

Raleigh Fire Department Fire Alarm System History

- 1870 - New City Market building opens on Fayetteville Street. Named Metropolitan Hall, the block-long building includes city offices, a performance hall, a jail, and fire engine rooms. A clock tower houses the city bell. Cast in 1870, the bell serves a number of functions including alerting the volunteer Raleigh Fire Department. The city is divided into four wards, and alarms sound based on ward. Fayetteville Street is later designated a fifth ward for fire alarms.
- 1888 - Gamewell electric-telegraph fire alarm system installed with 10 alarm boxes. The boxes are initially locked, with keys placed at nearby residents or businesses. Activating a box causes the city bell to toll the box number, and fire companies respond to the corresponding street address.^{1,1} First alarm sent as a test from Box 42, at corner of Halifax and Edenton Streets.^{1,2}
- 1890 - City has 18 alarm boxes. Fiscal year report lists alarm system improvements including six alarm boxes on street corners, an alarm box on North Street at the expense of the Raleigh & Gaston railroad company, a box on Morgan Street at the water tower, a gong at the Capital Hose Company house, a tap bell at home of the Assistant Chief, and six tap bells at the homes of fire department members, installed at their own expense.
- 1891 - Fiscal year report lists alarm system as including an electro-mechanical gong in each company house; tap-bells in homes of the Chief, Assistant Chief, Rescue Company foreman, Capital Company foreman, and several fire department members; and an electro-mechanical striker on the bell at the Market House.
- 1892 - Alarm bell silenced between 10:30 p.m. and 7 a.m., and during performance events at Metropolitan Hall.
- 1896 - Headquarters fire station constructed at 112 W. Morgan Street. Building houses equipment of fire alarm system.
- 1898 - City has 28 alarm boxes. Fiscal year report lists alarm system as including one bell striker, three gongs in engine houses, one gone in pumping station, one four-circuit repeater, one switchboard, 20 miles of insulated copper wire, and nine miles of bare iron wire.
- 1899 - Fiscal year report notes nearly all fire alarm wires have been transferred to new poles of the Inter-State Telephone Company. All poles are 60 to 70 feet high. The height protects the wires from interference by trees and high-current electric wires.
- 1903 - Alarm boxes also contain telegraph key for communicating from fire scenes. Signals include "fire under control," "call for reserve steamer," and "call for police."



Metropolitan Hall



Peerless porcelain steel box with quick-action door, ca. 1925



Peerless take-up reel, ca. 1925



Ideal punch register, ca. 1925

1906 - City has 36 alarm boxes. Fiscal year report lists alarm system as including a four-circuit switchboard, 115 storage battery cells, 15 miles of isolated copper wire, 12 miles of No. 8 iron wire, 16 call bells in firemen's houses, three 14-inch bells in fire stations, one bell striker, one bell at Standard Gas and Electric Company plant, one bell at Raleigh Electric Company plant, and one bell at Wake Water Company pump house.

1910 - City has 34 alarm boxes. Fiscal year report lists alarm system as including one bell striker, three indicators in engine houses, one four-circuit repeater, one four-circuit switchboard, and 16 call bells in houses of officers and members of the department.

1912 - Raleigh Fire Department placed in service as a fully-paid fire department. Volunteer fire companies are disbanded.

1914 - City bell moved from Metropolitan Hall to Station 1 on West Morgan Street. It's placed on the exterior top of the combination hose drying and training tower.

1923 - Hill's City Directory for 1923-1924 lists 67 alarm boxes with locations including Box 45 at Raleigh Cotton Mills, Box 42 at State Insane Asylum, Box 321 at Mills Wagon Factory, and Box 322 at Hotel Raleigh. Listed alarm signals include "fire under control," "direct pressure," "call for hook and ladder," "call for steamer," "call for police," and "military call."

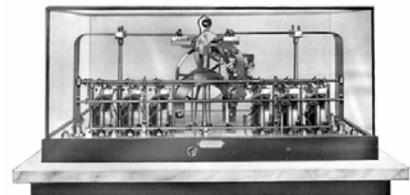
1925 - Purchase of fire alarm equipment authorized on November 6, 1925. The \$17,318.50 purchase includes a 12-circuit switchboard, four battery racks, 360 battery cells, a 10-circuit repeater, 35 fire boxes, and 5 recording sets consisting of punching register, take-up reel, and glass case.

1926 - Dedicated alarm house constructed adjacent to West Morgan Street fire station.

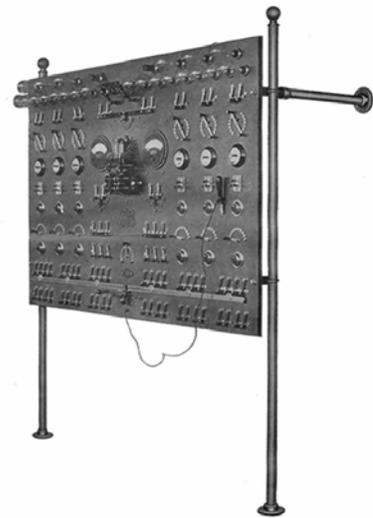
1930 - Alarm bell rung upon off-duty death of veteran firefighter Eugene A. Lasater. This is the last time the bell is rung at Station 1.

1931 - City has 120 alarm boxes. Report from National Board of Fire Underwriters describes alarm system as installed in 1925 and consisting of a 12-circuit switchboard with devices for charging and operating with batteries, and a 10-circuit automatic, non-interfering repeater with contacts for four alarm circuits. Electricity is supplied by 288 lead- and acid-type batteries, in duplicate sets, on glass rods in porcelain conductors, in a well-ventilated room.

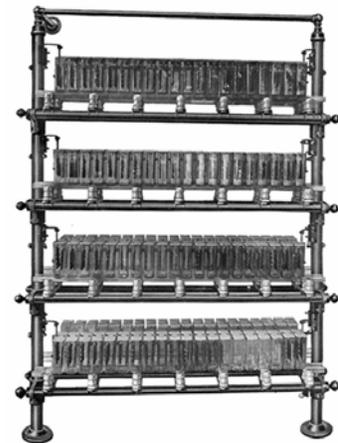
Each fire station is equipped with a gong and tape register, and automatic light circuit. Gongs are also present in the pumping station and at the homes of the Fire Chief and Asst. Chief. A tower bell at Headquarters is also available, but not used. Nine alarm boxes are affixed to iron lamp posts; the rest are attached to any available pole and usually at or near street intersections.



Automatic repeater mounted on art metal pedestal with Peerless clear vision case, ca. 1925



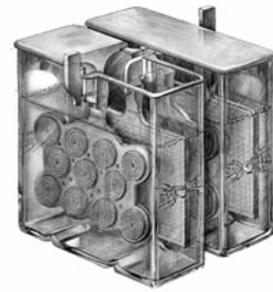
Automatic storage battery and repeater switchboard mounted on iron pipe frame, ca. 1925



Metal battery rack, ca. 1925

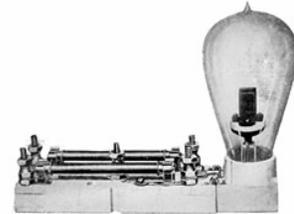
Alarm boxes are painted red annually. Each fire station is also connected to the telephone exchange with a single-party line. Box alarms are transmitted four times to the stations. Telephone alarms are typically called into Headquarters, but some telephone alarms are received directly at the stations.

1938 - Alarm bell removed when tower is demolished at Station 1. The demolition is performed by a contractor working on additions to the adjacent Revenue Building. Though the city has sought to remove the tower for a number of years, there were no funds. The contractor offers to remove the tower, because his trucks cannot fit between the buildings.



Storage battery, ca. 1925

1941 - West Morgan Street station demolished in summer, after Headquarters moves to old Station 2 at 412 South Salisbury Street on August 12, 1941. The fire department telephone switchboard is housed in a 12-foot-square room. Construction of dedicated building on South Dawson Street to house the fire alarm system also starts on same date.



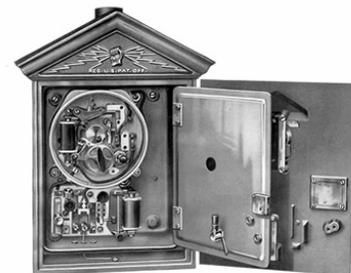
Vac-M arrest, ca. 1925

1941 - Purchase of new alarm equipment announced. The \$13,992 purchase includes a new switchboard, batteries, battery charging system, and an automatic timing and tape system. Also announced is \$2,700 of fire alarm cable. The new system, purchased without bid from Gamewell, has a capacity of 300 boxes. The city presently has 130 boxes and 35 miles of cable, wire, and poles. Some of the replacement equipment is 30 years old, or 16 years old. The new system is a three-fold system, allowing alarms to transmit even if wires are broken. An underground cable system is planned down Dawson Street from Morgan Street, to the front of the property for the new Station 1. The city's old equipment is transferred to the Gamewell company as part of the transaction.^{2.2}



Motor generator set, ca. 1925

1942 - Alarm building completed at rear of 220 S. Dawson Street in spring, on a lot purchased for a replacement fire station. Located adjacent to the old Union Depot, the \$15,000 parcel measures 70 by 236 feet. The \$3,500 building includes window frames and other materials salvaged from old Station 1. Building also has garage bay for the fire alarm repair truck and space for the city traffic signal repair shop. New alarm equipment is installed and includes new switchboard batteries, new battery charging equipment, and a new automatic timing and tape system. The upgraded system has a capacity of 300 alarm boxes. The city currently has 130 alarm boxes.^{2.3}



Peerless porcelain steel box with quick-action door, ca. 1925

1948 - Alarm bell installed atop Withers Hall at State College around this time. It serves as a replacement for the steam whistle used to signal students. The bell is last sounded in 2006, for operational tests during the building's renovation.

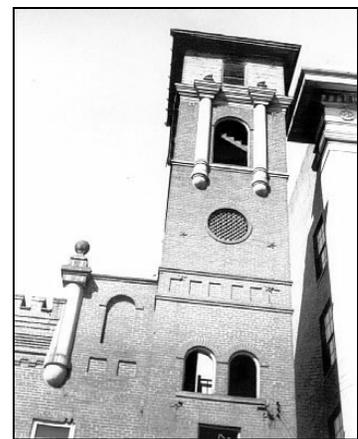
1953 - New Station 1 opens at 220 S. Dawson Street on October 5, 1953. Watch room houses switchboard operator and later radio dispatcher.^{3.1}

1955 - Two-way radios installed on all apparatus with base station at Station 1.^{3.2}

- 1957 - Two-way radio base stations placed in service at all stations on February 7, 1957. Radio watch started at all stations, from 8 a.m. to 11 p.m. Each watch period is two hours.^{3.3}
- 1958 - Fire department begins dispatching select rural fire departments. County-wide, two-way radio network installed with assistance and funds from local office of Civil Defense.^{3.4}
- 1965 - City has 274 alarm boxes, each of which is tested at least once a year by the two fire alarm technicians. About once a week, the 100 miles of overhead wires are checked, with tree limbs often having to be cut away from the wires.^{3.5} Dispatcher / switchboard operator moved to the second floor of the alarm house from the Station 1 watch room by June 1965.^{3.6}
- 1972 - Fire department dispatching transferred to new Raleigh and Wake County Emergency Communications Center in the spring of 1972. The telephone number 829-1911 is designated as a County-wide emergency number, in anticipation of 911 availability in later decade.
- 1973 - Last box alarm received on May 14, 1973 at 2116 hours for an incinerator that set off sprinklers at 712 _acker Street. Box 433 transmits the alarm.
- 1974 - Sale of surplus alarm system equipment authorized by City Council on March 18, 1974, including 250 alarm boxes, 13 gongs, four registers, and one repeater.^{3.7}
- 1978 - Alarm house used for storage of uniforms and other clothing items. Also office of Assistant Chief E. B. King.^{3.8}
- 1986 - Data management team moves to second floor of alarm house. First floor used for storage including furniture, equipment, and records.^{3.9}
- 1988 - Data management team moves to former Fire Prevention area in Station 1.^{3.10}
- 1989 - Tabletop training simulator moved to second floor of alarm house on November 23, 1989.^{3.11}
- 2004 - New windows installed in alarm house.
- 2005 - Second floor of alarm house used as exercise room and storage.
- 2007 - A graduate student at North Carolina State University uncovers the origins of the bell atop Withers Hall. He matches his research with Raleigh Fire Department historical information, including an old photo of a group of firefighters with the bell. The object in the photo matches the physical bell, and the origins of the bell are confirmed.



Station 1 in 1930



Station 1 tower in 1938



Alarm bell in 1938

References

- 1.1 *News & Observer*, April 27, 1888.
- 1.2 *News & Observer*, April 28, 1888.
- 2.1 Oral history.
- 2.2 *News & Observer*, July 30, 1941.
- 2.3 *News & Observer*, August 14, 1941.
- 3.1 *Raleigh Fire Department*, 1984. Taylor Publishing.
- 3.2 Fire department records.
- 3.3 *Raleigh Times*, July 22, 1960.
- 3.4 *Raleigh Times*, June 21, 1965.
- 3.5 *Raleigh Times*, June 21, 1965.
- 3.6 City Council minutes.
- 3.7 Oral history.
- 3.8 *ibid.*
- 3.9 *ibid.*
- 3.10 Fire department records.



Alarm housing at Withers
Hall in 2008



Alarm bell in 2008