

## Executive Summary

It is important to the public, law enforcement agencies, and elected officials that 9-1-1 centers function effectively and efficiently. In public safety, seconds often mean the difference between life and death. As the 1998 Investigative Report on the Washington, D.C., 9-1-1 system observed: *"9-1-1 is the universal number recognized as a lifeline for individuals in distress. The hallmark of a properly functioning emergency telephone system is immediate connection with a 9-1-1 operator and a quick response from a police officer."*

With this charge in mind, the LESA Executive Board commissioned 9-1-1 SME Consulting to conduct an independent performance audit of the LESA Communications Center with the overall purpose of assessing the performance, responsiveness, capabilities, efficiency, and requirements of the LESA Communications Division. Of specific concern was LESA's level of performance in meeting call taking standards such as the National Emergency Number Association's (NENA) recommended standards, particularly with respect to the standard of answering 90% of 9-1-1 calls within 10 seconds. Also of direct interest was an assessment of staffing and overtime levels, PSAP structure and organization, training, and quality assurance.

This study is just one of the components of the LESA Vision ONE strategic plan adopted in September 2006. Vision ONE goals included assuring that LESA provides world class services that are equal to or better than the best; that LESA utilizes all resources efficiently for maximum effect; that LESA is organized, positioned, and prepared to be compliant with Next Generation 9-1-1 requirements; and that its personnel, facilities, and equipment are fully survivable and redundant.

This study concludes that LESA and its funding agencies must take immediate action to avert the potential for call volume and call loads to overwhelm current staffing levels, and to be prepared for the requirements of Next Generation 9-1-1. When compared to other 9-1-1 centers, LESA's call takers and dispatchers have double the average call load and triple the average staff-to-citizen ratio. Until January 2008, LESA had not had a staffing increase since 1995. Unless addressed, this presents a real possibility that 9-1-1 and emergency communications services in Pierce County could be significantly compromised particularly during peak periods. At present, any significant regional event or major crime has the potential to render LESA incapable of providing adequate 9-1-1 service. In addition, during peak periods of the year, LESA is also at risk for not having sufficient dispatchers and call takers available to handle routine call volume. This presents an unacceptable risk to public safety when seconds can mean the difference between life and death.

LESA's low staffing levels are the primary reason that LESA's call answering response time is in the lowest tier in the state and nation. Simply put, citizens who call 9-1-1 in LESA's service area can expect longer response times than nearly anywhere else in the state and nation. LESA has not met the NENA standard since at least 1995. Since 2006, however, LESA has not only reversed a five year significant downtrend in performance (from 83.30% in 2001 to 74.20% in 2005), but also has shown an ever increasing significant improvement in performance (from 74.20% in 2005 to 80.67% in 2008). This

dramatic turnaround in such a short period is primarily due to Vision ONE performance improvements with the key improvement being the addition of the Telephone Report Unit (TRU), and the implementation of performance improvements identified both by this consultant and LESA during the pendency of this audit. Although incremental further improvements in performance can be expected, LESA's significant staffing shortfalls are the primary cause for LESA's inability to meet local and national standards. Until LESA staffing is brought on par with 9-1-1 centers of similar size and volume, LESA will not be able to meet these standards. Additional significant improvements can be made by metrics-based call center management and establishment of a 3-1-1 system.

LESA's lack of funding for staffing and service level discrepancies have a direct relationship to Pierce County's current anachronistic PSAP structure. The confusing array of PSAPs can lead to the misdirection of a 9-1-1 call to the wrong 9-1-1 center thereby inducing delays in call processing time, and, in terms of costs, results in nearly \$2.5 million in additional costs county-wide. By consolidating into a single PSAP throughout the county, a number of jurisdictions could realize savings by eliminating the number of times the same call is processed. For example, the City of Tacoma could conservatively realize a savings of \$1.5 million in its total annual budget for communication services.

This audit recommends against the co-location option currently supported by LESA management and other PSAPs. Co-location gains no efficiencies in terms of personnel, administrative and other costs. Further, the costs of constructing a co-located facility for all police PSAPs, and another facility for fire PSAPs would significantly outweigh any other savings. Moreover, co-location would not solve the inherent transfer problem caused by the existence of so many PSAPs. Finally, any efficiencies to be gained from co-location can be achieved virtually at much less cost through installation of a common CAD system or interface.

If there is no consolidation, this audit recommends that LESA should seek cost recovery for uncompensated services it provides. For example, LESA's total cost for handling fire and emergency medical service (EMS) calls where no police response was required was a minimum of \$425,152.00. At present, LESA's member police agencies are paying for these calls even though no police response was required. This is equivalent to at least six of the 10 call taker FTEs that LESA needs to reach the staffing levels recommended by this study.

The majority of Communications Center staff are dedicated professionals whose performance is outstanding despite chronic and longstanding significant understaffing and heavy overtime in arguably the busiest and most demanding PSAP in Washington state. As demonstrated by the decline in available work hours and significant rise in worker's compensation rates, LESA communications staff is already evidencing signs of burnout and stress associated with the significant overtime that has existed for many years. In turn, these factors have had a significant influence on morale and culture. LESA has been outstanding in its proactive efforts to involve and invest employees in its effort to change these conditions and become a national model of best practices.

## PSAP Assessment Study

This study finds that LESA's call takers and dispatchers are generally the highest paid civilian telecommunicators in Washington state, and second highest paid amongst the surveyed national PSAPs. The focus on salaries and benefits alone, however, can be very misleading. Rather, it is important to assess and compare each center's entire cost or budget on a per staff member basis. Thus, although LESA has the 11th highest cost per staff member it is below its closest comparators including Seattle PD, Valley Comm, SNO-PAC, and CAPCOM. However, even with the focus just on salary and benefits, this study recommends that LESA expand part-time employment, continue its excellent recognition program, conduct a class and compensation study, and carefully evaluate any proposed changes in its placement on the highest tier of compensation until such time as LESA is fully staffed.

A failure of LESA's services and/or facilities would result in a denial of 9-1-1 call answering service to a minimum of 87% of Pierce County's population and the denial or disruption of dispatch and mobile digital computer services to the estimated 1,600 law enforcement officers and users dependent on LESA dispatchers, software, equipment and infrastructure for their safety and the ability to respond to calls for service. LESA's facilities and equipment are dated and, in some instances, obsolete with no support from the vendor. LESA's facilities were constructed before the hard-learned lessons from events such as 9/11, Hurricane Katrina, and the Greensboro, Kansas, tornado. LESA's Communications Center is responsible for a county that is consistently identified as a significant terrorist target due to the presence of significant military bases, petrochemical plants and major port facilities. In addition, Pierce County has two major earthquake faults, a major active volcano, and is also at risk in a pandemic or biochemical event. LESA's current facilities were not constructed with these considerations in mind, and are therefore vulnerable to these types of threats. At present, there is limited but inadequate backup to LESA's Communications Center. Due to lack of funding, LESA continues to rely on systems and software that are at end of life. LESA should be planning now to obtain financing to construct a new redundant and survivable center with state-of-the art dispatching and call taking equipment.

LESA has taken significant steps to address these concerns. In December 2005, the LESA Executive Board chartered a new direction for LESA with the hiring of the current Director. The Director was given the specific charge to examine all aspects of LESA, to challenge the status quo, and to assure the Executive Board and the people of Pierce County that they were receiving the very best service at the lowest possible cost. Since that time, as exemplified by the Vision ONE strategic plan and the consequent commissioning of this performance audit, current LESA management has demonstrated a clear commitment to that charge.

Throughout this audit, LESA management has facilitated and encouraged an open and transparent assessment of LESA's performance, and has demonstrated outstanding leadership in reshaping and reforming LESA into a high-performance organization that models best practices in the emergency communications field. Their efforts have not gone unnoticed – even on the national level. The decision of the international Association of Public Safety Communications Officials (APCO) to award the LESA Director its 2008 Director of the Year Award is a clear and independent recognition of the success of the LESA management team's groundbreaking efforts to charter a new course for a stagnant 34-year old organization. LESA management will continue to need financial and political support for its efforts.

## Key Findings and Recommendations

Overall, many points of the performance audit determined that the LESA Communications Center was performing well to excellent. A few key findings are summarized and highlighted below and then followed by a table setting forth all key findings and recommendations:

- 1. Performance:** LESA's primary performance measure from 1995 into 2006 was the percent of calls answered within 12 seconds pursuant to the terms of LESA's contract with the Pierce County 9-1-1 office. LESA's call answering percentage averaged 75.83% from 1995 through 2006 with a low of 65% in 1995 and a high of 83.30% in 2001. Thus, LESA has not met this standard since at least 1995.

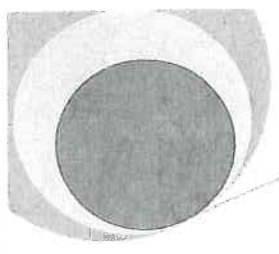
Starting in 2006, LESA's Vision ONE strategic plan emphasized assessment of performance based on national standards and best practices. Vision ONE emphasized the importance of meeting local and national standards regarding the call answering percentage, but also added important other national measures or metrics to include Average Speed of Answer, Average Talk Time, Average Hold Time, Abandonment Rate, and Average Occupancy Rate. These efforts by LESA model best practices and are consistent with those seen in high-performance 9-1-1 centers.

The national standard for percent of calls answered has been set by the National Emergency Number Association (NENA). NENA's recommended standard is that 90% of calls in the busy hour should be answered within 10 seconds and 95% within 20 seconds. Historically, LESA has not met this standard since at least 1995.

Since January 2006, however, LESA has not only reversed a five-year significant downtrend in performance (from 83.30% in 2001 to 74.20% in 2005), but also has shown an ever increasing significant improvement in performance (from 74.20% in 2005 to 80.60% in 2008). This dramatic turnaround in such a short period is primarily due to Vision ONE performance improvements with the key improvement being the addition of the TRU and the implementation of performance improvements identified both by this consultant and LESA during the pendency of this audit. Although incremental further improvements in performance can be expected, LESA's significant staffing shortfalls are the primary cause for LESA's inability to meet either the NENA or the Pierce County standards. Until LESA staffing is on par with 9-1-1 centers of similar size and volume, LESA will not be able to meet these standards.

- 2. Personnel:** As a whole, the Communications Center staff are dedicated professionals whose performance is outstanding despite chronic and longstanding significant understaffing and heavy overtime in arguably the busiest and most demanding PSAP in Washington state. As demonstrated by the decline in available work hours and significant rise in worker's

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compensation rates, LESA communications staff is already evidencing signs of burnout and stress associated with the significant overtime that has existed for many years. In turn, these factors have had a significant influence on morale and culture.

LESA has been outstanding in its proactive efforts to involve and invest employees in its effort to change these conditions and become a national model of best practices. For example, LESA's morale and awards program is one of the most extensive, providing for recognition of both individual and team performance. LESA's town halls, all day retreats, internal corporate communications program, and ongoing involvement of a skilled workplace consultant have been very effective in beginning to address culture and morale. LESA management will need to continue to demonstrate to personnel its commitment to alleviating staffing shortages and the varied attendant issues that accompany the associated stress and overtime including occasional, minor, and more serious violations of workplace rules.

3. **Staffing Levels:** LESA and its funding agencies must take immediate action to avert the potential for call volume and call loads to overwhelm current staffing levels. When compared to other 9-1-1 centers, LESA's call takers and dispatchers have twice the average call load and triple the average staff-to-citizen ratio. Comparative and statistical analysis using standard methodologies makes it clear that LESA needs a total of 45 dispatchers, 44 call takers, and 7 supervisors. Until January 2008, LESA had not had a staffing increase since 1995. The staffing increases in 2008 were an improvement, but still leave LESA short of recommended levels by 8 dispatchers, 10 call takers, and one supervisor.

Unless addressed, this presents a real danger of compromising 9-1-1 and emergency communications services in Pierce County. At present, any significant regional event or major crime has the potential to render LESA incapable of providing adequate 9-1-1 service. In addition, during peak periods of the year, LESA is also at risk for not having sufficient dispatchers and call takers available to handle routine call volume. During routine LESA operations, LESA is frequently right at the edge of being unable to respond to the current call level or to have sufficient dispatchers to staff all stations. This presents an unacceptable risk to public safety when seconds can make the difference between life and death.

To avert such circumstances, this study recommends a number of specific measures including that LESA continue to aggressively fill all authorized positions, to make greater use of part time positions, and to use overhire authority to counterbalance its 18% turnover rate. LESA should also seek reimbursement from other non-contributing agencies that benefit from the work of LESA call takers or dispatchers. For example, LESA's member police agencies are currently paying LESA to process and handle fire/EMS calls even when no police response is required. Were LESA and its agencies to be reimbursed for these costs, LESA could gain six of the 10 additional call taker FTEs recommended by this audit.

4. **Facilities and Equipment:** LESA's facilities and equipment are dated and, in some instances, at end of life. LESA's facilities were constructed before the hard-learned lessons from events such as 9/11, Hurricane Katrina, and the Greensboro, Kansas, tornado. LESA's Communications Center is responsible for a county that is consistently identified as a significant terrorist target due to the presence of significant military bases, petrochemical plants, and major port facilities. In addition, Pierce County has two major earthquake faults and a major active volcano. As a major population center, Pierce County is also at risk in a pandemic or biochemical event. LESA's current facilities were not constructed with these considerations in mind; therefore, current facilities are vulnerable to these types of threats.

At present, there is limited, but inadequate, backup to LESA's Communications Center. A failure of LESA's services would result in a denial of 9-1-1 call answering service to a minimum of 87% of Pierce County's population, and denial or disruption of dispatch and mobile digital computer services to the estimated 1,500 law enforcement officers dependent on LESA dispatchers, software, equipment and infrastructure for their safety and the ability to respond to calls for service.

Due to lack of funding, LESA continues to rely on systems and software that are at end of life. For example, LESA's computer-aided dispatch (CAD) system is at end of life and should be replaced. Although LESA's telephony equipment is functioning and currently meets call taking and dispatching requirements, it is also near end of life. LESA should be planning now to obtain financing to construct a new redundant and survivable center with state-of-the-art dispatching and call taking equipment.

5. **LESA Communications Center Salary, Wages, and Benefits:** Historically, LESA has had difficulty recruiting dispatchers and call takers in sufficient numbers, and has experienced an approximate attrition of 66% of candidates during the first year of training. Of those candidates who successfully complete their first year, LESA has a high retention rate. Although the attrition of new hires during the first year is similar to the experience of 9-1-1 call centers throughout the country, it is more pronounced at LESA due to the complexity of its operations, the wide diversity of protocols for each of its agencies, and the demanding nature of LESA's environment – including its well-known reputation for understaffing and high overtime levels.

Historically (prior to 2006), LESA has sought to offset these aspects and compete for talented personnel in a highly competitive market by paying the highest compensation for dispatchers and call takers. Although this strategy has helped, it has not been sufficient to recruit, train, and retain sufficient numbers of qualified personnel. Indeed, LESA's unique and well-advertised lateral hire incentive bonus of \$5,000 plus \$2,000 in relocation costs had not proven effective and was discontinued at the end of 2008. Although a number of lateral hires

were hired as part of the program, most have either resigned during the first year citing the complexity of the operations and high-level of violent calls, or have not satisfactorily completed training. Until staffing levels reach required levels and overtime is significantly reduced, LESA will likely need to continue to pay compensation at the top end of the higher tier of compensation in order to attract and retain personnel. Key strategies to help reduce chronic overtime include expanded use of part time employees, continued aggressive efforts to fill all authorized positions, and use of overhire authority to compensate for the 18% attrition rate.

- 6. PSAP Organization and Cost Recovery: Pierce County's current PSAP structure and services are an anachronism. The confusing array of PSAPs can lead to the misdirection of a 9-1-1 call to the wrong 9-1-1 center thereby inducing delays in call processing times as the call is initially triaged and then transferred to the correct 9-1-1 center only to be triaged again. This is particularly true for wireless calls which route to the nearest tower that, in many cases, does not correlate to the correct PSAP having responsibility for that area. Even when calls are correctly routed to the primary PSAP, there is a built-in delay in Pierce County because of the need to transfer to secondary PSAPs. Indeed, the Tacoma Fire Department PSAP has publicly expressed concerns about transfer times for calls transferred from LESA. The solution to such issues is consolidation into one PSAP.**

The benefits to consolidation, however, are much more than improved answering times. There is a significant cost to the present multiple PSAP structure that may not be readily appreciated. This pertains to any governmental agency that funds more than two PSAPs. For example, the City of Tacoma not only funds LESA for primary PSAP 9-1-1 communication services, but also funds the Tacoma Fire Department for secondary PSAP 9-1-1 communication services. The same applies to any LESA participating municipality that also contributes funds to the Lakewood FireComm secondary PSAP. In these situations, the municipality is paying to handle the same call twice.

The total cost for funding two PSAPs is not trivial. For instance, when LESA's \$8.97 cost per call is added to Tacoma Fire's \$32.61 cost per call or Lakewood FireComm's \$23.19 cost per call, the total cost to the City of Tacoma for handling each call becomes \$41.58 per call or \$1,188,855 annually (28,592 total 9-1-1 fire/EMS calls transferred to TFD x \$41.48 per call). Similarly, the total cost for calls processed by both LESA and Lakewood FireComm is \$32.16 or \$1,270,127. Although Fire-EMS trained FTEs would need to be included on the staff of a fully consolidated operation, there would be significant savings in efficiencies gained not only through shared infrastructure, facilities, and equipment, but also through a reduced total staff of a combined organization.

This would be particularly true were the center to follow the prevailing national model of civilianizing all positions. For example, the City of Tacoma presently pays a total of approximately \$6.5 million to LESA for PSAP services and another approximate \$2.5 million to

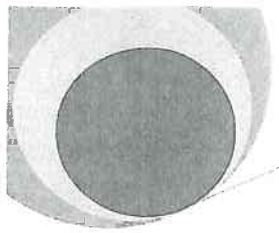
fund the Tacoma Fire PSAP for a total cost to the City of approximately \$9 million. By consolidating into a single PSAP throughout the County, the City could conservatively realize a savings of \$1.5 million (\$9 million total current PSAP costs less current \$6.5 million paid to LESA plus \$980,000 in estimated costs of adding 14 civilian FTEs equals a total budget of \$7.5 million).

This audit recommends against the co-location option currently being considered by LESA management and other PSAPs. Co-location gains no efficiencies in terms of personnel, administrative and other costs. Further, the costs of constructing a co-located facility for all police PSAPs, and another facility for fire PSAPs would significantly outweigh any other savings. Moreover, co-location would not solve the inherent transfer problem caused by the existence of so many PSAPs.

If there is no consolidation, in view of LESA's critical understaffing and significant overtime, this audit recommends that LESA should seek cost recovery for uncompensated services it provides. For example, 8.7% of all LESA CAD events were for fire/medical only. This means that of the 68,096 fire/EMS 9-1-1 calls received by LESA and transferred to a fire PSAP; 47,297 (69%) required a fire/EMS response, but no corresponding police response. These 47,297 calls represent actual work being done by a LESA call taker in response to a call. As with any call, there is a cost associated with that call. In 2007 dollars, LESA's total cost for handling fire and EMS calls where no police response was required was a minimum of \$425,152.00 (\$8.97 cost per call). At present, LESA's member police agencies are paying for these calls even though no police response was required. This is equivalent to at least six of the 10 call taker FTEs that LESA needs to reach recommended staffing levels

7. **LESA Management:** In December 2005, the LESA Executive Board chartered a new direction for LESA with the hiring of the current Director. The Director was given the specific charge to examine all aspects of LESA, to challenge the status quo, and to assure the Executive Board and the people of Pierce County that they were receiving the very best service at the lowest possible cost. Since that time, as exemplified by the Vision ONE strategic plan and the consequent commissioning of this performance audit, current LESA management has demonstrated a clear commitment to that charge. Throughout this audit, LESA management has facilitated and encouraged an open and transparent assessment of LESA's performance, and has demonstrated outstanding leadership in reshaping and reforming LESA into a high performance organization that models best practices in the emergency communications field. Their efforts have not gone unnoticed – even on the national level. The decision of the international Association of Public-Safety Communications Officials (APCO) to award the LESA Director its 2008 Director of the Year Award is a clear and independent recognition of the success of the LESA management team's groundbreaking efforts to charter a new course for a stagnant 34-year old organization. Just this month (March 2009), LESA received additional recognition for its innovative recruiting program in a

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feature article of the APCO Public Safety Communications journal.<sup>2</sup> Without exception, LESA's new management team, formed in 2006, faced long-standing and systemic problems having their roots in inadequate funding for personnel, equipment, and facilities over a long term. In turn, these led to low morale. As is common, low morale can also manifest itself in such symptoms as a lack of compliance with workplace rules and other disciplinary matters. At the outset of Vision ONE, LESA management established a high expectation for compliance with workplace rules, internally audited that compliance, and followed through with consequences when rules were not followed. Simultaneously, management demonstrated its concern for employees via one-on-one meetings with the director, employee town halls, all day retreats, the involvement of a workplace consultant, and a new incentive, recognition, and awards program. Over time these efforts have helped to overcome the initial friction with the enforcement of workplace rules, and management enjoys a largely positive relationship with represented employees.

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<sup>2</sup> See *Recruitment Overhaul: One Agency's Multidimensional Solution to Chronic Understaffing*, PUBLIC SAFETY COMMUNICATIONS, March 2009, pp. 28-32.