



OFFICE OF CITY CLERK

## PUBLIC SAFETY COMMITTEE

May 18, 2009

The Public Safety Committee of the City of Mesa met in the lower level meeting room of the Council Chambers, 57 East 1st Street, on May 18, 2009 at 3:30 p.m.

### COMMITTEE PRESENT

Dennis Kavanaugh, Chairman  
Dina Higgins  
Scott Somers

### COMMITTEE ABSENT

None

### STAFF PRESENT

Christopher Brady  
Alfred Smith  
Trisha Sorensen

#### 1. Items from citizens present.

There were no items from citizens present.

#### 2. Hear a presentation on the call volume impact on Mesa firefighters.

D. Vaughn Becker, Ph.D, an Applied Psychologist at ASU Polytechnic, introduced K.C. Blackwell, M.A., a Quantitative Psychologist, who was prepared to assist with the presentation.

Dr. Becker displayed a PowerPoint presentation (A copy is available for review in the City Clerk's Office) and provided an extensive overview of a study he conducted entitled "Public Safety Worker Fatigue," the primary focus of which was cognitive fatigue in Mesa firefighters.

Dr. Becker reported that TriData, a nationally recognized consulting firm, conducted over 150 studies of various fire departments and determined that call volumes in excess of 3,000 calls per year per apparatus is excessive. He explained that in addition to the problems that the excessive call volume poses with regard to time and availability, it also leads to the crew members experiencing fatigue. Dr. Becker added that there is a direct correlation between the number of responses and physical fatigue.

Dr. Becker highlighted TriData's breakdown of fire apparatus annual responses into various categories (i.e., very low – less than 500 responses/year, up to extremely high – more than 4,000 responses/year). He also reviewed documents illustrating the Mesa Fire Department's 2005 Call Volume, a comparison of call volumes in various communities throughout the country and a similar comparison in the East Valley. (See Attachments 1, 2 and 3)

Dr. Becker advised that as a result of the data collected by TriData, it was apparent that the City of Mesa needs to achieve a better ratio of firefighters to incidents. He explained that the goal of his study was to describe cognitive fatigue in firefighters as a function of call volume on a specific shift and also explore sleep quality and the presence/absence of a safety nap. Dr. Becker stated that cognitive fatigue is defined as an increase in the tendency to make errors and the speed with which decisions can be reached.

Dr. Becker indicated that in Phase 1 of his study, Mesa firefighters were asked to participate in a Web-based assessment and respond to a set of potential explanatory variables, including questions regarding their stress and call volume for the shift. He stated that the participants were then guided through a series of cognitive tasks including a location memory task and rapidly searching an array of objects for a target object. Dr. Becker noted that 367 firefighters completed the sessions, 56 participated in at least one session, and every Mesa fire station was involved in the process.

Discussion ensued relative to the fact that the data obtained during the Phase 1 assessment revealed a steady increase in time for firefighters to make decisions as the number of calls increased; that after 10 calls, firefighters were 1/5th of a second slower in the task they performed the best, but there was no decline in accuracy; that based on the above-referenced results, Dr. Becker concluded that the firefighters recognize when they are fatigued and slow down to maintain accuracy; that preliminary evidence demonstrated that a safety nap appears to improve both speed and accuracy when call volumes are high; and that increasing call volumes are significantly associated with increased subjective stress, however, once the safety nap and the quality of sleep are factored into the model, the number of calls is no longer a significant predictor.

Dr. Becker offered a short synopsis of the conclusions of Phase 1 as follows:

- Higher call volumes slow decision making, but firefighters maintain accuracy.
- Firefighters show far less cognitive slowing than a college student comparison group.
- Firefighters appear to be willing to take on stress in order to maintain high performance.
- There is a suggestion that safety naps offset this decline.

Dr. Becker further reported that Phase 2 of the study was designed to extend the above-referenced findings to other job-relevant tasks and investigate the consequences of subjective stress. He explained that computers from his lab at ASU Polytechnic were installed at six Mesa fire stations so that the computers could be dedicated to the tasks. Dr. Becker noted that the new tasks assessed the speed of scanning a mental inventory, as well as memory for the location of occupants in a building.

Dr. Becker briefly summarized the conclusions of Phase 2 as follows:

- Firefighters show great resistance to cognitive fatigue unless call volumes exceed 12 per shift.
- A safety nap and good sleep quality can offset such fatigue.
- At the busiest stations, there is no way to guarantee a safety nap and high quality sleep.
- The consequences of delayed decision time and decreased accuracy could have a high social and human cost and should be addressed as soon as possible.

Dr. Becker concluded his presentation by stating that based on his study, he would recommend that the City of Mesa endeavor to achieve a better ratio of firefighters to call volume. He explained that once the study is published, he would be happy to provide the City with the data so that it could be used in the form of a public service announcement to apprise Mesa residents of this important issue. Dr. Becker further noted that Mesa firefighters' current 24 hour (Kelly) shift is the more effective shift and recommended that it not be modified. He also noted that Mesa's four-person crews allow the team to compensate for one another's fatigue. Dr. Becker further recommended that the City increase the number of apparatus and personnel to match comparison cities and keep call volumes per shift at 12 or less.

Additional discussion ensued relative to the fact that it would be necessary to garner additional statistical data to establish a correlation between increased cognitive fatigue and the intensity of the calls to which firefighters respond.

Chairman Kavanaugh thanked Dr. Becker for his presentation and commented that the information "brings home in a very graphic way" the limit to which the Mesa Fire Department is impacted in terms of its high call volume and the number of fire stations that currently exist. He said that Dr. Becker's study contains critical information that should be shared with the Council and the City. He also encouraged the Fire Department to continue its partnership with ASU Polytechnic as Dr. Becker continues to evaluate the impact of cognitive fatigue on Mesa firefighters.

Committeemember Higgins suggested that it might be appropriate for Dr. Becker to present his findings to the full Council at a future Study Session.

Chairman Kavanaugh stated that because the Study Sessions are televised on Mesa Channel 11, Mesa residents would also have the opportunity to hear the presentation.

Dr. Becker said that he would be happy to make a future presentation to the full Council.

Chairman Kavanaugh further suggested that the Public Safety Committee maintain oversight of this issue.

Chairman Kavanaugh thanked Dr. Becker for the presentation.

3. Hear an update on Regional Ambulance Services.

Fire Chief Harry Beck stated that staff previously presented this issue to the Public Safety Committee and explained that the Fire Department has obtained additional information which it would like to share with the Committee at this time.

Assistant Fire Chief Mary Cameli displayed a PowerPoint presentation (A copy is available for review in the City Clerk's Office) and advised that the purpose of today's presentation is to review the development of a regional transportation contract which would be utilized by Mesa, Apache Junction, Gilbert and Queen Creek. She reported that between 1976 and 1989, ambulance companies rotated calls in Mesa; that from 1990 to the present, the City utilized a sole provider system; and that in 2009, a regional emergency transportation system concept was proposed.

Chief Cameli noted that the Council recently developed a series of Strategic Initiatives, including regional leadership. She cited an example of the Fire Department's efforts with regard to regional leadership as it relates to the TOPAZ (Trunked Open Arizona Network) Regional Wireless Cooperative, which has improved the capability of first responders to protect and serve and is a single system utilized by several agencies.

Chief Cameli briefly highlighted a series of advantages of Regional Transportation Services including, but not limited to, the following:

- Improve patient care for the East Valley.
- Continuity of medical care.
- The closest unit would reduce response times.
- Common equipment on every ambulance (i.e., Automatic Vehicle Locator (AVL) system on all units).
- Consistent with Automatic Aid System.
- Seamless communication and build upon an existing regional EMS system.
- Strengthen future service with transportation providers and enter into an Intergovernmental Agreement (IGA) Cooperative with the regional partners of Apache Junction, Gilbert, Queen Creek and Mesa.

Discussion ensued relative to the fact that Southwest Ambulance currently has contracts with Apache Junction and Gilbert; that Southwest Ambulance has elected to provide service to Queen Creek, but not enter into a contract with the community; the fact that Southwest Ambulance does not have a dedicated unit in the area; that Rural Metro provides fire protection and EMS to Johnson Ranch; that response times for ambulances in the vicinity of Mountain and Elliot Roads are problematic due to limited resources; and that it is anticipated that the proposed regional emergency transportation service contract would remedy that situation and minimize the duplication of resources to serve multiple communities.

Committeemember Somers commented that with the implementation of a regional transportation service, potentially there would be enough demand to utilize one ambulance in the area of Mountain and Elliot Roads in Mesa, as well as the adjacent areas of Queen Creek and Apache Junction. He also suggested that it might be appropriate for Mesa to monitor the ambulance company that is serving the County.

Further discussion ensued relative to the "Certificate of Needs" system; and the fact that the Mesa Fire Department is working with its regional partners to determine the appropriate staffing level for each ambulance.

In response to a question from Chairman Kavanaugh, Chief Beck clarified that Mesa has been working closely with its partners on the development of a regional transportation contract. He added that it is "a major part" of the services that are provided in the East Valley and added that he would anticipate that Mesa would "see a reward for years to come" as a result of the improved service delivery levels.

Chairman Kavanaugh thanked staff for moving forward on this item.

4. Hear a presentation, discuss and make a recommendation on the Noise Ordinance.

Chairman Kavanaugh acknowledged Vice Mayor Jones for his efforts, hard work and persistence with regard to the adoption of the current City of Mesa Noise Ordinance.

Police Staff Attorney Nancy Sorensen introduced Assistant Police Chief Mike Denney and Police Commander Steven Stahl, who were prepared to address the Committee relative to this agenda item.

Ms. Sorensen reported that staff is requesting that the Committee consider amending the City of Mesa's current Noise Ordinance and adding another section to the Code. She explained that such amendments would provide the following: 1.) Greater clarification for citizens regarding acceptable standards of noise in the community; 2.) A more effective and immediate enforcement tool for police officers in responding to such complaints; and 3.) An increased level of safety and security for citizens in the community.

Ms. Sorensen displayed a PowerPoint presentation (A copy is available for review in the City Clerk's Office) and advised that Mesa currently has an Excessive Noise Ordinance, which relies on decibel readings. She explained that under the proposed ordinance, the decibel readings would be eliminated because that portion of the Code is not used and there are only four decibel readers throughout the entire City.

Ms. Sorensen briefly highlighted the key components of the proposed ordinance as follows:

- It would be similar to the City's current Code provisions.
- By eliminating the decibel readings, the ordinance would provide for more effective enforcement.
- There are two levels of responsibility: The person making the disturbance, and the owner/agent of the property.
- There are two levels of exemptions. A general exemption is automatic. (Note: General exemptions are for day-to-day activities such as governmental operations, construction noise.) A temporary exemption, which is the equivalent of a Special Event permit, must be in writing and approved by the City Manager.
- A violation of the ordinance is a civil infraction with a graduated fine schedule and cost recovery. A violation of the current ordinance is punishable as a misdemeanor, which is punishable by jail and/or a fine.

Ms. Sorensen further reported that staff is also requesting the introduction of a new section to the Noise Ordinance to address unruly gatherings. She explained that the Unruly Gatherings Ordinance would apply to gatherings of five or more people that disturb the peace and quiet of the neighborhood or any person. Ms. Sorensen commented that the proposed ordinance would provide the police an immediate enforcement tool to abate an unruly gathering by issuing an order of dispersal and/or arresting violators for violations under State law or local ordinance. She also noted that the ordinance would provide for a graduated fine and cost recovery of the civil infraction. Ms. Sorensen added that the ordinance would provide two enforcement levels, including not only the individuals causing the unruly gathering, but also the owner and/or agent of the property.

Discussion ensued relative to the fact that the proposed ordinance would remove the exemption for churches (church music) currently contained in the existing Noise Ordinance; and that if a church congregation intended to hold, for example, a Christmas event, it would be necessary for the organization to apply for a Special Event permit (temporary exemption) and request a specific date and period of time when the event would take place.

In response to a question from Chairman Kavanaugh, Commander Stahl explained that if a Special Event permit were issued for a particular event, the local beat officers would be apprised of the terms of such permit by their Police Supervisor. He also noted that the Police Supervisors typically review the times and dates of the Special Event permits and seek further clarification concerning the events whenever necessary.

Chairman Kavanaugh commented that he would like to ensure that a local beat officer responding to a noise complaint does not become involved in "a miscommunication situation." He cited, by way of example, R.T. O'Sullivan obtaining a Special Event permit for a St. Patrick's Day celebration, but being accused of violating the permit.

In response to a question from Committeemember Higgins regarding the ability of an entity to apply for a Special Event permit to play music outdoors, for example, from 6:00 p.m. to midnight, Chief Denney stated that it would be at the discretion of the City Manager to determine whether it was reasonable for music to be played during that period of time.

City Manager Christopher Brady also commented that it would be necessary for him to consider Special Event permits requesting the playing of music outdoors at events that extend beyond what is reasonable and would interfere with the peace and quiet of the surrounding neighborhood. He added that he would prefer that such activity occur between the hours of 6:00 p.m. and 10:00 p.m.

Committeemember Higgins posed a scenario regarding a small community church, which is currently located in an industrial complex and adjacent to a residential neighborhood, holding a Sunday service at 10:00 a.m. and playing church music. She inquired whether, per the proposed ordinance, it would be necessary for the facility to close if the City received complaints from the surrounding neighbors regarding the music which, in their opinion, was loud and objectionable.

Ms. Sorensen responded that in the State of Arizona, "disturbing the peace and good quiet of the neighborhood" is an objective standard and one that is defined by the community. She stated that in her opinion, a 10:00 a.m. Sunday church service is not an event that a Court would find unreasonable.

Committeemember Somers noted that with regard to Committeemember Higgins' scenario, there would be a certain degree of subjectivity associated with the decision-making process of the police officer responding to the noise complaint and whether the noise level was reasonable or not.

Chief Denney said that it is important to remember that one individual within a community does not set the reasonableness standard.

Further discussion ensued relative to the training of Mesa's police officers to ensure the proper execution of the proposed ordinance; the fact that the current Noise Ordinance was enacted as a means to address small groups in residential areas that were disturbing the quiet enjoyment of others; and that there may be a difference between "a reasonable standard" in a residential neighborhood as compared to an industrial, highly commercialized area.

Committeemember Higgins reiterated her previous concerns regarding the elimination of the church exemption in the proposed ordinance. She expressed concern that "the City would look like it is targeting smaller churches located in non-traditional locations such as strip malls and industrial parks."

Chief Denney advised that the City would hold churches "to the same standard of reasonableness as everyone else" and added that the Police Department would expect its officers to use their common sense in responding to noise complaints.

Committeemember Somers referenced the Excessive Noise Ordinance, Section 2, "General exemptions" (6): "Also, a person may engage in such activities (i.e., construction, repair, remodeling) at that person's residence between sunrise and 8:00 p.m. on Saturdays, Sundays or legal holidays." He stated that he would like to discuss with the full Council the suggestion of extending the time to 10:00 p.m. Committeemember Somers also expressed concern regarding the impact of the proposed ordinance on certain Mesa businesses and requested that the Economic Development Department and the Mesa Chamber of Commerce research whether there would be "any unintended consequences" to various retailers in this regard.

Additional discussion ensued relative to the prohibited noise standard; the fact that the proposed ordinance is modeled after a Tucson noise ordinance and is consistent with noise ordinances in other East Valley communities; and that it is reasonable that children at a day care center would scream and yell and that such activities would not result in the facility being cited for a noise complaint.

Committeemember Higgins voiced concern regarding Section 1, Item 4 of the proposed ordinance: "Allowing or causing any shouting, yelling, screaming or any other form of raucous vocalization by a person or group of people." She questioned why the City would "call out" shouting and yelling and perhaps create an issue that did not exist before.

Chief Denney responded that if there is a provision in the proposed ordinance that is problematic to the Council, they have the ability to amend the language in any manner that they choose.

Ms. Sorensen clarified that the "shouting, yelling, screaming" language, which is contained in the Tucson noise ordinance, was originally included in her initial draft, deleted and then added back into the proposal. She explained that certain special events at the City have been disruptive, which is the reason for including such language in the proposed ordinance.

Committeemember Somers stated that the possible modifications to the proposed ordinance that he and Committeemember Higgins suggested could be presented to the full Council when they consider this item.

It was moved by Committeemember Somers, seconded by Committeemember Higgins, that the proposed Noise Ordinance be forwarded on to the full Council (at a future Study Session) for review and consideration.

Carried unanimously.

Chairman Kavanaugh thanked everyone for the presentation.

5. Adjournment.

Without objection, the Public Safety Committee meeting adjourned at 4:34 p.m.

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Public Safety Committee meeting of the City of Mesa, Arizona, held on the 18<sup>th</sup> day of May 2009. I further certify that the meeting was duly called and held and that a quorum was present.

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LINDA CROCKER, CITY CLERK

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(attachments – 3)