of updating Village of Barrington Hills outdated in-house technology and replacing equipment and facilities that are at or near end-of-useful-life;

The original report included a section entitled “Facility/Space Needs” which addressed the Village of Barrington Hills current facility and equipment. In part it stated:

Facility / Space Needs:

Based on the analysis concerning console positions and staffing needs, PCS is making general recommendations on space needs for Barrington Hills to transition to QuadCom but will also include cost estimates if they were to continue to operate their own PSAP for comparison purposes. Consideration of potential growth is another significant issue in adequately planning for the future and PCS will project costs out for a 10-year period. The PCS analysis will look broadly at space allocations and potential needs in terms of expanding the QuadCom operation, including:

- Dispatch operations
- Administrative area
- Technical support
- Support functions
- Training facilities
- Radio frequency systems and electronics
- Employee provisions such as restrooms and break area.

For Barrington Hills to remain a PSAP they would need to increase the work area for their police assistances that function as dispatchers and the current console equipment and room size prohibits that. Therefore, the addition space needed would necessitate the remodeling of the PSAP, which would require the removal of a wall, additional electrical work, new console furniture, and possibly heating and air-conditioning modifications to the building.

The chart on the following page consists of some estimates for staffing, maintaining current systems, the remodeling and equipping¹ of the Barrington Hills PSAP should they not transition to QuadCom. The personnel, equipment, maintenance, and services are projected out for a 10-year period using a conservative 1.5% (simple interest) increase annually.

¹ Provide by the Barrington Hills Police Department.

Non-Personnel Categories	Costs	Replacement Costs	Annual Costs	10-Year Costs @ 1.5% Annual Increases
CAD System				
Purchase Cost	\$36,000			
Annual Maintenance Cost	\$6,500		\$6,500	\$74,750
Estimate of Replacement Cost	\$15,000	\$15,000		\$17,250
Records Management System				
Purchase	\$24,000			
Annual Maintenance	\$13,500		\$13,500	\$155,250
Estimate of Replacement Cost	\$25,200	\$25,200		\$28,980
Phone System				
Purchase Cost (Leased)	\$154,181			
Annual Maintenance Cost	\$10,956		\$10,956	\$125,994
Estimate of Replacement Cost	\$161,890	\$161,890		\$186,174
Voice Recorder				
Purchase Cost	\$8,091			
Annual Maintenance Cost	\$1,456		\$1,456	\$16,744
Estimate of Replacement Cost	\$28,012	\$28,012		\$32,214
Other Equipment and Services				
Number of 9-1-1 Trunks	5			
Annual 9-1-1 Trunk Costs	\$11,102		\$11,102	\$127,673
Number of 10-Digit Phone Lines	7			
Annual 10-Digit Phone Line Costs	\$10,632		\$10,632	\$122,268
LEADS Comcast Circuit	\$1,078		\$1,078	\$12,397
T1 Data line (backup)	\$3,822		\$3,822	\$43,953
Radio System Maintenance Costs BARN	\$3,865		\$3,865	\$44,448
Radio System Maintenance Costs BHPD	\$2,296		\$2,296	\$26,404
Radios (RT circuits)	\$21,802		\$21,802	\$250,723
Costs to Replace				
Radio consoles	\$225,000	\$225,000		\$258,750
Furniture	\$60,000	\$60,000		\$69,000
Remodel	\$40,000	\$40,000		\$46,000
RT Circuits	\$21,802		\$21,802	\$250,723
Consoles, transmitters/receivers	\$6,484			
Totals	\$892,681.05	\$555,102.00	\$108,811.00	\$1,889,693.80

Figure 4 (Original Study Figure 22)

This chart has been updated from the previous study following the validating of some costs and receiving new estimates for a 5-year projection of costs using a more accurate method of compounding annual percentages:

Non-Personnel Category	1st 12-Months	2nd 12-Months	3rd 12-Months	4th 12-Months	5th 12-Months	60 Month Total
<u>Increases Based on Industry</u>		2.5%	2.5%	2.5%	2.5%	
<u>CAD System</u>						
Purchase Cost						\$0
Annual Maintenance Cost	\$6,500	\$6,500	\$6,663	\$6,829	\$7,000	\$33,491
Replacement Costs For 3-WS	\$16,000					\$16,000
Replacement Costs For Server	\$15,600					\$15,600
<u>RMS System</u>						
Purchase						\$0
Annual Maintenance	\$13,500	\$13,500	\$13,838	\$14,183	\$14,538	\$69,559
Estimate of Replacement Cost					\$25,200	\$25,200
<u>Phone System</u>						
Purchase Cost (4 of 5-years left)	\$33,456	\$33,456	\$33,456	\$33,456		\$133,824
Annual Maintenance Cost	\$10,956	\$10,956	\$11,230	\$11,511	\$11,798	\$56,451
Estimate of Replacement Cost	\$161,890					\$161,890
<u>Voice Recorder</u>						
Purchase Cost						\$0
Annual Maintenance Cost	\$1,456	\$1,456	\$1,492	\$1,530	\$1,568	\$7,502
Estimate of Replacement Cost	\$30,000					\$30,000
<u>Other Equipment and Services</u>						
Annual 9-1-1 Trunk Costs	\$11,102	\$11,102	\$11,380	\$11,664	\$11,956	\$57,203
Annual 10-Digit Phone Line	\$10,632	\$10,632	\$10,898	\$11,170	\$11,450	\$54,782
<u>LEADS Annual Costs</u>						
T1 Data line (backup)	\$3,822	\$3,822	\$3,918	\$4,015	\$4,116	\$19,693
Radios (RT circuits)	\$14,129	\$14,129	\$14,482	\$14,844	\$15,215	\$72,800
<u>Costs to Remodel</u>						
Radio Consoles	\$264,000					\$264,000
Furniture	\$60,000					\$60,000
Construction Costs to Remodel	\$60,000					\$60,000
Generator	\$0					\$0
UPS	\$19,270					\$19,270
Mapping Monitor	\$600					\$600
Other/Contingency	\$25,000					\$25,000
Total Non-Personnel	\$757,913	\$105,553	\$107,355	\$109,203	\$102,841	\$1,182,865

Figure 5

Note: Some costs were based on actual quotes received by Barrington Hills while others were based on revised cost estimates.

Section Three: Identify and discuss the costs/benefits of the two alternatives.

The original report contained personnel costs based on the proposed 2014-2015 budget and with a conservative 1.5% annual increase. The 1.5% increases per year were not compounded, so this is the most conservative costs estimates assuming no changes to the number of personnel are made over the next 10-years.

The following chart shows the police assistant personnel costs for Barrington Hills:

Barrington Hills Personnel Costs	Current Year Costs	10-Year Costs @ 1.5% Annual Increases²
Salaries	\$379,158	\$4,360,317
Uniforms	\$ 2,000	\$ 23,000
Benefits	\$146,302	\$1,682,473
Total of Personnel Costs	\$527,460	\$6,065,790

Figure 6 (Original Report Figure 2)

The Barrington Hills personnel costs include police assistants’ salaries, uniforms, and benefits.

This report has updated personnel cost estimates based on the adopted 2014-2015 budget and annual increases of .50% which was the average annual increases to the Village of Barrington Hills Revenue Budget for the last 5 years.

Barrington Hills Personnel	1st 12-Months	2nd 12-Months	3rd 12-Months	4th 12-Months	5th 12-Months	60 Month Total
Annual Increases Based on History of .50%	0.5%	0.5%	0.5%	0.5%	0.5%	
Salaries	381,016	\$382,883	\$384,759	\$386,644	\$388,539	\$1,923,841
Uniforms	2,010	\$2,020	\$2,030	\$2,039	\$2,049	\$10,148
Benefits	147,019	\$147,739	\$148,463	\$149,191	\$149,922	\$742,334
Total of Personnel Costs	530,045	\$532,642	\$535,252	\$537,874	\$540,510	\$2,676,323

Figure 7

This chart contains to totals for both Barrington Hills personnel and non-personnel costs for the first 5 years should they continue to operate their current PSAP.

Barrington Hills Personnel	1st 12-Months	2nd 12-Months	3rd 12-Months	4th 12-Months	5th 12-Months	60 Month Total
Annual Increases Based on History of .50%	0.5%	0.5%	0.5%	0.5%	0.5%	
Salaries	381,016	\$382,883	\$384,759	\$386,644	\$388,539	\$1,923,841
Uniforms	2,010	\$2,020	\$2,030	\$2,039	\$2,049	\$10,148
Benefits	147,019	\$147,739	\$148,463	\$149,191	\$149,922	\$742,334
Total of Personnel Costs	530,045	\$532,642	\$535,252	\$537,874	\$540,510	\$2,676,323
Non-Personnel Category	1st 12-Months	2nd 12-Months	3rd 12-Months	4th 12-Months	5th 12-Months	60 Month Total
Increases Based on Industry		2.5%	2.5%	2.5%	2.5%	
Total Non-Personnel	\$757,913	\$105,553	\$107,355	\$109,203	\$102,841	\$1,182,865
Total BH Costs for their PSAP	\$1,287,958	\$638,195	\$642,607	\$647,077	\$643,351	\$3,859,187

Figure 8

The original report included the following summary of the QuadCom and Barrington Hills’ current and estimated annual costs:

In the original report PCS indicated that on August 27, 2014 the QuadCom Board of Directors approved a new policy to address the buy-in issue entitled “New Agency Reserve Contribution Buy-In Costs”. This policy addresses the issue of a new member paying their “fair share” in order for a new participant to benefit from QuadCom’s assets and assume its portion of QuadCom’s existing debt.

The attached policy also contains the buy-in costs for Barrington Hills and conditions of payment, and has provide PCS with the information necessary to complete the financial analysis. The following is the formula utilized and the related costs:

QuadCom’s Net Capital Assets	1,289,316
Barrington Hills’ Fixed Cost 25 %	32,233
Barrington Hills’ Member Share 75 %	110,237
Barrington Hills’ Total Reserve Contribution Fee	\$142,470

Figure 9 (Original Report Figure 12)

Barrington Hills would have had a buy-in fee totaling \$142,470, with 2 years of monthly payments to pay that debt, starting within 30-days from the onset of dispatching services. However, since the original study in 2014, QuadCom has completed its 2014 audit, which increased its Net Capital Assets substantially due to the purchase last year of a new 9-1-1 phone system. The following chart demonstrates the difference in the 2015 buy-in for Barrington Hills. The Total Reserve Contribution Fee for Barrington Hills is determined by adding the Fixed and Member costs.

Buy-In Based on the Annual Audit	2014	2015
QuadCom’s Net Capital Assets	\$1,289,316.00	\$1,853,562.00
Barrington Hills’ Fixed Cost 25%	\$32,233.00	\$46,339.05
Barrington Hill’s Member Share 75%	\$110,237.00	\$160,981.86
Barrington Hills’ Total Reserve Contribution Fee	\$142,470.00	\$207,320.91
(Annual Amount for First Two Years)	\$71,235.00	\$103,660.46

Figure 10

Based on QuadCom’s 2015-2016 proposed budget with 2 additional staff the following chart represents the Barrington Hills costs should they join effective November 1, 2015.

	1st 12- Months	2nd 12- Months	3rd 12- Months	4th 12- Months	5th 12- Months	60 Month Total
Membership Costs						
Increases Based on History		3.1%	3.1%	3.1%	3.1%	
Buy In Costs for Barrington Hills	103,660	103,660				207,320
Annual Membership Costs	195,193	201,244	207,483	213,915	220,546	1,038,380
Total QuadCom Costs	\$298,853	\$304,904	\$207,483	\$213,915	\$220,546	\$1,245,700

Figure 11

The following chart compares Barrington Hills and QuadCom costs for the first five years and lists the potential savings per year.

Barrington Hills Personnel	1st 12-Months	2nd 12-Months	3rd 12-Months	4th 12-Months	5th 12-Months	60 Month Total
Annual Increases Based on History of .50%	0.5%	0.5%	0.5%	0.5%	0.5%	
Total of Personnel Costs	530,045	\$532,642	\$535,252	\$537,874	\$540,510	\$2,676,323
Non-Personnel Category	1st 12-Months	2nd 12-Months	3rd 12-Months	4th 12-Months	5th 12-Months	60 Month Total
Increases Based on Industry		2.5%	2.5%	2.5%	2.5%	
Total Non-Personnel	\$757,913	\$105,553	\$107,355	\$109,203	\$102,841	\$1,182,865
Total BH Costs for their PSAP	\$1,287,958	\$638,195	\$642,607	\$647,077	\$643,351	\$3,859,187
QuadCom Costs	1st 12-Months	2nd 12-Months	3rd 12-Months	4th 12-Months	5th 12-Months	60 Month Total
Increases Based on History		3.1%	3.1%	3.1%	3.1%	
Buy In Costs for Barrington Hills	103,660	103,660				207,320
Annual Membership Costs	195,193	201,244	207,483	213,915	220,546	1,038,380
Total QuadCom Annual Costs	\$298,853	\$304,904	\$207,483	\$213,915	\$220,546	\$1,245,700
PCS Project Management	\$19,900					\$19,900
Reprogram Radios, etc.	\$16,125					\$16,125
Potential Unemployment		\$17,500				\$17,500
Potential Severance	\$82,631					\$82,631
AT&T Phone Buyout	\$75,589					\$75,589
Other/Contingency	\$25,000					\$25,000
Total QuadCom & Move Costs	359,878	304,904	207,483	213,915	220,546	1,399,814
Potential Savings to BH	\$928,080	\$333,291	\$435,125	\$433,163	\$422,805	\$2,459,374

Figure 12

Note: PCS did not include any personnel costs associated with adding two employees to Barrington Hills' costs as that decision has not been made yet and the classification of those personnel is not available for this study. Any potential savings will need to be adjusted based on decisions made by Barrington Hills regarding personnel, possible resale of equipment, or other

This updated report includes the APCO Project RETAINS chart with staffing recommendations made by the QuadCom Director and is reflected in the recommended budget that includes Barrington Hills. It compares the current QuadCom staffing to the proposed staffing in the 2015-1016 budget that includes Barrington Hills.

By adding 2 additional emergency communications operators, QuadCom could staff two shifts with a minimum of 3 dispatchers and one shift with a minimum of 2 for an effective staffing of 2.66 consoles positions per day.

QuadCom	Current	With B H
Number of hours per employee	8.50	8.50
5-2 schedule = 260/ 4-2 schedule = 243.33 workdays	244	244
Available work hours		
A. Total hours for one full time employee	2,074	2,074
B. Average vacation and holiday leave in hours	145	145
C. Average sick leave in hours	54	54
D. Average personal leave in hours	32	32
E. Average training leave in hours	24	24
F. Average military in hours	0	0
G. Average lunch and break in hours	15	15
H. Average other in hours	16	16
I. Total unavailable time in hours (B through H)	286	286
J. Net available work hours (A-I)	1,788	1,788
Average turnover rate		
	Current	With B H
A. Total number of dispatchers	11.5	13.5
B. Number of new hires failed to complete probation	1.0	1.0
C. Number of experienced dispatchers who left	0.0	0.0
D. Turnover rate (B+C/A)	9%	7%
E. Retention rate	91%	93%
Cover positions not effected by activity		
	Current	With B H
A. Number of consoles needed to be covered	2.33	2.66
B. Number of hours per day	24	24
C. Number of days per week	7	7
D. Number of weeks per year	52	52
E. Total hours needing coverage (AxBxCxD)	20,354.88	23,237.76
Employee availability:		
F. Net available hours	1788.00	1788.00
Staff needed:		
G. Full time equivalent (E/F)	11.38	13.00
H. Turnover rate (in decimal)	0.09	0.07
I. FTE with adjustments (Gx1/H)	12.37	13.96

Hourly phone processing capability	Current	With B H
A. Average telephone busy time in minutes (calculated duration in minutes, using decimals), from phone records	1.14	1.14
B. Average call completion time (in minutes, this includes time for data entry, address verification)	1.00	1.00
C. Average process time in minutes (A+B)	2.14	2.14
D. Average hourly processing capability (60/C)	28.04	28.04
Totals:	Current	With B H
Fixed positions	12.37	13.96
Volume influenced positions (from J)	0.00	0.00
Total for both position groups	12.37	13.96

Figure 13

Based on the Project RETAINS recommendations for staffing, QuadCom’s proposed staffing when Barrington Hills joins is sufficient.

Alarm Monitoring Services

Both the Barrington Hills and QuadCom PSAPs provide alarm monitoring services for the residents and commercial properties located within their jurisdictions. Both have agreements with the private alarm industry to provide the alarm monitoring equipment and alarm monitoring equipment’s maintenance at the PSAP, but use their own PSAP employees to monitor and dispatch a public safety response when required.

QuadCom currently has an alarm monitoring agreement to provide the necessary alarm monitoring equipment with ADS (Alarm Detection Systems, Inc.) of Aurora, Illinois. The QuadCom/ADS agreement was recently updated in November 2014 following the original study. QuadCom has two ways an alarm may be transmitted to the PSAP, either by telephone wireline via digital technology or by wireless AES radio technology. QuadCom alarm subscribers (residents) pay ADS a one time installation fee of \$150 and \$28.00 per month for digital telephone monitoring, and \$150 one time installation and \$67.00 per month for wireless radio alarm monitoring. The new agreement increases alarm monitoring \$2.00 per month (\$24.00 per year) since the original study was completed in 2014, however these fees are now in place for the next 5 year term of the contract.

If the Barrington Hills PSAP closes, QuadCom can continue to provide 24 x 7 alarm monitoring services. The alarm subscribers in Barrington Hills could either become customers of ADS and use QuadCom to dispatch a response, or they may use another alarm contractor with a central station operation that can call QuadCom to report an active alarm that requires a Barrington Hills police response.

Section Four: Identification and discussion of the pros/cons of the two alternatives.

Staffing:

If Barrington Hills were to retain their current PSAP, the police assistants would continue to perform call-taking and dispatching services for the police in addition to a number of administrative tasks, which they can accomplish because their call volume is very low. They handle a small amount of 9-1-1 calls and radio traffic compared to their counter parts in QuadCom.

QuadCom's sole purpose is to provide 9-1-1 call-taking and emergency dispatching services for its member agencies. The emergency communications operators (ECO) are very proficient at providing support for police, fire and emergency medical service. Each ECO handles multiple 9-1-1 calls and dispatches all emergency personnel.

A staff that performs tasks more often become more proficient.

If Barrington Hills were to retain their current PSAP they would typically have only one dispatcher on duty at a time.

QuadCom staffs their PSAP with 2-4 dispatchers around the clock so they are better positioned to respond to high impact and situations with multiple incidents more effectively. As the recently released study of Sandy Hooks' PSAP response to their multiple shooting incident points out, the fact that their PSAP was staffed with only one dispatcher contributed to the fact that they could not effectively handle multiple 9-1-1 calls and their public safety agencies' radio traffic. The recommendations stated that PSAPs should have a minimum staffing of two dispatchers at all times.

QuadCom has multiple dispatchers on duty to better address significant incidents.

The QuadCom Director is recommending a budget that includes two additional emergency communications operators. This provides enough employees to staff the PSAP with a minimum of 3 dispatchers for the day and afternoon shifts. Midnight shift would be staffed with a minimum of 2, which reflects the reduction in active during that time period.

Pros: Even if this increase staff model does not meet the expectations of Barrington Hills, once they are a member they will have their own input on future staffing levels.

Cons: Dispatchers are no longer under Barrington Hills' direct control

Finances:

If Barrington Hills were to keep their current PSAP they would need to replace a significant amount of their current equipment which will require a substantial amount of money in their 2016 budget. Non-personnel costs to upgrade the Barrington Hills PSAP is estimated to be \$757,913 for the first year (2016). In addition, personnel costs for that year are calculated to be \$530,045.

Because both entities have different start dates for their budget years it makes it a little more complicated to make yearly cost comparisons. Once the buy-in and transition costs are paid each of the first two years, membership in QuadCom offers a substantial savings in annual costs between \$200,000 and \$220,000 for each of the next 3-5 years.

If Barrington Hills were to join QuadCom they will have to pay a buy-in fee. While this transitional period occurs Barrington Hills will still experience a savings of approximately \$928,000 in the first year due to the fact that no equipment will need to be replaced or upgraded, in addition to significantly reduced personnel expenditures. In the second year, while completing the payments for the buy-in, Barrington Hills will save an additional \$333,000.

Pros: Barrington Hills will have 2-years of monthly payments, starting within 30-days of dispatching services, to pay that debt.
Cons: It will take two budget years before Barrington Hills realizes the maximum annual savings to their budget.

Barrington Hills has a wireline 9-1-1 surcharge, which is more than the original QuadCom agencies enacted. If a similar arrangement regarding wireline surcharge fees, such as South Barrington has with QuadCom, it would mean Barrington Hills would only be required to remit to QuadCom’s Joint Emergency Telephone System Board \$.63 per month per wireline connection or approximately \$7,400 for 2015. Barrington Hills could use the remaining surcharge amount of approximately \$20,500 annually to pay for emergency communications services (ie: dispatch fees); thereby reducing the amount of local property taxes needed.

Pros: This is a wise and appropriate use of those funds.
Cons: None apparent.

Quality of service:

QuadCom has addressed best practices in a number of areas including:

- 9-1-1 and public safety dispatch facilities that must provide a functional and secure environment for public safety dispatch operations.
- The PSAP must sustain 9-1-1 and emergency dispatch operations in the event of diverse operational issues including power outages and equipment failures.
- An alternative communications or backup plan (Emergency Operations Contingency Plan) requires a well-written document detailing essential actions for communication.
- A fully operational back-up facility
- QuadCom has a Quality Assurance program in place for call-taking and dispatching of police, fire and emergency medical services.
- QuadCom has management and supervisory staff dedicated solely to managing the emergency communications staff.

Pros: Following best practices is a good way of ensuring the PSAP is adhering to proven Policies and standards.
Cons: None apparent.

Section Five: Render an opinion regarding the recommended course of action and reasoning behind the recommendation.

In the original study commissioned by Barrington Hills, PCS was asked to address a number of questions:

- What is the value in consolidation with a regional 9-1-1 communications center?
- What are the associated costs and cost savings?
- What is the best form of governance of a regional communications dispatch facility?
- What equipment, systems, and facilities would be required to be procured, upgraded, or replaced to ensure efficient and reliable services?
- What would be required to ensure interoperability between systems and agencies?

In the subsequent study requested by Barrington Hills, questions from the Villages Trustees and residents were presented seeking further details and clarifications. Additionally, unlike the original report, PCS was asked to provide their opinions and the reasoning behind those opinions.

PCS is pleased to present the following recommendations to the Trustees of the Village of Barrington Hills concerning the two options which were identified in the RFP:

In response to the question “What is the value in consolidation with a regional 9-1-1 communications center?”

PCS recommends Barrington Hills become a member of QuadCom for the following reasons:

PCS believe membership in QuadCom offers the **quality of service** benefits of:

- Highly trained dispatchers.
- Personnel who are managed by a director who is a communications center professional.
- Personnel whose sole job is 9-1-1 call taking and dispatching of public safety personnel.
- A PSAP that has more than one dispatcher on duty at a time provides a depth of resources not currently available to Barrington Hills.
- Dispatchers that are trained in and provide EMD (emergency medical dispatching and pre-arrival instructions) to callers who may be stricken with life threatening situations where every second counts.
- Access to some of the latest technology at a fraction of the cost if Barrington Hills retained their current PSAP.
- A savings in costs every year compared to maintaining the status quo.

In response to the question “What are the associated costs and cost savings?”

PCS recommends Barrington Hills join QuadCom because the financial savings is substantial.

PCS offers the following **financial benefits** of membership in QuadCom:

- Sharing the costs of providing 9-1-1 call-taking and dispatching of public safety personnel with other surrounding communities and public safety organizations.
- Eliminating the need to spend approximately \$757,900 to replace Barrington Hills' aging PSAP equipment.
- A potential savings between \$333,300 and \$422,800 annually.
- A potential savings over a 60 month period of approximately \$2,459,374.
- QuadCom has a buy-in policy that provides Barrington Hills the opportunity to share in the capital infrastructure which is already in place and allows for a two-year period to pay those costs.

PCS recommends that Barrington Hills negotiate with the QuadCom Board of Directors that they will not be held responsible for any pre-existing legal actions.

In response to the question "What is the best form of governance of a regional communications dispatch facility?"

PCS recommends Barrington Hills join QuadCom because the structure of their governance is one of the best models available.

PCS offers the following logic:

- The best form of governance is one in which all the members have a voice in the direction, control and financial decisions of the organization.
- Barrington Hills becomes a full member with all the rights and responsibilities of QuadCom's current members.
- Barrington Hills has the same voting rights as QuadCom's other members.
- Many consolidated PSAP have a client based structure, where there is no "seat at the table". PCS believes that membership in a consortium is far more advantageous.

In response to the question "What equipment, systems, and facilities would be required to be procured, upgraded, or replaced to ensure efficient and reliable services?"

PCS does not recommend Barrington Hills upgrade their current PSAP.

PCS offers the following logic:

- The costs to upgrade Barrington Hills current PSAP is approximately \$730,200 for equipment in addition to the on-going non-personnel costs such as 9-1-1 trunks, and current maintenance contracts.
- The projected costs for personnel next year is approximately \$530,000.
- The projected cost for membership in QuadCom for the first year, including buy-in, project management, and assorted other costs is \$262,282.

PCS recommends Barrington Hills maintain a limited staffing of two of its police assistants.

PCS offers the following logic:

- By retaining two police assistants, the residents and visitors to Barrington Hills will have a level of customer service which is desirable and customary.
- The costs of maintaining two police assistances has been calculated in the costs estimates.

- The number of administrative calls can be handled by maintaining staff at the police department during the hours of higher call volume. An auto attendant can be utilized for those hours when the administrative call load is significantly less.

In response to the question “What would be required to ensure interoperability between systems and agencies?”

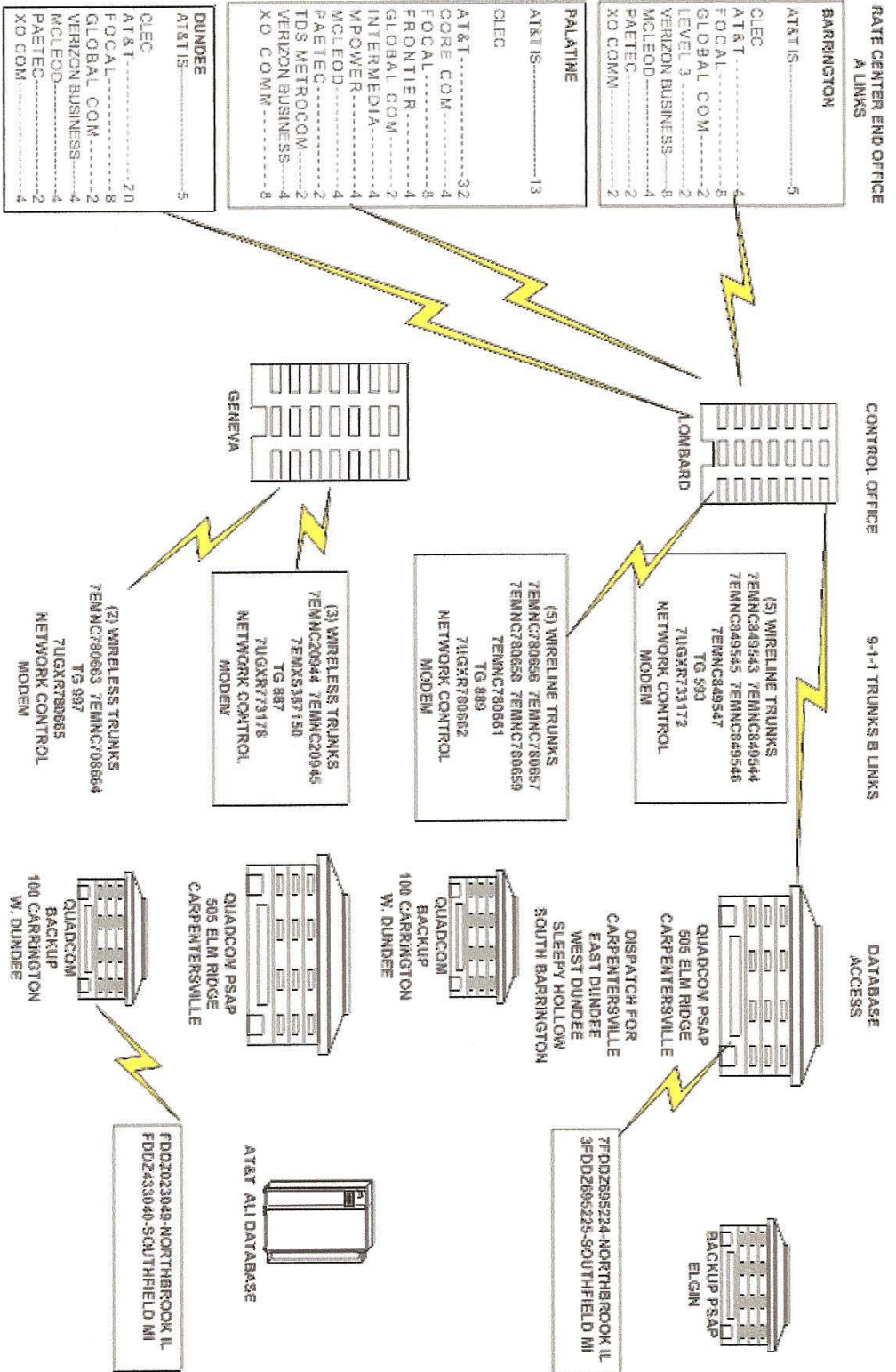
PCS recommends QuadCom because it enhances their interoperability.

PCS offers the following logic:

- By joining QuadCom, the police department’s radios will be re-programmed to QuadCom’s existing radio network, which will provide communications interoperability to the police agencies that are dispatched by QuadCom and who border the Village of Barrington Hills.
- Barrington Hills’ police will still have access to their current radio frequency which provides communications interoperability to the Village of Barrington’s Police Department.

A

QUADCOM
 505 ELM RIDGE
 CARPENTERSVILLE, IL
 CUTOVER DATE 01-29-92





VILLAGE OF BARRINGTON HILLS
 112 ALGONQUIN RD
 BARRINGTON HILLS, IL
 CUTOVER DATE: 09/11/91

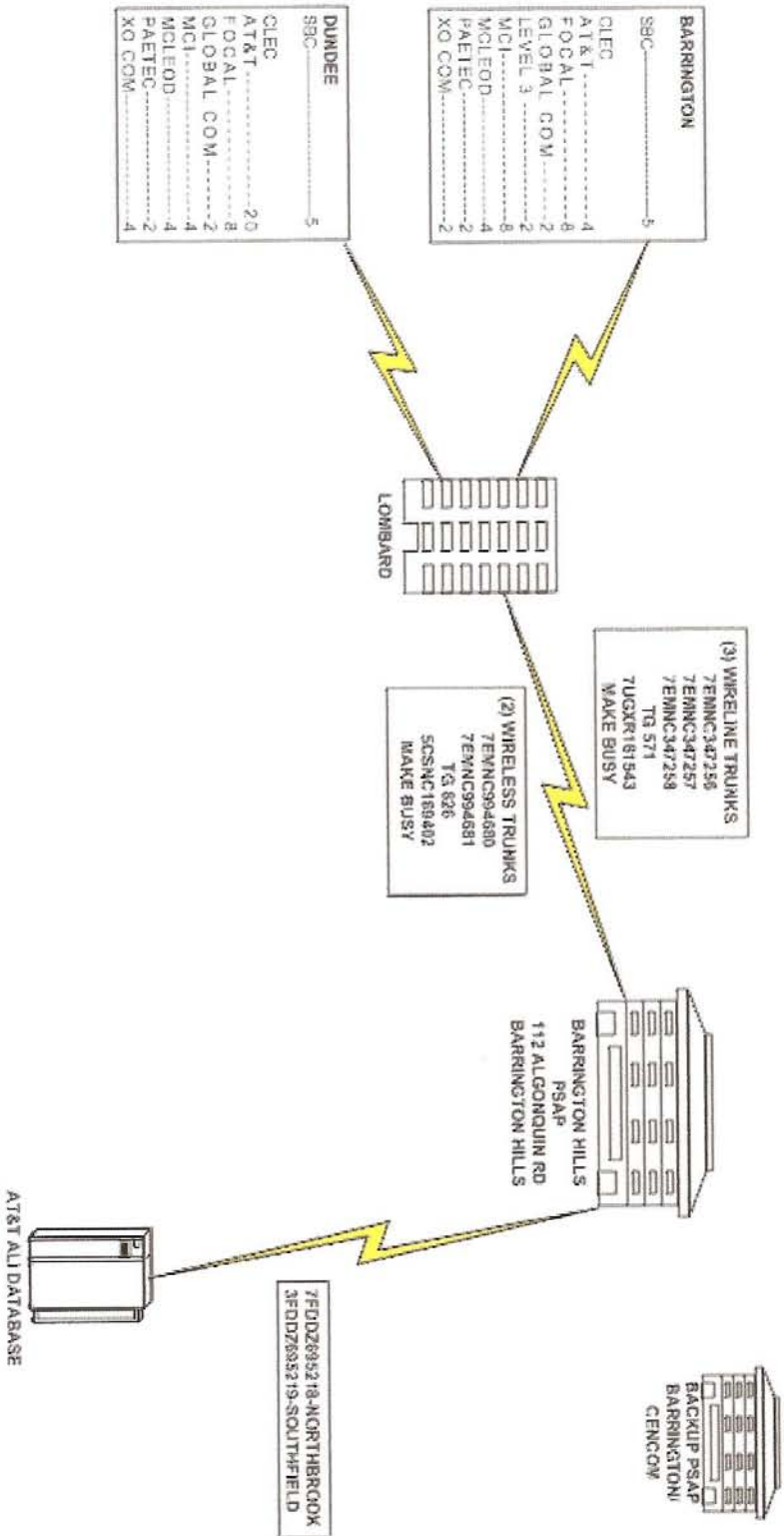


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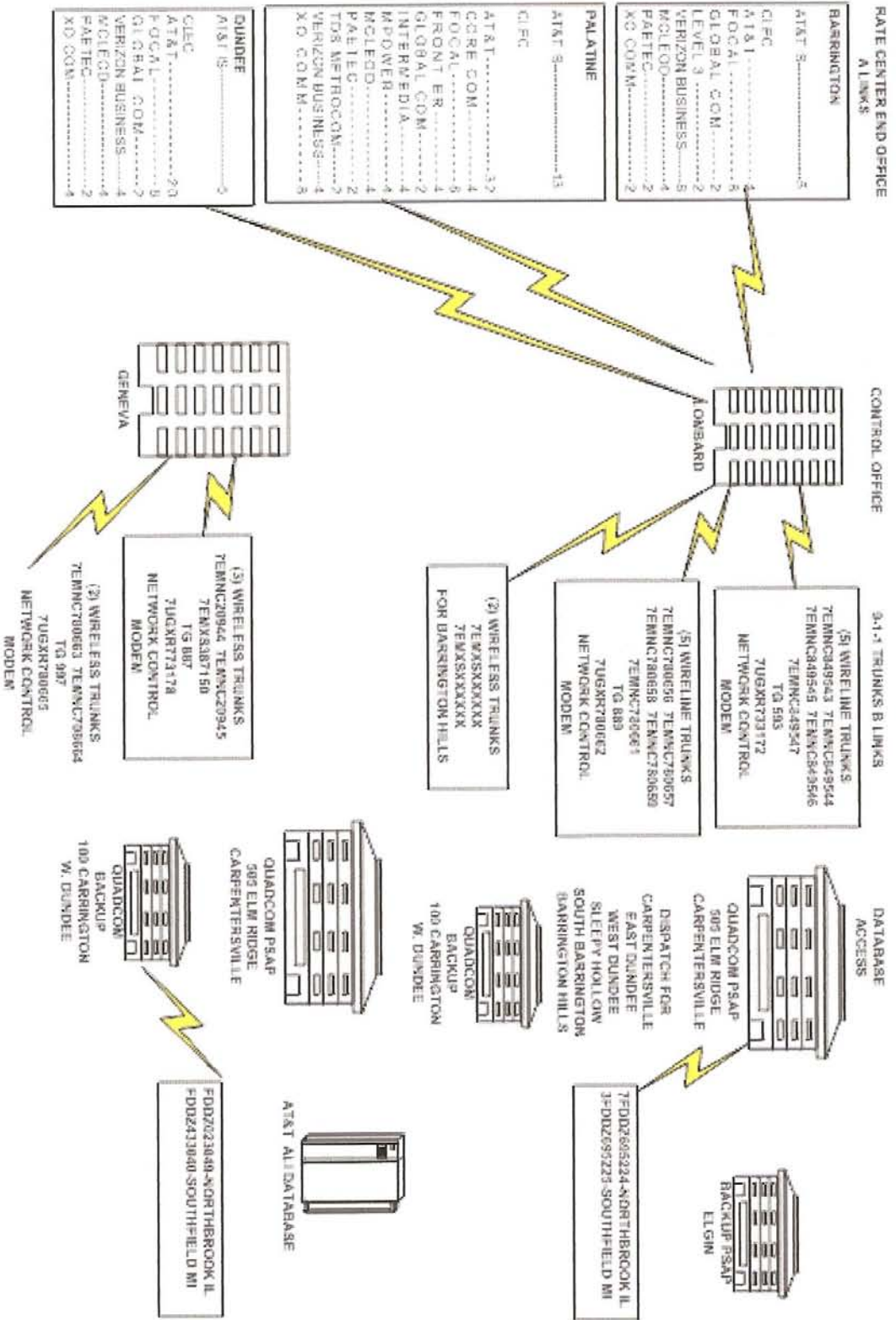
9-1-1 TRUNKS & LINKS

DATABASE
 ACCESS





QUADCOM
 905 ELM RIDGE
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 CUTOVER DATE 01-29-02



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March 24, 2015

Mr. Jerry Bleck, ENP
Senior Consultant
PCS Consulting, LLC
439 Wakefield Lane
Geneva, Illinois 60134-1006

Re: QuadCom and Village of Barrington Hills

Dear Mr. Bleck:

I am the attorney for the QuadCom Emergency Dispatch Center. You have asked me to provide answers to some questions regarding potential exposure of the Village of Barrington Hills to liability attributed to QuadCom.

If the Village of Barrington Hills became a member of QuadCom they would be an equal partner with the other members of QuadCom in all of the assets and liabilities of QuadCom. QuadCom maintains a liability insurance policy provided through Volunteer Firemens Insurance Services (VFIS). The premium costs for this policy are paid by QuadCom as a budget item and of the insurance is paid by the members of QuadCom through their apportioned shared of the QuadCom budget. This insurance policy, together with the immunity provisions of the Emergency Telephone System Act, 50 ILCS 750/15.1 provide protection for the individual members of QuadCom should QuadCom be sued for its actions.

The Village of Barrington Hills, like all of the members of QuadCom, would share the financial responsibility for the operation of QuadCom. If QuadCom were to suffer a judgment that exceeded the amount of its insurance, the amounts due over and above the insurance policy limits would be the responsibility of all of the members of QuadCom and would be divided proportionately among them. This same rationale would be applied to other types of financial needs such as capital equipment replacement costs.

Finally, as to any debt or liabilities incurred by QuadCom prior to Barrington Hills becoming a member, I suggest that the Village raise that issue with QuadCom as it explores becoming a member of QuadCom. The decision on Barrington Hills responsibility for debts or liabilities of QuadCom that pre-exist Barrington Hills' membership is a decision that should be made by the QuadCom Board of Directors. I have, in other consolidated dispatch operations, drafted provisions of the intergovernmental agreement to limit the responsibility of a new member for pre-existing debts or liabilities.

OTTOSEN BRITZ KELLY COOPER GILBERT & DiNOLFO, LTD.

Mr. Jerry Bleck, ENP
Senior Consultant
Page Two

I trust that this letter addresses your questions, but if you should require any additional information, please do not hesitate to contact me.


Sincerely,



John H. Kelly

JHK:eo

c Beth Heitkamp, QuadCom Director

QuadCom Public Safety Communications System			
Standard Operating Procedure		Section Number:	312
SUBJECT QUALITY ASSURANCE REVIEW			
Approved Date:	June 6 th , 2011	Revised Date:	

Purpose: To establish standards for performance review and quality assurance in the 911 emergency communication center. The standards contained herein are designed to promote adherence to established 911 center goals and procedures, facilitate the learning process for 911 center personnel, and provide a framework for continuous improvement of the overall operation of the 911 center. These procedures will provide the operational standards that are needed to ensure the 911 center consistently provides the best possible emergency communications to the citizens served by QuadCom.

- Index:**
- 312.1 Scope**
 - 312.2 Procedures for Quality Assurance Reviews**
 - 312.3 Processing Reviews**
 - 312.4 Telephone Quality Reviews**
 - 312.5 Radio Quality Reviews**
 - 312.6 EMD Quality Assurance Reviews**
 - 312.7 Quality Assurance Committee**
 - 312.8 Review Format**

312.1 Scope

These reviews will be used to evaluate the performance of various aspects of an Emergency Communication Operators (ECO) duty. In addition to measuring individual performance, these reviews will aid in determining whether the processes used by the emergency communications operators are functionally efficient on a regular basis.

312.2 Procedures for Quality Assurance Reviews

- 2.1 Shift Supervisors will have guidelines indicating their involvement in the quality assurance process. These guidelines are issued through the joint effort of the Quality Assurance Committee.
- 2.2 A random sampling of 911 communications center calls will be reviewed on a recurring basis to ensure compliance with standards set forth in this document, as well as any outlined in the standard operating procedures of communications center. If needed, additional reviews will be performed as deemed appropriate. All calls, whether voice or TDD/TTY, will be reviewed in the same manner. The shift supervisor will complete a review form for each review.

- 2.3 The shift supervisor shall ensure a minimum of four (4) 911 calls to include 10 digit calls are reviewed per ECO per month. Of these four (4) calls, two (2) will be reviewed for Telephone Quality assurance (1 Police, 1 Fire), and two (2) will be reviewed for Radio Quality Assurance (1 Police, 1 Fire). 911 hang up calls will not be included within this audit requirement. The Deputy Director shall be responsible for the initiation of quality assurance reviews for all Shift Supervisors on a schedule determined by the Director.
- 2.4 The shift supervisor shall ensure a minimum of one (1) emergency medical service call per ECO are reviewed for EMD standards, per month.
- 2.5 In order to provide optimum feedback, the date selected for review will not exceed five days prior to the review. Emergency communications operators should receive the results of the review process within five working days (5 working days on shift) of the review. Copies of reviews will be retained on file for three years.
- 2.6 The reviews will be used to support the development and assessment of goals and expectations on the emergency communications operators' yearly performance appraisal. They will also be used to identify areas of the emergency communications operators' job performance that may require additional or supplemental training, and aid in determining whether any processes of the 911 communications center require modification or change.
- 2.7 All emergency communications operators, whether they are part-time or full-time employees of the 911 communications center shall be subject to this quality review process.
- 2.8 Any actions that are initiated in response to the results of quality assurance review will be documented and included as part of the audit.

312.3 Processing Reviews

- 3.1 The shift supervisor will randomly select an incident for review. The incident(s) will be within 5 days of the date the review is conducted.

- 3.2 Recorded materials related to the incident (Incident History, Radio and/or Telephone recordings are reviewed and reviewer will determine if applicable standards were met by applying a numerical rating.
- 3.3 A comment should be noted for each below standard rating.
- 3.4 An overall summarization of the incident should be noted in the additional comment section. Good performance and performance needing improvement should be noted.
- 3.5 Review forms, once completed will be printed and reviewed with the emergency communications operator.
- 3.6 The shift supervisor will review all materials prior to conducting the audit with the emergency communications operator. The shift supervisor may make additional comments on the form at this time.
- 3.7 The shift supervisor will have five shift working days (days on shift) to cover the quality review with the emergency communications operator.
 - 3.7.1 The shift supervisor does not need to perform a sit down review session for each review with the emergency communications operator unless:
 - 3.7.1.1 The current review score is less than 80%.
 - 3.7.1.2 The cumulative score for the previous 3 months is less than 80%.
 - 3.7.2 Bi-annually the shift supervisor will conduct a review session with each emergency communications operator covering reviews / performance for the previous 6 months. The Shift Supervisor will retain a signed copy of the bi-annual reviews.
- 3.8 As part of the review process the shift supervisor will cover the following:
 - 3.8.1 Review the copy of the incident history.
 - 3.8.2 Play the audio recording, if needed.
 - 3.8.3 Address the review findings

- 3.8.4 Discuss developmental areas and outline steps for improvement.
- 3.8.5 Discuss areas that were exceptional performance.
- 3.9 The emergency communications operator may note any comments they have on the review form.
- 3.10 The shift supervisor will sign the quality review form acknowledging the call has been reviewed and is satisfactory with the emergency communications operator.
- 3.11 The shift supervisor will note in the review the date the reviews were conducted with the emergency communications operator.
- 3.12 The Department's copy will be maintained in the computer for three years. A copy of each review form will be provided to the emergency communications operator.

312.4 Telephone (Call Taking) Quality Reviews

- 4.1 Each emergency communications operator will have a telephone quality review conducted each month as specified in Section 2.3 above.
- 4.2 The following emergency communications operator performance standards will be checked by the quality reviewer during each telephone review:
 - 4.2.1 Answers the telephone quickly and correctly (within 10 seconds of the call being presented to the console, 90% of the time)
 - 4.2.2 Asks and verifies the location of the incident or emergency.
 - 4.2.3 Obtains the callback phone number from the person making the call.
 - 4.2.4 Determines the nature of the incident or emergency and selects and assigns the appropriate response to the incident.
 - 4.2.5 Accomplishes the above tasks quickly and effectively (within 60 seconds, 90% of the time)
 - 4.2.6 Obtains all pertinent information and makes updates accordingly and keeps the caller on the line until information is obtained.
 - 4.2.7 Controls the conversation with the caller, explains all possible emergency actions and employs calming techniques when required.

4.2.8 Exhibits a professional demeanor at all times and acts in a courteous and tactful manner.

4.2.9 Demonstrates proper documentation of all information received on call-taker screens and/or cards.

312.5 Radio (Dispatching) Quality Reviews

5.1 Each emergency communications operator will have a Radio quality review conducted each month as specified in Section 2.3 above. The review will consist of at least one emergency incident.

5.2 The following emergency communications operator radio performance standards will be checked during each review:

5.2.1 Dispatches the appropriate police, fire, or EMS units within a timely manner (90% of the time)

5.2.2 Provides all pertinent information to the responding police, fire, and/or EMS units and relays updated information about the incident or emergency to the responding units.

5.2.3 Answers all radio transmissions promptly.

5.2.4 Speaks clearly and concisely to the responding units.

5.2.5 Listens attentively and understands each message that is received from the responding units.

5.2.6 Exhibits a timely response to requests from field units.

5.2.7 Maintains a professional demeanor at all times.

5.2.8 Abides by applicable QuadCom and FCC rules and regulations.

312.6 UEMD Quality Assurance Reviews

6.1 Each qualified emergency communications operator will have an EMD quality review conducted each month as specified in Section 2.4 above.

- 6.2 The following EMD performance standards will be checked during each review.
 - 6.2.1 Answers the telephone quickly and correctly (within 10 seconds of the call being presented to the console, 90% of the time)
 - 6.2.2 Asks and verifies the location of the incident or emergency.
 - 6.2.3 Obtains the callback phone number from the person making the call.
 - 6.2.4 Determines the nature of the incident or emergency and selects and assigns the appropriate response to the incident.
 - 6.2.5 Accomplishes the above tasks quickly and effectively (90% of the time)
 - 6.2.6 Obtains all pertinent information and makes updates accordingly and keeps the caller on the line until information is obtained.
 - 6.2.7 Controls the conversation with the caller, explains all possible emergency actions and employs calming techniques when required.
 - 6.2.8 Exhibits a professional demeanor at all times and acts in a courteous and tactful manner.
 - 6.2.9 Demonstrates proper documentation of all information received on call-taker screens and/or cards.
 - 6.2.10 Effectively performs the following functions per EMD guidelines and protocol:
 - 6.2.10.1 Determines consciousness of patient.
 - 6.2.10.2 Determines breathing status of patient.
 - 6.2.10.3 Determines patient's age and sex.
 - 6.2.10.4 Ask Vital Points questions to help determine appropriate type code and medical information.
 - 6.2.10.5 Text information is in short report format.

6.2.10.6 Pre-Arrival and/or Emergency Telephone Instructions appropriately and correctly provided.

- 6.3 Any call where effective and accurate measures were taken and contributed to saving someone's life will be considered for commendation and used for training.

312.7 Quality Assurance Review Committee

- 7.1 The Quality Assurance Committee shall be comprised of the Shift Supervisor from each shift.
- 7.2 The Committee shall meet once a year to discuss quality assurance reviews conducted and issue a report to the Director addressing the following:
- 7.2.1 The overall performance of the Communications Center based upon the Telephone, Radio, and EMD quality assurance reviews conducted;
- 7.2.2 Are the established telephone, radio and EMD standards being adhered
- 7.2.3 Is there a need to address any changes to the current standards, practices or procedures of the communications center;
- 7.2.4 Any recommendations that would help facilitate the learning process for the communications center personnel, and provide a continuous improvement in the overall operation of the center
- 7.2.5 Any recommendations for changes to the current established Quality Assurance policy and procedure.

312.8 Review Format

- 8.1 The Quality Assurance Review Committee with the approval of the Director, designs the review format and questions.

- 8.2 The format and questions on the review may be more specific and detailed than sections 4 through 6. Sections 4 through 6 above are guidelines.

Effective Date: June 6th, 2011

David B. Smith

Dated Director



QuadCom 9-1-1 Quality Assurance Call Taking Review - Police

Call Taker: _____ Date: _____ Time: _____
 Nature: _____

Section 1: Caller Inquiry (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Telephone answered according to SOP 302?				No -5 _____
Incident location determined?				No -5 _____
Incident location verified with caller?				No -5 _____
Complainant name obtained?				No -5 _____
Call back number obtained?				No -5 _____
Was caller asked if they wanted to be seen?				No -10 _____
Were all pertinent questions asked?				No -15 _____

Section 2: Communication (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Speaks clearly and audibly?				No -5 _____
Displays empathy towards the caller?				No -5 _____
Displays a calm professional manner?				No -5 _____
Uses calming techniques when necessary?				No -5 _____
Pauses were explained to the caller?				No -5 _____
Was Language Line used appropriately?				No -5 _____

Section 3: CAD Ticket Entry (Max points allowable 50)

Earned: _____

	Yes	N/A	No	Comments:
Was the correct call type used?				No -5 _____
Was the correct status used?				No -5 _____
Was the correct call source used?				No -5 _____
Where alerts passed onto field units?				No -5 _____
Was the caller's name entered correctly?				No -10 _____
Was the callback number entered correctly?				No -10 _____
Was the address entered correctly?				No -15 _____
Was the caller's location entered correctly?				No -5 _____
Was pertinent info added to narrative?				No -10 _____
Was narrative clear, brief and accurate?				No -5 _____
Was LEADS information attached to ticket?				No -5 _____

Total Score:

Date Reviewed: _____
 Date: _____

Reviewed by: _____
 Call Taker: _____

QuadCom 9-1-1 Quality Assurance Radio Dispatcher Review - Police

ECO: _____ Date: _____ Time: _____
 Nature: _____

Section 1: Dispatch Procedure (Max points allowable 50)

Earned: _____

	Yes	N/A	No	Comments:
Was the call dispatched within 1 minute?				No -5
If held, was Sgt/OIC informed?				No -5
Were the correct amount of units dispatched?				No -5
Were officers sent to correct location?				No -5
Was business name and address given during dispatch?				No -5
Was pertinent information relayed during initial dispatch?				No -10
Were updates relayed to the primary officer?				No -10
Were CAD alerts relayed to officers?				No -10
Maintained a calm & professional demeanor at all times?				No -10

Section 2: Radio Communication (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Speaks clearly to radio units?				No -5
Uses unit call sign on all transmissions?				No -5
Accurate information disseminated to officers?				No -10
Understands each radio transmission and clarifies if necessary?				No -10
Answers radio transmissions promptly?				No -5
Radio transmissions were brief and concise?				No -5

Section 3: CAD Entry (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Correct units added to CAD ticket?				No -10
LEADS information was attached to the ticket?				No -5
Narrative updated with pertinent information (95 time, tow info)				No -5
Change to call type was documented?				No -5
Correct disposition code used?				No -5
Units were checked upon timer activation?				No -10
Each town was issued separate tickets?				No -5

Total Score:

Date Reviewed: _____ Reviewed by: _____
 Date: _____ ECO: _____

QuadCom 9-1-1 Quality Assurance Call Taking Review - Fire

Call Taker: _____ Date: _____ Time: _____
 Nature: _____

Section 1: Caller Inquiry (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Telephone answered according to SOP 302?				No -5
Incident location determined?				No -5
Incident location verified with caller?				No -5
Caller name obtained?				No -5
Call back number obtained?				No -5
Was caller asked if they wanted to be seen?				No -5
Were all pertinent questions asked?				No -15

Section 2: Communication (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Speaks clearly and audibly?				No -5
Displays empathy towards the caller?				No -5
Displays a calm professional manner?				No -5
Uses calming techniques when necessary?				No -5
Pauses were explained to the caller?				No -5
Was Language Line used appropriately?				No -5

Section 3: CAD Ticket Entry (Max points allowable 50)

Earned: _____

	Yes	N/A	No	Comments:
Was the correct call type used?				No -5
Was the correct status used?				No -5
Was the correct call source used?				No -5
Where alerts passed onto field units?				No -5
Was the caller's name entered correctly?				No -10
Was the callback number entered correctly?				No -10
Was the address entered correctly?				No -15
Was the caller's location entered correctly?				No -5
Was pertinent info added to narrative?				No -10
Was narrative clear, brief and accurate?				No -5
Was EMD used?				No -5

Total Score:

Date Reviewed: _____
 Date: _____

Reviewed by: _____
 Call Taker: _____

QuadCom 9-1-1 Quality Assurance Radio Dispatcher Review - Fire

ECO: _____
 Nature: _____

Date: _____ Time: _____

Section 1: Dispatch Procedure (Max points allowable 50)

Earned: _____

	Yes	N/A	No	Comments:
Was the call dispatched within 1 minute?				No -5
If ticket for Trouble Alarm, was alarm unit attached?				No -5
Were the correct amount of units dispatched?				No -5
Were units sent to the correct location?				No -5
Was business name and address given during dispatch?				No -5
Was pertinent information relayed during initial dispatch?				No -10
Were updates relayed to the units?				No -10
Were CAD alerts relayed to responding units?				No -10
Maintained a calm & professional demeanor at all times?				No -10

Section 2: Radio Communication (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Speaks clearly to radio units?				No -5
Uses unit call sign on all transmissions?				No -5
Accurate information disseminated to units?				No -10
Understands each radio transmission and clarifies if necessary?				No -10
Answers radio transmissions promptly?				No -5
Radio transmissions were brief and concise?				No -5

Section 3: CAD Entry (Max points allowable 25)

Earned: _____

	Yes	N/A	No	Comments:
Correct units added to CAD ticket?				No-10
EMD card was noted on ticket?				No -5
Narrative updated with pertinent information (staging, patient contact, fire knocked)				No-10
Request for additional units documented?				No -5
Correct disposition code used?				No -5
Units were checked upon timer activation?				No-10

Total Score:

Date Reviewed: _____ Reviewed by: _____
 Date: _____ ECO: _____

QuadCom 9-1-1 Quality Assurance EMD

ECO: _____ Date: _____ Time: _____
 Nature: _____ EMD Used? Circle One Pass Fail

Section 1: Case Entry/Entry Questions (Max points allowable 50) Earned: _____

	Yes	N/A	No	Comments:
Address Asked?				No -5
Address verified?				No -5
Callback number asked?				No -5
Dispatched within 1 minute?				No -5
"Okay tell me exactly what happened" asked?				No -5
"How old is s/he" asked?				No -5
Unsure age "Tell me approximately then"				No -5
"Is s/he awake" asked?				No -5
"Is s/he breathing" asked?				No -5
"(Hasn't checked - 2nd party caler) You go check and tell me what you find" stated?				No -5

Chief Complaint Protocol selected: _____ Correct? _____ Should have been: _____

Section 2: Key Questions (Max points allowable 10) Earned: _____

Key Questions Asked	Yes	N/A	No	Comments:
KQ # _____				No -2
KQ # _____				No -2
KQ # _____				No -2
KQ # _____				No -2
KQ # _____				No -2
KQ # _____				No -2
KQ # _____				No -2

Section 3: Post Dispatch/Case Exit/Life Support (Max points allowable 40) Earned: _____


	Yes	N/A	No	Comments:
"I'm sending the paramedics to help you now. Stay on the line and I'll tell you exactly what to do next." read?				No-10
Appropriate Post Dispatch Instructions used?				No -10
Appropriate Case Exit used?				No-10
Airway/Arrest/Choking used correctly?				No -20
Choking Used correctly?				No -20
Childbirth used correctly?				No-20
Specialty Case Exit used? (5-13)				No -10

Total Score:

Date Reviewed: _____ Reviewed by: _____
 Date: _____ ECO: _____

QuadCom Public Safety Communications Center		
INFORMATION FLOW CONTROL INDEX	Section Number:	200

SECTION	TOPIC
201	(Blank)
202	Confidential Information
203	Communications Recording
204	(Blank)
205	Subpoena Requests
206	Pass On Log
207	Relaying Information to Field Supervisors
208	Use of LEADS / NCIC System / LEADS Coordinator
209	LEADS Hit Confirmation / Locating of Records
210	Caution Information in CAD
211	Premise Alert Program
212	News Media Inquires
213	CAD Records Security Permissions
214	CAD Paging System
215	LEADS / CHRI Policy
216	AVL Mapping - GPS

QuadCom Public Safety Communications Center			
Standard Operating Procedure		Section Number:	202
SUBJECT : Confidential Information			
Approved Date:	08/01/2000	Revised Date:	September 23 rd , 2011

Purpose:

- to define what is meant by confidential or sensitive material/information
- to ensure safety and security in the handling of such material

- Index:**
- 201.1 Confidentiality of Materials and Information**
 - 201.2 Dissemination of Materials and Information**
 - 201.3 Disposal of Confidential or Sensitive Information**
 - 201.4 Penalties**
 - 201.5 Proper Exchange of Information**

201.1 Confidentiality of Materials and Information

- 1.1 Personnel are expected to treat all materials/information they learn and come into contact with in the course of their job as confidential.
- 1.2 This applies to any and all materials/information gained in the area of police, fire, and EMS services, which includes any information gained from the QuadCom computer systems such as CAD and the LEADS/NCIC system.

201.2 Dissemination of Materials and Information

- 2.1 Personnel shall not disclose or disseminate such material/information to anyone for who it was not intended, or who is not duly authorized to receive such information.
- 2.2 Personnel shall not copy or remove any official police, fire or EMS reports, log record books, computer print outs, etc., that may be within the dispatch center.
- 2.3 Personnel shall not release any false or misleading information.

201.3 Disposal of Confidential or Sensitive Information

- 3.1 Any hard copy of confidential or sensitive information, which has not been filed by the end of the shift, shall be collected and shredded.
- 3.2 Confidential or sensitive material is not to be placed in the normal trash. This information must be shredded at the end of each shift.

201.4 Penalties

Personnel, who remove, alter, make inquiries of databases containing criminal information, and/or release/disseminate any official document or case information where unauthorized or for personal gain will be subject to appropriate disciplinary action up to and including dismissal.

201.5 Proper Exchange of Information

These regulations are not intended to prevent the normal and proper exchange of information needed among personnel in the performance of their duties.

Effective Date: October 1st, 2011

David B. Smith

David B. Smith
Director

September 23rd, 2011

Date

QUADCOM PUBLIC SAFETY COMMUNICATIONS SYSTEM

Annual Financial Report

For the Year Ended April 30, 2014

DRAFT SUBJECT TO CHANGE

Administrative Offices

505 Elm Ridge Road
Carpentersville, Illinois 60110

10/07/2014



QuadCom's UPS Inventory

Primary Rack

PW9130L2500R-XL2U - 60% Load - 2500VA - 8500VA Total

2x Enterprise Extended Battery Module - 6000VA

PW9130L2500R-XL2U - 45% Load - 2500VA - 8500VA Total

2x Enterprise Extended Battery Module - 6000VA

Units installed Dec 2013

Radio Server Rack

PW9130L700T - 31% Load - 700VA

PW9130L700T - 27% Load - 700VA

Units installed Jan 2014

Radio and Phone Rack

PW9130L2000R-XL2U - 15% Load - 2000VA - 5000VA Total

1x Enterprise Extended Battery Module - 3000VA

PW9130L2000R-XL2U - 17% Load - 2000VA

PW9130L1500R-XL2U - 15% Load - 1500VA

2x Tripp-Lite Smart3000RM2U - 3000VA Each



QUADCOM PUBLIC SAFETY COMMUNICATIONS SYSTEM

Annual Financial Report

For the Year Ended April 30, 2014

Administrative Offices

505 Elm Ridge Road
Carpentersville, Illinois 60110

**Quadcom Public Safety Communications System
Annual Financial Report
For the Year Ended April 30, 2014**

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INDEPENDENT AUDITOR'S REPORT

Selden Fox, LTD.

A PROFESSIONAL CORPORATION

CERTIFIED PUBLIC ACCOUNTANTS

619 Enterprise Drive

Oak Brook, Illinois 60523-8835

630-954-1400
630-954-1327 FAX

email@seldenfox.com
www.seldenfox.com

INDEPENDENT AUDITOR'S REPORT

Board of Directors
Quadcom Public Safety Communications System
Carpentersville, Illinois

We have audited the accompanying government-wide financial statements of the business-type activities, and each major fund of **Quadcom Public Safety Communications System** (Quadcom) as of and for the year ended April 30, 2014, and the related notes to the financial statements, which collectively comprise the basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these business-type activities financial statements in accordance with accounting principles generally accepted in the United States of America and these fund financial statements in accordance with the cash basis of accounting described in Note 1; this includes determining that the cash basis of accounting is an acceptable basis for presentation of the fund financial statements in these circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the government-wide financial statements present fairly, in all material respects, the respective financial position of Quadcom Public Safety Communications System as of April 30, 2014, and the results of its operations for the year then ended in conformity with accounting principles generally accepted in the United States of America. In our opinion, the fund financial statements present fairly, in all material respects, the respective financial position, on the basis of cash receipts and cash disbursements, of each major fund of Quadcom as of April 30, 2014, and the respective changes in financial position, on the basis of cash receipts and cash disbursements, for the year then ended in conformity with the basis of accounting described in Note 1 to the financial statements.

Basis of Accounting

As discussed in Note 1, Quadcom prepares its fund financial statements on the basis of cash receipts and cash disbursements, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Accounting principles generally accepted in the United States of America require that the schedule of funding progress on page 18 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. Quadcom has not presented a management's discussion and analysis that the Governmental Accounting Standards Board has determined is necessary to supplement, although not required to be part of, the financial statements.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedule of Cash Receipts and Cash Disbursements – Budget and Actual on pages 19-22 is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole on the basis of cash receipts and cash disbursements.

Selden Fox, Ltd.

February 26, 2015

BASIC FINANCIAL STATEMENTS

**Quadcom Public Safety Communications System
Statement of Net Position
April 30, 2014**

Assets	
Cash	\$ 1,169,218
Surcharges receivable	39,274
Other receivables	40,856
Prepaid expenses	103,549
Capital assets, net of accumulated depreciation	<u>1,853,562</u>
Total assets	<u>3,206,459</u>
Liabilities	
Accounts payable	30,548
Accrued expenses	71,236
Deferred revenues	39,274
Noncurrent liabilities:	
Due within one year	97,774
Due beyond one year	<u>615,691</u>
Total liabilities	<u>854,523</u>
Net Position	
Net position:	
Net investment in capital assets	1,159,216
Restricted for the operations of the Joint Emergency Telephone Systems Board	206,458
Unrestricted	<u>986,262</u>
Total net position	<u>\$ 2,351,936</u>

See accompanying notes and independent auditor's report.

**Quadcom Public Safety Communications System
Statement of Activities
For the Year Ended April 30, 2014**

Operating revenues - charges to members for services	<u>\$ 1,912,842</u>
Operating expenses:	
Public safety	2,067,574
Interest on long-term debt	<u>13,187</u>
Operating expenses	<u>2,080,761</u>
Operating loss	(167,919)
General revenues - investment income	<u>554</u>
Change in net position	(167,365)
Net position, beginning of the year	<u>2,519,301</u>
Net position, end of the year	<u>\$ 2,351,936</u>

See accompanying notes and independent auditor's report.

**Quadcom Public Safety Communications System
 Combined Statement of Assets, Liabilities and
 Fund Balances - Cash Basis
 April 30, 2014**

Assets	<u>General</u>	<u>Special Revenue</u>	<u>Capital Projects</u>	<u>Total</u>
Equity in pooled cash	\$ 882,929	\$ 132,481	\$ 153,808	\$ 1,169,218
Total assets	\$ 882,929	\$ 132,481	\$ 153,808	\$ 1,169,218
Liabilities and Fund Balances				
Liabilities	\$ -	\$ -	\$ -	\$ -
Fund balances:				
Restricted for emergency services	-	132,481	-	132,481
Assigned for capital outlay	-	-	153,808	153,808
Unrestricted	882,929	-	-	882,929
Total fund balances	882,929	132,481	153,808	1,169,218
Total liabilities and fund balances	\$ 882,929	\$ 132,481	\$ 153,808	\$ 1,169,218

See accompanying notes and independent auditor's report.

**Quadcom Public Safety Communications System
Reconciliation of Combined Statement of Assets, Liabilities
and Fund Balances (Cash Basis) to the Statement of Net Position
April 30, 2014**

Total fund balance - governmental funds (page 5)	\$ 1,169,218
Amounts reported for governmental activities in the statement of net position are different because:	
Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds.	1,853,562
Receivables represent amounts earned but not yet collected and, therefore, are not recognized in the funds, which are prepared on the cash basis of accounting.	80,130
Prepaid expenses are paid in the current period and, therefore, fully expensed in the funds.	103,549
Long-term and accrued liabilities are not due and payable in the current period and, therefore, are not included in the funds.	<u>(854,523)</u>
Net position of governmental activities (page 3)	<u>\$ 2,351,936</u>

See accompanying notes and independent auditor's report.

**Quadcom Public Safety Communications System
 Combined Statement of Cash Receipts and Cash Disbursements
 and Changes in Fund Balances
 For the Year Ended April 30, 2014**

	General	Special Revenue	Capital Projects	Total
Cash receipts:				
Local government assessments	\$ 1,356,091	\$ -	\$ -	\$ 1,356,091
Alarm revenue	60,684	-	-	60,684
Surcharge	-	502,049	-	502,049
Interest income	66	28	459	553
Miscellaneous	4,534	1,237	-	5,771
Total cash receipts	1,421,375	503,314	459	1,925,148
Cash disbursements:				
Current:				
Personnel services	1,281,225	-	-	1,281,225
Maintenance services	32,563	199,321	-	231,884
Professional services	26,816	9,015	-	35,831
Communications	62,976	121,799	-	184,775
Professional development	9,008	10,008	-	19,016
Other services and charges	5,209	2,283	-	7,492
General supplies	3,318	139	-	3,457
Debt service:				
Principal	-	96,723	-	96,723
Interest	-	13,187	-	13,187
Capital outlay	11,143	8,938	863,217	883,298
Other expenses	-	21,103	-	21,103
Total cash disbursements	1,432,258	482,516	863,217	2,777,991
Cash receipts over (under) cash disbursements before other financing source	(10,883)	20,798	(862,758)	(852,843)
Other financing source - note proceeds	-	-	742,118	742,118
Changes in fund balances	(10,883)	20,798	(120,640)	(110,725)
Fund balances, beginning of the year	893,812	111,683	274,448	1,279,943
Fund balances, end of the year	\$ 882,929	\$ 132,481	\$ 153,808	\$ 1,169,218

See accompanying notes and independent auditor's report.

**Quadcom Public Safety Communications System
Reconciliation of Statement of Cash Receipts and
Cash Disbursements and Changes in Fund Balances of
Governmental Funds to the Statement of Activities
For the Year Ended April 30, 2014**

Amounts reported for governmental activities in the statement of activities (page 4) are different because:

Net changes in fund balances - total governmental funds (page 7)	\$ (110,725)
Governmental funds report capital outlays as expenditures. However, in the statement of activities, the costs of these assets are allocated over their estimated useful lives and reported as depreciation expense. This amount represents the amount by which capital outlay exceeds depreciation in the current year.	564,246
Governmental funds report expenses as paid; therefore, prepaid expenses are fully reported in the funds, but in the statement of activities are measured by the amount of financial resources used.	24,755
Governmental funds report expenses as paid; therefore, accrued liabilities are not reported in the funds.	11,905
Governmental funds report expenses as paid; therefore, the change in a net pension obligation is not reported in the funds.	(400)
Revenues in the statement of activities that do not provide current financial resources are not reported as revenues in the funds.	(11,752)
Proceeds from the issuance of long-term debt are reported as an other financing source in the governmental funds, but as a long-term liability in the statement of net position.	(742,118)
Repayment of loan principal is an expenditure in the governmental funds, but the repayment reduces long-term liabilities in the statement of net position.	<u>96,724</u>
Change in net position of governmental activities (page 4)	<u>\$ (167,365)</u>

See accompanying notes and independent auditor's report.

**Quadcom Public Safety Communications System
Notes to the Financial Statements**

I. Summary of Significant Accounting Policies

A. General

The Quadcom Public Safety Communications System (Quadcom) is an intergovernmental corporation organized by certain local governmental units in northern Illinois. The participating members are the Villages of Carpentersville, East Dundee, West Dundee, Sleepy Hollow, South Barrington, and the Countryside and Rutland-Dundee Fire Protection Districts. Quadcom provides communication services for police, fire, ambulance and other emergency functions.

B. The Reporting Entity

Quadcom has developed criteria to determine whether outside agencies should be included within its financial reporting entity. The criteria include, but are not limited to, whether Quadcom selects the governing authority or management, has the ability to significantly influence operations, or has accountability for fiscal matters. Based on the application of these criteria, the Joint Emergency Telephone System Board has been included in the reporting entity as a blended component unit.

The Joint Emergency Telephone System Board (JETS) is a cooperative venture established to enhance the 911 emergency telephone system. The venture is financed by a telephone surcharge. The members of the Quadcom Board of Directors also serve as the Board of Directors for JETS. One chief from each public safety entity also serves on the JETS Board of Directors.

C. Measurement Focus, Basis of Accounting, and Financial Statement Presentation

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues and additions are recorded when earned, and expenses and deductions are recorded when a liability is incurred. Member charges are recognized as revenues in the year for which they are billed. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Governmental fund financial statements are reported using the cash basis of accounting, which is an acceptable basis of accounting other than accounting principles generally accepted in the United States of America. Their revenues are recognized when they are received. Expenditures are recognized only when paid.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

I. Summary of Significant Accounting Policies (cont'd)

D. Fund Accounting

The accounts of the system are organized on the basis of funds, each of which is considered a separate accounting entity. Resources are allocated to and accounted for in individual funds based upon the purposes for which they are to be spent. A general description of each fund is as follows:

General Fund – The General Fund is the operating fund of the system. It is used to account for all financial resources except those required to be accounted for in another fund.

Special Revenue Fund – The Special Revenue Fund is used to account for the proceeds of specific revenue sources that are legally restricted to expenditures for specified purposes. The operations of the Joint Emergency Telephone System are accounted for in this fund.

Capital Projects – The Capital Projects Fund is used to account for the purchase of major capital facilities and equipment.

E. Government-wide and Fund Financial Statements

The government-wide financial statements (i.e., the statement of net position and the statement of activities) report information on all of the activities of Quadcom. The effect of material interfund activity has been eliminated from these statements. Governmental activities, which normally are supported by taxes and intergovernmental revenues, are reported separately from business-type activities, which rely to a significant extent on fees and charges for support. Quadcom has only business-type activities.

The statement of activities demonstrates the degree to which the direct expenses of a given function, segment or program are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function or segment. Program revenues include: (1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function or segment, and (2) grants and standard revenues that are restricted to meeting the operational or capital requirements of a particular function or segment. Other items not properly included among program revenues are reported instead as general revenues.

Separate cash basis financial statements are provided for governmental funds. Major individual governmental funds are reported as separate columns in the fund financial statements.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

I. Summary of Significant Accounting Policies (cont'd)

F. Budgets

Quadcom's budget is prepared on the cash basis of accounting. The differences between this method and the method required by accounting principles generally accepted in the United States of America are discussed above.

Quadcom is not a taxing body; therefore, there is no legally adopted budget.

G. Capital Assets

Capital assets, which include property, plant and equipment, are reported in the government-wide financial statements. Capital assets are defined by Quadcom as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of one year. Such assets are recorded at historical cost if purchased or constructed. Donated capital assets are recorded at estimated fair market value at the date of donation.

The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed. Property, plant and equipment are depreciated using the straight-line method over the following estimated useful lives:

Buildings and improvements	10 - 39 years
Machinery and equipment	10 years

H. Compensated Absences

It is Quadcom's policy to permit employees to accumulate earned but unused sick and vacation pay benefits. There is no liability for unpaid accumulated sick leave since Quadcom does not have a policy to pay any amounts when employees separate from service. All vacation pay is accrued when incurred in the government-wide financial statements. No liability is reported for these amounts in the governmental fund financial statements as these statements are reported on the cash basis of accounting. Compensated absences are paid out of the General Fund.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

I. Summary of Significant Accounting Policies (cont'd)

I. Long-term Obligations

In the government-wide financial statements, long-term debt and other long-term obligations are reported as liabilities in the statement of net position. In the fund financial statements, governmental fund types record principal payments on long-term debt as disbursements in the year paid. Loan proceeds are recognized as receipts in the year they are received.

J. Equity Classifications

Equity in the government-wide financial statements is classified as net position and displayed in three components:

- a. Net investment in capital assets – Consists of capital assets including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances (excluding unspent bond proceeds) of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.
- b. Restricted net position – Consists of net position with constraints placed on their use either by: (1) external groups such as creditors, grantors, contributors, or laws or regulations of other governments or, (2) law through constitutional provisions or enabling legislation.
- c. Unrestricted net position – All other net position that does not meet the definitions of "restricted" or "net investment in capital assets."

When both restricted and unrestricted resources are available for use, it is Quadcom's policy to use restricted resources first, then unrestricted resources as they are needed.

In the fund financial statements, governmental funds report fund balance as either nonspendable or spendable. Spendable fund balance is further classified as restricted, committed, assigned or unassigned, based on the relative strength of the constraints that control how specific amounts can be spent.

Restrictions of fund balance are reported for amounts constrained by legal restrictions from outside parties for use for a specific purpose or externally imposed by outside entities. Committed fund balance is constrained by formal actions of Quadcom's Board of Trustees, which is considered the highest level of decision making authority. Assigned fund balance represents amounts constrained by management's intent to use them for a specific purpose. Any residual fund balance is reported as unassigned in the General Fund.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

I. Summary of Significant Accounting Policies (cont'd)

J. Equity Classifications (cont'd)

The fund balance of the Special Revenue Fund is considered restricted, as the use of the fund balance is governed by the intergovernmental agreement and bylaws of the Joint Emergency Telephone Board. The fund balance in the Capital Projects Fund is considered assigned for the purpose of the Fund.

Quadcom assumes that funds with the highest level of constraint are expended first. If restricted or unrestricted funds are available for spending, the restricted funds are spent first. If unrestricted funds are available for spending, committed funds are spent first followed by assigned and then unassigned funds.

K. Use of Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

II. Detailed Notes For All Fund Types

A. Cash and Investments

Cash and investments consisted of checking and money market accounts held with a local bank. At April 30, 2014, bank balances which totaled \$1,169,468 were fully insured or collateralized.

Interest Rate Risk – This is the risk that changes in the market interest rates will adversely affect the fair value of an investment. While not addressed specifically in its investment policy, Quadcom is not exposed to interest rate risk at April 30, 2014, as Quadcom's excess cash is held in savings accounts with a local financial institution.

Credit Risk – Generally, credit risk is the risk that an issuer of a debt type instrument will not fulfill its obligation to the holder of the investment. This is measured by assignment of a rating by a nationally recognized rating organization. Quadcom did not hold any investments during the year.

Custodial Credit Risk – For deposits, this is the risk that, in the event of a bank failure, a government will not be able to recover its deposits. Quadcom's investment policy does not specifically address custodial credit risk.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

II. Detailed Notes For All Fund Types (cont'd)

B. Capital Assets

Capital asset activity for the year ended April 30, 2014 is as follows:

	<u>Balance May 1, 2013</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance April 30, 2014</u>
Governmental Activities				
Buildings and improvements	\$ 528,060	\$ 6,928	\$ -	\$ 534,988
Machinery and equipment	<u>2,386,792</u>	<u>830,645</u>	<u>-</u>	<u>3,217,437</u>
Total capital assets being depreciated	<u>2,914,852</u>	<u>837,573</u>	<u>-</u>	<u>3,752,425</u>
Less accumulated depreciation for:				
Buildings and improvements	213,045	14,122	-	227,167
Machinery and equipment	<u>1,412,491</u>	<u>259,205</u>	<u>-</u>	<u>1,671,696</u>
Total accumulated depreciation	<u>1,625,536</u>	<u>273,327</u>	<u>-</u>	<u>1,898,863</u>
Governmental activities' capital assets, net	<u>\$ 1,289,316</u>	<u>\$ 564,246</u>	<u>\$ -</u>	<u>\$ 1,853,562</u>

Depreciation expense of \$273,327 was charged to public safety for the year ended April 30, 2014.

C. Debt

A summary of the debt outstanding of Quadcom at April 30, 2014 is as follows:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Reductions</u>	<u>Ending Balance</u>
Notes payable	<u>\$ 48,952</u>	<u>\$ 742,118</u>	<u>\$ 96,724</u>	<u>\$ 694,346</u>

Quadcom entered into a term note payable dated September 10, 2013 with an original principal balance of \$742,118 maturing October 1, 2020. The note requires monthly payments of \$9,861, including interest at 3.12%, with unpaid principal and interest due at maturity.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

II. Detailed Notes For All Fund Types (cont'd)

C. Debt (cont'd)

Quadcom entered into a term note payable with an original principal balance of \$1,350,000 dated November 17, 2003 which matured on November 17, 2013. The note required monthly payments of \$13,951, including interest at 4.375%, with unpaid principal and interest paid at maturity.

Principal payments to service all debt outstanding as of April 30, 2014 are as follows:

<u>Year Ended</u>	<u>Total</u>	<u>Principal</u>	<u>Interest</u>
2015	\$ 118,334	\$ 97,774	\$ 20,560
2016	118,334	100,868	17,466
2017	118,334	104,150	14,184
2018	118,334	107,492	10,842
2019	118,334	110,942	7,392
2020	118,334	114,497	3,837
2021	59,166	58,623	543
	<u>\$ 769,170</u>	<u>\$ 694,346</u>	<u>\$ 74,824</u>

III. Other Information

A. Employee Retirement Plan

Plan Description – Quadcom’s defined benefit pension plan for regular employees provides retirement and disability benefits, postretirement increases, and death benefits to plan members and beneficiaries. Quadcom’s plan is affiliated with the Illinois Municipal Retirement Fund (“IMRF”), an agent-multiple-employer pension plan that acts as a common investment and administrative agent for local governments and school districts in Illinois. Benefit provisions are established by statute and may only be changed by the General Assembly of the State of Illinois. IMRF issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained online at www.imrf.org.

Funding Policy – As set by statute, Quadcom’s regular plan members are required to contribute 4.50 percent of their annual covered salary. The statutes require employers to contribute the amount necessary, in addition to member contributions, to finance the retirement coverage of its own employees. The employer annual required contribution rate for calendar year 2013 used was 11.02 percent. Quadcom also contributes for disability benefits, death benefits and supplemental retirement benefits, all of which are pooled at the IMRF level. Contribution rates for death and disability benefits are set by the IMRF’s Board of Trustees, while the supplemental retirement benefits rate is set by statute.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

III. Other Information (cont'd)

A. Employee Retirement Plan (cont'd)

Annual Pension Cost – For fiscal year ended April 30, 2014, Quadcom's actual and required contributions to the regular plan were \$76,141.

<u>Actuarial Valuation Date</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u>
4/30/2014	\$ 93,518	99 %	\$ 19,119
4/30/2013	76,533	99	18,719
4/30/2012	86,663	98	18,327

The net pension liability of \$19,119 was comprised of the following:

Annual required contribution	\$ 93,118
Interest on the net pension asset	1,404
Adjustment to the ARC	<u>(1,004)</u>
Annual pension cost	93,518
Fiscal 2014 contribution	<u>93,118</u>
Increase in pension liability	400
Net pension liability at April 30, 2013	<u>18,719</u>
Net pension liability at April 30, 2014	<u>\$ 19,119</u>

The required contribution for 2013 was determined as part of the December 31, 2011 actuarial valuation, using the entry age normal actuarial cost method. The actuarial assumptions at December 31, 2011 included: (a) 7.50% investment rate of return (net of administrative and direct investment expenses), (b) projected salary increases of 4.00% a year, attributable to inflation, (c) additional projected salary increases ranging from 0.4% to 10% per year depending on age and service, attributable to seniority/merit, and (d) post-retirement benefit increases of 3% annually. The actuarial value of Quadcom's assets was determined using techniques that spread the effects of short-term volatility in the market value of investments over a five-year period with a 20% corridor between the actuarial and market value of assets. Quadcom's unfunded actuarial accrued liability at December 31, 2011 is being amortized as a level percentage of projected payroll on an open ten-year basis.

**Quadcom Public Safety Communications System
Notes to the Financial Statements (cont'd)**

III. Other Information (cont'd)

A. Employee Retirement Plan (cont'd)

Funded Status and Funding Progress – As of December 31, 2013, the most recent actuarial valuation date, the regular plan was 99.44 percent funded. The actuarial accrued liability for benefits was \$1,920,224 and the actuarial value of assets was \$1,909,503, resulting in an underfunded actuarial accrued liability (UAAL) of \$10,721. The covered payroll for 2013 (annual payroll of active employees covered by the plan) was \$832,405 and the ratio of the UAAL to the covered payroll was 1 percent.

The schedule of funding progress, presented as RSI following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

B. Risk Management

Quadcom is exposed to various risks related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. Quadcom accounts for its risk of loss in the General Fund. Quadcom has purchased commercial insurance to cover these risks. There has been no reduction in insurance coverage for any programs since the prior fiscal year. Settlements have not exceeded insurance coverage in the last three years.

C. Land Lease

Quadcom leases land on which its operating facility was constructed from the Village of Carpentersville (a member agency). The lease is for a forty-year term which expires November 15, 2035, with lease payments over the entire term of the lease totaling \$40.

D. Employees Covered By Collective Bargaining Agreement

Employees serving as 911 operators are covered under a union collective bargaining agreement. This agreement went into effect on May 1, 2013 and expires on April 30, 2017.

REQUIRED SUPPLEMENTARY FINANCIAL INFORMATION

**Quadcom Public Safety Communications
Illinois Municipal Retirement Fund
Required Supplementary Information -
Schedule of Funding Progress
April 30, 2014**

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL) - Entry Age	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
12/31/13	\$ 1,909,503	\$ 1,920,224	\$ 10,721	99.44%	\$ 832,405	1.29%
12/31/12	1,602,201	1,734,137	131,936	92.39%	797,333	16.55%
12/31/11	1,380,225	1,548,546	168,321	89.13%	791,761	21.26%
12/31/10	1,232,973	1,320,421	87,448	93.38%	725,825	12.05%
12/31/09	1,089,232	1,280,146	190,914	85.09%	741,107	25.76%
12/31/08	913,204	1,169,914	256,710	78.06%	856,103	29.99%

Note - On a market value basis, the actuarial value of assets as of December 31, 2013 is \$2,208,070. On a market basis, the funded ratio would be 114.99%.

Note - The actuarial value of assets and accrued liability cover active and inactive members who have service credit with Quadcom Public Safety Communications. They do not include amounts for retirees. The actuarial accrued liability for retirees is 100% funded.

See independent auditor's report.

SUPPLEMENTARY FINANCIAL INFORMATION

**Quadcom Public Safety Communications System
General Fund
Schedule of Cash Receipts and Cash Disbursements - Budget and Actual
For the Year Ended April 30, 2014**

	Original Budget	Final Budget	Actual	Variance Favorable (Unfavorable)
Cash receipts:				
Local government assessments	\$ 1,344,339	\$ 1,344,339	\$ 1,356,091	\$ 11,752
Alarm revenue	60,000	60,000	60,684	684
Interest income	-	-	66	66
Miscellaneous	46,161	46,161	4,534	(41,627)
Total cash receipts	1,450,500	1,450,500	1,421,375	(29,125)
Cash disbursements:				
Personnel services:				
Salaries	955,000	955,000	951,713	3,287
Employee benefits	340,500	340,500	329,512	10,988
Total personnel services	1,295,500	1,295,500	1,281,225	14,275
Maintenance:				
Building and grounds	4,000	4,000	3,814	186
Equipment	5,000	5,000	-	5,000
HVAC	5,000	5,000	3,619	1,381
Computer	10,000	10,000	936	9,064
Radio	12,000	12,000	24,144	(12,144)
Other maintenance	2,000	2,000	50	1,950
Total maintenance	38,000	38,000	32,563	5,437
Professional services:				
Accounting services	4,350	4,350	4,310	40
Insurance	15,400	15,400	14,475	925
Legal	15,600	15,600	4,932	10,668
Medical	900	900	118	782
Other professional services	21,500	21,500	2,981	18,519
Total professional services	57,750	57,750	26,816	30,934
Communications:				
Telephone	72,000	72,000	53,985	18,015
LEADS	10,800	10,800	8,813	1,987
Other communications	2,200	2,200	178	2,022
Total communications	85,000	85,000	62,976	22,024

(cont'd)

**Quadcom Public Safety Communications System
General Fund
Schedule of Cash Receipts and Cash Disbursements - Budget and Actual (cont'd)
For the Year Ended April 30, 2014**

	Original Budget	Final Budget	Actual	Variance Favorable (Unfavorable)
Cash disbursements (cont'd):				
Professional development:				
Dues and memberships	\$ 900	\$ 900	\$ 856	\$ 44
Travel	5,500	5,500	5,647	(147)
Training	2,500	2,500	2,505	(5)
Total professional development	8,900	8,900	9,008	(108)
Other services and charges:				
Reference materials	300	300	77	223
Equipment leases	2,650	2,650	2,112	538
Operator aids	750	750	-	750
Other services and charges	5,400	5,400	3,020	2,380
Total other services and charges	9,100	9,100	5,209	3,891
General supplies:				
Office supplies	2,250	2,250	1,353	897
Paper and ink	4,100	4,100	1,831	2,269
Equipment supplies	500	500	-	500
Postage	600	600	134	466
Total general supplies	7,450	7,450	3,318	4,132
Capital outlay - equipment	12,400	12,400	11,143	1,257
Total cash disbursements	1,514,100	1,514,100	1,432,258	81,842
Cash receipts under cash disbursements before other financing sources	(63,600)	(63,600)	(10,883)	52,717
Other financing sources - transfers in	63,600	63,600	-	(63,600)
Net changes in fund balance	\$ -	\$ -	\$ (10,883)	\$ (10,883)

See independent auditor's report.

**Quadcom Public Safety Communications System
Special Revenue Fund
Schedule of Cash Receipts and Cash Disbursements - Budget and Actual
For the Year Ended April 30, 2014**

	Original Budget	Final Budget	Actual	Variance Favorable (Unfavorable)
Cash receipts:				
Surcharge	\$ 479,000	\$ 479,000	\$ 502,049	\$ 23,049
Interest income	-	-	28	28
Miscellaneous	-	-	1,237	1,237
Total cash receipts	479,000	479,000	503,314	24,314
Cash disbursements:				
Maintenance services:				
Building and grounds	4,000	4,000	1,101	2,899
Generator	2,000	2,000	597	1,403
Computer	230,000	230,000	192,300	37,700
Other maintenance	12,600	12,600	5,323	7,277
Total maintenance services	248,600	248,600	199,321	49,279
Professional services:				
Accounting services	2,200	2,200	2,205	(5)
Insurance	5,000	5,000	5,299	(299)
Legal	3,400	3,400	1,361	2,039
Other professional services	500	500	150	350
Total professional services	11,100	11,100	9,015	2,085
Communications:				
911 Telephone	75,000	75,000	69,188	5,812
Publishing and advertising	1,000	1,000	221	779
Printing and copying	1,200	1,200	-	1,200
Broadband services	57,600	57,600	52,390	5,210
Total communications	134,800	134,800	121,799	13,001
Professional development:				
Training	2,200	2,200	2,479	(279)
Travel	7,700	7,700	7,529	171
Total professional development	9,900	9,900	10,008	(108)
Other services and charges:				
Public utility	1,900	1,900	1,597	303
Operator aids	800	800	15	785

(cont'd)

**Quadcom Public Safety Communications System
Special Revenue Fund
Schedule of Cash Receipts and Cash Disbursements - Budget and Actual (cont'd)
For the Year Ended April 30, 2014**

	Original Budget	Final Budget	Actual	Variance Favorable (Unfavorable)
Cash disbursements (cont'd):				
Other services and charges (cont'd):				
Other services and charges	\$ 1,300	\$ 1,300	\$ 671	\$ 629
Total other services and charges	4,000	4,000	2,283	1,717
General supplies:				
Office supplies	1,000	1,000	-	1,000
Equipment supplies	1,500	1,500	52	1,448
Postage	500	500	87	413
Total general supplies	3,000	3,000	139	2,861
Debt service:				
Principal	85,913	85,913	96,723	(10,810)
Interest	13,187	13,187	13,187	-
Total debt service	99,100	99,100	109,910	(10,810)
Capital outlay - equipment	10,000	10,000	8,938	1,062
Other expenses:				
Contingency	5,000	5,000	-	5,000
Surcharge refund	24,000	24,000	21,103	2,897
Total other expenses	29,000	29,000	21,103	7,897
Total cash disbursements	549,500	549,500	482,516	66,984
Cash receipts over (under) cash disbursements before other financing uses	(70,500)	(70,500)	20,798	91,298
Other financing uses - transfers out	(63,600)	(63,600)	-	63,600
Net changes in fund balance	\$ (134,100)	\$ (134,100)	\$ 20,798	\$ 154,898

See independent auditor's report.



QuadCom's UPS Inventory

Primary Rack

PW9130L2500R-XL2U - 60% Load - 2500VA - 8500VA Total

2x Enterprise Extended Battery Module - 6000VA

PW9130L2500R-XL2U - 45% Load - 2500VA - 8500VA Total

2x Enterprise Extended Battery Module - 6000VA

Units installed Dec 2013

Radio Server Rack

PW9130L700T - 31% Load - 700VA

PW9130L700T - 27% Load - 700VA

Units installed Jan 2014

Radio and Phone Rack

PW9130L2000R-XL2U - 15% Load - 2000VA - 5000VA Total

1x Enterprise Extended Battery Module - 3000VA

PW9130L2000R-XL2U - 17% Load - 2000VA

PW9130L1500R-XL2U - 15% Load - 1500VA

2x Tripp-Lite Smart3000RM2U - 3000VA Each

201.4 Penalties

Personnel, who remove, alter, make inquiries of databases containing criminal information, and/or release/disseminate any official document or case information where unauthorized or for personal gain will be subject to appropriate disciplinary action up to and including dismissal.

201.5 Proper Exchange of Information

These regulations are not intended to prevent the normal and proper exchange of information needed among personnel in the performance of their duties.

Effective Date: October 1st, 2011

David B. Smith

David B. Smith
Director

September 23rd, 2011
Date