

## *Box 52 Association*



## *The Line Box*



*I·F·B·A· Member club since 1955!*

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Vol. 19 No. 3

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Welcome to the third edition of the 2022-2023 season's Line Box!

The staff, after our break we are back with another action packed edition with stories, photos that we know you will all enjoy.

Again, I am asking for help from the membership. If you had a fire that you are interested in and have the information and would like to see it published, just let me know. Even if you have the FD timeline on the job we can do some research and write the story. Many of you are now retired and may have the time to pen an article or two, maybe three for us! Let's face it we all have stories we like to yak about. It's time to share the memories.

Anyone following the FDNY has noted the increase in fire involving Lithium-Ion cells and batteries. Boston and the greater Boston area have so far escaped dealing with this new hazard to the fire service. That is until the Wakefield Fire Department responded to an electric vehicle on fire on Route 128 (I-95) Line Box staff writer Dave Parr has written a great article on the problems encountered.

So sit back and enjoy the third issue of the Line Box.

## They Never Served

By Peter Aloisi  
All photos by the author

Concord, MA sold their 1990 E-1, Cyclone to Boston in 2016. It never went in service and may have been used for details.



Ladder 25 was assigned former Ladder 16's 2008 E-1 but it did not fit in their quarters and became a spare.



Engine 49 was assigned former Engine 14's 1996 E-1 (rehabbed in 2011) but the vista roof was too high for their station. It was reassigned to Engine 55.



### **They Served Only A Few Months:**

Engine 5, 2002 Kenworth/Pierce 1200/1000/40 and Engine 41, 2002 Pierce Enforcer 1500/750/30. Both were leased in order that the O'Neil Tunnel be allowed to open on time because Boston's Pierce foam pumpers were not ready for delivery.







Engine 33 and 7, 2010 KME Predators and the first KME's for Boston. Engine 33 could barely fit into their vintage 125 year old station and it had to be reassigned to Engine 14. Engine 7 had several mishaps backing into their quarters resulting in their rig being reassigned to Engine 42.





Tower Ladder 10 a 2001 American LaFrance 75' tower was delivered to Boston for evaluation where it remained for six months. It shown here working at a six alarm fire box 232 for 461Park Drive on March 18<sup>th</sup>, 2002. It was returned to the manufacturer and sold to Elizabeth, NJ.

### **They Served only A Few Years:**



Tower Ladder 2 a 2005 Pierce Dash 95' tower served East Boston for two years before being reassigned to Tower Ladder 3. During this time Boston had four tower ladders in first line service (2, 3, 10 and 17)



Ladders 17, 18 and 29, 2013 KME 109' Aerial Cats. Their pre-piped water ways were removed and they were taken out of service and disposed of in 2016.



## WAKEFIELD FIREFIGHTERS AND MUTUAL AID PARTNERS BATTLE ELECTRIC VEHICLE FIRE

By David Parr

A significant event occurred in Wakefield, MA on the evening of January 19th, 2023. At 2247 hours, Car 3, Engine 1, and Ladder 1, under the command of Captain John Walsh, responded to a report from the Massachusetts State Police of a "motor vehicle into the guardrail" in the area of Exit 59 north-bound on Interstate 95 - Route 128. On arrival Captain Walsh reported (1) motor vehicle had skid on the ice, off the highway and was hung up on the guardrail. The lone occupant had self-extricated and refused medical treatment. Crews immediately identified the vehicle as a Tesla - Model S electric vehicle. The Engine 1 crew of Lieutenant Erik Cole, FF Rusty Ricker and FF Kevin Wesley quickly deployed a 1 3/4 hose line as a precaution while the Ladder 1 crew consisting of Lieutenant Gary Hill, FF Chris Sullivan and FF Darren Stead, stabilized the vehicle and utilized metal cutting saws to remove a portion of the guardrail for the vehicle to be safely removed from the highway. The guardrail had pierced the vehicles battery compartment, located within the undercarriage of the vehicle, but was stable at this point. Once the guardrail was cut away, and during the vehicle removal operation by a privately contracted tow company, the battery compartment burst into flames and "thermal runaway" of the lithium-ion batteries initiated.



Shift Commander Walsh notified dispatch to "transmit the box" and fill out the full 1st alarm assignment sending Wakefield Engine 2 direct to the accident scene with Acting Lieutenant Jon Murphy, FF Joe Nee, and FF Sam Carr on-board. Due to department training and recent reports of similar electric vehicle fires across the country, Shift Commander Walsh was aware that extinguishment of an EV lithium-ion battery involved in fire could potentially take thousands of gallons of water and hours to extinguish. No hydrants are readily accessible on I-95 so mutual aid companies were summoned to set up and initiate a water shuttling operation to obtain a continuous water supply to Wakefield Engine 1 for fire extinguishment. A

Lynnfield Engine Company arrived in short order along with Lynnfield Fire Chief Glenn Davis, providing valuable assistance to operating companies. Wakefield Engine 1 and Ladder 1 crews stretched (3) handlines flowing heavy water to extinguish the fire. Once fire appeared to be extinguished and all hand lines were shut down, the fire would inevitably re-ignite, reaching temperatures upwards of 2000 degrees far exceeding that of a normal vehicle fire, exuding numerous toxic fumes. All crews operating at the scene wore full personal protective gear including self-contained breathing apparatus (SCBA).

Provisional Chief Thomas Purcell arrived on scene and assumed command of the overall incident with Captain Walsh assuming operations. Engine companies from Reading, Stoneham, Lynnfield, and Melrose responded to the vehicle fire, via mutual aid, providing needed water for the water shuttling operation as well as manpower at the scene. A Middleton tanker greatly assisted the water supply effort, carrying 2500 gallons of water on-board, and a Saugus Engine company provided coverage at the Wakefield fire headquarters. Lynnfield crews were eventually able to lay 1500' feet of 4"-inch supply line to provide continuous water supply from a hydrant on Vernon Street toward the Lynnfield line. This strategy allowed companies to initiate operation of a "blitz attack gun", pouring copious amounts of water directly on the impinged battery compartment in addition to the other (3) handlines operating on the fire. Two and a half hours and some 20,000 gallons of water later the fire was extinguished with readings on multiple thermal imaging cameras showing temperature reduction down to 40 degrees Fahrenheit within the lithium-ion battery compartment.

A tier 1 hazardous material response was requested by Chief Purcell from the Massachusetts State Haz-Mat Unit and the Environmental Protection Agency was contacted. Department of Transportation and Mass Highway were on scene providing support as operations were conducted in a heavy snow squall with 3-5" of snow accumulating during the height of the incident. Massachusetts State Police had the highway traffic limited to one lane. The State Haz-Mat unit arrived on scene assisting with loading, and removal of damaged hazardous lithium-ion batteries and overseeing the vehicle removal. Wilmington fire was notified, as a precaution that the vehicle was removed and would be stored in a tow yard within their town border.

Lithium-ion batteries have been reported to reignite as long as 24 hours after initial extinguishment. Mutual aid companies were released, and Wakefield companies cleared the scene. The incident garnered national attention with multiple requests for information on the strategy and tactics the department employed during mitigation of the emergency. Fire departments across the country are just now learning how best to deal with the hazards associated in fighting EV's fires involving lithium-ion batteries and the safest, most effective, methods in dealing with electric vehicle emergencies. The department reports that no injuries were sustained during mitigation of the incident.





### **INCIDENT TIMELINE**

2247 – Wakefield Engine 1, Ladder 1, Car 3 (Shift Commander)

2318 – Box 415 transmitted – Wakefield Engine 2

2338 – Special call Lynnfield Engine 3

2343 – Special call Reading Engine 3

2351 – Special call – Melrose Engine 2

0009 – (1-20-2023) – Special call Middleton Engine Tanker 4

0030 – Saugus Engine 1 covering Wakefield HQ

0223 – All companies clear, command terminated, all out box 415

(Special thanks to Deputy Chief Tom Purcell for information on this incident)

On March 7<sup>th</sup>, 2023 ABC New in New York quoted this FDNY statistic since January 1<sup>st</sup> of this year:

*"Lithium-ion battery explosions are now the third leading cause of fires in New York City after smoking and open flames, according to the FDNY. So far this year, the FDNY reports **batteries have been linked to 33 fires** and 42 people have been injured while two have died."*

## Lithium-ion Cells and Batteries

Research on rechargeable Li-ion batteries dates to the 1960s; one of the earliest examples is a  $\text{CuF}_2/\text{Li}$  battery developed by NASA in 1965. The breakthrough that produced the earliest form of the modern Li-ion battery was made by British chemist M. Stanley Whittingham in 1974, who first used titanium disulfide ( $\text{TiS}_2$ ) as a cathode material, which has a layered structure that can take in lithium ions without significant changes to its crystal structure. Exxon tried to commercialize this battery in the late 1970s, but found the synthesis expensive and complex, as  $\text{TiS}_2$  is sensitive to moisture and releases toxic  $\text{H}_2\text{S}$  gas on contact with water. More prohibitively, the batteries were also prone to spontaneously catch fire due to the presence of metallic lithium in the cells. For this, and other reasons, Exxon discontinued the development of Whittingham's lithium-titanium disulfide battery.

In 1980 working in separate groups Ned A. Godshall et al.,<sup>[28][29][30]</sup> and, shortly thereafter, Koichi Mizushima and John B. Goodenough, after testing a range of alternative materials, replaced  $\text{TiS}_2$  with lithium cobalt oxide ( $\text{LiCoO}_2$ , or LCO), which has a similar layered structure but offers a higher voltage and is much more stable in air. This material would later be used in the first commercial Li-ion battery, although it did not, on its own, resolve the persistent issue of flammability. The same year, Rachid Yazami demonstrated the reversible electrochemical intercalation of lithium in graphite, and invented the lithium graphite electrode (anode).

These early attempts to develop rechargeable Li-ion batteries used lithium metal anodes, which were ultimately abandoned due to safety concerns, as lithium metal is unstable and prone to dendrite formation, which can cause short-circuiting. The eventual solution was to use an intercalation anode, similar to that used for the cathode, which prevents the formation of lithium metal during battery charging. A variety of anode materials were studied; in 1987, Akira Yoshino patented what would become the first commercial lithium-ion battery using an anode of "soft carbon" (a charcoal-like material) along with Goodenough's previously reported LCO cathode and a carbonate ester-based electrolyte. In 1991, using Yoshino's design, Sony began producing and selling the world's first rechargeable lithium-ion batteries. The following year, a joint venture between Toshiba and Asahi Kasei Co. also released their lithium-ion battery.

Significant improvements in energy density were achieved in the 1990s by replacing the soft carbon anode first with hard carbon and later with graphite, a concept originally proposed by Jürgen Otto Besenhard in 1974 but considered unfeasible due to unresolved incompatibilities with the electrolytes then in use.<sup>[27][35][36]</sup>

In 2012 John B. Goodenough, Rachid Yazami and Akira Yoshino received the 2012 IEEE Medal for Environmental and Safety Technologies for developing the lithium-ion battery; Goodenough, Whittingham, and Yoshino were awarded the 2019 Nobel Prize in Chemistry "for the development of lithium-ion batteries".

In 2010, global lithium-ion battery production capacity was 20 gigawatt-hours. By 2016, it was 28 GWh, with 16.4 GWh in China. Global production capacity was 767 GWh in 2020, with China

accounting for 75%.<sup>1</sup> Production in 2021 is estimated by various sources to be between 200 and 600 GWh, and predictions for 2023 range from 400 to 1,100 GWh.

### Batteries

A *battery* (also called a *battery pack*) consists of multiple connected lithium-ion cells. Battery packs for large consumer electronics like laptop computers also contain temperature sensors, voltage regulator circuits, voltage taps, and charge-state monitors. These components minimize safety risks like overheating and short circuiting. To power larger devices, such as electric cars, connecting many small batteries in a parallel circuit is more effective and more efficient than connecting a single large battery.

### Cells

Li-ion cells (as distinct from entire batteries) are available in various shapes, which can generally be divided into four groups:

- Small cylindrical (solid body without terminals, such as those used in most e-bikes and most electric vehicle battery and older laptop batteries); there are several standard lithium-ion cylinder sizes.
- Large cylindrical (solid body with large threaded terminals)
- Flat or pouch (soft, flat body, such as those used in cell phones and newer laptops; these are lithium-ion polymer batteries.<sup>[128]</sup>)
- Rigid plastic case with large threaded terminals (such as electric vehicle traction packs)

Cells with a cylindrical shape are made in a characteristic "swiss roll" manner (known as a "jelly roll" in the US), which means it is a single long "sandwich" of the positive electrode, separator, negative electrode, and separator rolled into a single spool. The shape of the jelly roll in cylindrical cells can be approximated by an Archimedean spiral. One advantage of cylindrical cells compared to cells with stacked electrodes is the faster production speed. One disadvantage of cylindrical cells can be a large radial temperature gradient inside the cells developing at high discharge currents.

The absence of a case gives pouch cells the highest gravimetric energy density; however, for many practical applications, they still require an external means of containment to prevent expansion when their state of charge (SOC) level is high, and for general structural stability of the battery pack of which they are part. Both rigid plastic and pouch-style cells are sometimes referred to as prismatic cells due to their rectangular shapes. Battery technology analyst Mark Ellis of Munro & Associates sees three basic Li-ion battery types used in modern (~2020) electric vehicle batteries at scale: *cylindrical cells* (e.g., Tesla), *prismatic pouch* (e.g., from LG), and *prismatic can cells* (e.g., from LG, Samsung, Panasonic, and others). Each form factor has characteristic advantages and disadvantages for EV use.

Since 2011, several research groups have announced demonstrations of lithium-ion flow batteries that suspend the cathode or anode material in an aqueous or organic solution.

In 2014, Panasonic created the smallest Li-ion cell. It is pin shaped. It has a diameter of 3.5mm and a weight of 0.6g. A coin cell form factor resembling that of ordinary lithium batteries is available since as early as 2006 for LiCoO<sub>2</sub> cells, usually designated with a "LiR" prefix



**F.D.N.Y**

**March 5, 2023**

**Bronx Box 55-4794 2092-2096 Grand Concourse between 180<sup>Th</sup> & 181<sup>St</sup> Streets**



44 Truck operating on the Charlie side of the fire. Photo courtesy of CNN News

This fire in a 100x125 single story commercial class 3 building was caused by an e-bike battery.

**WOBURN FIRE**  
**General Alarm Box 65**  
**February 2, 1927**  
**By Line Box Editor Frank San Severino**

Wednesday February 2, 1927 dawned overcast with temps hovering just above freezing and expected to rise to the low 40's during the day. It was another typical dreary Boston winter day. Ten miles from Boston was the small industrial city of Woburn. At the time of this fire, the City was known for its hide tanneries and their supporting industries.

The good citizens began their day. Mr. Olaf Olson, a fireman with the Peterson Patent Leather Company located on Jefferson Avenue had arrived promptly at 6 AM and relived the night man, Stephen Greco. He began the routine of taking temperature readings on the finish ovens. After he was satisfied that all was in order, he went about opening the ovens for the finisher's to get to work. Olson then went to the fireroom on the first floor when a tremendous explosion hurled him backwards. Blew out all the windows in the factory and instantly the upper floors of the factory exploded into a fire ball when the cold air mixed with the flammable oils, naphtha, and gasoline used in the production of patent leather shoes.

After shaking himself off, he ran from the building and pulled box 65 and then ran back to try and pull the fires in the boilers to prevent another explosion. Woburn police officer Arthur Fay hearing the explosion came on a dead run down Jefferson Ave. He took one look at the building, and pulled a second alarm on box 65. Now Winchester's two pumps were on the way. It was just 6:30 AM.

The fire was not waiting for the Woburn Fire Department to get into operation. It jumped a small creek and ignited the Marion Heel Shop located in a four story wood frame structure. Within 15 minutes of the first alarm, both buildings were fully involved. Woburn Fire Chief Frank Tracey knew his department was not equipped to battle what was rapidly becoming a conflagration. He sounded the General Alarm, and as he did so the long lumber sheds of the E.G. Barker Lumber Company were now fiercely burning and softball size brands were landing on dozens of roofs.

Chief Tracey and his troops fought a delaying action until the arrival of reinforcements from Stoneham and Reading. Chief Tracey looked up Jefferson Ave at the intersection of Eastern and to his horror saw that the fire had spread to the Robertson factory. The time was now a few minutes past 7:00 AM. More fire companies and manpower was needed, or the entire area may erupt into a conflagration. Chief Tracey ordered the police to call all neighboring towns and request aid. Calls went out to Arlington, Medford, Melrose, Lexington and Wakefield.

Winchester arrived with Engines 1 and 3, both Ahrens-Fox 750 gpm pumps under command of Chief Decoursey. Tracey ordered Winchester down Jefferson Ave to try and get at the fire in the lumber yard. The heat on Jefferson was intense and was driving companies back. As the Winchester pumps got on hydrants they soon had five strong lines in operation hitting as much fire as they could reach

As Reading's pump arrived, they were directed to cut off the fire from spreading from one of the Robertson shoe buildings from the main factory building. The crew's hard work paid off as they kept the fire out of the main factory building. The distance between these two buildings was a mere 25 feet!



Photo courtesy of the Leslie Jones Collection Digital Commonwealth

The fire continued to blaze on and devour the wooden plants. Mutual Aid companies were arriving and getting lines into action as fast as they could. Big lines were being hooked to pumps and firefighters screwed on the long Underwriters Playpipes to give the streams the much needed reach to hit the flames. The roar of the pumpers was being drowned out by the roar of the fire.

The fire was taking a toll on the Woburn firefighters. The most serious of the injuries was to Hoseman Joseph McKay of Engine 4 who was struck in the head by a loose nozzle. He was transported to Choate Hospital with a fractured skull. Woburn Engine 4 maneuvering down Jefferson Avenue in heavy smoke did not see a ground ladder against the building and its fender caught the ladder dropping Captains Michael Cuneo of Engine 3 and Daniel Kerrigan of Engine 1 to the ground. Both suffered minor injuries and refused to leave the fire ground. Hoseman James McGovern of Engine 1 was cut by flying glass. Woburn Police transported him to Choate Hospital where he received stitches and returned to his company.

At 7:10 AM Arlington received the call from Woburn. Engine 1 responded with ten men along with Chief Tierney. Chief Tracey ordered them to protect the dwellings on Jefferson along with Woburn Ladder 1 under the command of Captain Andrew Cuneo.



Wakefield's Engine 1 was ordered into Jefferson Ave to stop the fire from spreading to Jaquith's garage on Garfield Avenue. They also had streams on the lumber mill building of Baker Lumber.

In Lexington, at 7:13 the mutual aid signal was blowing on the whistles. Engine 1's 1925 American La France 750 gpm pulled out of quarters, rolled through the Center, down Woburn Street and into the battle lead by Chief Taylor. This Company was ordered to brand patrol on Eastern Avenue and they used 4 chemical tanks to knock down roof fires. At 11:00 AM Chief Tracey ordered them to cover the Woburn Central Station on Winn Street.

Meanwhile, the Medford Engine set up on Mt. Pleasant Street opposite Highland Street. They dragged two big lines through the coal yards of Eames & Carter Coal Company. They played their lines on to the involved lumber yard buildings.



Photo courtesy of the Leslie Jones Collection Digital Commonwealth

The fire burned out of control for over two hours. The Woburn Department and mutual aid companies prevented certain disaster. The damp weather and light wind combined to help turn the battle. Chief Tracy was praised for his quick actions and gathering enough apparatus to ring the fire and bring it under control.

Out-of-town companies kept working on hot spots until well after noontime when they were ordered to make up and return.

The scorecard for the fire was three plants destroyed. Three houses damaged. Another five suffering minor roof fires. Four firefighters injured, one seriously. 200 persons were thrown out of work and the total dollar loss was estimated at \$ 300,000.00.

Special thanks to Woburn Fire Lt. Kenneth Robishaw for his assistance in preparing this article

## **A FORTUITOUS FINDING**

According to Webster's New Collegiate Dictionary of 1973

**FORTUITOUS is:**

**Adjective;**

**Meaning; occurring by chance**

Couple of weeks ago I finally cleared out drawer space for the duplicate copies of the Box 52 Newsletter from the late 1950's up to 1965. One of the newsletters become entangled in all my Lionel catalogs and Classic Toy Train magazines. The issue in question was the January 1963 newsletter. It was fortuitous that this issue didn't make it into the drawer. For it contained a time line on a January 3<sup>rd</sup> FDNY Boro Call in the Bronx with all of the bell signals and times. This was shared with Box 52 by Mr. Bernard Grandjaney of the Third Alarm Association of New York.

I mentioned this to Jay Pozark who found the report on this fire in the first issue of WYNF for 1963.

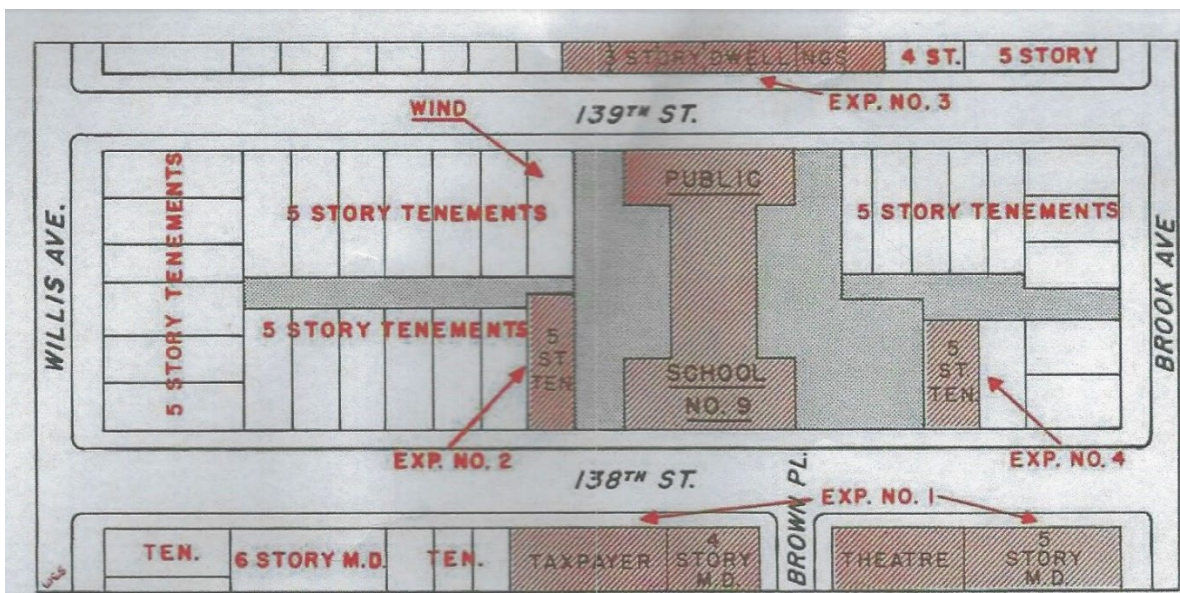
Sit back and enjoy this FDNY Boro Call.....

## **BRONX SCHOOL INFERNO**

**P.S. 9 481 East 138<sup>th</sup> Street**

**January 3<sup>rd</sup> 1963**

**Information from a WYNF article by Deputy Assistant Chief of Department  
Timothy J. Driscoll. All Photos WNYF 1<sup>st</sup> Issue 1963**



"Public School 9 was built in 1888 of class 3 construction, 4 stories in the shape of an "H" 120 by 180 feet.

At the time of the fire a northwest wind was blowing at 15 mph and below freezing temperatures resulted in vast ice formations on the streets which were the cause of numerous injuries to personnel working at the fire.

The Bronx Central Office received a telephone call reporting a "rumbling explosion" from the school. This report was given by a passerby on his way to work. The first alarm was struck from box 2138 138<sup>th</sup> St & Brown Place at 3:47 AM.

First due companies found fire showing from the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> floors in the center section. They entered the school via the front door from the stairs on 138<sup>th</sup> Street and from the stairs from the west courtyard. Doggedly they attacked the fire, but were met by an impenetrable wall of flame accompanied by extremely high temperatures and dense smoke. When the advanced extent of the fire was determined these lines were withdrawn and all personnel ordered from the building.

An exterior attack was undertaken and in short order the school was ringed with the department's heaviest artillery: Deck pipes and ladder pipes on 138<sup>th</sup> Street side. Ladder pipes and heavy streams from roofs on E. 139<sup>th</sup> Street. Playpipes, Multi-versals, etc. from the east and west school yards and tenement roof areas all with no avail.



The fire rapidly spread and engulfed the entire center portion of the school and then spread through the undivided cockloft to the 138<sup>th</sup> and 139<sup>th</sup> Street wings which ignited with explosive speed. Fire burst through the roof and the center section seemed to come apart at the seams. The roof, 3<sup>rd</sup> and 4<sup>th</sup> floors collapsed into the second floor as the steel beams and cast iron columns succumbed to the intense heat and flames.



A Rescue and Ladder company had searched and evacuated tenements to the east (exposure 4). The Rescue had administered aid and supplied oxygen to a seriously ill man and had him removed to the hospital by public ambulance.

Shortly after the center section collapsed the roofs on the two wings crashed into the 4<sup>th</sup> floor of the wings, quickly spreading fire therein.

When structural stability was determined to be safe, interior lines were advanced into these wings and ultimately confined and extinguished fires on the 4<sup>th</sup> floor of both wings.

The fire was confined to the school and finally brought under control at 8:11 AM.

Excellent arson detective work by Chief Fire Marshal Martin Scott and his staff, later established the fact that the fire was started when a 16 year old boy set fire to two Christmas trees which had been placed against an exterior door of the southwest side of the school building. The boy was apprehended and taken into custody. He confessed to setting the fire at approximately 11:30 PM on January 2<sup>nd</sup>, 1963. It therefore had been burning, unreported for four hours.

Only by the utmost bravery, ability, and stamina was the fire subdued by the members of this Department and prevented from assuming conflagration proportions."



**SPECIAL REPORT****NEW YORK CITY****BY Bernard Grandjany****Editor, Third Alarm Assoc. NEWSLETTER**January 3, 1963 Fire at Public School #9, 475 E 138<sup>th</sup> St., Bronx, 4-Brk 100x200

3.47 am	Box 2148	Brown PI & E 138 <sup>th</sup> E 83-60 L 29-17 Sqd 2 Bn 14
3.50	2-2 2148	B/O BC Hanson, Bn 14 E 36-35-73 L 14 Res 3 Div 6 Field Communications Unit Search Light 23 Relocations: E 53-60. 94-73, 80-36 L 19-17 40-14
3.51	4-2148-17	Bn. 17 special called by order of Bn. 14
3.54	66-1497	Manhattan box 1497 127 <sup>th</sup> St & Lenox E 59 – (36) L 30, Sqd.1 Bn 12
3.59	3-3-2148	B/O DC Flynn 6 <sup>th</sup> Div. E (59) -71-50-91 L 43 (Bn. 17) Mask Unit, FD Ambulance 1 Relocations: E 42-71, 44-91 L 48-42
4:00	5-2148-69	E 69 special called in place of E 59 operating at Manhattan 1497
4:05	5-1497-58 7-1497-40	E-58 and L 40 special called to fill out first alarm Manhattan box 1497
4:12	4-4-2148	B/O Car 20 DAC Driscoll. Fire showing on all floors
4:15	5-2148-37 5-2148-68 7-2148-43	E 37, 68 & L 43 special called. E 69 already at fire and E 58 and L 30 operating at Manhattan 1497 Relocations: E 67 – 69, 47 - 58, 48 – 92, 90 – 82 L 28 - 30
4:24	5-5-2148	B/O Car 13 Acting Chief of Dept. Ward. Building fully involved E (37) – (68) – 46, Queens E 263 L (43) Relocations: E 40 -37, 88 – 46, Queens E 325 – 263
4:29	66-1560	Manhattan box 1560 135 St & 8 <sup>th</sup> Ave. E 69 67 L 30 28, Sqd. 1, Bn. 16
4:30	5-2148-44 5-2148-48	E 44 enroute to relocate to quarters of E 91 directed to the Bronx to the fire as was E 48
4:30	5-1560-36 (80) 7-1560-23	E 80 acting E 36 and L 23 special called to fill
4:39	5-1560-58 (47) 7-1560 14 (40)	E 47 acting E 58 and L 40 acting L 14 special called B/O Bn. 16 for full first alarm assignment to 1560.
4:40	7-2148-26	L 26 special called in place of L 43 already at the fire.
4:59	66-75-1560	DC Daley 5 <sup>th</sup> Div reports all hands working
5:00	7-2148-31 7-2148-47	L 31 & L 47 special called on request for additional truck co's. At this time, temp +25, humidity 75%, wind 5 mph. Additional police detail requested to aid in evacuating 250 persons from nearby tenements now threatened by severe heat.
5:22	66-2148-99-22-7536	Boro Call B.O Car 13 from Queens (99), a 2 <sup>nd</sup> alarm assignment to respond to box 7536 located at Astoria Blvd. & 33 <sup>rd</sup> St near the Triborough Bridge, were now responding to Bronx (66) box 2148 1 <sup>st</sup> alarm E 263 – 325, 312, 262 2 <sup>nd</sup> alarm E 261, 260, 307 Relocations: Queens E 238 – 261, 259 – 260, 272 – 307. Relocations: Manhattan E 21 – 91, 55 – 35, L 25 – 26, 4- 23
8:08		Car 13 reports fire in the Bronx under control.

This public school, built in 1888, was completely gutted; only exterior walls remained. Part of the roof and floors had collapsed into the interior of the fire building. Fire is believed to have started by a youth who is alleged to have set the fire using Christmas trees next to a wall of the school. Cinders from these burning trees ignited wooden window sills and thereby commenced a 4 hour epic struggle with that demon of demons - - FIRE!!

Notes: E 325 had relocated into quarters of 263 upon receipt of 5-5-2148.....now E 325 was responding as second section of E 263 on the Boro Call.....while E 316 was relocated into 263 and became the 3<sup>rd</sup> section of 263!!





**AAA Plastics**  
**32 Valentine Street Cambridge**  
**Box 3-363**  
**January 10<sup>th</sup>, 1973**

**Information submitted by member Edward Morrissey**

January of 1973 had not been kind to the members of the Cambridge Fire Department. They had battled three major multiple alarm fires between the 7<sup>th</sup> and 10<sup>th</sup> of the month.

The first multiple was on New Year's Day. Box 121 was transmitted at 0515 hours for 2 buildings at Cambridge & 4<sup>th</sup> Streets. Next was Saturday the 6<sup>th</sup> when a third alarm fire swept through Mills Hardware warehouse. Third job on the 8<sup>th</sup>, at 1040 hours companies responded to box 83 for a house fire at 380 Walden Street. First arriving companies rescued an 84 year old female resident from the second floor. A second alarm was transmitted.

After a brief rest of a single day, the Cambridge Fire Department would face one of the most challenging fires in its history. The allout would not be sounded for fifty two hours and three minutes!



Photo by the late CFD FF Ed Fowler, collection of member E. Morrissey

Wednesday January 10<sup>th</sup>, was another bitter cold day in a recent string of sub-zero temperatures in the Boston area. In the two story brick and concrete block structure on Valentine Street, workers went about their duties. One worker smelled smoke and ran to the office. The co-owner of the company Mr. Jerry Lane saw flames and immediately evacuated all the workers and called the Fire Department. The Fire Alarm Office received the call and transmitted box 363 at 1030 hours. While companies were responding an explosion rocked the building and fire was now raging throughout the structure feeding on the supply of plastics. Engine 2 and Ladder 3 were first due from their quarters on Mass. Ave in Lafayette Square and as they turned into Valentine Street they were greeted by thick heavy acrid yellow smoke pushing from AAA Plastics. First alarm companies masked up and dragged lines into the building. The smoke was blinding and they were making little headway. Out on the street the smoke was just as thick and choking as in the building.

The second alarm was transmitted at 1054 hours and Chief of Department William Cremmins transmitted a third alarm on box 363 at 1110 hours.

The fire had burned through the roof and was sending up a plume of smoke that could be seen for miles. Firefighters were ordered to back out and prepare for a defensive attack. The acrid smoke was taking a toll of firefighters on the scene. Many began to suffer the effects of smoke inhalation and were taken by ambulance, and Cambridge Police cars and wagons to all of the hospitals in Cambridge.

Chief Cremmins was faced with a serious fire in a densely packed neighborhood of three deckers and a dwindling firefighting force. He ordered Fire Alarm to call back to duty both Group 3 and 4 and have them respond to the fire.

With the nine Cambridge engines, along with Somerville Engine 3 and Boston Engine 10 all on hydrants water pressure was becoming a serious problem. Chief Cremmins requested that Chelsea dispatch their two engine companies equipped with the new four inch large diameter hose. The request was relayed via Newton Control and soon Chelsea Engine 1 and Engine 4 were responding to the fire. Boston was requested to respond two additional engines to the fire. Engine 34 and 51 were soon rolling into the fire ground. With an adequate water supply, the defensive attack was focused on a water curtain made up of dozens of big lines to protect surrounding exposures.



Photo by member Edward Morrissey

The fire was winning the battle as more and more firefighters were felled by the noxious smoke. Aerial Tower 1's members had it the worst high above the fire in the shifting and swirling smoke operating both of the Sutphen's buckets guns aimed down into the building. Even with their masks on the crew took terrific punishment.

At the height of the fire, 15 engine companies, 3 ladders, one aerial tower and a rescue company were heavily involved.

By late afternoon, the fire had been darkened down. All companies were still heavily engaged. As the day turned into evening, the night shift arrived on scene. And in Cambridge stations, the day crew of covering companies were relieved by their night crews. The former AAA Plastics was still belching smoke into the sky.

136 firefighters suffered from smoke inhalation. 30 were treated and released back to the fire. 93 were released and sent home, ordered off duty. 13 were admitted to hospitals for 24 hours or longer.

The next day January 11<sup>th</sup> another frigid day, companies were still on the scene and mutual aid companies were still covering CFD houses. Again, day crews were relieved by the night crews at the fire and covering assignments.

At 1937 hrs. Cambridge Fire Alarm recorded Boston box 711 which had been struck for a fire in an 8 story ordinary class building at 332 Summer Street in South Boston. The building housed the Ralph Pill Electric Supply Company and the Donahue-Draper Wool Company. There was more plastics burning and lets add burning wool. First arriving companies found heavy acrid smoke hanging low in the street. By 1947 hours, three alarms had been transmitted and the 5<sup>th</sup> alarm was transmitted at 2039 hours. Engine Company 33 responded to the fire from its covering assignment at Cambridge Engine 2. This fire would send three firefighters to the hospital, all with minor injuries. With so many companies still tied up in Cambridge it did cause some problems bringing coverage into Boston.

By 2245 hours, Boston began to release coverage.

At 2259 hours in the City of Somerville, box 743 was received as a straight pull. Fire Alarm transmitted the box out two rounds and announced "Box 743 for the Hodkins School Holland & Paulina Streets. Ladder 3 turned right out of their Teele Square quarters and headed down Holland Street with Engine 6's 1962 Pirsch pump right behind them. Ladder 3's officer took one look at the school and ordered a second alarm. The Hodkins School was fully involved! The second was transmitted at 2300 hours followed by the third alarm at 2303. Somerville Engine 4 responded on the second alarm from coverage at Boston Engine 32. Ladder 1 responded to the fire having just been released by Cambridge. A Medford pump was covering Engine 7 on Highland Avenue and responded to the fire on the first alarm. Somerville Chief Mack special called two engine companies from Chelsea to respond with their large diameter hose. Chelsea Engine 4 was available to respond, but Chelsea still had an engine covering in East Boston on the fifth alarm. In the beginning few minutes of the fire, calls were also received for a fire at the Western Junior High and for a building on Thorndike Street. Both were for the main fire. Just about 2312 hours Fire Alarm notified Car 301 that their Newton Control radio had failed and they would be calling other communities by phone. This delayed companies coming in on the third alarm and for station coverage. Again, with companies still in Cambridge, some of the mutual aid coming in on the third alarm for station coverage was strange: Malden Engine 3 & Ladder 2 covered Somerville Headquarters. Winchester Engine 3 went to Somerville Engine 4 on Somerville Avenue. The school was gutted and a total loss.

These three major fires occurred in just about thirty six hours in freezing temps with heavy acrid smoke conditions and a fully involved school, tested not only Newton Control but the members of all the fire departments involved, fifty years ago!

In the May issue we hope to have the time lines on the fires discussed above.





## Los Angeles County Fire Department

### Brush Fire Response

Recently several members and your editor were discussing the reality show **CAL FIRE** and the question came up (*Since all are retired and watch EMERGENCY on the Cozi channel daily – Editor*) as to what a first alarm brush fire response is in LA County.

A few e-mails back and forth with the P.I.O staff got us the answers. Here is the brush response to the 3<sup>rd</sup> alarm level.

#### RESOURCE LIST\*

First Alarm (115 Personnel)	Second Alarm (195 Personnel)	Third Alarm (250 Personnel)
7 Engine Companies 1 Brush Patrol 3 Helicopters (1 w/crew) 4 Camp Crews 1 Dozer Team 1 Water Tender (tanker) 3 Superintendents 2 Super-Scoopers (Jul 1-sig rain) 1 Paramedic Squad 2 Battalion Chiefs 1 LAFD Helicopter	5 Engine Companies 4 Camp Crews 1 Dozer Team 1 Water Tenders Heavy Equipment Superintendent 1 Heli-Tender 1 Emergency Support Unit 2 Battalion Chiefs 1 Assistant Chief	10 Engine Companies 2 Battalion Chiefs 1 Deputy Chief

**Strike Team = 5 Engine Companies and a Battalion Chief**

#### ACREAGE BURNED/INCIDENTS

2018	2017	2016
63,648 Acres 759 Incidents	8,672 Acres 724 Incidents	6,396 Acres 724 Incidents

**5,000 acres = 8 square miles**

#### AIRCRAFT

<b>Sikorsky FIRE HAWK</b>	1,000 gallons refill from lakes, pool, LZ
<b>Bell 412</b>	360 gallons
<b>Super Scooper</b>	1,600 gallons refill from lakes, ocean
<b>Erickson AIR-CRANE</b>	2,200 gallons refill from pools, lakes, ocean
<b>Water Tender</b>	3,000 gallons

Thanks to the LA County Fire Department P.I.O Staff for their assistance with this article.



## APPARATUS UPDATE By Michael Boynton

All photos by the author

If it's winter, it's the annual **AMBULANCE UPDATE** for the Line Box. Across the Commonwealth, thousands of firefighters, EMTs and Paramedics alike, use these rigs to bring life saving efforts to those who need it the most. These vehicles are as important to the fleet as any other unit in the communities' they serve. From the days of the Cadillac and Oldsmobile hearse look-alikes to today's big box 4x4s, they have saved countless lives. So, let's give a tip of the cap to a few of the newest EMS units delivered in the Bay State over the last year.

### Metro Fire









STATEWIDE





















**In the May Line Box, part 2 of Statewide deliveries will cover L – W communities.**



**The Salem Firebug**  
**January – February 1982**  
**By Box 52 Secretary Jeff Brown**

**Part 1**

The headline in Boston Herald American on February 23, 1982, said it all “FIREBUG STALKS SALEM”. Five fires in 19 days had Witch City residents on edge.

The reign of terror began in early February with a spectacular church fire in South Salem.

Two weeks later a Firefighter would make the Supreme Sacrifice at a downtown fire. This tragedy would be followed by two simultaneous 5 alarm fires. During the chaos of two General Alarm fires, a party well known to the local police would break into the Salem Police Headquarters and attempt to set fire to the Station. Salem Firefighters held a LODD funeral for their fallen Brother during these fires. This is part one of those 19 days of terror in Salem.

Many of those who fought these fires are current or former Box 52 Association members. They include: Tom Brophy, Bob Turner and Brian Harrington all of Salem. George Nash from Middleton; Bill Conway from Lynn and Past President Peter Aloisi who was on scene photographing many of the fires,

Part 1 will cover the fires that started the year off. The fire at St. Anne’s church was first and the tragic fire in the Power Block where one firefighter was killed. Then came the brazen attempt to torch the occupied police station and the five alarm fire in the Salem Armory. The second five alarm fire at the Masonic Temple on Washington Street will be in part two.

As the Salem Fire Department welcomed in the New Year they had no idea the amount of fire duty that the next two months had in store for the Salem Jakes, their mutual aid partners and City residents.

**January 7<sup>th</sup>**

Salem would be faced with three fires with in a two hour span. The first fire was at 9 Barton Street in a two and a half story woodframe at 1749 hours. The second fire occurred in a 12 story high rise building known as Salem Heights, located at 12 Pope Street. The last fire broke out at 19 Bridge Street a mixed occupancy building and required a second alarm assignment to bring it under control. Barton and Bridge Streets are located in the lower Bridge Street section of the city, about a half mile from the Salem/Beverly bridge. Three firefighters suffered injuries and damage from all fires was estimated at fifty thousand dollars.

### **January 26<sup>th</sup>**

An overnight two alarm fire with subzero temperatures left 19 homeless and three injured. Located at number 26 Boston Street, less than a block away from the quarters of Engine 4 and Ladder 1. Among those injured was Box 52 member Lt. Tom Brophy who suffered facial burns from falling debris.

### **February 3<sup>rd</sup>**

Located in the Castle Hill section of the city, Saint Anne's church was located at 292 Jefferson Avenue. Earlier in the evening a celebration was held marking the 24<sup>th</sup> anniversary of Father Louise Bourgeois as St. Anne's pastor. About 0300 hours Father Bourgeois was awakened by the chiming of the church bell. He looked towards the church and could see fire coming from the sacristy. Father Bourgeois (a former chaplain of the Wakefield Fire Department) made the first call reporting the fire. *(The bell ringing was later contributed to heat convection from the fire engulfing the belfry. Initially it was thought that the bell ringing was rung by the person who had set the fire-author).*

Arriving first due from their quarters less than a half mile away was Engine 5. As they pulled into Jefferson Avenue they were greeted with heavy fire conditions showing from the church. Within 24 minutes four alarms had been struck.



St. Anne's fully involved. Photo courtesy of the Gagne Collection

According to then Lt. Brophy on E-1, he and Firefighter Bob Jellison *(both who now have sons on the department - author)* dragged a 2 ½ inch line inside but were driven back by back by the heavy fire conditions. While operating outside slate shingles from the roof rained down and severed their line. After getting another section of hose they brought the line back outside climbed up on a snowbank and got the big line back to hitting the fire.



Box 52 member Lt. Thomas Brophy and FF. Robert Jellison operate a big line from atop a snow bank. Photo by John Tlumacei Boston Globe

It appeared that the fire began in the adjacent Boy Scouts Hall. It didn't take long before the 100-year-old wooden structure was fully involved. The 110-foot steeple had collapsed into the church. In 1985 ground was broken for a new building. They are now celebrating 123 years as a parish.

All of these fire occurred in the post Proposition 2 ½ period, when mutual aid was curtailed to only responding to the fire and refused coverage assignments or would cover adjoin cities from their own quarters. Salem E-6, serving as a reserve pump was placed in service with a callback crew and was the only fire company covering the entire 18.3 square miles of the city



### Box 371 St. Anne's Church 292 Jefferson Ave

Alarm	Time	Engine	Ladder
371	0319	E1, E5	L-1
2-371	0325	E-2, E4	L-2
3-371	0329	Swampscott	
4-371	0341	Beverly, Marblehead	Lynn

### February 20<sup>th</sup>

The Power Block, is a four story ordinary construction building built in 1890 and located in the heart of downtown Salem at 138-144 Washington Street. The Bravo side of the building fronted on Barton Square. At the time of the fire the first floor occupants were mercantile and a bar. The second floor was used as office space with the upper floors housing light manufacturing concerns.

Patrons of the Barton Square Lounge reported hearing a crackling sound, then the lights went out. The customers self-evacuated using cigarette lighters to find the doors. Once outside they looked up and were amazed to see heavy flames coming out the windows on the second and third floors.

A passerby pulled Box 31 at Washington and Norman Streets. Fire Alarm Operator (FAO) John Barry (*Retired as a Lynn District Fire Chief - Author*) announced the location and assignment over the Voc. Alarm and radio. A full response, two pumps, one ladder and the Deputy responded. Barry took a look out the window, he saw fire showing. He promptly reported fire showing from Fire Alarm and advised the companies they were responding to a "working fire". It was highly unusual call for a FAO to announce a working fire before the arrival of the first alarm companies!

Engines 1 and 4 were ordered to establish a water curtain to protect the adjacent Joshua Ward House. This historic home dates back to 1784 and was one of the first houses of brick construction in Salem. It served as the residence of Sheriff George Corwin, who oversaw the Salem Witch Trials of 1692. Some two hundred and ninety years prior to the fire! Today the house is listed on the National Register of Historic Places.



Photo from late member Nelson Dionne Collection,

The efforts of firefighters paid off as the building suffered only minor damage contained to wooden window frames.

Four alarms were transmitted within 6 minutes from receipt of Box 31. Companies were making an aggressive interior attack for nearly an hour. The conditions within the building were deteriorating rapidly. The fire was now on all floors and the building was becoming fully involved. Companies were ordered to back out of the building and preparations were made for a defensive attack.

Salem Firefighter Raymond McSwiggin collapsed in the street immediately after exiting the building in cardiac arrest. He was rushed to Salem Hospital where he succumbed to his injuries. McSwiggin was a twenty-four year veteran of the Department. He left behind a wife and two children. The scene at the fire as the news spread became somber. Many Salem Jakes realized that it was just three days short of the one year anniversary of Firefighter James J. Koen Jr, a third-generation department member killed while operating at Box 614 for 20 Southwick Street in North Salem on Feb. 23<sup>rd</sup>, 1981. He left a wife and five children.

The fire was now in full possession of the building. The fire came through the roof shooting flames and brands some fifty feet into the air. In short order the roof collapsed into the fourth floor. Master stream appliances and big lines were now surrounding the building. After several hours, firefighters gained the upper hand and the fire was being brought under control.

A large crowd of spectators were on hand for this early evening fire and extra police were rushed to the scene to direct traffic and keep people back.

The fire building was well known to generations of Salem Firefighters and had been the scene of many fires over 92 years. Today, the building still stands and remains an iconic structure in downtown Salem.

Damage was to the building was extensive.

#### **Box 31 Washington & Norman Streets**

<b>Alarm</b>	<b>Time</b>	<b>Engine</b>	<b>Ladder</b>
31	1912	E-1, E-4	L-1
2-31	1913	E-2, E-5	L-2
3-31	1916	Beverly E-6, Marblehead E-3	
4-31	1918	Swampscott E-2 Danvers E-3 Beverly E-3	

#### **February 22<sup>nd</sup>**

On Monday February 22<sup>nd</sup> two near simultaneous five alarm fires along with an arson attempt at Salem Police Headquarter made for a very busy morning that would tax the Salem Fire Department and nearly overwhelm District 5 & 15 Mutual Aid Network. These fires would cause Mayor Jean Levesque to declare a curfew and request National Guard troops to help supplement the Salem Police Department.

The first fire was reported approximately 0550 hours by Police Officer Claudio Mateo on foot patrol. He radioed the station to report smoke coming from the rear of the building at 136 Essex

Street, the Salem Armory. Fire Alarm was notified, the box transmitted and the companies turned out. Headquarters companies turned down Derby Street, saw that the smoke was intensifying the further they went.

Captain Bob April who was acting deputy chief, called back to Fire Alarm reporting he couldn't see the police officer on scene because there "was too much smoke". Engine 1, a 1975 Ward LaFrance Tele Squirt, with Lt. Bob Turner (*former Box 52 member who rose to the rank of Chief - Author*) and the driver Firefighter Brian Harrington (*current 52 member who retired as Deputy Chief - Author*) followed close behind. Lt. Turner had the advantage of knowing the building well as he had been a member of the National Guard assigned to that facility.

At this point in the story, I will turn it over to Chief Turner and Deputy Harrington for their first-hand account:

*"Sunday night, February 21, 1982, wasn't just another night shift for Group Three in Salem.*

*Normally the night tour on most Sundays would be rather quiet, starting with roll call and shift change and the requisite equipment checks, making sure the duty shift was ready for whatever might be thrown our way. The routine would normally be followed by the gathering around the table for a cup or two of coffee and a review of what may have happened during the day tour or what we might expect in our immediate future.*

*Tonight, would be different. We were on the second weekend night, and the events of the prior tour would surely be at the top of our list for what would be a long and somber discussion. On the prior evening, Feb. 20<sup>th</sup> we were dispatched to a "working fire" at the Power Block at 140 Washington Street in the heart of downtown Salem. It was a bit unusual to hear "working fire" as a part of the dispatch but on this night the dispatcher was alerted, prior to any telephone or box alarm, by a bright orange glow entering the dispatch office through the west-facing windows. His call was spot on. In the years following the Great Salem Fire of 1914 the heart of the city, the 'high value' or mercantile district was deemed to more challenging and concentrated, requiring a significantly greater response consisting of four engines, two ladders and a squad company along with the deputy chief. Following the budget cuts imposed by Proposition 2-1/2 the response would be no different than the rest of the city; two engines and a single ladder. That response was quickly enhanced by three additional alarms, in rapid succession, as the top two floors of a large brick and mortar building were fully involved.*

*Our gathering or critique on this night would involve the initial primary search and rescue operations (the building was occupied) and the eventual 'surround and drown' operations following the orders to evacuate the building due to collapse concerns and an overall determination that it was no longer safe for interior operations.*

*The dominant overtone throughout our discussions and the pall cast over the entire department was the loss of one of our own. The blaze claimed the life of 60-year-old Salem firefighter Raymond McSwiggin, who collapsed at the scene.*

*The armory fire was reported at 5:50 a.m. on Feb. 22. The armory was located on lower Essex Street adjacent to the Essex Institute; an historic building containing many priceless books and records. This building was literally feet away on the delta side and in grave danger of damage or destruction by exposure to the heavy fire coming from the armory.*

*The initial call reported by a police patrol was for a smoke condition in the area between the Hawthorne Hotel and the area of Liberty Street with no specific location given. Captain Bob April was assigned as the Acting Deputy Chief and responded from Station One, followed by Engine One and Ladder Two. I was the junior officer assigned to Engine One, a lime green Ward LaFrance Tele-Squirt that I often referred to as the rattle trap. I was a short distance behind Captain April with the ladder following closely. Additional radio traffic from dispatch provided a more specific location for the smoke indicating that it was at or near the armory. The radio response from Captain April was that we were still on Derby Street attempting to find our way through some very thick smoke.*

*For six years I served with Battery C, First Battalion, 102<sup>nd</sup> Field Artillery at the National Guard Armory on Essex Street. The head house which fronted directly on Essex Street housed three howitzer batteries located on each of three floors, plus the Headquarters officers and staff from the battalion commander on down. Battery C was located on the top floor, so I had some real good logistical information as to the building layout and the location of any potential hazards.*

*This would come in real handy but for the fact that, upon our arrival, the fire had progressed from the bottom floor to the top and any interior ops were definitely not in our best interests. There was fire and heavy smoke coming from any and all openings on all three visible sides. My vital information was now in the crapper.*

*The rear portion of the armory consisted of the drill shed, a very large open area where drills were conducted, and equipment was stored. Ironically, for many years the Salem Fireman's Ball was held at the armory complete with the grand march and some top shelf entertainment. Other city functions were frequently held at the armory due to its central location and size.*

*Fortunately, the separation between the head house and drill shed was a significant fire wall with only one opening at ground level at the center of the separation wall. A large garage door on the bravo side provided access to the drill shed side of the wall from the outside and gave access to heavy streams which would cut off exposure from the heavy fire.*

*From the onset it was apparent that we were in for a long duration fire, with access for water streams through some very small window openings. The Station One apparatus was set up on the bravo side of the head house using the ladder pipe from Ladder Two and the Tele-Flo from the rattle trap. We pushed water for several hours with very little extinguishment. The fire load of this building was significant and our only hope was that the fire would go out when the fuel was expended. This being the case the interior of the structure eventually collapsed into the now empty shell of the armory.*

*Although confined to our location on the bravo side, additional apparatus, mostly from mutual aid companies would be concentrated between the Essex Institute and the main body of fire, as well as the alpha or more photo-friendly side of the building. With hours of intense, defensive firefighting the fire did not extend into the Essex Institute. Also in our favor was an adequate water supply in the downtown area.*

*During the period of these fires, Fire Chief James Brennan spent his time recuperating at Salem Hospital. He was made aware of the two fires by a nurse who decided to alert him. Brennan had to be content with watching the plumes of smoke from his room. Deputy Chief Bob Crowley served as acting chief for the duration. One of the only aspects of the armory building that was working in our favor was the character of construction often seen in mill construction in New*



England. The heavy main carrying timbers spanning from bravo to delta were “fire cut”, allowing the beams to fall cleanly, once burned through in the centers, without creating side-wall failure at the point where the beams were inserted into the side walls.

Were this not used in the construction of the armory the very tall and unsupported walls surely would have fallen.

The Armory fire was of great concern because the massive armory building was just feet away from the Essex Institute, now part of the Peabody Essex Museum, and contained priceless historical books and records.

Unfortunately, many of the Second Corps of Cadets’ records and artifacts were lost in the fire. The surviving drill shed, located behind the property, was eventually converted into Salem’s Visitor Center by the National Park Service in 1994. The facade of the Salem Armory remaining after the fire, stood until 2000 when the lot was purchased by the Peabody Essex Museum. Despite multiple proposals for the buildings reuse, it was ultimately demolished. The location where the head house once stood was transformed into Armory Park to commemorate the military members of Essex County. The only remaining portion of the armory head house is the original arch from the front entrance and seen in many historical photos of the armory. It stands today, in its original location, on Essex Street.

The armory fire that we spent many hours working was reported at 0500hrs. Less than an hour later, a five-alarm blaze was going at the Masonic building on Washington Street, a short distance from Salem City Hall. Having been entrenched in fighting the armory fire we had no idea what else was going on about three blocks from our location. Only during an infrequent break in the action could we walk to the far end of the drill shed and see the Masonic Temple fire to the west; one we would never respond to. This fire was fought entirely using mutual aid assistance from surrounding communities under the command of Deputy Chief Joe Sullivan.

It should be noted that the last Lowry hydrant ever used during fire operations in Salem was at the 1982 armory fire. In the later stages of the fire and throughout the rekindle fire detail this hydrant was the only point of water supply. I had the distinct honor and resulting back ache of setting this hydrant in the middle of Essex Street completely screwing up traffic for a couple of days.

#### **Box 224 Essex and New Liberty Streets**

<b>Alarm</b>	<b>Time</b>	<b>Engine</b>	<b>Ladder</b>
224	0550	1, 2	2
2-224	0554	4, 5	1
3-224	0613	Beverly E-6, Swampscott E-2	
4-334	0616	Marblehead E-3, Danvers E-3	
5-224	0642	Lynnfield E-1, Hamilton E-3	Lynn L-3
Sp. Call	0703	Essex E-1	Manchester-by-the-Sea L-1
Sp. Call	0720	Beverly E-1	

Police Station Attempt to Burn-while hundreds of firefighters were working to bring the two fires under control a man entered the police station with an eye to setting a fire. The station located

*at the corner of Central and Charter streets, was barely staffed as most officers were deployed to the fires. The suspect kicked in a cellar door and made his way to the second floor.*

*He then poured gasoline over the wooden floors. Lt. Herlihy one of the few officers at the station, heard footsteps and went to investigate. The suspect had placed a lit cigarette into a book of matches. Luckily it didn't catch fire. A 24-year-old transient known to Salem police was arrested the next day. Police were assisted by the FBI and ATF agents. This building still stands and was converted to apartments in the early 90's."*

In the second installment of this story a look at the other 5 alarm fire at the Masonic Temple on Washington Street. The rest of 1982 was busy for the Salem Jakes as well. A few other fires later in 1982 will also be discussed. Finally we will look at the effects that the recently enacted Proposition 2 1/2 had on Salem.

A special thank you to all who contributed to this article.

