

Monthly Director's Report

for the month of

August 2017

5000th EMS INCIDENT

2017 New Hampshire

EMS Unit of the Year

PREFACE

Tri-Town Emergency Medical Service was created in June of 2012 and began operation in January of 2013. Prior to that date the Tri-Town Volunteer Emergency Ambulance Service was a non-profit entity that once provided ambulance service to the Towns of Allenstown, Hooksett and Pembroke. The Town of Hooksett now provides ambulance services through its fire department.

Under New Hampshire RSA 53-A, the Towns of Allenstown and Pembroke entered into an intermunicipal agreement to create a public entity to provide ambulance service for both communities. A Board of Directors is the governing body for the Service in accordance with this agreement. The ambulance is housed at the Pembroke Safety Center. The Service is staffed 24 hours per day, 7 days per week at the *Paramedic* Level. The cost of the Service is partially subsidized by funding provided from each town on a percentage basis in accordance with the provisions of the agreement. The Service also bills patients through a third party billing firm making up the remainder of the revenues that pay for the cost of operations.

Tri-Town EMS utilizes Concord Hospital as its Medical Resource Hospital and provides Emergency Medical Care under the coordination and guidance of Dr. David Hirsch. As part of the Medical Resource Hospital Agreement (MRH), Tri-Town EMS receives many of the medications and supplies the Service needs from Concord Hospital.

This report was created on September 5, 2017, by the Service Director, Christopher Gamache BS, NRP. This document contains data that was obtained from the New Hampshire Department of Safety, Bureau of Emergency Medical Service patient care reporting website, www.NHTEMSIS.org/elite, where all patient records for the Service are maintained. Tri-Town EMS is dispatched by Concord Fire Alarm who maintains all the times associated with the Service's EMS Incidents. Financial data has been provided by the Town of Pembroke and by ComStar Ambulance Billing.



SECTION 1: EMERGENCY MEDICAL SERVICE (EMS) ACTIVITY:

1.1 Total Number of EMS Incidents / Red	uest for Services:	113	
	August 2016:	100	
Allenstow		44	38.9%
	August 2016:	41	
Pembroke		55	48.7%
Danish.	August 2016:	50	0 00
	, NH (Incl. Center Barnstead):	0	0.0% 0.9%
Bow, NH: Chicheste	NI	0	0.0%
Concord,	The state of the s	6	5.3%
Deerfield,		0	0.0%
Epsom, N		1	0.9%
Hooksett,		6	5.3%
1.2 Total Number of EMS Incidents Assig		104	92.0%
1.3 Total Number of EMS Incidents when	e Mutual Aid was GIVEN:	14	12.4%
1.4 Total Number of EMS Incidents when	e Mutual Aid was RECEIVED:	9	8.0%
	August 2016:	8	
Concord F	ire Department:	3	2.7%
	e Department:	3	2.7%
	Fire Department:	2	1.8%
	ir Medical Transport):	0	0.0%
Pembroke	Fire Department (Lift Assist):	esl,	0.9%
1. F. Tatal Number of Patients Transports	d to the Hearitali	68	60.17%
1.5 Total Number of Patients Transporte		5	7.4%
	Medical Center (CMC), Manchester, NH Hospital, Concord, NH	52	76.5%
	oital, Manchester, NH	11	16.1%
Elliot Hos	ortal, Manchester, Mil		10.10
1.6 Number of Patients who Refused Tra	nsport to the Emergency Department:	12	10.6%
1.7 Total Number of EMS Responses tha	t Resulted in Another Disposition:	31	27.4%
SECTION 2: EMS RUN DATA: (H:	MM:SS)		
2.1 Average Reaction Time:			0:57
2.2 Average Response Time:			4:46
2.3 Average On-Scene Time:			16:07
2.4 Average Transport Time:			19:34
2.5 Average Time the Ambulance wa	s Unavailable at the Hospital:		20:41
2.6 Average Total Time On Task: (To	·	1	:02:05
2.0 Average rotal fille Off rask: (10	ie to back ili service di Avallable)	1	0 2 . 0 3



2.7 TIMES OF CALLS (Time of Day & Day of the Week)

(TIME)	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
0000-0259	2	1	3	3	0	1	2
0300-0559	1	3	2	1	1	1	2
0600-0859	0	2	0	1	1	1	2
0900-1159	3	3	4	3	3	5	1
1200-1459	2	1	4	2	3	2	2
1500-1759	2	2	3	2	2	1	0
1800-2059	1	2	0	2	3	1	3
2100-2359	2	3	1	2	2	3	2
TOTALS:	13	17	17	16	15	15	14

2.8 INCIDENT by DISPATCH REASONS

Incident Complaints Reported by Dispatch	Number of Incidents		
Falls (17)	18		
Chest Pain (Non-Traumatic) (10)	11		
Lift / Invalid Assist	7		
Unconscious / Syncope (31)	7		
Medical Alarm (32	6		
MVC / Transportation Incident (29)	6		
Abdominal Pain / Problem (1)	5		
Breathing Problem (6)	5		
Overdose / Misuse of Meds / Poisoning (23)	5		
Back Pain (Non-Traumatic) (5)	4		
Psychiatric / Behavioral / Suicide Attempt (25)	4		
Seizure (12)	4		
Headache (18)	3		
Hemorrhage / Laceration / Bleeding (21)	3		
Sick Person (26)	3		
Well Person Check (26)	3		
Allergic Reaction / Stings / Bites (2)	2		
Altered Mental Status (26)	1		
Assault (4)	1		
Auto vs Pedestrian (29)	1		
Cardiac Arrest / Death (9)	1		
Choking (11)	1		
Dizziness (26)	1		
Eye Problem / Injury (16)	1		
Head Injury (30)	1		
Pain (26)	1		
Stroke / CVA / TIA (28)	1		
Unknown Problem / Person Down (32)	1		



2.9 PROCEDURES PERFORMED by EMS PERSONNEL

Procedure Name	# of Times Procedure
	<u>Performed</u>
Vascular: IV / Extremity Vein Catheterization	59
Assessment: Patient Assessment	55
Cardiac: ECG Monitoring (4-Lead or Defib Pads)	37
Cardiac: 12-Lead ECG Obtained	35
Assessment: Stroke Exam	3
Respiratory: etCO₂ Digital Capnography	3
Cardiac: Defibrillation (Manual)	2
Ortho: Splinting (General)	2
Soft Tissue: General Wound Care	2
Vascular: IO / Intraosseous Cannulation	2
Cardiac: CPR (Manual)	1
Cardiac: CPR (Mechanical Device)	1
General: Patient Cooling (Cold Pack or General)	1
Respiration: King of Single Lumen Supraglottic Airway	1
Respiratory: CPAP	1
Respiratory: OPA / Oropharyngeal Airway	1
Respiratory: Suction Airway	1

2.10 MEDICATIONS ADMINSTERED BY EMS PERSONNEL

Medication Name	# of Times Medication was Administered
Normal Saline	18
Ondansetron / Zofran ™	12
Naloxone / Narcan ™	10
Nitroglycerin	10
Oxygen	10
Aspirin	8
Fentanyl	8
Epinephrine 1:10,000	7
DuoNeb / Ipratropium Bromide w/ Albuterol	2
Midazolam / Versed	2
Albuterol	1
Atropine	1
Dextrose (D10%)	1
Diphenhydramine / Benadryl	1
Ipratropium Bromide / Atrovent ™	1



SECTION 3: TRI-TOWN EMS PERSONNEL:

During	the Month	of August	2017,	the Service	hired	one	(1) Per	Diem	Emergency	Medical	Technician
(EMT).	The current	t staffing le	vel is a	s follows:							

3.1	Full Time Employees: 4	Paramedics				4
3.2	Part Time Employees: 1	Paramedic	1 AEMT	2	EMT	4
3.3	Per Diem Employees: 2	Paramedics	9 AEMT	6	<i>EMT</i>	17
3.4	TOTAL WORK FORCE: 7	Paramedics	10 AEMT	8	EMT	25
3.5	Director's Hours – (24 hours on An	nbulance, 16 hou	urs for Administrati	ve per v	veek)	
	Amb. Hours: 96 Admin Ho		ol. / Paid Time Off:	•		0
	Required: 72 Requ	uired: 48	Available	e: 40		
				1		
3.6	Injury Report:	1	- 4	⊠No I	njuries to	Report
	Number of Lost Time Incidents:	0	Number of		-	0
	Complaint Number: N/A		dent Type: N/A	A.		
	Complaint Number: N/A		dent Type: N/A			
	4		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
СГСТ	TION A. FOLUDNAENT.					
<u>SEC I</u>	TION 4: EQUIPMENT:					
4.1	New Equipment Purchased:			⊠ No Ea	uipment P	urchases
	1.			ost:		
	2.			ost:	80	9
	3.		Co	ost:	V.	
					110	
4.2	Equipment Maintenance:		⊠No Equipm	ent Maiı	ntenance t	o Report
	1. Equipment Name:				0	
	Maintenance Item:				0	
	Equipment Name:			0		
	Maintenance Item:					
				11 4	P	
4.3	Durable Medical Equipment (DME) Failure		□No.	Failures to	Report
1.5	1. DME Name: Stryker S		Failure Dat		8/10/1	•
	_		rated, raise		0, 10, 1	•
		The state of the s	☐ Chairman of the		□Medical	Director
			deral Agency \square N			
			eplaced Disposed	-		
	- p		= 2.00000			550



SECTION 5: CORRESPONDENCE WITH OTHER HEALTHCARE & PUBLIC SAFETY AGENCIES

- 1. ALLENSTOWN FIRE DEPT. / Town of.
- 2. CONCORD HOSPITAL

- 3. EPSOM FIRE DEPARTMENT
- 4. HOOKSETT FIRE DEPARTMENT
- 5. MANCHESTER BOSTON REGIONAL AIRPORT
- 6. PEMBROKE FIRE DEPARTMENT, Town of.
- 7. BUREAU OF EMERGENCY MEDICAL SERVICES

- 1. Active Shooter Drill on August 9th.
- 2. Meeting with Fire Chief and EMS Coordinator about EMS Supplies and Tri-Town's role in restocking.
- Looking for assistance in their portion of the active shooter drill, their portion was on August 29th. TTEMS assisted in their drill.
- 2. EMS Manager Craig Clough notified local services of the Epi 1:10,000 shortage and that an alternative will be used when current stock runs out. Also passed on was a change in how Dilaudid given out; Ampules in place of syringes.
- 3. Feedback by Concord Hospital about a Cath Lab Case.
- Confirmed EMS coverage for Allenstown and Pembroke during the active shooter drill.
- Confirmed EMS coverage for Allenstown and Pembroke during the active shooter drill.
- Requests Tri-Town EMS participate in a planning meeting on September 20, 2017 at the Executive Court Conference Center.
- 1. Joint Loss Management Committee (Safety Committee), meeting on August $29^{\rm th}$.
- 2. Chief Paulsen informed the Service their Open House is on October 7th and Tri-Town EMS is welcomed to participate.
- 1. The Service was notified that Tri-Town EMS was awards Unit of the Year for 2017.
- 2. NH Fire Academy was contacted about making Stephanie Locke an IC Mentor.



SECTION 6: FINANCIALS

6.1	REVEN	REVENUES					
	6.1.1	Ambulance Billing (Based on ComStar Reports)	\$32,783.13				
	6.1.2	Details	\$0.00				
	6.1.3	Paramedic Intercept	\$545.00				
	6.1.4	Administrative Fees (PCR requests, etc)	\$90.00				
	6.1.5	Educational Charges (CPR, EMS related courses)	\$2,200.00				
	6.1.6	Town of Allenstown Payment	\$0.00				
	6.1.7	Town of Pembroke Payment	\$0.00				
	6.1.8	Donations	\$0.00				
	6.1.9 TOTAL REVENUE for MONTH \$35,0						
	6.1.10	NOTES:					

6.2	EXPENS	ES		
	6.2.1	Payroll #1	Employee Compensation	\$15,334.24
	6.2.2	Payroll #2	Employee Compensation	\$18,868.54
/	6.2.3	Payroll #3	Employee Compensation	\$0.00
- 7	6.2.4	Over Time	(included in Payroll #1 & #2 Figures)	\$3,275.22
- /	6.2.5	EMS Supplies		\$1,772.86
	6.2.6	Equipment		\$0.00
	6.2.7	Office Expenses	Phone, Copier, Supplies, etc.	\$1,073.37
	6.2.8	Insurances	Health, Dental, Disability, Life, W/C,	\$610.51
			Unemployment & Liability	
	6.2.9	Fuel		\$113.40
	6.2.10	Veh. Maintenance	(DEF Fluid. A3 & A8 Inspections)	\$109.60
	6.2.11	Uniforms		\$52.94
	6.2.12	OTHER	(Legal Fee, ComStar Fee, Training & Eval)	\$6,180.31
1	6.2.13	TOTAL EXPENSES fo	\$44,115.77	
6.2.14 NOTES:				4
·	1			
			43	

6.3	AMBU	AMBULANCE BILLING SUMMARY for the MONTH						
	1	Payer	# of Transports	Gross Charges	Adjusted Charges			
	6.3.1	Medicare	27		\$14,482.40			
	6.3.2	Medicaid	10		\$2,136.90			
	6.3.3	BC/BS, Anthem	6		\$6,980.00			
	6.3.4	Cigna	1		\$850.00			
	6.3.5	Other Comm. Ins	15		\$16,205.00			
	6.3.6	Self Pay, No Ins.	9		\$10,450.00			
	6.3.7	TOTALS	68	\$76 , 200.00	\$50,618.60			
	Medic	are Allowable Rates	: BLSE: \$372.49 ALS1	E: \$442.34 ALS2E: \$64	0.22 Mileage: \$10.79			
	NH Medicaid Rates: BLS: \$145.00 ALS: \$175 Mileage: \$2.60							
	Tri-Town EMS Rates: BLS: \$750.00 ALS1: \$1,000.00 ALS2: \$1,250.00 Mileage: \$20.00							
	NOTES	_	_	adjustment as pa	_			
201	1007	is confir	med and contract	ual obligations a	are applied.			



6.4	AMBUL	AMBULANCE BILLING SUMMARY for the YEAR (Charges & Balance are Service Estimates)						
		MONTH	ADJUSTED CHARGES	RECEIVED	BALANCE			
	6.4.1	January	\$41,595.09	\$31,157.48	\$10,437.61			
	6.4.2	February	\$39,013.12	\$31,689.38	\$7 , 323.74			
	6.4.3	March	\$38,724.75	\$29,203.00	\$9,521.75			
	6.4.4	April	\$43,180.19	\$29,047.74	\$14,132.45			
	6.4.5	May	\$42,531.03	\$23,077.17	\$19,453.86			
	6.4.6	June	\$42,192.47	\$26,102.07	\$16,090.40			
	6.4.7	July	\$47,875.87	\$11,324.02	\$36,551.85			
	6.4.8	August	\$51,104.30	\$485.70	\$50,618.60			
	6.4.9	September	nu	1	× × × × × × × × × × × × × × × × × × ×			
	6.4.10	October						
	6.4.11	November		A Part				
	6.4.12	December		-				
	6.4.13	TOTALS	\$349,445.92	\$182,086.56	\$167,359.36			

6.5	У.	AMBU	AMBULANCE BILLING SUMMARY for PAST YEARS					
J		YEAR	(\$/XPORT)	ADJUSTED CHARGES	RECEIVED	BALANCE		
- 7	(11 Months)	6.5.1	2014	\$379,988.31	\$272,754.88	\$107,233.43		
			(\$444.95)	1. 1		1		
		6.5.2	2015	\$427,970.94	\$312,715.14	\$115,255.80		
			(\$446.74)	1 -6	- 3			
		6.5.3	2016	\$506,494.31	\$359,668.66	\$146,825.65		
			(\$496.63)			40		
		6.5.4	TOTALS	\$1,314,453.56	\$945,138.68	\$369,314.88		

SECTION 7: QUALITY ASSURANCE/QUALITY IMPROVEMENT & TRAINING

7.1	TRAINING REPORT				
	7.1.1	JEMS Monthly Article	A Unique Approach: Active Shooter Planning & response in Healthcare 0.25cr	EMPLOYEE PARTICIPATION	13/24
	7.1.2	EMS World Article	NY EMS personnel say EMT's Need Better Training on Handling Aggressive Patients, 0.25cr	EMPLOYEE PARTICIPATION	15/24
	7.1.3	MONTHLY SKILLS	Completed – 9/24; Partial Complete – 1/24		
	7.1.4	MONTHLY SHIFT TRAINING	Active Shooter SOG 0.25Cr	EMPLOYEE PARTICIPATION	10/24
	7.1.5	NCCP TRAINING	None for August	Ву:	



7.1.6	NEXT NCCP TRAINING	OB Emergencies, Communicable	Stephanie Locke	September 19 at the Allenstown
	MAINING	Diseases		Fire Department
7.1.7	ORIENTATION			

7.2 GENERAL UPDATES

- 7.2.1 Mass Casualty Incident (MCI) binders were created for positions within the ICS system that TTEMS has the possibility of filling. These include Medical Branch Director, Triage Officer, Transport Officer and Staging Officer. Position descriptions, bullet point functions and forms were added.
- 7.2.2 Active shooter binder was created with all of the applicable forms necessary to manage an active shooter incident. .
- 7.2.3 F/T Paramedic Hornblower was trained on how to prepare PCR's for billing. She will be assuming this role.

7.3 QUALITY ASSURANCE (QA) / CONTINUOUS QUALITY IMPROVEMENT (CQI) ACTIVITIES

7.3.1 Two issues were brought to the Service's attention, one was from an outside source and one was self-reported. In both cases, the applicable employees talked through the concerns with management, corrective plans were implemented and appropriate notifications were made.

7.3.2 Trends:

- 7.3.2.1 Several employees were reminded to attach copies of 12-Leads to the PCR.
- 7.3.2.2 Employees were reminded to document the Cardiac Monitor and 12-Lead ECG's in the procedure section.
- 7.3.2.3 Some employees are not signing their PCR.
- 7.3.2.4 Employees were reminded to obtain billing information and Social Security Numbers.
- 7.3.2.5 Employees were reminded to enter in all medications administered.
- 7.3.2.6 Missing and incomplete run reports are a problem. Missing run reports are generally mutual aid runs of which the crew is instructed to document the assigned run number and when possible, the service providing the Mutual Aid.
- 7.3.3 Performance Improvement Plan (PIP)
 - 7.3.3.1 None at this time.

7.3.4 Positive Feedback:

7.3.4.1 Paramedic Hearshell VanLuven and EMT Nicholas DiGiovanni aggressively treated a multi-system's trauma patient and transported to the Elliot Hospital. Elliot hospital



contacted Tri-Town EMS with an update on the patient and commended the crew on their treatment.

- 7.3.4.2 Paramedic William Amos appropriately utilized the language line through 911 for a non-English speaking patient and rendered treatment based upon the information that was obtained as a result.
- 7.3.4.3 Paramedic Ryan Hornblower responded on a Paramedic Intercept for a patient in status epilepticus and appropriately managed the patient airway and oxygenation despite not having access to RSI medications.
- 7.3.4.4 Paramedic William Amos and EMT Nicholas DiGiovanni responded to a traumatic arrest and despite many difficulties on scene, were able to manage the scene and patient appropriately. The patient had a Return Of Spontaneous Circulation (ROSC) and survived to be admitted to the ICU at Concord Hospital. The ultimate disposition has yet to be determined.

7.3.5 Recommendations:

- 7.3.5.1 Complete the process for transferring data from the LP 15's to the PCR.
- 7.3.5.2 Work towards point-of-care testing (Labs) in the pre-hospital setting.
- 7.3.5.3 Start working towards Rapid Sequence Intubation (RSI)

SECTION 8: VEHICLE MAINTENANCE

8.1	Ambulance 3 (79A3)		10
	8.1.1	Mileage	83,825
	8.1.2	Preventative Maintenance	Annual Safety Inspection
	8.1.3	Vehicle Repair(s)	None
8.2	Ambul	ance 8 (79A8)	
H	8.2.1	Mileage	12,087
100	8.2.2	Preventative Maintenance	Annual Safety Inspection
	8.2.3	Vehicle Repair(s)	None

SECTION 9: DIRECTOR'S COMMENTS AND RECOMMENDATIONS

- 9.1 On August 21, I was officially notified by the New Hampshire Fire and Emergency Medical Service Committee of Merit, that Tri-Town EMS was nominated and awards, the EMS Unit of the Year, along with Allenstown Fire Department. This is a great honor bestowed on the EMS providers of Tri-Town for all their hard work and dedication.
- 9.2 During the month of August, Tri-Town EMS crossed the 5000th call threshold for the history of the Service. Even though this represent an arbitrary number, it is a milestone of which we all can take pride in, knowing within the 5000 runs, through the valiant efforts of our staff, are thousands of people whose lives were affected.



- 9.3 On August 9th, Tri-Town EMS, along with Allenstown Fire and Police, Concord Fire Department, New Hampshire Fire Academy and other Police Department Officers, participated in an Active Shooter Drill at the Allenstown Elementary School. I feel the drill went well and our staff performed their tasks wells. The Active Shooter SOG was worked out with the assistance of the former Allenstown Fire Chief, Dana Pendergast and Concord Fire Department Battalion Chief Sean Brown, using Concord Fire Department's Plan and the New Hampshire Bureau of Emergency Medical Service Best Practice Plan for an Active Shooter Event. Our plan will be adjusted based upon what we learned at the drill. Concord Hospital had a drill which continued on where the Allenstown Drill left off, meaning they simulated the receipt of 8 trauma patients from the Active Shooter Event. Tri-Town EMS took part in this drill on August 29th.
- 9.4 The Stryker Stretcher intermittently failed to extend to the upright or deployed position. Stryker was notified and repairs were made. A small tear in the handle where the actuating buttons are, was considered to be the issue as moisture can get inside and short out the switches. Within a week prior of the malfunction, it was evident the stretcher struck something, as there was evidence on the stretcher of hitting something hard. This event was attributed to the tear in the buttons. The representative felt certain the issue was resolved. About a week later, the same problem occurred and the rest of the electronics were replaced. The representative stated that if the stretcher fails again, the only other component to replace is the hydraulic system. All the electronics were replaced. The staff of Tri-Town EMS was instructed to make sure the stretcher is always under the control of a person and not allowed to roll away or into something. This issue may not be the fault of our staff as both town's fire and police departments handle the stretcher when the ambulance crew is busy with patient care. Because of this, the staff was asked to be conscious of where the stretcher is and ensure it is being handled safely.
- 9.5 The 2018 budget was revised and updated based upon the last Board of Director's Meeting. The updated version should be ready for review the week of the 4th.
- 9.6 Assistant Director Stephanie Locke is preparing for the Emergency Medical Responder (EMR) course starting September 7th. This is the first licensing course being offered by Tri-Town EMS. To date, the Service has 7 paying students for this course. Setting up for this course has required Assistant Director Stephanie Locke to use her personal credit card to buy books. Pending the approval of the 2018 budget, specifically certain lines, the Service will be preparing for and advertising an Advanced Emergency Medical Technician (AEMT) to start in or around January 2018.
- 9.7 Tri-Town EMS set up a display for Old Home Day, with flyers and handouts for kids, describing the Service and EMS in general. More notable, Assistant Director Stephanie Locke with Advanced EMT Daniel Fitzgerald and EMT Tiffani McIntosh instructed anyone who was interested on how to perform Hands Only CPR. Over 105 people were trained in this life saving technique. During the event, I (director) gave many tours of the new ambulance and allowed children to explore the ambulance and answered questions the adults had about the truck. Also during the event, we had many inquiries about providing CPR training. All-in-all, the event was a great opportunity for Tri-Town EMS to interact with the public and push forward our agenda of training people in CPR.
- 9.8 Tri-Town EMS was contacted by Amoskeag Rowing Club and the Junior Spartans about covering their respected events.

SECTION 10: ADMINISTRATION

• Chairman of the Board, Allenstown Town Administrator:

• Pembroke Town Administrator:

Allenstown Fire Chief:

• Pembroke Fire Chief:

Allenstown Public Member:

• Pembroke Public Member:

• Tri-Town EMS Employee Member:

• Tri-Town EMS Service Director:

Tri-Town EMS Assistant Director:

Shaun Mulholland

David Jodoin

Interim Chief Shawn Murray

Chief Harold Paulsen

Michael O'Mara

Robert "Bob" Bourque

Hearshell VanLuven, NRP

Christopher Gamache, BS, NRP

Stephanie Locke, I/C, NRP

RESPECTFULLY SUBMITTED BY:

Christopher Gamache, Service Director















