. **TORONTO FIRE STATION 334 – EMS STATION 36**
**(Former Toronto Station No. 9)**
**339 Queen's Quay West**
**By**
**K. Corey Keeble**
**(2nd Version, 16 April, 2013)**

## Introduction

Every active city fire station has not just one unique story to tell, but many stories. Some of these relate to its date of construction and architectural style, while others deal with the lives and histories of the firefighters who have lived and worked there, and with the lives and histories of all the countless people in whose communities these stations stand! While a fire station has the practical function of protecting the people of its neighbourhood from fire and other dangers, it also serves as a formidable icon of community identity, and of the hopes and aspirations of all its citizens! Fire stations are powerful symbols of neighbourhood cohesion and shared common interests. They are an expression of who we are in terms of the areas in which we live, and collectively they serve as symbols of the common interests, ideals, aspirations and goals which bind our local communities together as citizens of the City of Toronto!

## Background

In 1998, six fire departments, those of East York, York, Etobicoke, Scarborough, North York and Toronto - each with its own separate and distinguished history - were amalgamated to form what is now known collectively as the Toronto Fire Services. In 2000, recommendations for a new command structure for the amalgamated department were put forward, and by June 2001 were fully in place. The restructuring of the amalgamated department divided its geographical area into four Commands, North, South, East and West, each Command subdivided in turn into four districts. As a result of the re-organization of the command structure of the amalgamated Toronto Fire Services, the present station at 339 Queen's Quay West, designated Station No. 9 when it was built in 2000 was allocated a new station number, becoming Fire Station 334 in District 3 of what has now become the new South Command.

The numbering of the stations has its own fascinating if at times complex and confusing history. The new Queen's Quay West station had been built with three purposes in mind. It provided a new operational base for Toronto's newest fire boat, the *Wm. Lyon Mackenzie*, built in 1964, for a land based pumper and for a unit of Toronto's emergency medical services. Soon after its completion, the new fireboat had been berthed at Station 35 at Pier 9 on Queen's Quay Boulevard. At that time, the "station" building consisted of a 30' long trailer and was little more than a makeshift temporary structure and was closed in 1972 when the *Wm. Lyon Mackenzie* was provided with improved berthing facilities at a new station with same number, Station No. 35, at 11 Queen's Quay West at the foot of Yonge St. Toronto's new Station 35 remained in operation until 2000, when the fireboat was again relocated, this time to Toronto Station No. 9 at the present station site at 339 Queen's Quay West.

The pumper designated for service at Toronto's new Station No. 9 was assigned a responsibility formerly assumed by a pumper at Toronto Fire Station No. 2 at 35 Claremont St. The construction of the Claremont station in 1968, had been the result in turn of the combination of Toronto's original Station No.9 with Station No. 2. The original Station No. 9, located at 12 Dundas St West and Ossington Avenue dated back to 1878 and had been closed in 1968 and its operations transferred to the new Station on Claremont St. While the marine and land based units of the present station operate under the umbrella designation of Toronto Fire Station 334, the EMS unit working out of the same station, has its own distinct and unique identity as EMS Station 36.

**Architectural History**

Toronto Fire Station 334 (Formerly Station 9), situated on the lake shore between Spadina Avenue and the Spadina Slip on the West and the Peter St Slip on the East, was designed by the Toronto architectural firm of Jurecka & Associates was begun in 1999 and completed and opened in the year 2000. It was the first new station built in downtown Toronto after the 1998 amalgamation of fire departments in the former Municipality of Metropolitan Toronto, and was predated by two slightly earlier stations, the current Station 225, formerly Scarborough Fire Station No. 1 built in 1998, and Station 132, formerly North York Fire Station No. 2, built in 1999.

The present Station 334 was intended as the first phase of a two stage program which was to include a museum and educational centre. The museum was slated for construction in 2004 but is still unrealized at the present date due to lack of funding. The station itself houses one land based fire engine, Pumper 334 – a 2008 Spartan - with ample room on the apparatus floor in addition to accommodate one to two EMS ambulances. Outside the station proper are docking facilities, initially intended for the fireboat *Wm Lyon Mackenzie*, but also used since 2007 for an additional, smaller vessel, the *Sora*

The station includes a North East corner tower which complements the tower of the neighbouring lakeshore Toronto Police Marine Unit building at the Ross Street Slip, and ads a welcoming accent of visual élan to the parkland, commercial structures and condominium development along the waterfront. The station itself contains 13,000 square feet of usable space. Next to it, one the West side, are the berthing facilities for Toronto's two fireboats, the *Wm. Lyon Mackenzie*. On the East side of the station is a monument to Toronto firefighters. Titled "The Last Alarm", it includes a sculptural group of a Toronto firefighter depicted in the act of rescuing a child. The station sits at one end of a large area of open parkland with an esplanade below it for visitors wishing to tale a leisurely stroll along the lakefront.

In every respect, Station 334 and its immediate surroundings are well worth detailed examination. The building is one of the true jewels of the Toronto harbourfront, and deserves to be seen and studied through a complete 360° circle. It is a remarkably impressive and satisfying edifice from every direction and from every angle. A single visit cannot suffice to provide a suitable impression of its architectural merit. In addition to its strong visual presence, it is also worthy of serious study and examination in terms of its position and importance in Toronto architectural history in general, and the history of the architecture of Toronto fire stations of the second half of the twentieth century in particular!

Prior to World War II, the exterior design of Toronto fire stations had normally included ornamental elements based on various historic architectural styles. Outstanding examples are provided by stations built between 1876 and 1932 which are still in service. The earliest of these, Station 312 at 34 Yorkville Avenue includes eclectic elements influenced by the Gothic Revival and Richardsonian Romanesque style as well as by the Arts & Crafts Movement. Station 315 at 132 Bellevue Avenue incorporated numerous classically inspired design features in its majestic combined hose and clock tower (Rebuilt in the early 1970s after the original designs of the late 1870s). Station 227 of 1904 and Station 311 of 1911 are built in eclectic Dutch Renaissance style with stepped gables, while a series of stations are in Tudor Revival style. They begin with Station 342 built in 1912 on Ascot Avenue and end with Station 134 of 1932 on Montgomery Avenue. Station 324 on Gerrard Street East, also built in 1932, is Toronto's sole Modernist station of its period, and has ornamental elements in low relief which include a motif of stylized flames and lightning flashes in a Toronto version of Art Deco design on the upper part of the façade.

The first stations built in the Toronto area after World War II formed the vanguard of an entirely new approach to the design of local fire stations. Inspired by the severe planar, linear forms of European architectural design associated with such pioneers of the Modern Movement as Walter Gropius, Mies van der Rohe and the architects of what came to be known as the International Style, the exteriors of the new stations were box-like in form, with flat roof lines and a total absence of historicist ornamental features. Station 321 (formerly East York's Station 1) on McRae Drive, dating back to 1946, and Station 325 (formerly Toronto Station 7) of 1954 on Dundas St. East are typical examples.

An appearance of Miesian rectilinear, ascetic utilitarianism was a feature of station design into the 1960s as is well evidenced by Station 345 (former Toronto Station 14) of 1963 at 1285 Dufferin Avenue, where the front of the building reads as a flat, two dimensional rectangular screen with doors to the apparatus bays on the ground floor arranged as a transparent wall of glass along the building's full length.

The reductionist, utilitarian forms of the stations of the first two decades after World War II stand as modified, understated realizations of the famous dictum of Mies van der Roe that in modern architecture "less is more". Even before the end of the 1960s, however, newer approaches were increasingly in evidence, increasingly in harmony with the rallying cry that "less is a bore"! Simply stated, station design began to show an evolution away from monochrome surfaced brick clad boxes toward structures featuring varieties and contrasts in colour, sculptural contrasts of solid and void, asymmetrical features, inclined rooflines, exposed areas of reinforced concrete, the inclusion of diagonals, gables, curves and the dissolving of the straight-jacketed rectilinear buildings of the immediate post World War II era and their replacement with buildings of ever greater plasticity of plan, line and surface.

Harbingers of the search for expressive plasticity in station design were already apparent in the designs for Station 313 (originally Toronto Station 11) at 441 Bloor Street East, built in 1967, and even more particularly for Station 332 (originally Toronto Station 1) at 260 Adelaide Street West, built in 1971. Colour, variety, and even playfulness and whimsy all formed part of the remarkable vocabulary of increasingly imaginative, evocative and genuinely exciting design of Toronto fire stations near the end of the twentieth century. Notable examples are provided by Station 233 (formerly North York Station 19) on Curlew Drive, built in 1995, and the delightfully subtle Toronto Island station (Station 335, formerly Station 33) built in the same year.

**Exterior**

Good buildings are designed from the inside out, with the form and features of the exterior serving as a visible expression of the functions of the interior. Station 334 follows the famous Louis Sullivan dictum that "form follows function" in two ways. While it had to serve a specific utilitarian purpose, its shoreline location and visibility from the waters of the Toronto harbour and Queen's Quay West also demanded that the station serve a symbolic and monumental purpose as a Toronto landmark. In both terms, the Jurecka & Associates design is splendidly successful; it is an architectural achievement guaranteed to bring joy to the heart of the viewer, and it represents the happy culmination of discussions and planning for the shaping of the Toronto waterfront which had kept city officials busy for twelve years! Groundbreaking for the new station took place on 31 March, 1999, with completion, opening and dedication taking place in 2000 – a fitting fin-de-siécle climax to the history of Toronto fire stations of the twentieth century, and a look forward into a new millennium!

The station, with an internal area of 13,000 sq. ft. is comprised of three major elements – a hose tower, apparatus bay for land vehicles, and an adjoining area which serves as the station's administrative nerve centre with offices and living space for firefighters and paramedics. Each functional area of the building is clearly defined by the details of the exterior, which is sheathed in composite metal cladding. Paul Jurecka has noted that the cladding was intended to be of a "champagne" colour, but in overcast weather its appearance is closer to a soft, almost dove grey. The cladding is formed of rectangular sections, their vertical and horizontal lines producing an overall pattern suggestive of the welded steel shell plating of a ship and providing a subtle degree of visual variety and texture which enliven the station's entire exterior.

While the station was planned on a North-South axis, its most commanding external visual feature is the resplendent hose tower for hanging and drying fire hose, nearly fitted at an angle into the recessed North West corner of the apparatus bay. The viewer may choose to see the positioning of the tower in a voided corner both in practical terms and as a play upon the voided corners of notable buildings by Ludwig Mies van der Rohe, including the insets around the corner piers of the 1956-1958 Seagram Building in New York.

At the ground level the tower has an off-centre window which provides a view into its interior, making the tower's function visible from the outside. The tower is capped by a section with an angled roof and blue coloured, vertically ribbed metal siding. This touch of asymmetry and contrast in colour heightens the tower's visibility, and adds an accent of variety and tone. On hose towers of the 1800s and early 1900s, notably that of Fire Station 315 at Collage and Bellevue and Fire Station 227 at 1904 Queen Street East, the top level was occupied by a four faced clock. In an era of wrist watches and digital time pieces where clocks in hose towers are redundant, the absence of one from the top of the tower at Station 334 may itself be read as an element of conspicuous symbolism. The feature of a sloping roof may be seen on some Toronto area stations built since the end of the 1970s, but the manner in which it is incorporated into the tower of Station 334 brings to mind some interesting earlier historical antecedents which include the progressive 1924 house at Aalsmeer designed by Johannes Duiker and Bernard Bijvoet.

The upper part of the tower is encased in a cage formed of three white painted tubular verticals linked by horizontal and diagonal braces forming a series of open triangles. The tallest of the verticals, set into the North corner of the tower, rises high above it and is extended yet further by a slender antenna at its top. This white painted structure has been likened in appearance to the mast of a ship, in effect a visual complement to the sailboats and ships which ply the harbour waters. Another form comes to mind, however, in the cages of layered horizontal and diagonal tubing of the 1979-1984 Hong Kong and Shanghai Banking Corporation headquarters designed by Foster Associates. As with the Foster design, the cage around hose tower of Station 334 reveals an essential engineering feature of its interior.

Station 334's apparatus bay, sited at the building's North end, has double doors on the West and East, mirror images of one another, the doors allowing vehicles to enter and depart from both ends of the bay. Between the tops of the doors and the horizontal roof line is a long, shallow horizontal recess which adds its own element of texture and variety to the exterior cladding. This recessed band runs the full length of the West, South and East walls of this section of the station. The two sets of doors are themselves slightly recessed into the West and East walls, with a broad chamfer on each side connecting the door frames and the outside walls.

The North wall of the apparatus bay has a playful down spout projecting through a rectangular slot cut into the roof line parapet – functional, but at the same time providing a modern abstract sculptural parallel to the decorative waterspouts of Medieval European cathedrals. At the level of the ground floor is a large rectangular plate glass window which serves the same function as the smaller window in the hose tower – it provides an expansive view into the entire interior of the apparatus bay where the station's land vehicles – fire engine and ambulances – are housed. The window is placed off-centre, adding to the asymmetrical vivacity of the exterior, and the framing elements around it are extruded slightly beyond the exterior cladding of the North wall. To the right of the window is a vertical blue coloured rectangular panel, with broad horizontal white bands above and below the glazing and narrower vertical bands to the left and right. At the far left of the North wall is a doorway with a recessed door and rectangular plate glass transom above it. The door has a small circular window, similar in appearance to those seen in the hatchways of ships.

The apparatus bay is topped by a convex metal roof with vertically ribbed blue panels at the West and East ends. In the raised Southside of the roof is a long strip of clerestory windows. The roofline adds another engaging element of asymmetrical variety, justifiable in practical terms in admitting the maximum degree of natural sunlight into the station interior.

On the East side, the cladding of the ground floor of the apparatus bay is extended southward with a window at the South end and a recessed promenade on top capped with a metal railing. The promenade is capped by an extension of the upper part of the cladding of the apparatus bay which curves inward toward the South end of the station's office and accommodation block. The cladding of the promenade has a single door at the left end and narrow horizontal windows to its right. The visual effect is reminiscent of a ship's deck. The extended cladding over the promenade is not roofed above the promenade but features instead a series of parallel struts set at right angles between the outer cladding and the actual roof of the service block above the door and windows.

Between the single story extension to the South of the East end of the apparatus bay and the station's South wall there is a recessed set of doors, and above the doors a long narrow window. The exterior cladding here is flush with the cladding of the wall of the promenade. Immediately south of the recessed ground floor door is an extruded glass walled staircase, the visibility of the stairs from outside the station providing yet another example of the way in which various parts of the exterior are opened to reveal the inner day to day functioning of the building and its occupants. For those who delight in finding historical parallels for such features, one is provided by the glass enclosed extruded staircases of the Model Factory building designed by Gropius and Meyer for the 1914 Werkbund exhibition in Cologne.

At the South end of Station 334, the ground floor extends toward the lake. On top is a flat surface, similar to a ship's quarterdeck and surrounded on three sides by a metal railing. The second floor level of the station terminates with a flat wall recessed under an overhanging projection which marks the South end of the top level of the cladding which continues along the West and East sides of the station south of the apparatus bay. The curved, southward taper of the walls south of the apparatus bay is best seen and best appreciated in aerial views, which show a similar inward curved taper of the walls towards the South end of the ground floor extension. The East wall of the ground floor extension is devoid of windows. The South wall, which inclines inward toward the base in a manner reminiscent of a ship's cruiser stern, has a deeply imbedded rectangular window.

The West wall of the South ground level extension has two equally deeply recessed doors. The door closer to the South is narrower and lower. The larger door to the North on the West side provides additional vehicle space, and is fitted with a door with a horizontal window band.

Like the East wall, the West also has a railed promenade on the second level, but it is closer to the South than the promenade deck on the East side. The difference is due to the plan of the rectangular, glass walled block of the main entrance on the West side of the station, and the windows and doors of the kitchen and dining areas inside the South West corner of the main block immediately in front of the second floor West promenade deck. Below it on the ground floor, stepped in from the dining area, is the glass door and window of the adjoining area designed and used as a study room.

A complete, clockwise circuit of the station takes visitors to the main entrance to the station on the West side immediately to the South of the West doors of the apparatus bay.

**Last Alarm: A Sculptural Memorial**

Slightly to the East, near the South end of Station 334 is the sculptural group *Last Alarm*, dedicated to the memory of Toronto firefighters who died in the line of duty. The inscribed names of fallen firefighters span the period from 1848 to the present day. The focal point of the memorial is the free standing bronze sculpture of a Toronto firefighter cradling a rescued infant. The scale is 1 ¼ greater than life size. To the left and right of the central figures are stylized high relief forms in bronze symbolizing flames. The flames form part of the contoured polished black granite panel which forms the backdrop for the sculpture. The sculpture and plinth stand in the centre of a circle paved with flagstones of varying colour which create a mosaic effect.

The memorial, the work of Yolanda van der Gaast, was officially dedicated on 1 October, 2000. In the raised centre part of the granite panel is a Maltese cross set into a circular opening. The section with the Maltese cross was designed to cast a moving shadow across the Station 334's East wall with the rising of the morning sun.

Yolanda van der Gaast's bronze sculptural group compares more than favourably with an established tradition of North American monumental sculptures depicting firefighters. One of the most outstanding of these is a 1905 bronze by Gail Sherman Corbett (1871-1952) which forms part of the Hamilton Salisbury White memorial in Syracuse, New York Sculptural naturalism, in some cases extraordinarily life like, has characterized many of the most recent of North America's memorials to firefighters. Striking examples are provided by Tom Corbin's bronze figures for the 1991 Firefighters' Fountain in Kansas City, Missouri, and Robert J. Eccleston's three figure bronze group for the 1998 Firefighters' Memorial in Albany, New York. The motif of a firefighter cradling a child saved from a fire has a particular resonance and the van der Gaast group may be compared with the deeply moving bronze group of a kneeling firefighter and child which forms the central part of the 2001 memorial by George Danhires at Hamilton, Ohkio.

**Interior**

Through the glass walled enclosure in front of Station 334's main entrance there is a hallway with doorways to the left, right and centre. To the right of the entrance is the floor watch area, the station's electronic monitoring centre. The corridor which leads past it opens at the North end into the voluminous space of the apparatus bay.

The floor of the apparatus bay provides ample room for fire firefighting and EMS vehicles. On the South wall of the bay, basic structural elements of the station's construction in the form of vertical, horizontal and diagonal beams are exposed to full view. This is the arrangement of supports which is mirrored by the tubular cage around the top of the hose tower. Behind the supports is a wall composed of mortared concrete blocks. Set into the wall is another doorway, wider than the first, with splayed edges which in turn are mirrored by the splayed frames around the apparatus bay doors. Above the doorway on the station's second floor is a second doorway, and to one side the traditional vertical brass pole, which in this case passes through a circular shaft and continues downward to the apparatus floor.

The glazing in the apparatus bay doors and in the large window of the North wall admit considerable quantities of natural light, as do the windows of the clerestory which runs along the full length above the apparatus bay's South wall. The roof of the apparatus bay and its supports provide a wonderful exposition of structural metalwork. The roof rests above a grid of parallel narrow metal struts, which extend the full length of the bay. Below them are the trusses which support the entire roof. The trusses are formed of elongated elliptical shape with diagonals and with braces slightly off the vertical. The matrices of the components of the trusses are also reflected symbolically in the cage work at the top of the outside of the hose tower. Tilting the trusses with the lower ends at the North wall and upper ends at the South has some interesting and intriguing parallels as may be seen in cross sections of the interior of Nicolas Grimshaw's Eurostar Terminal of 1993 at the Waterloo (railway) Station in London, England.

The inside of the hose tower at the North West corner of the apparatus bay was designed with an automatic hoist for suspending fire hose to dry. The station's firefighters, however, found that the traditional manual hoist of overhead pulley and rope was faster. Most recently, new types of hose covering have been developed which do not require hanging up the hose to dry. The tower, however, retains the capacity for the suspension and drying of conventional types of fire hose. In addition to a mechanical hoist, the hose tower has also seen the introduction of another interesting technological advance. The interior metal staircase inside the tower is an example of the remarkably advanced alternating tread system developed by L. M. Lapeyre and put into commercial production by Lapeyre Stair, Inc. after 1981.

The two floors of the South section of the station include kitchen, dining, study and office areas on the ground level, and further office space as well as dormitory space on the second floor. The station also includes an area used as a gymnasium.

**The S.S. Noronic**

Of special historical interest are the ground floor areas used to accommodate and display objects and photographs documenting the tragic 17 September 1949 fire which destroyed the Canada Steamship Lines passenger steamer *Noronic*. The *S.S. Noronic*, built in Port Arthur, Ontario in 1913 was a vessel of 6,905 gross tons. The ship had a length of 362'; a beam of 52', a depth of 24..8' and was carrying 524 passengers and a crew of 171, numbers of whom debarked with the intention of temporary shore visits when the ship had moored in Toronto. The ship was docked at the foot of Bay Street when the fire broke out. No fewer than eighteen land based pumpers and ladder trucks as well as marine units battled the fire for several hours. Figures listing the number of persons who perished in the disaster vary from 119 to 139 passenger deaths. The *Noronic* disaster was one of the worst in the history of Great Lakes shipping, exceeded only by the deaths of over 800 passengers in the sinking of the excursion steamer *Eastland* in Chicago on 24 July, 1915.

In addition to items from and about the *Noronic*, the station has also preserved the original engine room telegraph from the station's fireboat, the *Wm. Lyon Mackenzie.*

**Land Based Apparatus**

Currently, Station 334 operates a land based Smeal / Spartan *Metro Star* pumper. The Smeal firm dates back to 1955, and was originally known as the Smeal Manufacturing Co. In 1964, the company produced its first fire fighting vehicle. Located in Snder, Nebraska since 1963, the company is now know as the Smeal Fire Apparatus Company with an established record of using Spartan chassis for its custom build fire fighting apparatus. Spartan Motors, Inc. was established in 1975 in Charlotte, Michigan, and in 1997 absorbed two other companies specializing in the design of fire fighting apparatus – Luverne Fire Apparatus of Brandon, South Dakota and Quality Manufacturing of Talladega, Alabama. In 2002, however, these two firms were merged under the new name and corporate identity of Crimson Fire.

**Fireboats**

Toronto's first fireboats were steam powered tugboats modified for firefighting. The earliest was the *Nellie Bly* which provided fire protection to the Toronto Islands between 1906-1909. From 1909-1923, the tugboat *T. J. Clarke* operated in the same waters, providing protection for the Toronto Islands and the Toronto harbour. The *Clarke*'s usefulness as a marine firefighting unit was ably and amply demonstrated in combating two major fires on the islands, the 10 August 1909 fire at Hanlan's Point and the 2 April 1919 fire at the Royal Yacht Club on Centre Island. Another steam tug, the *Rouille,* in service from 1917 as an icebreaker, was also used for fighting, and gave valiant service in that capacity during the Enarco fuel barge fire.

In 1923 Toronto acquired its first true fireboat, the *Charles A. Reed*, fifty feet in length and with a beam of twelve feet. The *Reed* was of wooden construction, long, low, lean and elegant in appearance. Carrying a crew of five persons, the *Charles A. Reed* was fitted with two motors, one for propulsion and one for pumping. The propulsion unit was capable of moving the Charles A. Reed at a comfortable and respectable speed of 14mph. The *Charles A. Reed* provided more than forty years of reliable service, including assisting land units in combating the catastrophic fire on board the excursion steamer, the *S.S. Noronic*, on the tragic night of 17 September 1949, a shipboard fire which resulted in the deaths of 119 people. In 1964, the *Charles A. Reed* was retired from service, to be replaced by a singularly impressive new fireboat, the *Wm Lyon Mackenzie.*

**The WM. Lyon Mackenzie**

Discussions for a new fireboat for the Toronto harbour were already underway as early as 1958 at the time of the construction of the St Lawrence Seaway. Discussions and deliberations had become fact by 1963-1964. The *Wm Lyon Mackenzie*, designed by Gilmore, German & Milne, was built by Russel Brothers Ltd at Owen Sound, and launched on 7 November 1964. On 18 May 1964, the *Wm Lyon Mackenzie* was officially commissioned and entered into service with the Toronto Fire Department. On 21 July, 1965, the *Wm. Lyon Mackenzie,* after only a few months in service, played a leading role in combating a major fire on the Greek freighter known as *The Orient Trader.*

By any fireboat standards, Toronto's new fireboat was impressive, and still is after its 2004 "Mid-Life Refit" and subsequent modifications carried out as late as 2012. The addition of 10metric tons of ballast to the *Wm. Lyon Mackenzie* shortly after the boat's construction greatly improved its stability and has made it a considerable more steady platform for marine firefighting.

In addition to its fire fighting capacity, the *Wm. Lyon Mackenzie* is a multipurpose vessel capable of performing a variety of different tasks. At 102 gross tonnes and with a displacement of 200 metric tonnes. The *Mackenzie* has a robust tugboat hull sufficiently strong in the bow to be used for winter ice breaking. The basic dimensions are as follows: Length 81' (24.7m) x Beam 20' (6m) x Draft 7' (2.5m). As the result of an engine refit the *Mackenzie* is now propelled by propellers powered by twin Caterpillar 3412 diesel engines with a power output of 675BHP, sufficient for an operating speed of 10-12 knots (13.i8mph / 22.2km/h) over a range of 720 nautical miles. In addition to the stern propellers, the fireboat also has bow and stern thrusters to increase manoeuvrability. The *Mackenzie* is also fitted with twin Caterpillar C-12 pumps capable of an output in metric terms of as much as 38,000 litres per minute. The boat is also capable of an output of 4,000 litres of foam concentrate.

The firefighting equipment on deck included a 75 metre reel of CO2 hose, and three larger reels, each with a 300 metre length of fire hose, one length of 38mm diameter, one of 65mm diameter and one of 100mm diameter. Mounted on top of the superstructure is a 54' (20 metre) long articulated Amador/Trump Ltd Giraffe aerial tower, renovated in 2004. Other master stream devices are located in the bow, on top of the wheel house and elsewhere. There are, according to various sources, no fewer than five separate water nozzles on board.

Deck equipment also includes an HIAB articulating crane with a 5 ton listing capacity and a portable rescue boar with a 25 hp motor. The list of electrical and other specialized equipment-radar, echo sounder, search light, spotlights etc. is virtually breath taking! With the latest refit, the *Mackenzie* is also capable of functioning as a marine hospital unit, with regulation trauma kit, rescue basket, floating stretcher and other types of stretcher.

The crew of the *Wm. Lyon Mackenzie* includes specialist marine captains and engineers as well as fire company officers and trained firefighters.

**The Sora**

More recently, the operations of the *Wm. Lyon Mackenzie* have been augmented by the addition of a newer, albeit smaller, fireboat. The new maritime unit is the *Sora,* a former Canadian Coast Guard vessel of 1982 built by Canadian Dredge & Dock Ltd of Kingston, Ontario. The *Sora*, of a modest 21 tons gross register, has a length of 41' (12.5m), beam of 14'1" (4.3m) and a draft of 4'1" (1.24m). The *Sora* has twin propellers driven by two diesel engines and is capable of speeds up to 26 knots (48km/h). Although designed for a variety and multiplicity of tasks, the Canadian Coast Guard days of the *Sora* ended in 2005 and in 2006, the Toronto Fire Services purchased the *Sora* from the office of the Minister of Fisheries and Oceans as a support vessel for the *Wm. Lyon Mackenzie*, a rôle it has performed successfully and with notable distinction.

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**Photographs**
13 March, 2013

Station 334 Window in the Base of the Hose Tower

Station 334 Hose Tower

Station 334. North Wall


Station 334 East Wall

Station 334: Last Alarm

Station 334: SW Corner


Station 334 West Front Seen From The South

Station 334 Interior of Apparatus Bay

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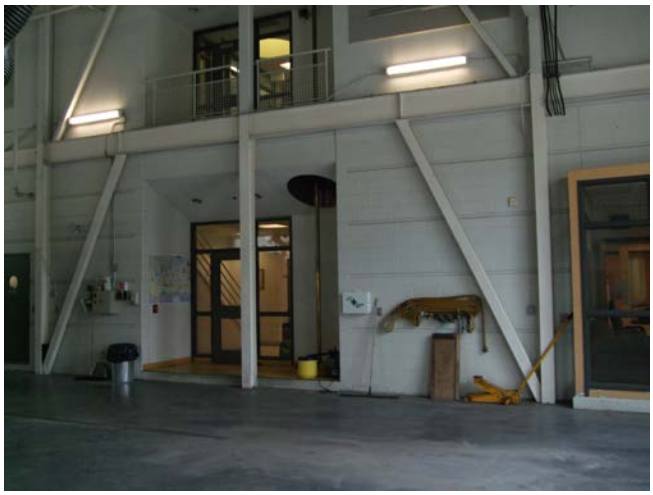

Station 334 Interior of Apparatus Bay


Fire Station 334. The *Wm. Lyon Mackenzie*.

Fire Station 334. The Fire Boat *Sora,* 18 March, 2013

All Photos By The Author