

*new regional
dispatch
center*

*J+A
Sheriff +
Dispatch*

**REGIONAL DISPATCH RESEARCH COMMITTEE
STRAFFORD COUNTY, NEW HAMPSHIRE**

**PRELIMINARY REPORT
FOR THE
COUNTY COMMISSIONERS
April 2009**

Introduction

The Regional Dispatch Research Committee, established in early 2008, was assigned the mission of determining the “feasibility of expanding the Strafford County Dispatch Center to include dispatching for the cities within the County.” The Committee includes: representing Dover, Captain Michael W. Raiche; representing Rochester, Deputy Police Chief Michael Allen and Assistant Fire Richard Giguere; representing the Sheriff’s Office, Captains Lee Clement¹ and Joseph S. DiGregorio; and representing the County Commissioners, Chief (ret) Charles D. Reynolds. Parks L. Christenbury III provides continuing technical assistance. The City of Somersworth declined to participate, but provided requested statistical information.

During the past several months, the Committee gathered and analyzed statistical data, met with and obtained preliminary needs and cost information from radio communications providers, and reviewed present practices, probable changes, expected benefits and challenges. As your representative, and on behalf of the Committee, I am pleased to present this preliminary report.

Overview

The Committee has gathered and reviewed considerable statistical, technical, operational, and related information as indicated above. The conclusion is clear—the establishment of a regional center to provide communications and related services to “the cities” as well as to other public safety entities within Strafford County is technically feasible. In addition, a properly designed and equipped regional center that is adequately staffed with properly trained personnel can provide a cost-effective and highly professional level of existing and expanded services.

Nonetheless, there are and will be those who doubt the feasibility of such a venture for a variety of reasons; however neither cost-effectiveness or service quality are legitimately among them. Also, initial start-up costs may appear to mitigate expected cost savings, but even the most rudimentary analysis of long-term costs should address these concerns.

It is also recognized that the transfer of local dispatching responsibilities to a regional center will require the cities to adjust (perhaps significantly) internal operations presently dependent on in-house dispatch personnel and to address both real and perceived issues.² These changes will pose challenges for the most skilled administrators, however such issues have been faced and overcome by many who have relinquished their in-house dispatching services in order to achieve the benefits of better interagency interoperability, increased technical capability, and a more broadly based informational system.

¹ Captain Clement retired in February 2009.

² The City of Somersworth has indicated no present interest in a regional approach to dispatching, therefore this reference relates to Dover and Rochester, but would apply in varying degrees to any public safety entity making the transition.

Demographics and Statistical Background

Strafford County consists of 13 municipalities, with a combined population of 122,504,³ which is approximately the size of Manchester or a small city by national standards. Four fully staffed and equipped dispatch centers provide public safety dispatching in the county.⁴ These centers are staffed with 35 full-time and four part-time staff.⁵ The total cost for staffing and operating the four centers is \$2,347,619⁶ or \$19.16 per capita. When excluding Somersworth from the calculations, the total dispatching costs stand at \$2,107,483 or \$19.06 per capita.

The Strafford County Dispatch Center (SCDC) provides police dispatch services for the 10 towns serving a population of 51,060 at a cost of \$750,777 or \$14.70 per capita. It also provides fire and emergency medical services (EMS) dispatch services for three of these towns.⁷ Dover and Rochester provide police, fire and EMS dispatch services for their respective populations totaling 59,526 at a cost of \$1,356,706 or \$22.79 per capita collectively. Somersworth provides dispatch services for its public safety personnel who serve its population of 11,918 at a cost of \$240,136 or \$20.14 per capita. (Illustrated in the below table)

COUNTY WIDE DISPATCHING COSTS PERCENTAGE AND PER CAPITA					
Dispatch Center	Population Served	%	Total Cost	%	Cost Per Capita
County	51,060	41.7	750,777	32.0	14.70
Dover	28,703	23.4	667,085	28.4	23.24
Rochester	30,823	25.2	689,621	29.4	22.37
Somersworth	11,918	09.7	240,136	10.2	20.14
Total	122,504	100	\$2,347,619	100	20.15 ⁸

³ New Hampshire Department of Energy and Planning, estimated 2007 population, published June 2008.

⁴ This includes the Strafford County Dispatch Center and the Dispatch Centers in the cities of Dover, Rochester and Somersworth. Not included is the University of New Hampshire public safety dispatch center that provides dispatch services for the UNH Police, Security, and Facility & Grounds/Roads Departments; the Lee and Barrington Fire Departments; and Durham, Lee, Madbury and Barrington Emergency Medical Services. The UNH Dispatch Center is staffed with seven full-time and three part-time dispatchers. The annual budget for staff and support expenses is just over \$535,906. UNH Staff indicate no present interest in joining a regional approach to communications services due to the uniqueness of its 16,000 student service community (7000 residing on campus). However, the interoperability and other benefits of a regional approach are applicable to them and to the municipal public safety agencies presently served by the UNH Center; therefore could serve as future encouragement to enter into the more broadly based regional approach being discussed here.

⁵ The Strafford County, Dover and Rochester Dispatch Centers are staffed with non-sworn professionals. Somersworth assigns sworn officers to dispatch duties.

⁶ Some costs for dispatch center supplies, utilities, cleaning, maintenance, and repairs are not always separate and identifiable from other department operational costs; therefore in some instances these costs may not be all inclusive.

⁷ The Dispatch Center provides fire dispatching for Durham, Farmington and Middleton, and EMS dispatching for Farmington and Middleton.

⁸ Average of the total.

Operational and Technical Issues and Findings

Technology

With the ever-changing technology, it is becoming increasingly difficult for individual departments to keep pace, stay current, and operate within a rapidly evolving technology. A regional approach to public safety dispatching is a cost effective way of providing up to date technology for the entire county without costly duplication of radio communications, global positioning, and management information systems.

Radio Spectrum

The federal government is advocating the moving of public safety agency communications to the 700 MHZ radio spectrum with the objective of facilitating state and even national interoperability. The establishment of a regional dispatch center would be a significant first step to positioning participating agencies for potential grant funding to move to this system, which will in all probability become mandatory in the future and for good reason. A critical analysis of almost any major disaster or event will find the lack of interoperability a problem with regard to the initial deployment of resources and/or incident command capability. A regional communications center could be a major step in alleviating this ongoing impediment to effective emergency response and management.

With regard to the above comments, there are a number of fire and rescue departments within Strafford County being dispatched by agencies other than their local police agencies and some even by agencies located outside of the County.⁹ While these agencies express satisfaction with the present system and presently have no interest in a regional approach to public safety dispatching, this fragmentation of dispatching detracts from the notion of interoperability and a unified command structure, and makes future migration to 700 MHZ interoperable communications extremely difficult. Nevertheless, the expanded capability of a regional center would be a step forward and it would provide future opportunities for these agencies to take advantage of these benefits in the future.

Global Positioning Systems

The use of global positioning systems (GPS) to direct and monitor public safety vehicles is becoming increasingly important to the effective dispatching and deployment of personnel and to officer safety, especially within Strafford County where a single police officer may be on patrol in a given jurisdiction. GPS facilitates the monitoring of the location of patrol units and thereby allows the dispatching of the closest units to assist other officers, which enhances officer safety as well as the effectiveness of the police

⁹ The Rollinsford Fire Department is dispatched by the Dover Dispatch Center; the Barrington Fire Department is dispatched by UNH Dispatch; the New Durham and Strafford Fire Departments are dispatched by the Lakes Region Dispatch Center in Laconia; and the Milton Fire Department is dispatched by the Carroll County Dispatch Center in Ossipee.

response to serious incidents. In addition, while early focus on the roll out of GPS technology is and has been focused on police purposes, the same benefits of vehicle tracking and accountability easily apply to both fire and rescue units. However, even though GPS have become more affordable, it is not realistic to expect the purchase of multiple systems for a population of 122M. Clearly, a single, broadly based system integrated into a regional network is the practical option.

Management Information Systems

The more sharing of information, the better law enforcement. More specifically, the better the officer on patrol can perform and the safer he or she will be when access to pertinent, accurate database information is readily available. For example, wanted individuals do not restrict their movements to the community holding the outstanding warrant nor do violent criminals restrict their movements to the community in which they reside. An expanded database, accessible to every agency, and more particularly to every police officer on patrol, will enhance the capabilities and safety of all. Warrants on individuals in one community will be instantly available to the expanded community, and the propensity to violence of an individual stopped by an officer of any department can be instantly available.

With that said, it must be recognized that there are variances in management information system procedures and processes among the various public safety agencies within the county. The cities have each designed systems to address their individual needs, which differ in some respects from each other, and from the county system. These variances will require reconciliation by the parties so as to establish a consistent, uniform set of procedures that include the best of the present systems.

Similarly, the fire and rescue agencies within the County use a variety of computer assisted dispatching (CAD) and fire reporting databases. This makes instantaneous sharing of vital data during mutual aid situations difficult and time consuming. The implementation of a standard management information system that incorporates run card data will allow regional dispatch to allocate emergency assets during a mutual aid scenario in an expeditious, effective, and error free manner.

Challenges-Decisions

Operations

Both Dover and Rochester depend upon dispatch personnel to perform tasks outside of their specific dispatching duties. These tasks can and often are assigned dispatchers simply because it makes good use of time when there is limited dispatching activity.

One of these tasks is the reception of people entering the police facility to make a complaint, pay a parking ticket or for an array of other reasons. Clearly, the performance of these tasks must be redistributed. The handling of citizen interactions during non-business hours when administrative personnel are not available poses a special challenge,

but one that can be overcome. One possible way to address this dilemma is to equip police station lobby areas with audio and video communications linked to the central dispatch center. This allows citizens the ability to receive the services of a police officer by requesting it via telecommunications with the central dispatcher rather than the in-person station dispatcher. A similar system is now being implemented in the several State Police Troop Stations. However, simple though this may sound, this change in procedure (de-staffing) is symbolically significant and the potential internal impact cannot be easily dismissed.

Another issue is the in-house monitoring of private alarm systems. Most police departments have moved away from the responsibility and liability of monitoring these private alarms while retaining the necessary ability to monitor their own municipal/county agencies such as in Stafford Dispatch. Migration to the regional dispatch center may well require the discontinuance of private alarm systems monitoring.

There are a host of other issues, each less significant in nature, but collectively important that will require change in internal operating procedure not only for the police departments, but also to a lesser degree for the fire departments. The extent to which these changes can be accommodated to either produce or mitigate cost effectiveness clearly rests with the individual agencies.

Organizational Structure

Of considerable concern to the cities and others is the present and expected level and quality of service. Both Dover and Rochester provide highly professional dispatching services for their administrative staffs, officers in the field and the fire departments. They need assurances; a guarantee that the loss of direct control will not result in a lessened level of dispatch quality and capability. They need assurances that the regional center will be professionally supervised and adequately staffed with well-qualified and trained personnel. And finally, the organizational structure must be such to assure quality through accountability and responsiveness. The present sentiment generally appears to favor a stand-alone agency, responsible to the county commissioners, but with an advisory board comprised of users. The details must be discussed and agreed upon by the parties.

Facility

The present SCDC is insufficient to accommodate further expansion of dispatching capability in an effective way. Simply put, it is barely adequate even for existing requirements. The establishment of a regional dispatch center will require sufficient space for present needs as well as for future expansion, which will inevitably result as public safety requirements increase and the value of the center becomes widely recognized by non-participating public safety agencies, and perhaps others. Ideally, the center should be located in a stand-alone building in close proximity to the County Administration Building or in the alternative, within a county building that meets the above requirements for future expansion.

Secondary/Alternate Facility

It goes without saying that there is a need for redundancy, a secondary, backup dispatch center, particularly if dispatching for several agencies is combined or regionalized. Without redundancy, one major event can paralyze public safety responses in a widespread area. With that said, the present Rochester dispatch center appears to be the logical choice for back-up, of course with approval of Rochester authorities. It is the newest center and for the most part, adequately equipped. The alternate center (whether Rochester or elsewhere) should be considered and maintained as an integral part of the regional system.

Estimated Costs

General

The committee met with and received information and estimated costs from 2-Way Communications, Inc. and Information Management Corporation, Inc. (IMC). 2-Way Communications, Inc. presently provides radio equipment and service to the county, Dover and Rochester. IMC is the provider of the present County and Rochester management information systems. Dover is presently considering a change to the IMC system. IMC also provides systems to other New Hampshire and Maine agencies, which will allow access to an even more broadly based database and increased effectiveness of public safety agencies in the future.

Facility

As indicated above, the space presently allocated for the County Dispatch Center is insufficient for the expansion of dispatching services. The expansion of present county dispatching capabilities to initially accommodate Dover and/or Rochester, and in the future the various other public safety agencies being otherwise dispatched, will clearly require additional space. The preference is for a properly designed, stand-alone building of sufficient size for present and for anticipated future expansion. The more practical location for the facility is in close proximity to the County Administrative Building. There is no estimated cost available at this time.

Radio Communications System

The estimated cost to upgrade the present SCDC equipment to accommodate a regional operation is approximately \$700,000.¹⁰ This replaces the present Motorola Gold-Elite Console with a new MCC5500 System. This is important since the present Gold Elite System is reaching its “end of life status.” The present Gold-Elite System is no longer in production and the availability of replacement parts will be reduced to “stock on hand” over the next five years.

¹⁰ Estimate provided by 2-Way Communications Service, dated 12-10-8 also includes an additional radio and antenna network, added microwave connectivity and related furniture.

Management Information System

The estimated cost to upgrade the present information management system to accommodate Dover and Rochester police and fire needs and the County is \$380,755.¹¹ This includes software, equipment and license fees for Strafford County, software upgrades, equipment and license fees for Rochester, and software, equipment, records changeover, personnel training, and license fees for Dover. One of the more significant costs is \$147,115 for a complete changeover for Dover.

Global Positioning System (GPS)

The estimated cost to implement GPS for the entire county is a two-part equation. First, the cost to appropriately equip a vehicle is estimated to be \$300-\$500.00 depending upon the number of units purchased and other factors. Although each community must make its own decision on whether to purchase and equip their public safety vehicles with GPS capability, a joint collective purchase would clearly produce a pricing advantage. Of note is the fact that some agencies already deploy most of the necessary receiving equipment within their laptop equipped emergency vehicles, which further minimizes the local cost to acquire this capability. The second part of the equation is the purchase of the server and software package (with backup) capable of servicing the entire county. The cost of this component is estimated to be \$50,000 at the upper end, dependent upon the capabilities selected.

Staffing

The three dispatch centers¹² under discussion are staffed with 31 full-time and three part-time staff at a total cost \$1,958,380¹³ or \$17.71 per capita.¹⁴ The merging of the centers into a single regional center would undoubtedly be less costly, but a more detailed analysis of activity and staffing data will be required to determine precise costs and savings. However, the information available does provide some broad parameters for discussion. Based upon anecdotal data and population, it is estimated that a staff of 22-28 may be required. The average salary and benefits for dispatchers among the three centers range from a low of \$53,795 to a high of \$74,252. Therefore, the cost of staffing a regional center could range from \$1,183,490 to \$2,079,056. The below table illustrates *some* of the possible staffing options and estimated costs.¹⁵

¹¹ Estimate provided by Information Management Corporation, Inc. (IMC), dated 2-14-09.

¹² For the purposes of this review, the County, Rochester, and Dover Dispatch Centers are included. Somersworth has indicated no interest in participating in a regional dispatch approach at this time.

¹³ This is the staffing cost for the three centers exclusive of operational expenses.

¹⁴ Based on the population of 110,586, which excludes the 11,918 population of Somersworth.

¹⁵ Salary figures are rounded to the nearest dollar, which may result in slight variances between salary and per capita cost calculations.

Salary	Staffing	Total Salaries	Per Capita	Change	Change \$\$
Present Rates	31FT/3PT	1,958,380	17.71	17.71	-0-
\$53,795	22	1,183,490	10.70	-7.01	-774,890
	25	1,344,875	12.16	-5.55	-613,505
	28	1,506,260	13.62	-4.09	-452,120
\$64,023¹⁶	22	1,408,506	12.74	-4.97	-549,874
	25	1,600,575	14.47	-3.24	-357,805
	28	1,792,644	16.21	-1.50	-165,736
\$74,252	22	1,633,544	14.77	-2.94	-324,836
	25	1,856,300	16.79	-.92	-102,080
	28	2,079,056	18.80	+1.09	+120,676

Summary

I believe the above report reflects the information gained to date. Clearly, there are fiscal and operational advantages in a regional approach to public safety dispatching. For example a complete integration could result in improved technology at a lesser cost to the cities and increased interoperability. In addition, overall staffing requirements would not be as great, however the extent of any reduction in staffing costs would be dependent upon the manner in which several challenges discussed earlier in this report can be resolved to the satisfaction of the parties.

In order to progress onward, I believe it important that the parties make a preliminary determination to do so and in addition, provide further direction, objectives and time lines. I and other Committee members stand ready to meet with you to discuss this report and/or future options at your request.

For the Committee:



¹⁶ Average of the above and below staffing costs.