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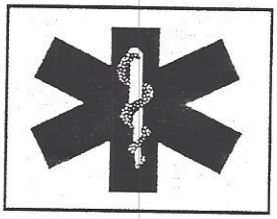
FITCH & ASSOCIATES INCORPORATED

# CONSULTANT REPORT



# PORT CHESTER, RYE, RYE BROOK VOLUNTEER AMBULANCE REPORT

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# I
# INTRODUCTION

## Project Overview and Methodology

Port Chester, Rye, Rye Brook Volunteer Ambulance Corps ("The Corps") retained Fitch & Associates Inc., to develop an understanding of the organization's readiness to provide expanded coverage. The consultants were also asked to identify community issues regarding expanded service by the Corps, and suggest a business/organizational structure to address those issues.

Data for this report was gathered through a number of sources and by a variety of methods. These included: review of background and detailed supporting documents provided by the Corps; analysis of contracts, budgets and related materials provided by community representatives; interviews with members of the Corps' board of directors and members, local officials, elected representatives, and police representatives from each community. In addition, system medical advisors at United Hospital were contacted and patient care interactions were observed.

On-site research was conducted in February, March, and May to accomplish the study. The consultants are appreciative of the support and assistance provided by the communities' staff and other entities informally involved in this process.

## System Overview

The three communities are adjacent in a 10-15 square mile area of Northeast Westchester County, New York. The service area's population is estimated to be slightly less than 50,000 persons. Call volume approximates 1500 assignments per year.

The system can best be described as a "transporting, emergency-only system" by EMS industry standards, although both the Corps and the private service will handle non-emergency assignments upon request.

Service delivery is fragmented. Currently, a commercial for-profit ambulance service located in White Plains, places a unit in the community between 6AM and 6PM weekdays. The local volunteer ambulance Corps provides service 6PM-6AM weekdays and 24 hours per day, weekends and holidays. The initial ambulance response is provided at the paramedic level with back-up ambulances available at the BLS level.

Medical Direction for both services is provided informally by emergency department physician staff at United Hospital which is located in the service area. The system operates in accordance with statutory and regulatory guidelines of the State of New York and Westchester County.

The system is supported by donations to the volunteer ambulance Corps, municipal general funds, and fees charged to those who actually use the service. The general fund subsidy cost to the three communities approximates $270,000 per year.

# II
# OBSERVATIONS

This section of the report describes clinical, operational, financial, performances of the system and the Corps. Some comments may appear overly critical. These refer to system issues and the manner in which the system developed and evolved, rather than as criticisms of individual agencies or the communities.

## Clinical

Medical Direction and Control—

The Corps provides clinical care in accordance with the standards of the State of New York and provides ALS services under the auspices of the Westchester County Medical Advisory Committee. The Corps' Medical Director, David Barrish, MD reported that the Corps. provides "excellent levels of care." Review of ALS assignments is provided monthly by the medical director. Dr. Barrish indicated that the Corps has been "fully responsive" addressing the clinical matters which arise in the normal course of providing EMS service.

Level of Care—

Corps units are staffed by one medic and at least one volunteer EMT. Units often have more than one EMT or other volunteer member on-board. The medics employed by the Corps are experienced personnel from the local area. Several are also employed by other ambulance services, corps, or police departments. There are currently eight medics which are volunteer members or employed by the Corps. The Corps require and provide on-going training for its personnel at both ALS and BLS levels.

Quality Improvement—

Despite the lack of clinical concerns, the external *systemic* quality improvement function should be expanded and feedback mechanisms formalized. QI processes should include a random sampling of all patient care requests. Quality assessments should encompass all aspects of the assignment: caller access and reception, first responder actions, ALS and BLS activities, and emergency department treatment. The current system is dependent upon a complaint, or significant procedural variance to initiate a review. Sophisticated EMS systems routinely measure performance on a variety of dimensions.

**Operations**

Adequacy of personnel—

The Corps has over fifty active members on the chief's list available for assignment. Other members serve in administrative and support capacities for the Corps but do not respond to assignments. Among the active members, eight are either certified as paramedics or critical care technicians and 32 are certified as emergency medical technicians. During the Corps' duty hours, assigned crews are in the Corps building to staff the first-out unit. The second unit is either staffed from additional crew members in-house or from crew members paged from home to respond.

Efforts have been made in recent years to increase the number of volunteers. Basic EMT classes are now available through the Corps to community residents. Although these efforts have been successful, the Corps should be encouraged to meet pre-defined membership targets in future years to ensure an adequate pool of volunteers.

Vehicles and Equipment—

The Corps has three operational ambulances. Two of the three are less than three years old. The reserve ambulance is eight years old. None of the vehicles has been driven more than thirty thousand miles. All are well maintained and are stocked in accordance with New York State guidelines. The Corps anticipates replacing the oldest vehicle in the upcoming year. The consultants recommend the Corps maintain the 1985

vehicle as a "last out" reserve/community education vehicle. This would bring the Corps' total ambulance fleet to four vehicles.

**Communications**

Calls for medical assistance are received by municipal 9-1-1 systems and are processed for dispatch by local police departments. The Corps provides a seven digit number which is answered at Corps headquarters nights and weekends. Emergency calls received during daytime hours are referred to police dispatchers. The consultants recommend that communications services be consolidated and handled by one of the three communities' police departments to facilitate improved data collections. Communications hardware and radio coverage is adequate.

Response times—

Response times for the Corps are reported to average less than five minutes. Police agencies interviewed indicated that both the Corps and the contract provider's "first-out" response times were adequate. Weekday response times for the second ambulance however, are reported as problematic. The second daytime ambulance is based in White Plains and responds on an as-available basis. In several recent instances other mutual aid resources have had to be utilized during weekday hours resulting in a response time delay of from 10 to 20 minutes, depending on traffic conditions.

Unfortunately, all response times reported are anecdotal in nature as there is no single dispatch point for the system. Community officials have no routine mechanism to monitor the adequacy of response times.

The consultants recommend that any new agreements require the use of fractile rather than average response time compliance. The accepted urban/suburban standard is that the system should place a transport capable unit on scene within 8 minutes for 90% of all requests. This information should be collected and maintained in a manner which facilitates external verification.

Physical Plant—

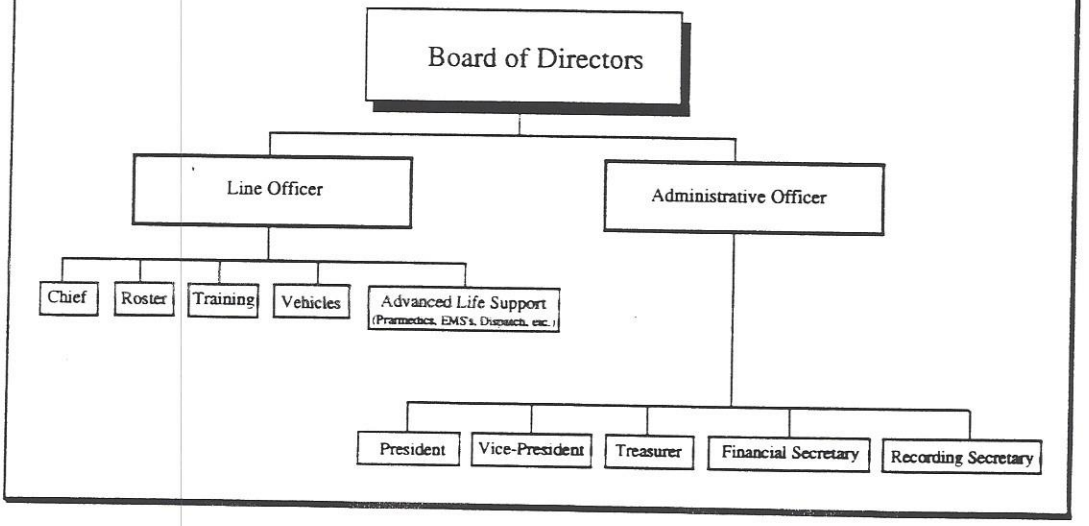
The Corps' headquarters building is located in a reasonably central location to serve all three communities. The building has three garage bays, bunkroom, crew waiting area, meeting facilities, communications area, and a small office area. Although the Corps has experienced maintenance issues, and increased internal upkeep is required, the building remains suitable for its purpose.

Corps Leadership—

The Corps is governed by a board of directors elected in accordance with its Bylaws. The leadership responsibilities are functionally divided between line and administrative officers. The organizational positions are outlined at figure 1.

Figure 1.

**Port Chester Rye V.A.C.**
**Organizational Chart**




The "Line Chief" is ALS certified and actively supervises personnel. The Corps' President has extensive experience in financial analysis and has assisted the Corps in developing its financial depth in recent years.

Like many volunteer units, the Corps' leadership has been uneven over the years. It must be monitored and developed if it is to reach its full potential. While the Corps

enjoys committed and involved leadership, it must continually strive to develop additional leadership resources. The communities should assist the Corps by offering any leadership development opportunities they have available. Given the contemplated system changes, the Corps should employ a full time, experienced EMS administrator to facilitate the implementation of the recommendations made throughout this report.

**Financial**

Insurance—

An insurance summary from the Corps' broker outlines the following current coverages: The Corps has a "commercial package" insurance plan on its facility. Workers compensation insurance, disability and accident insurance, an equipment policy, auto policy, incidental medical malpractice coverage are also maintained. The baseline coverage is supported by a commercial umbrella policy of $2 Million. Each of the three communities are named as an additional insured on the Corps' policies.

Budget—

Well developed budgets with comparative analysis for the past three years were available. Several years ago the Corps experienced a significant financial shortfall. Since that time, efforts to more closely monitor expenses have been implemented. Current reserves appear adequate to meet the Corps' near term needs. Future full funding of a restricted capital reserve account is recommended. In addition, the Corps now utilizes an independent CPA firm to review its financial records, budgets and major expenditures to be approved by community representatives.

Subsidies and User Fees—

The three communities each contribute equally to ensure the availability of twenty four hour ALS ambulance service. These funds are split between the private provider and the volunteer ambulance service. The combined subsidy provided is approximately $267,000. plus those user fees which are collectable. User fees, billing processes, and collection rates appear reasonable, although a detailed Medicare compliance review was outside the scope of the study.

The Corps' headquarters building is located in the Village of Port Chester. As a result, that community foregoes local tax revenues estimated by Village officials to be approximately $3,000 annually.

Protection of Community Assets—

The current system subsidizes both volunteer and commercial services. Despite the Corps dedication to the community, additional security should be provided to ensure that the community will not be left without ambulance service should the private company or the Corps unexpectedly cease operations. Typical methods to provide performance security include: a clear performance based agreement, performance bonds, three-way vehicle leases and accounts receivable agreements which maintain community funded asset ownership within the public sector's control.

Financial Comparisons and Concerns Raised by Community Representatives—

Community representatives requested the consultants review contracts, proposals and related documents to comment on the funding mechanisms in a nearby community. That was accomplished and a determination was made that despite the similarities in population, the subsidy levels are not comparable due to differing transport volumes, user fees charged, and the non-emergency business base which supports overhead used for the emergency contract.

Based on information provided in the contractor's recent proposal, volumes are nearly double (2,800 transports in White Plains compared to less than 1,500) those in Port Chester, Rye, and Rye Brook. Proposed user fees are also higher. The proposed White Plains fee schedule calls for ALS base rates at $290.00 plus mileage charges, oxygen, and medical supplies. Additionally, White Plains enjoys the economies of scale gleaned from its contractor's other non-emergency operations. This enables the contractor to provide back-up services from its non-emergency fleet, at its marginal cost.[1]

While it can be argued that the general revenue costs to the municipality are lower in White Plains, these are offset by higher user fees, more aggressive collection strategies,

[1] Proposal to the City of White Plains - April 28, 1993.

cost for providing service would be higher than that of a similar system operated by the Corps.

Other concerns expressed included the negative experience of other communities in the area which have transitioned from a volunteer to a paid system. These communities are not analogous to the experience in Port Chester, Rye, and Rye Brook. In the other communities, revenues were over estimated and expenses were underestimated. The system did not have third party billing experience. In the past two years, the volunteers have successfully demonstrated that they have managed a partially paid staff without negatively impacting the volunteer organization. They have also successfully transitioned to a third party collection system.

While there are never guarantees with any EMS system, the communities benefit from the long standing experience of the Corps and the Corps' commitment to three communities.

# III
# POTENTIAL SYSTEM SOLUTIONS

## Options

Three potential solutions are available to the communities. These include: maintaining the split service agreement with the Corps and an area commercial service, developing separate municipally operated services, or restructuring the current agreement with the Volunteer Ambulance Corps to provide all services. Any of these options can be implemented but there are on-going oversight requirements and costs, associated with each.

Maintaining the status quo may be a politically feasible approach. However, it does not address the service deficits experienced during the daytime hours, strengthen the operational and financial depth of the Corps, or reduce costs. Should the Corps fail to develop and thrive over time, the communities could be faced with significant expense in replacing this coverage.

One community described an option of creating a paid fire department and assigning EMS as a collateral responsibility of this service. It was beyond the consultants' scope, to formally analyze the feasibility of this option. However, maintaining proficiency as both a firefighter and paramedic with a medical call total base of less than 200 per year is difficult. Due to shift work the average medic would actually answer a call once every three or four duty shifts. Based upon our experience, the cost of maintaining both primary and back-up ALS coverage -- with its ancillary training and regulatory compliance costs for this sized community -- make this a non-feasible option.

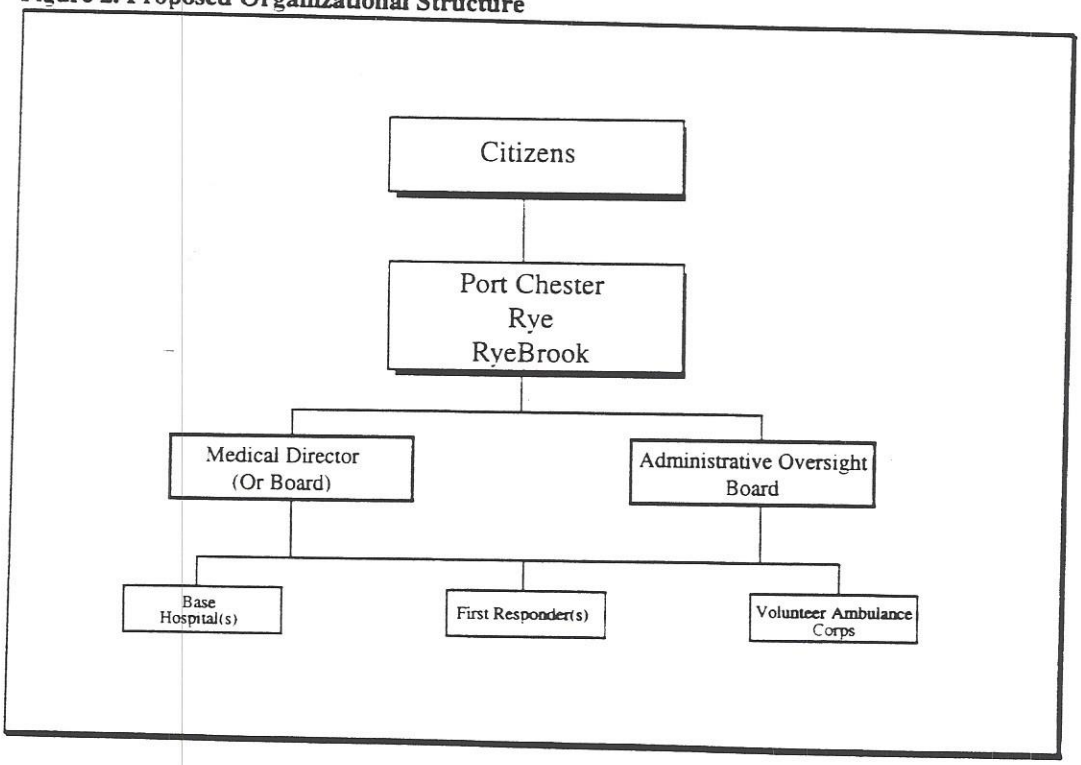
The third option involves restructuring the business relationship with the Corps to facilitate the provision of 24 hour ALS service.

## Consultant Recommendation

The optimal solution for Port Chester, Rye, and Rye Brook balances the strong tradition of volunteerism with the communities' need for an accountable, performance oriented relationship with its EMS provider.

The option developed to meet these needs involves developing a much more formalized business relationship between the communities and the Corps. Patterned after some of the most clinically sophisticated operationally efficient EMS systems in America, the approach is illustrated in figure 2. This model involves creating a separate 501(c)3 organization (or alternatively, a joint powers authority by intergovernmental agreement) whose directors are appointed by the elected officials of three communities. The Board, is tasked with the administrative oversight responsibilities including administrative, service/operational and fiscal components.

**Figure 2. Proposed Organizational Structure**




Typically, this board would include community representatives with specific expertise necessary for the on-going development of the EMS system. Ideally, the Board would have nine members including: an executive from local industry, a partner from a

major law firm, a partner from a major accounting firm, three representatives of the Corps, and a designated elected (or appointed) official from each participating community. The medical director and the Corps' administrator also serve as ex officio members of the (non voting) administrative Board. The corps' administrator will provide staff support services for the Board.

The heart of the concept is development of an evergreen performance oriented agreement between the Corps and the board. All system funds -- including subsidy monies and the accounts receivables from user fees -- will be held by the oversight entity and dispersed to the Corps in accordance with its approved budget. Future system assets will be purchased by the oversight entity and leased to the Corps for its use. Emergency dispatching services will be provided by the communities and the Corps will actively encourage community residents to use the 9-1-1 system.

Operationally, this approach provides the resources necessary to employ an experienced EMS administrator (also certified as an EMT-P) to guide the ongoing development of the Corps. During daytime hours the first unit would be staffed with dedicated EMT-Ps. The second unit would be staffed with the administrator and an on-call EMT paged to respond to headquarters or the scene. Currently, the second unit in daytime hours must come from outside the community. Paid staff will have collateral responsibilities to support volunteer recruitment and training. Night and weekend staffing will remain constant. The Corps currently provides paramedic/EMT coverage on the first unit and a minimum of EMT coverage on second and third units.

This approach offers several unique advantages:

1. Improves service response times, paramedic availability and back-up resources during daytime hours.

2. Continues and enhances tradition of responsible volunteerism dedicated to high performance EMS.

3. The community is assured that the Corps will meet the performance requirements outlined in the agreement or risk the withdrawal of financial support. In the unlikely event the Corps would be unable to perform, the oversight board retains the assets and is able to replace the lost coverage with minimal operational or financial disruption.

4. Provides access to capital fund borrowing at attractive rates. Current municipal borrowing available to the system would be at rates of less than 3%.

5. The Corps maintains its own operational identity and ability to independently raise funds.

6. The proposed system reduces the current municipal tax subsidy required -- resulting in a budgetary savings for each community.

The implementation of the recommendation provides a combined annual budgetary savings of over $82,436 over current expenditure levels while resulting in significant service improvements. These savings were based upon the proposed 1994 Corps budget which is illustrated at Appendix B.

Costs in subsequent years are projected to rise incrementally as indexed to the cost of living. Depreciation costs are projected to increase by $10,000 in 1995 and 1996, respectively. This represents the additional depreciation costs for ambulances and equipment scheduled for replacement in these years.

## Implementation Issues and Steps

The most significant barrier to implementation is the communities' forging an agreement to equitably fund the system. The issue of equity among the communities is a long-standing issue which, upon careful listening, is quite unrelated to EMS. The friction from other agreements and shared service arrangements have influenced views of elected and appointed officials on the ambulance issue.

Each of the communities is better served, clinically and economically, by the shared system rather than independently attempting to develop an independent EMS system.

The consultants' recommendation is that current budgeted funding levels be maintained during the coming year. The projected savings for calendar year 1994 shall be shared in the following manner:

Fifty percent of the savings would be divided equally among the communities. This acknowledges that each has baseline ambulance coverage requirements. The remaining 50% would be based upon an *inverse* proportion related to each communities' percentage population served by the system. This acknowledges that additional persons generate additional demand for ambulance service. The following example assumes a total population of approximately 47,000 with Port Chester representing 52% of the population, Rye representing 31% of the population, and Rye Brook representing 17%. Of the remaining fifty percent of any savings then, Portchester would receive 24%, Rye would receive 34.5% and Rye Brook would receive 42.5%.

Example —

Assume a 1994 savings of $82,436

| | Cvg. Save | Adj. Population | Total Savings |
|---|---|---|---|
| Port Chester | $13,739 | $ 9,892 | $23,631 |
| Rye | $13,739 | $14,220 | $27,959 |
| Rye Brook | $13,739 | $17,311 | $31,050 |

## Implementation Steps Overview

The recommended target implementation date for the new agreement is January 1, 1994. This requires a stair stepped approach with activities occurring both at the communities and at the Corps.

| | |
|---|---|
| 1. Corps approval/forwards consultants' report to communities | August |
| 2. Presentation of report and resolution approving concept | August |
| 3. Final agreement on funding method | ~~September~~ Feb |
| 4. Development of draft performance criteria/contract | ~~October~~ March |
| 5. Intergovernmental agreement | October April |
| 6. Appointment of Administrative Board | November April |
| 7. Approval of 1994 budgets | November May |
| 8. Corps hiring of personnel | November May - June |
| 9. System start-up | January '94 July 1 |
| 10. Monthly performance reporting begins | June '94 Dec '94 |

## Conclusion

The communities and the Corps have a unique opportunity to address issues that will improve the clinical sophistication, operational efficiency, and stability of the EMS system. The entities should act quickly, but diligently to implement these system improvements.

# Appendices

| | |
|---|---|
| Appendix A | Key Events |
| Appendix B | Port Chester, Rye, Rye Brook Volunteer Ambulance Corps, 1994 Proposed Budget |

Appendix A

# Key Events

in the History of Ambulance Service
in Port Chester, Rye, and Rye Brook, New York.

| | |
|---|---|
| 1967 | Corps conceived and fund raising initiated. |
| 1968 | Corps begins operations. |
| 1974 | HEAR Radio provided by United Hospital to facilitate medical communications. |
| 1985 | Corps begins Advanced Life Support (paramedic) service. |
| 1987 | Corps voluntarily certified by State of New York. |
| 1988 | Corps makes proposal to provide 24 hour service. |
| 1989 | Buck, Stermer report recommends VAC develop a stronger financial base. No action taken on Corps proposal and system is maintained status quo. |
| 1990-91 | Corps initiates comprehensive financial development plan including utilization of independent auditors to provide reviewed financial statements and consultation with communities on development of a revenue recovery program. |
| 1992 | Corps initiates revenue recovery program. |
| 1993 | Corps requests (with communities' approval) EMS consultants' review. |