



The Flood Of 1937



In 2020 we acknowledge the 83rd anniversary of the famous and devastating 1937 flood. On January 18, 1937, the Ohio River went over flood stage of 52'. On January 26, 1937, the river crested at a record 80'. On February 5, 1937 the river returned to a stage of 51.8'.

The Four-year-old Cincinnati Union Terminal complex was located on the east bank of the Mill creek on fill material which raised the land level an average of 16'. By virtue of this fill, the engineers and architects of the Cincinnati Union Terminal complex determined to render it flood-proof, to prevent problems which annually plagued several of the stations it replaced. However, no one conceived of a flood crest of 80'.

For an interesting account of what happened at the Cincinnati Union Terminal and its facilities during those hectic days, a report from the office of the manager, dated March 4th, 1937, is herein reproduced for the first time in its entirety. Photographs have been added for a visual appreciation of the magnitude of this disaster.

Photos are from the Collection of Gibson Yungblut, also from the Internet and other sources unknown. Artwork is from John P Maggard.

The Cincinnati Union Terminal Company

High Water Data

January – February 1937

Service at the Cincinnati Union Terminal was somewhat curtailed by flood waters, January and February 1937.

On the afternoon of January 21, 1937 at 3:45 P.M., when the river reached the stage of 64.4', the Big Four and the B&O abandoned service to the Terminal Company's Southwest connection. The morning of January 22nd, all service on B&O, Big Four, Pennsylvania and N&W abandoned over the north connection because of high water at Hopple street. The C&O, Southern and L&N continued operating in over the Ohio River bridges.



The L&N abandoned service after departure of #33, 10:35 A.M, January 22nd.

The C&O abandoned service on its own line on January 22nd detouring some trains over the Southern on January 23rd.

At 12:15 A.M January 23rd water had reached such stage in front of the station necessitating discontinuance of Street Railway buses. Throughout the day on January 23rd and up to midnight, traffic was continued to the city through the water in Greyhound buses.



The Southern continued to operate into the station. Passengers were handled by shuttle service from the Terminal to the C&O. Finally, on January 26th, they abandoned this service and stopped its trains at Ludlow, running shuttle service from Ludlow through the Station to Fourth street. On January 25th Sunbeam service between the Southern and Big Four operated through here by way of C&O of Indiana, and this continued through the flood period.

City water was turned off at 6:00 A.M January 24th and remained off until February 3rd. Train service was resumed inbound 12:01 A.M, February 4th and Outbound 12:01 P.M same date. Therefore, the Station was practically abandoned for passenger train service from midnight January 21, 1937 until 12:01 A.M February 4th, 1937 except for shuttle train service between Ludlow Ky, and C&O Fourth Street Station, and C&O of Indiana service.

Baggage and Ticket Office forces were assigned to Lockland, Ohio, Wyoming, Ohio and Norwood, Ohio and Ludlow, Kentucky and at the Greyhound bus station, to assist in handling the business of the proprietary lines.

Car Inspectors and Yard Masters were also sent to the suburban stations to aid the roads in their operations.

Other employees not required for service were temporarily furloughed until train service was resumed.

The maximum height of the river was on January 26th, 1937- Stage 80'.

The previous record high stage of the Ohio River was 71' in 1884.

At the 80-foot stage Terminal Company property was affected as follows:

Passenger Station: - 7.8' Above Baggage room floor; Elevation
500'

Mail Building: - 10.5' Above Basement; Elevation
497.42'

7.9' Above Substation floor; Elevation
500'

Express Building: - 1.25' Below first floor; Elevation
509.17'

1.87' Above driveway; Elevation

506'
7.9' Above Substation floor: Elevation
500'



Coal Dock: - 7.2' Above footing; Elevation
500.5'

Service Building: - 7.2' Above substation floor; Elevation
500.66'

8.0' Above first floor; Elevation
500'

Drop table: - 9.2' Above top of rail; Elevation
498.75'

Enginemen's Building: - 6.85' Above first floor; Elevation
501'

Powerhouse: - 1.8' Above first floor; Elevation
506'

Engine House: - 6.9' Above floor; Elevation
501.5'

Turntable: - 6.6' Above top of rail; Elevation
501.5'



The greatest damage caused by the flood waters was to our electrical plant. All seven substations, including both high- tension and low- tension switchboards and transformers, were completely submerged with exception of switchboard at the Powerhouse substation. The water reached a depth of from 7.2' to 7.9' in all substations, except at the Powerhouse where it was 1.8 feet above the floor, on the switchboards. Equipment in these substations consists of 13,200-volt, 2,300-volt, 440-volt, 220 volt and 110-volt switchgears and transformers.

None of the 28 transformers were lost, but 8 required a complete oil refill. All of the oil pots in the oil circuit breakers had to be refilled with oil. Potheads on transformers and breakers had to be dried out and refilled with compound. All relays, metering equipment, current and potential transformers, on the high-tension and low- tension boards had to be removed, dried out, repaired and, in quite a few instances, replaced. Motor Generator sets and battery charging switchboards at the Passenger Station, Mail Building and Coach Yard were submerged and had to be dried out and serviced before returning them to operation.

A number of the smaller motors over the property were removed and kept dry during the high water. The larger motors however, at the Machine Shop, Turntable, Coal Dock, Mail Building and Refrigeration plant in the Passenger Station were submerged and had to be dried out and, in some instances such as the synchronous motors, repaired before being placed back in service. An attempt was made to raise all the larger motors above high water, several lifts being made while the river was coming up. However, the rise was so rapid in the final stages it was impossible to keep them dry.

The four outside mail conveyor belts, together with their motors, were submerged under a minimum of approximately 2' of water. The belts and rollers came out in

excellent condition, the belts having been waterproofed during the latter part of 1936, and all rollers have grease-packed bearings, which avoided any appreciable damage to this equipment.

Approximately 50%, or 2,500' of the steam transmission line from the Power-house to the Passenger Station was submerged, and all of the steam transmission lines in the Coach Yard. This facility weathered the flood in very good shape, requiring only lesser items of repair, such as steam traps and operating mechanisms for pressure control on account of freezing while the steam was turned off. The covering on the line was in good shape and required very little repair.

Damage to buildings was confined, primarily, to painted surfaces and the accumulation of silt and grease on the walls and floors of that portion which was flooded. So far, no indications have appeared to show damage to foundations.

Driveways and Coach Yard platforms at the North End weathered the flood with very little settlement and are in especially good condition considering the amount of water at that location. However, there was a cave-in under the Express Driveway between Sherman Avenue and The Express Building, caused by a break in the 8 ½' city brick sewer. This will necessitate filling the caved-in embankment and placing approximately 120' of driveway, 30' in width.

Approximately 30 miles, or 65%, of Terminal tracks were submerged to a depth of from a few inches to 10.4', the greater portion of which is located on filling

material taken from Bald Knob. The entire Coach Yard, Mail and Express, Engine Terminal and North Mains were under water. It has, and will, require approximately 60 cars of gravel ballast and 60 cars of cinders, as well as an increase in track forces of fourteen men for a period of sixty days, to rework these tracks and bring them to proper surface.

The entire Southwest Connection pile trestle – 2,500' in length – was under water from a dept of 2' to 15'. This bridge was weighted down with coal cars and came out of the water without damage other then to handrails and walkways.



Interlocking Plant

On account of discontinuance of electric service interlocking plant was operated from 3:43 A.M, January 23rd to 9:15 P.M January 30th, from a portable generator set, furnishing energy only for operating switches.

Signals all dark, and track circuits inoperative, making moves by hand signals.

All signal apparatus on the Loop Track was moved into the top shelves of the relay cases; likewise, all telephone apparatus in the various cabins. This material was all placed in the clear of 75' flood elevation, but it developed nearly all of it was under water. At 9:00 P.M January 24th, forces started removing switch valves and circuit controllers from the switch machines, as well as relays from the cases at the north end of the main interlocking plant. This was done in advance of the rise of the water as it moved south into the North Throat. About 100 relays were taken out and preserved. When the air compressor at the Power Plant was shut down, the interlocking was immediately switched over to aa switch engine which furnished air supply.

When the crest of the flood was reached at 2:00 A.M Tuesday, January 26th, the work of repairing and cleaning the apparatus which had been removed was started, and telephone equipment which could be reached was turned over to the Telephone Company for repairs.

The work of restoring the apparatus in the main interlocking plant at the north end, followed very closely the water as it receded, and the north end of the plant was put in service 4:00 P.M, Sunday, January 31st, with exception of two switches and signals on the north signal bridge, with power received from a temporary 2300 volt service furnished by Cincinnati Gas & Electric Company. This was furnished direct to the two cable houses of the interlocking plant and not through the switchboard in the substation at the Passenger Station. This service continued until February 12th, when we returned to the substation service.



There was some damage to all underground work, air lines as well as cables. This, however, was cared for without interruption to service.

Most of the damage to signal apparatus was on the Loop Track and at Southwest Connection, it being necessary to replace signals on the Southwest Connection and shop all relays and similar apparatus on the Loop.

Telephone and Teletype service to the north end was damaged and necessitated considerable work of rehabilitation.

Master clocks controlling the time system in the Station and south end of the property, located in the substation of the building, were covered by water and were an entire loss. These must be replaced, as well as the Master clock at the enginemen's building. Temporary service has been installed and time system was again operating on February 22nd.

Mechanical Equipment Terminal

Water started entering the Power Plant basement the night of January 20th. All sewer lines into the lower pits in and around the Equipment Terminal, were blocked.



After the movement of all road equipment out of the Terminal the night of January 21st and morning of January 22nd, all yard engines were moved out of the roundhouse to the south end of the Coach Yard. Steam was cut off and boilers banked in Powerhouse, and yard engines used to heat the cars still in the Coach Yard. C&O and L&N equipment, engines and cars, was removed from the Terminal by those two roads on January 23rd. All other equipment left in the Terminal was brought into the Station tracks as the Coach Yard was becoming flooded. Three engines, one road engine and two-yard engines, were in the Roundhouse undergoing repairs. These were left there; no damages were done except to the box packing and required cleaning.

The Power Plant was abandoned at 10:45 P.M January 24th, at which time the fires were killed, and boilers drained.

As soon as the water started to recede, we worked back into the Equipment Terminal, cleaning all buildings with flood water. A portable power unit was obtained from the N.Y.C., and we were able to operate the turntable on February 3rd and started coal dock operations and machine shop on February 5th. Fires were built in the boilers at the Power Plant immediately. The first filling of boilers was from the water in the basement of the plant. As soon as City water was received, which was on February 3rd, Power Plant was put in full operation. As fast as possible steam lines were dried out and within 12 hours from the receiving of City water, we were supplying heat to the south end of the property.

Other than the cleaning of the property at the north end, very little damage resulted from the water. There was quite a bit of loss to Storehouse material as all oil, car and valve, gasoline, kerosene in underground tanks was a total loss.

Baggage and Mail

On January 21st, at 10:00 P.M., Post Office Department and Railway Mail Service abandoned the Post Office Annex as the Motor Vehicle Service could not reach their platforms on Liberty Street due to flood water. Mail was delivered for

outbound trains to the baggage room, and incoming mail was delivered to Motor Vehicle Service at the same point.

Access to the baggage room was cut off at 6:00 A.M January 22nd. All mail and baggage operation were then transferred to the other stations used by the roads. Baggage for Southern trains was received through the concourse.

All baggage left in the baggage room was put on trucks on the high platform, which would have stood about 78' of flood water. When it was seen that the water was going to reach this point as much of the baggage as possible was carried to the concourse. All of it, however, could not be removed and some of it was damaged by the water.

While the operation was curtailed, there was a certain amount of operating expenses which had to be continued. The unusual expenses incident to operation during the flood period, cleaning up after the water went down and rehabilitation costs, are still indefinite. Estimated expenditures to the 1st of March are approximately \$74,000, and it is estimated it will require \$25,000 to \$30,000 to be spent in the next three or four months to put the property back to normal condition. More detailed figures will be available as soon as the Auditor has closed his accounts for the month of February and should be available for the next meeting of the Board.

Office of Manager

March 4, 1937.



As you can see from this picture all the station tracks on the south end was dry. Trains could come in from Ludlow, Ky from the South and trains from the north could still come in from the C&O of Indiana. However, once in the terminal you could not leave to the city because of flood water blocking the front of the terminal station roads.



This photo is from a platform on the Railway express building looking at Tower B and the mail Platforms and mail building.



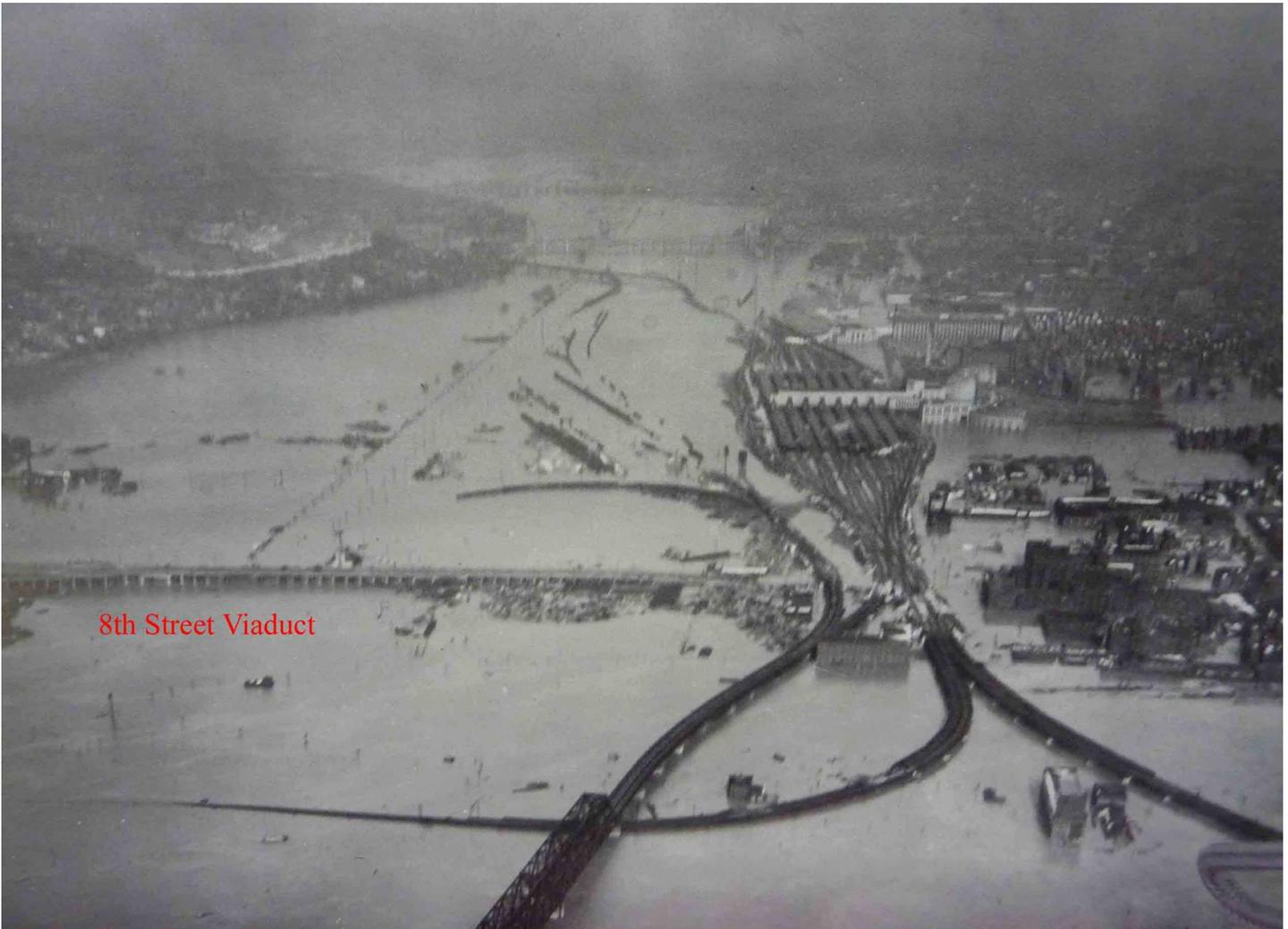
1937 Flood waters at the junction of the Mill Creek and the Ohio River. Photo by CG&E. From the Collection of Gary Lynn.

Looking at the Southeast and southwest Connection and the Southern Bridge. The viaduct in the picture is the 8th street viaduct.



1937 Flood waters looking upriver. Photo by CG&E. From the Collection of Gary Lynn.

Looking at the southeast connection and the Cincinnati Southern high line.



View looking up the Mill Creek valley. Southern Bridge still above water, southeast and south west connection underwater. The C&O of Indiana bridges above water but the north end is covered.



C.U.T front and sides underwater. The 1937 flood was very bad not just for Cincinnati but bad for everyone from Pittsburg to the Mighty Mississippi River. So many people lost a lot in these times.