

# TRI-TOWN Emergency Medical Service

## 2014 Annual Director's Report



### Municipal Ambulance Service *for the Towns of* Pembroke & Allenstown



Prepared By: *Christopher Gamache, Director*

January 7, 2015



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## PREFACE

**Tri-Town Emergency Medical Service** is a municipal agency which provides emergency ambulance services to the Towns of Pembroke and Allenstown, New Hampshire and was created through an inter-municipal agreement between the two towns. Tri-Town Volunteer Emergency Ambulance Service (TTVEAS) had been the ambulance provider for the two towns as well as the Town of Hooksett since 1972. In 2010, the Hooksett Fire Department started providing emergency



ambulance service for the Town of Hooksett, an event which set into motion the ambulance service coming under the municipalities. TTVEAS and the two towns came to an agreement where the towns would take possession of all operational equipment and assume any remaining debt on the equipment. The current staff of TTVEAS would



become employees of the new agency. On January 1, 2013 Tri-Town Emergency Medical Service started EMS operations for the two towns. The agency is governed by a Joint Board, comprised of the two town administrators, the two town fire chiefs, and a member-at-large from each town and an employee representative from Tri-Town EMS. The board appoints a director to oversee the overall operations of the agency. Today, Tri-Town EMS is *Paramedic Service*, comprised of full time and per diem employees who staff an ambulance twenty-four hours a day.

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## REPORT INTRODUCTION

This report was generated on January 7, 2015 by the agency's Director, Christopher Gamache, and represents the EMS activity of the agency, current projects, agency concerns and performance projections. The content of this report shall be presented at the monthly meeting of the Joint Board on Wednesday January 14, 2015. This document contains data that was derived from the New Hampshire Department of Safety, Bureau of Emergency Medical Service patient care reporting web site, [www.nhtems.org](http://www.nhtems.org), where Tri-Town EMS documents all EMS related calls that are dispatched by Concord Fire Alarm. Additionally, this document contains data from the agency's billing contractor, ComStar.

Tri-Town EMS has a Medical Resource Hospital Agreement (MRHA) with Concord Hospital. This agreement entitles the agency to function under the medical oversight of the hospital's Medical Director, Dr. David Hirsh. As part of the MRHA, Tri-Town EMS has a Control Substance agreement with Concord Hospital, these two agreements afford TTEMS the ability to have Paramedic level medications and Controlled Substances.

In Memory  
Of  
***Michael J. Phelps***  
*1947-2014*

Michael Phelps was an active member of Tri-Town  
Emergency Medical Services Joint Board at the time of  
his passing.



## SECTION 1: EMERGENCY MEDICAL SERVICE (EMS) ACTIVITY:

- Total Number of EMS Responses / Request for EMS Services .....1037  
(2013) .....1086
- Total Number of Patient's Transported .....680 (65.57%)  
(2013) .....693 (63.81%)
  - Transports to Concord Hospital .....516 (75%)  
(2013) .....539 (77.8%)
  - Transports to Catholic Medical Center (CMC) .....61 (10%)  
(2013) .....62 (9.8%)
  - Transports to Elliot Hospital .....103 (15%)  
(2013) .....88 (12.8%)
  - Transports to Other Hospital .....0  
(2013) .....4 (0.6%)
- Total Number of EMS Runs Where Mutual Aid was Received .....*DATA UNAVAILABLE*
  - Concord Fire Department .....N/A
  - Epsom Fire Department .....N/A
  - Hooksett Fire Department .....N/A
  - Other EMS Agency .....N/A
- Total Number of Patient Refusals, No Patient Found and Other Call Disposition:.....357 (34.43%)  
(2013) .....393 (36.19%)

## SECTION 2: EMS RUN DATA

### Average Run Times:

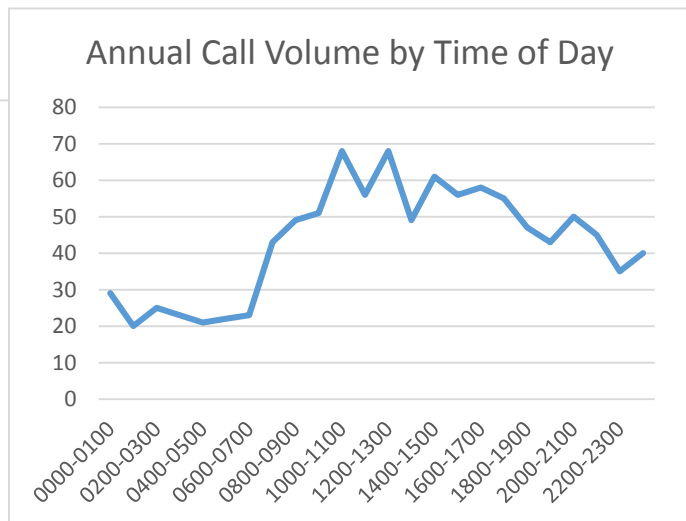
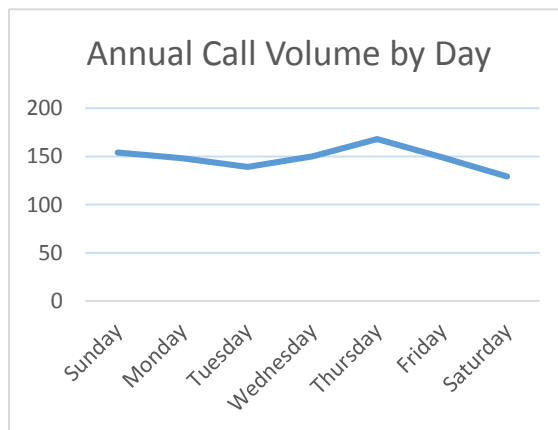
- Reaction Time: ..... 1m 52s (63.7% <1min)  
(2013) .....2m 52s (52.49% <1min)
- Response Time: ..... 4m 50s (61.33% <5min)  
(2013) .....4m 24s (66.39% <5min)
- On-Scene Time: .....16m 15s (14.46% < 10min; 55.9% < 20 min)  
(2013) 17m 37s (12.98% < 10min; 52.48% <20min)
- Transport Time:.....18m 46s  
(2013) .....17m 22s
- Back In Service Time: .....20m 35s  
(2013) .....20m 10s
- Total Call Time: .....1hr 2m 18s  
(2013) .....1hr 2m 25s

EMS Call Location, by Town:

• Allenstown, NH	.....421 (40.6%)
	(2013) .....419 (38.58%)
• Pembroke, NH	.....538 (51.88%)
	(2013) .....592 (54.91%)
• Epsom, NH	.....12 (1.16%)
	(2013) .....15 (1.38%)
• Bow, NH	.....3 (0.29%)
	(2013) .....2 (0.18%)
• Hooksett, NH	.....54 (5.2%)
	(2013) .....53 (4.88%)
• Concord, NH	.....8 (0.77%)
	(2013) .....3 (0.28%)
• Deerfield, NH	.....1 (0.1%)
	(2013) .....0 (0.0%)
• Chichester, NH	.....0 (0.0%)
	(2013) .....1 (0.9%)
• Manchester, NH	.....0 (0.0%)
	(2013) .....1 (0.0%)

## Times of Call

Time Period	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total	Percentage
0000 - 0100	3	6	2	5	6	2	5	29	2.80%
0100 - 0200	3	3	1	1	3	3	6	20	1.93%
0200 - 0300	2	6	3	7	1	4	2	25	2.41%
0300 - 0400	4	2	5	2	2	2	6	23	2.22%
0400 - 0500	4	1	3	1	3	5	4	21	2.03%
0500 - 0600	2	2	4	6	6	2	0	22	2.12%
0600 - 0700	2	2	6	2	5	4	2	23	2.22%
0700 - 0800	3	11	7	3	11	3	5	43	4.15%
0800 - 0900	6	9	8	9	5	6	6	49	4.73%
0900 - 1000	3	8	4	10	10	10	6	51	4.92%
1000 - 1100	6	10	16	13	6	13	4	68	6.56%
1100 - 1200	8	4	7	5	12	10	10	56	5.40%
1200 - 1300	11	10	6	10	15	7	9	68	6.56%
1300 - 1400	12	9	5	3	9	8	3	49	4.73%
1400 - 1500	4	9	9	8	11	9	11	61	5.88%
1500 - 1600	5	10	5	8	11	6	11	56	5.40%
1600 - 1700	8	9	10	9	11	9	2	58	5.59%
1700 - 1800	10	8	8	10	4	10	5	55	5.30%
1800 - 1900	17	5	5	5	7	6	2	47	4.53%
1900 - 2000	10	3	8	6	4	6	6	43	4.15%
2000 - 2100	10	4	7	9	8	7	5	50	4.82%
2100 - 2200	8	6	3	8	8	4	8	45	4.34%
2200 - 2300	6	5	4	2	6	8	4	35	3.38%
2300 - 2400	7	6	3	8	4	5	7	40	3.86%
Unknown	0	0	0	0	0	0	0	0	0.00%
<b>Total</b>	<b>154</b>	<b>148</b>	<b>139</b>	<b>150</b>	<b>168</b>	<b>149</b>	<b>129</b>	<b>1037</b>	<b>100%</b>



### Runs by Dispatch Reason

Dispatch Reason	# of Times	% of Times
Abdominal Pain	38	3.66%
Altered Mental Status	17	1.64%
Anaphylactic / Allergic Reaction	16	1.54%
Assault	21	2.03%
Auto vs. Pedestrian	1	0.10%
Back Pain (Non-Traumatic / Non-Recent Trauma)	25	2.41%
Breathing Problem	127	12.25%
Cardiac Arrest	8	0.77%
Chest Pain	69	6.65%
Choking	3	0.29%
CO Poisoning / Hazmat	6	0.58%
Diabetic Problem	20	1.93%
Fall Victim	133	12.83%
Fire Standby	7	0.68%
Headache	9	0.87%
Heart Problems	1	0.10%
Hemorrhage / Laceration	18	1.74%
Industrial Accident / Inaccessible Incident / Other Entrapments (Non-Vehicle)	3	0.29%
Ingestion / Poisoning	1	0.10%
Interfacility Transfer / Medical Transport	1	0.10%
Lift Assist / Invalid Assist	13	1.25%
Medical Alarm	44	4.24%
Motorized Vehicle Crash (Auto / Truck / ATV / Etc).	87	8.39%
Other	39	3.76%
Overdose	19	1.83%
Pain	19	1.83%
Pregnancy / Childbirth	1	0.10%
Psychiatric / Behavioral Problems	39	3.76%
Seizure / Convulsions	23	2.22%
Sick Person	125	12.05%
Stab / Gunshot Wound	3	0.29%
Standby	5	0.48%
Stroke / CVA	22	2.12%
Traumatic Injury	21	2.03%
Unconscious / Fainting	40	3.86%
Unknown Problem / Man Down	13	1.25%
Unknown	0	0.00%
<b>Total</b>	<b>1037</b>	<b>100%</b>

## Medication Administered

Medication Name	#	%
Acetaminophen (Tylenol)	8	0.77%
Activated Charcoal	1	0.10%
Adenosine	3	0.19%
Albuterol Sulfate	39	2.80%
Amiodorone (Cordarone)	2	0.19%
Aspirin (ASA)	38	3.57%
Atropine Sulfate	4	0.10%
Dextrose 50% (D50)	7	0.39%
Diltiazem (Cardizem)	4	0.29%
Diphenhydramine (Benadryl)	2	0.19%
DuoNeb (0.5 Atrovent/3.0 Albuterol)	44	3.86%
Epi-Pen Adult	1	0.10%
Epinephrine 1:1,000	3	0.29%
Epinephrine 1:10,000	13	0.48%
Fentanyl	50	2.70%
Glucagon	1	0.10%
Glucose (Oral)	16	1.25%
Haloperidol (Haldol)	4	0.29%
Ibuprofen (Advil, Motrin)	3	0.29%
Ipratropium Bromide (Atrovent)	17	1.64%
Ketorolac (Toradol)	9	0.87%
Methylprednisolone (Solu-Medrol)	18	1.74%
Metoprolol (Lopressor)	5	0.39%
Midazolam (Versed)	11	0.68%
Morphine Sulfate	47	3.47%
Naloxone (Narcan)	11	0.87%
Nitroglycerin	58	2.99%
Nitroglycerin Drip	5	0.10%
Nitropaste (Transdermal Nitroglycerin Ointment)	5	0.48%
Normal Saline	202	18.71%
Ondansetron (Zofran)	93	8.78%
Oxygen	41	3.95%
Oxygen (non-rebreather mask)	9	0.87%
Oxygen by Blow By	1	0.10%
Oxygen by Nasal Cannula	81	7.71%
Oxygen by Nebulizer	8	0.77%
Oxygen by Positive Pressure Device	6	0.48%
Prochlorperazine (Compazine)	5	0.39%
None	672	64.80%



### Procedure Administered

Procedure Name	#	%
Assessment - Blood Glucose Analysis	68	6.46%
Assessment - Pain Measurement	1	0.10%
Assessment - Pediatric	2	0.19%
Assessment - Pulse Oximetry	45	4.34%
Assessment - Temperature Measurement	39	3.76%
Assessment: Orthostatic Vital Signs	23	2.03%
Assessment: Patient Assessment	491	47.16%
BLS - Stretcher	4	0.39%
Cardiac - Arrest - AED Monitoring/Analysis Only-No Defib	2	0.19%
Cardiac: 12 Lead ECG Obtained	137	12.34%
Cardiac: 12/15/18 Lead ECG-Transmitted	8	0.77%
Cardiac: CPR (Manual)	4	0.39%
Cardiac: CPR (Mechanical Device)	5	0.39%
Cardiac: Defibrillation (AED)	5	0.10%
Cardiac: Defibrillation (Manual)	3	0.10%
Cardiac: ECG Monitoring	237	22.66%
Cardiac: Vagal Maneuver	1	0.10%
General: Patient Cooling (Cold Pack or Global)	6	0.58%
General: Patient Warming (Hot Pack or Global)	1	0.10%
General: Restraint Applied (Physical)	2	0.19%
Monitoring - ETCO2 Monitoring-Advanced Airway	2	0.19%
Movement: Cervical Collar Applied for Stabilization	11	1.06%
Movement: Extrication of Patient	1	0.10%
Movement: via Extrication Device (Full-Length)	2	0.19%
Movement: via Extrication Device (Short/KED)	1	0.10%
Musculoskeletal: Spinal Assessment	6	0.58%
Musculoskeletal: Spinal Immobilization	8	0.77%
Musculoskeletal: Spinal Immobilization - Back Board (Old)	2	0.19%
Musculoskeletal: Spinal Motion Restriction	12	1.16%
Musculoskeletal: Spinal Precautions Withheld Per Assessment Criteria	4	0.39%
Musculoskeletal: Splinting (General)	10	0.96%
Musculoskeletal: Splinting (Traction)	1	0.10%
Not Applicable	1	0.10%
Respiratory: Airway Device Removal	1	0.10%
Respiratory: Airway Opened	2	0.19%
Respiratory: Bagged Ventilations (via Mask)	8	0.77%
Respiratory: Bagged Ventilations (via Tube)	4	0.29%
Respiratory: CPAP	6	0.58%
Respiratory: ETCO2 Digital Capnography	13	1.25%
Respiratory: Intubation (Orotracheal)	4	0.39%
Respiratory: NPA Insertion	3	0.29%
Respiratory: OPA Insertion	2	0.19%
Respiratory: SGA Insertion (Combitube / Double Lumen)	1	0.10%
Respiratory: Suction Airway	3	0.29%
Soft Tissue: General Wound Care	36	3.38%
Soft Tissue: Pressure Dressing Application	4	0.29%
Soft Tissue: Tourniquet Application	3	0.19%
Stroke Team Activation	1	0.10%
Vascular: IntraOsseous Insertion	4	0.39%
Vascular: IV Catheter Removal	1	0.10%
Vascular: IV Catheterization (External Jugular Vein)	1	0.10%
Vascular: IV Catheterization (Extremity Vein)	538	46.19%
None	385	37.13%

### SECTION 3: TRI-TOWN EMS PERSONNEL:

During the course of 2014, there was a lot of movement of Service staff. The issue pertaining to the Service's initial Director was resolved and the Joint Board moved forward with appointing a permanent Service Director in July 2014.

In early 2014, the topic of Part Time Employees was discussed and was later revisited in November. The service officially adopted the concept of Part Time Employees.

Throughout 2014, the use of Volunteer Employees was discussed and after considering the legal issues and the facts, the Joint Board decided to no-longer utilize volunteer staff. The sole volunteer employee was offered a per diem position in the fall of 2014.

During late summer and into early fall, the Service addressed the issue of inactive employees. Attempts were made to contact all employees who had not worked or made contact with the service in three (3) or more months. Employees who failed to contact the Director were released from the Service. Subsequently, a minimum activity standards was set to ensure an adequate staffing level to maintain 24/7 paramedic ambulance coverage.

In the fall of 2014, five (5) part time and per diem employees were hired and one employee was terminated for disciplinary reasons.

The Current Staff of Tri-Town EMS:

Christopher Gamache	FT	Director/Paramedic	Robyn Cushing	PD	Advanced EMT
Joyce Booker-Janvrin	FT	Paramedic	Richard Daughen	PD	Advanced EMT
Adam Boise	PD	Paramedic	Leanna Fisher	PD	EMT
Justin Hart	PT	Paramedic	Daniel Fitzgerald	PD	Advanced EMT
Julie Irwin	PT	Paramedic	Christine Frost	PD	Advanced EMT
Robert Johnson	PT	Paramedic	Corey Girard	PD	Advanced EMT
Michael Kelley	PT	Paramedic	Jonathan Goldman	PD	Advanced EMT
Christopher Lamy	PD	Paramedic	Sara Hardy	PD	Advanced EMT
Michael Langille	PD	Paramedic	Daniel Heffernan	PD	Advanced EMT
Stephanie Locke	PT	Paramedic	Edward Higgins	PD	EMT
Maurice Paquette	PD	Paramedic	Heather Hill	PD	Advanced EMT
Hearshell VanLuven	PD	Paramedic	Christian Kellermann	PT	Advanced EMT
			Irina Kozlova	PD	Advanced EMT
			Adam Morris	PD	Advanced EMT
			John Vanloendersloot	PT	EMT
			Robert Vodra	PD	EMT

• Full Time Employees	.....2
• Part Time Employees	.....6
• Per Diem Employees	.....20
• TOTAL WORK FORCE	.....28

### SECTION 3: EQUIPMENT

Durable Medical Equipment (DME) was a major problem for the service coming into 2014. The service started the year off with the replacement of an old, manually operated stretcher, with that of a new Ferno Power Stretcher. Upon the hire of the new Director, a list of equipment needing to be replaced was created. During the fall and early winter of 2014, the Service purchased the following:

- Physio-Control LP 15 Cardiac Monitor – replaced one (1) Physio-Control LP 12 Cardiac Monitor
- Braun Infusomatic Space Pump (4) – replaced the Alaris Medication Pump
- Portable Pulse Oximeter (2) – one (1) was to replace malfunction device and the second was to standardize equipment between the ambulances.
- Glucometer – glucometers the Service has now are FDA approved for multi-patient use and have the ability to be calibrated.
- IV Bag Warmers (2) – new item for the Service.
- Medication Bags (2) – replaces the medication boxes which were heavy and damaged.
- First-In Bags (2) – replaced older bags that were falling apart.
- Director's Laptop
- Service DELL Tablet w/ Key Board

Equipment that is on order or will be ordered early in 2015 are as followed:

- Panasonic ToughPads w/ Key Boards (2) – on order, to replace all other documentation tablets and lap tops.
- CO detection device (6) – to warn EMS crews of the presence of CO
- Physio-Control LP 15 Cardiac Monitor– replace the second Physio-Control LP 12 Cardiac Monitor

During the second half of 2014, the Service ordered and purchased uniforms for the staff. Items ordered include polo shirts, T-Shirts, Duty Shirts (Public Safety style sweat shirts), winter hats and Hi-Visibility Jackets that meet federal requirements

During 2015, the Director plans to research the purchase of a new ambulance.

### SECTION 4: CORESPONDANCE WITH OTHER HEALTHCARE AGENGIES

*Concord Hospital:* Talked with Sue Prentiss and Dr. David Hirsh to address concerns such as; the appropriate use of lights and sirens when transporting, continuing education, the timely delivery of Patient Care Reports, medication concerns, clinical concerns, discussion on alternative medications, regional Mass Casualty Incident (MCI) planning and incident inquiries.

*Elliot Hospital:* The Service started a dialogue with John Leary to ensure an open line of communication between Tri-Town EMS and the Elliot Hospital. Additionally the Service is looking into getting “fobs” for Full Time and Part Time staff to gain into the emergency department, dispensary access for Tri-Town staff and the possibility of New England EMS Institute utilizing Tri-Town EMS as a ride site for EMT and Advanced EMT students.

*New Hampshire EMS:* Worked with the bureau to update Tri-Town's rosters to reflect only actual staffing. Provided the bureau with information the service had pertaining to a state inquiry. Attended a seminar on ambulance billing as well as attended a Medical Control Board Meeting.

SECTION 5: REVENUE AND EXPENDITURES (values represent pre-audit figures and are subject to change)

2014 Budgeted Revenue: (not including town contributions)	\$119,506.00
2014 Actual Revenue (Billing, Paramedic Intercepts & Details)	\$242,482.29
2014 Revenue Difference:	\$122,976.29 (+)
2014 "CASH per TRIP" (average revenue per transport)	\$356.59
2014 Budgeted Expenditures:	\$591,297.00
2014 Expenditures:	\$546,214.00
2014 Remainder:	\$45,082.93 (+)
2014 "COST per TRIP" (total expenditures/total transports)	\$803.26
2014 Excess Funds:	\$168,059.22 (+)

SECTION 6: VEHICLE MAINTENANCE

*Ambulance 2 (79A2)* – 2008 Ford Chassis with a 2008 Road Rescue Patient Module

Mileage: 73,322 miles

Routine Preventative Maintenance, power steering worked on, lighting issues addressed.

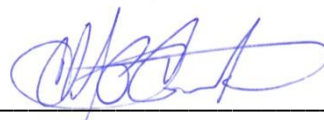
*Ambulance 3 (79A3)* – 2008 Ford Chassis with a 2010 AEV Patient Module

Mileage: 43,721 miles

Routine Preventative Maintenance + Rear Bumper Replaced + Rear Door Holders Replaced.

SECTION 7: TRI TOWN EMERGENCY MEDICAL SERVICE LEADERSHIP

- Chairman of the Joint Board & Allentown Town Administrator: Shaun Mulholland
- Pembroke Town Administrator: David Jodoin
- Allentown Fire Chief: Dana Pendergast
- Pembroke Fire Chief: Harold Paulsen
- Allentown Member-At-Large: Veronica Lorenz  
(Late Michael Phelps serve through 6/14)
- Pembroke Member-At-Large: Robert Bourque
- Tri-Town EMS Employee Member: Stephanie Locke
- Tri-Town EMS Director: Christopher Gamache BS, NREMT  
(Acting Director Joyce Booker-Janvrin through 7/14)



Director-Christopher Gamache

January 7, 2015

Date