

Bomber Hits Empire State Building; New York Gets Its Highest Fire

**Four Alarm Assignment Subdues New York's
Loftiest Blaze Following Fatal Bomber Crash**

A STAFF REPORT

A DISASTER that has long been anticipated and feared occurred at 9:45 A. M. Saturday, July 28, when an Army B-25 Mitchell bomber, groping through thick fog, crashed into the Empire State Building at a point 915 feet above street level, leaving fourteen dead—three of them occupants of the plane, and twenty-six injured, four critically.

The eight ton, twin-engine plane, striking the north side of the 102-story, 1,250-foot structure, smashed through seven walls and partitions and then hurled parts of its wreckage out the south side, where one of the motors crashed atop a twelve story building across 33rd street. Other parts of the plane, together with pieces of the structure itself, were thrown in every direction, fragments being found half a mile distant. The plane, said to have been traveling faster than 300 miles per hour, struck with terrific force; its wings were sheared off but the motors and fusilage ripped a hole eighteen feet wide and twenty feet high in the outer wall of the seventy-eighth and seventy-ninth floors, on the 34th street side of the structure.

One motor, which tore clear through the seventy-eighth floor to fall on the twelve story office building at 10 West Thirty-third street, started a fire which demolished the penthouse of Henry Hering, noted sculptor, with resulting damage estimated at \$75,000. The other motor and part of the landing gear crashed into one of the elevator shafts, where they fell to the sub-cellar, 1,000

feet below. A steel girder at the seventy-ninth floor was bent inward eighteen inches by the shock.

Cascading Gasoline Spreads Fire

Cascading torrents of flaming gasoline poured through the seventy-eighth and seventy-ninth floors, setting fire to everything that was combustible. Burning fuel ran down stair wells into hallways as far as the seventy-fifth floor, as well as down the face of the building. Choking fumes and smoke rose upward to the conservatory, 1,050 feet above the street. Roofs of adjacent buildings sprouted fire and smoke.

Just how much high test gasoline was in the plane's tanks at the time of the accident is unknown but it was sufficient to start fires which gave the four alarm assignment of New York's Fire Department a tough forty-minute battle. The normal gasoline capacity of the B-25 is said to be 1,500 gallons.

Death Toll Providentially Low

Because it was Saturday, there were few occupants in the building. The fog and bad visibility had reduced the number of persons in the upper observatory at the 102nd floor level to three. They, with two guards who were stationed at that point, made their way to safety. About fifty persons were in the glass enclosed observatory at the

eighty-sixth floor level. Immediately after the crash, flames shot up the elevator shafts, followed by a heavy cloud of smoke, while metal fragments of the plane landed on the open balcony outside. However, there was no panic at this point. The heat and smoke from the fire below made the observatory uncomfortable but the guards at this point broke open the glass doors letting in fresh air and, when it was found to be safe, the people used the stairs.

The War Relief Services of the National Catholic Welfare Conference—the largest sufferer in the disaster, fortunately had only about half of its normal staff of thirty persons at work at the time. It is believed that only five of those on the floor escaped death or serious injury.

W. Paul Deering, publicity director of the organization, either jumped or was blown from his seventy-ninth office to his death on a ledge on the seventy-second floor that caught his body. He was the only recognizable victim of the agency's staff members who were killed. The others were burned beyond recognition and were identified hours later only by means of dental charts and bits of jewelry.

One of the bodies was found in Mr. Deering's office; two others in a small glassed-in office where they had smashed window panes in a vain effort to gain air. On the north side of the office, nearest the point where the bomber crashed, it was indicated that the persons in that section were either killed outright by the explosion or so stunned that they never had a chance to escape the searing flames.

Also found on the seventy-ninth floor were the remains of the two crew members of the plane, Lieut. Col. William F. Smith, Jr., who was piloting the ship, and S/Sgt. Christopher Domitrovich. The body of the plane passenger, Aviation Machinist's Mate, Albert G. Perna, was reported found some time later at the bottom of one of the elevator shafts.

Included on the critical list was Betty Lou Oliver, girl elevator operator who, while in the car, dropped eighty stories, when parts of the plane severed cables. Her escape from immediate death is considered a miracle.

Reports from the building management were that there were between 1,000 and 1,500 persons in the structure at the time of the accident. Had it happened on a full business day there would have been 5,000 tenants and 5,000 to 10,000 transients in the structure at that hour.

All of the dead and most of the injured were found in the building. It was considered remarkable that in view of falling glass and fragments of the plane and building which showered



Wreckage on 78th Floor After Crash. Remains of Bomber Shown at Left

down, that injuries were not more numerous and more serious. Only a few persons on the street were hurt and these slightly, street and sidewalk traffic being light at that hour. In addition, the plane hit head on, most of its wreckage being confined within the building. Had it struck a glancing blow and disintegrated into Fifth avenue and Thirty-third and Thirty-fourth streets, casualties might have been greater.

Police quickly roped off the entire area, keeping the thousands of spectators at a safe distance from falling glass and debris. This action prevented further casualties and assisted the firemen in their rescue and fire-fighting operations.

The City's Highest Fire Battle

Described by Fire Commissioner Patrick Walsh, in charge of fire fighting operations, as the city's highest fire fighting, the struggle "had not been too difficult," except for the problem of lugging hose and equipment twelve floors and more from the sixty-seventh floor, where elevator service ceased, up the stairs, through the smoke and heat to floors immediately below those involved by fire, where they made connections to the building's standpipe system. Fortunately, the collision and explosions had not seriously damaged the building's fire protection system, which was given its first severe test.

The initial companies to arrive were Truck 24 and Engine 1, with Battalion Chief Arthur Massett of the Seventh Battalion and Deputy Chief Gebhart Bryant of the Third Division. Rescue and fire fighting operations were under way in a matter of moments.

Thirty-fourth street marks the extreme northern limits of the Manhat-

tan high pressure system which was used on the 12-story building at 10 W. Thirty-third street, ignited by falling debris.

It is disclosed that on the 78th floor of the Empire Building there was a considerable amount of paint. Claims for losses of \$1,000 worth of paint have been filed by the contractor (or painter) whose materials were stored there. This floor had no flooring or trim completed, all of which helped reduce the fire and loss.

The Empire State Building's engineer reported to Chief Bryant that he had started the building fire pumps and asked for instructions on pressures.

Truck Co. 24, first on hand, immediately ordered them "as high as they could go" and took over the house line just below the fire and were working up the stairs when the first engine company members arrived. There was no delay in getting water onto the blaze—the men were not waiting to substitute regulation fire hose for the hose lines, as is the custom.

Fire Alarm Headquarters Busy

The first alarm for the disaster was received by the Manhattan Fire Alarm Telegraph Bureau, Supervising Dispatcher Gerald Cruise in charge, at 9:52 A. M. from box 681 located at Fifth avenue and Thirtieth street. Strangely enough this was turned in by Fire Lieut. William Murphy of Engine Co. No. 1 who heard the crash and saw the smoke while on an inspection tour and snapped the nearest box.

Truck 24, located on W. Thirty-third street, was en route to the fire 30 seconds after the crash.

One of the most unusual alarms was sounded by William Sharp, a laborer, at work on the seventy-third floor when the plane struck. He is reported to

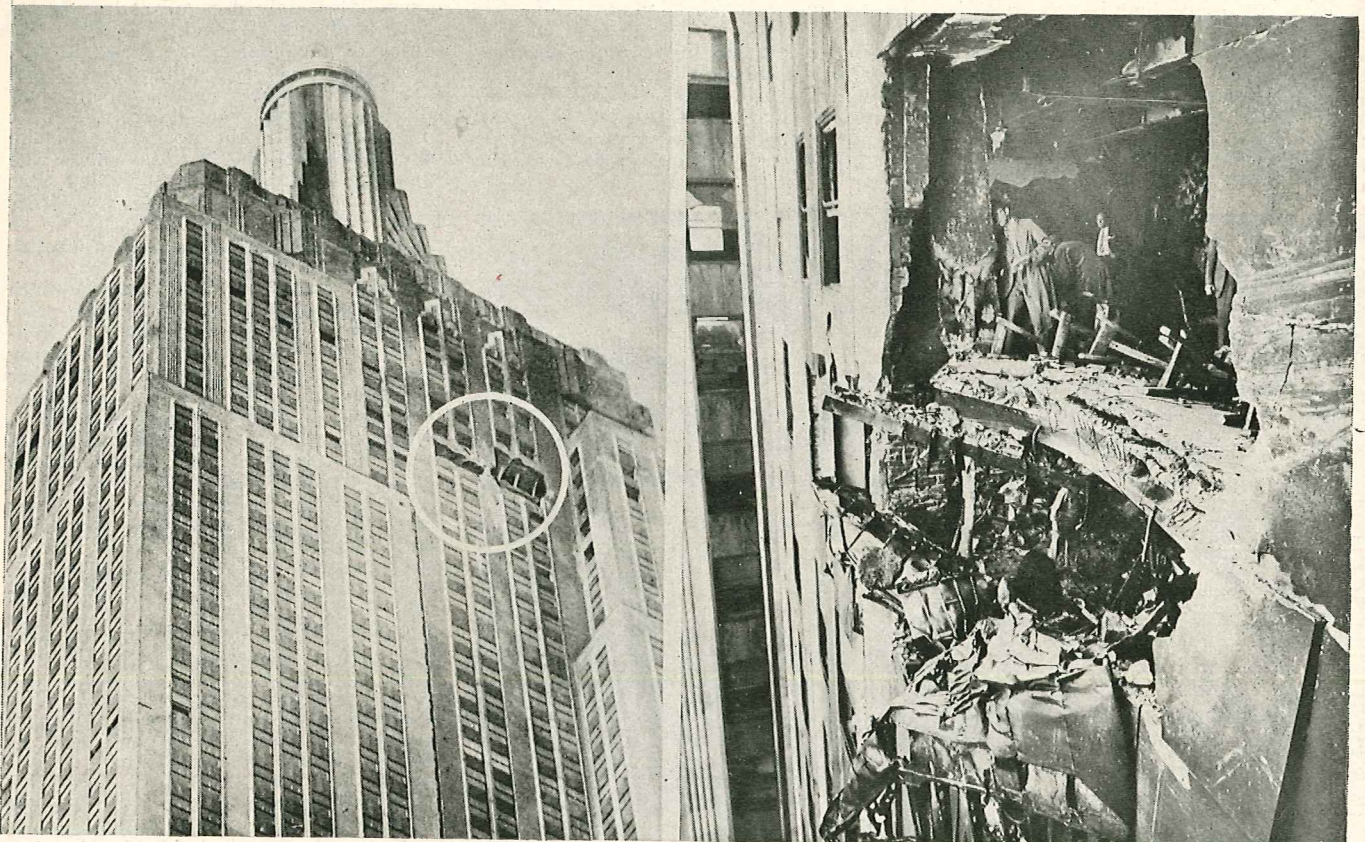
have been thrown against a wall of the building by the shock of the impact and he swung a shovel that he was holding against a building fire-alarm box on the wall, breaking the glass and transmitting an alarm.

Members of Truck Co. No. 24, Water Tower Co. No. 3 in their quarters on Thirty-third street, nearby, hearing the crash were ready to roll when the alarm sounded. Some of the crew of Engine Co. No. 65 on Forty-third street, half a mile north, saw the plane flying low down Fifth avenue and heard the crash. They too were ready, awaiting the expected alarm but had to wait for the second as the box pulled is just outside their first alarm district.

Here is the chronological summary of the alarms and responses and movement of apparatus:

A.M.

- 9:52—Box 681, bringing Engs. 1, 14, 16, 26; Trucks 24, 7; Dep. Chief, 3rd Div. Batt.; Chief, 7th Batt.; Water Tower 3.
- 9:52—Boxes 714, 695, 696, 660, 723, 713 (pulled twice); 725 "not sent out."
- 9:53—Boxes 733, 749, 715, 788 (Broadway and 42nd Street) not sent out.
- 9:54—Box 748, also 706. Not sent out. At this time special Building Box 3-962-7 for a fire at 305 E. 63rd Street was received and apparatus dispatched.
- 9:55—Signal 22-681, second alarm, bringing Engs. 65, 19, 72, 21 and 34; Truck 21; rescue 1.
- 9:55—The Empire State Building's own building box, 3-715-1 was received but not transmitted as first alarm companies were already at the scene.
- 9:59—Signal 33-681, third alarm, bringing Engs. 5, 18, 54, 3 and 8; Truck 12; Chief of 8th Batt.
- 10:00—Signal 44-681, fourth alarm, calling Engs. 2, 33, 25, 28, 13 and 23; Truck 3; Chief, 3rd Batt.
- 10:10—8-681-175. Increase pressure on high pressure mains to 175 lbs.



Right: Where Bomber Struck. Two Floors Were Involved as Indicated. Left: The Gaping Holes (Circled) at the 78th and 79th Floors of the Empire State Building Marks the Place Where the B-25 Army Bomber Crashed Into the Structure

- 10:09—Signal 777-6813. Three public ambulances requested, and dispatched over fire and police radio systems to 350 Fifth Avenue.
- 10:14—Batt. Chief of 8th reports in service from other fire, and to Box 681.
- 10:27—Telephone notice that citizens in control tower of RCA offices in Empire Building overcome by smoke and help requested. Rescue company notified by radio; dispatched to 78th, 79th and 80th floors.
- 11:29—Signal 8-681-125. Reducing pressure on high pressure mains to 125 lbs.

Note—Fire alarm bureau records indicate that over 130 telephone alarms were received by operators between 9:52 A.M. and 10:18 A.M. reporting "fire," "fire and explosion," or "plane crash and fire" the Empire State Building. It was utterly impossible to record all calls.

Almost before the last fireman had leaped from his truck, hospital and Red Cross disaster units were on the scene. While fifteen Red Cross aides dispensed coffee and doughnuts to toiling fire fighters, two disaster units from Bellevue Hospital replete with latest equipment were making their way into the upper reaches of the building to render first aid and assist in rescue work.

Within the twelve minutes during which companies with over forty pieces of fire fighting apparatus and other emergency vehicles reached the scene, over 300 police and squads of Army and Navy units, including military police and shore patrols, moved in with almost clocklike precision.

A seventeen-year-old Coast Guard Hospital Apprentice, Donald Maloney, was one of those who gave first aid in the early stages of the disaster. Because of his small stature he was elected to crawl through the breached wall in the basement into the wreckage of the fallen elevator car and help remove two injured women—one of them the operator—who fell with the cage.

Although civilian protection and the auxiliary fireforces have been disbanded, many former volunteers were on hand.

Over 300 police, including 110 detectives and plainclothes men, three police emergency trucks and about forty police radio cars were at the scene. Chief Inspector John J. O'Connell and Deputy Chief Inspector John J. Gallagher were in charge.

The city's hospital system rushed twelve ambulances, twenty doctors, twenty nurses and twelve stretcher bearers. St. Vincent's Hospital dispatched three ambulances, five doctors, four nurses and one attendant. An emergency hospital was established in the Thirty-fourth street lobby of the building. These units and the fire department all won praise from Lieut. Gen. Hugh A. Drum, president of the building.

Mayor Fiorella LaGuardia made a hasty trip in his radio equipped police car from the City Hall.

From the Mayor, the flight history of the plane in its fateful course was learned. The Mayor released a report from Commissioner John McKenzie of Marine and Aviation which said that the plane called the LaGuardia Field control tower saying that it was fifteen miles to the south, and requesting the Newark weather. As that would place it close to Newark, the chief operator suggested that it call Newark. Within two minutes, however, the plane appeared directly southeast of LaGuardia and the operator, thinking it was about to land, gave it the necessary information about the runway to use and the

wind velocity and direction. However, the pilot said he wanted to go to Newark.

Commissioner McKenzie said that the tower made contact with Airways Traffic Control, which reported there was a 600-foot ceiling at Newark and suggested that the plane be held at LaGuardia. The tower then communicated with Army Advisory Flight Control for authorization to bring the plane into LaGuardia.

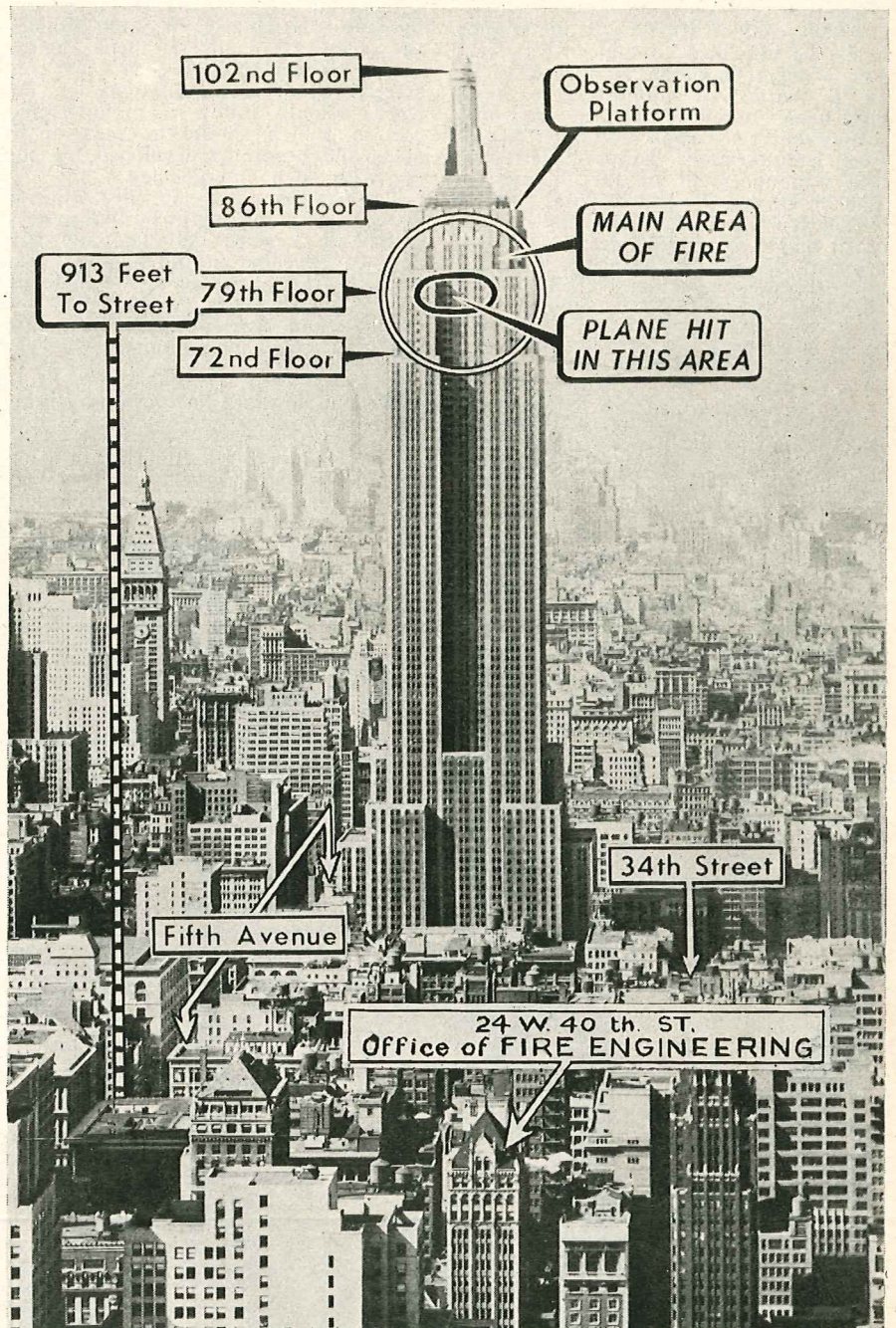
Since this was an Army bomber, the tower requested instruction from the AAFC, the Commissioner explained. He said that the Army told the tower that the Newark weather report was erroneous; that actually there was a 1000-foot ceiling and 2¼ miles visibility at Newark. The tower relayed this in-

formation to the pilot and asked his decision. He replied he wanted to go to Newark.

"Our tower then cleared him to Newark and stated that they (the tower) were unable to see the top of the Empire State Building and he would clear with three miles forward visibility, and if unable to obtain three miles forward visibility he was to return to LaGuardia. This is definitely contact clearance," the Commissioner's report said.

It was disclosed the plane was en route from Bedford, Mass., to Newark "on the final lap of a cross-country flight originating at its home station in Sioux Falls, S. D."

Both short wave fire and police, and commercial broadcast radio played im-



Key Areas Involved in Bomber Crash Into the 79th Floor of the Empire State Building Are Located in This View Looking South, with North Side of the Structure Shown. This Picture Was Made Prior to July 28th Unparalleled Accident. Fog Shrouded the Top of the Building on the Day the Plane Crashed Into the Building, Making General Views of Crash Area Impossible

portant rôles in the emergency. The Mayor received notification of the crash via short wave radio in his police car, as he was entering the City Hall. The fire department used its own radio—station WNYF—to direct fire and rescue operations and summon ambulances. The Department's "walkie-talkie," operated by members of Rescue 1, was reported to have given invaluable service in maintaining communications between fire fighting units,—communications which could only have been maintained by radiotelephone in view of the extent and nature of the fire area and department operations.

All of New York's commercial radio stations carried running, and graphic stories of the disaster. WOR's air conditioning expert, Edwin P. Kenny was taking his morning weather readings atop the twenty-five story building at Fortieth street and Broadway when he saw the accident. Rushing to the studios below he informed announcer Ed Pearson, who put it on the air at 9:49 A.M. In a matter of minutes, the news was being broadcast by the networks throughout the nation. Actually, one of FIRE ENGINEERING's editors heard the first announcement of the disaster in Toledo, O., over one of its local stations within ten minutes of the time of the crash and two minutes later was talking with New York observers over the long distance telephone. Such is the efficiency of modern communications.

Conclusion

Following the disaster a three-man investigating board was set up to study the cause and results. Mayor LaGuardia unhesitatingly placed the blame upon the pilot, Lt. Col. William Smith, Jr.

saying "If the pilot had been up where he belonged there would have been no trouble."

Regulations in the area are said to call for maintenance of a 2250 feet elevation over the city but it is known that this order is continually disregarded.

The Army is said to have accepted full responsibility for the disaster and at this writing is receiving claims for loss of life and/or property resulting from the crash. The property loss has not been established but is reported to exceed \$500,000 for the Empire State Building and between \$75,000 and \$100,000 for damage to neighboring property.

Several conclusions may be drawn from the accident. First, low flying over occupied and built up areas in hazardous, particularly in unfavorable weather. Second, disasters of this sort should be anticipated by municipal emergency services—particularly fire and police—and plans to combat them, beforehand. Broadcasting of events by commercial broadcasting stations or networks should follow a predetermined pattern, which should be part of the plans and programs developed for coping with such emergencies.

The tragedy gave an idea of what wartime bombing might be like in areas containing modern buildings and what may be expected in the postwar years of heavy aerial traffic. It should give chief officers of fire departments cause to think and plan for better safeguarding their own communities.

The Building Fire Protection System

The Empire State Building measures 197 feet on Fifth avenue and 425 feet on Thirty-third and Thirty-fourth

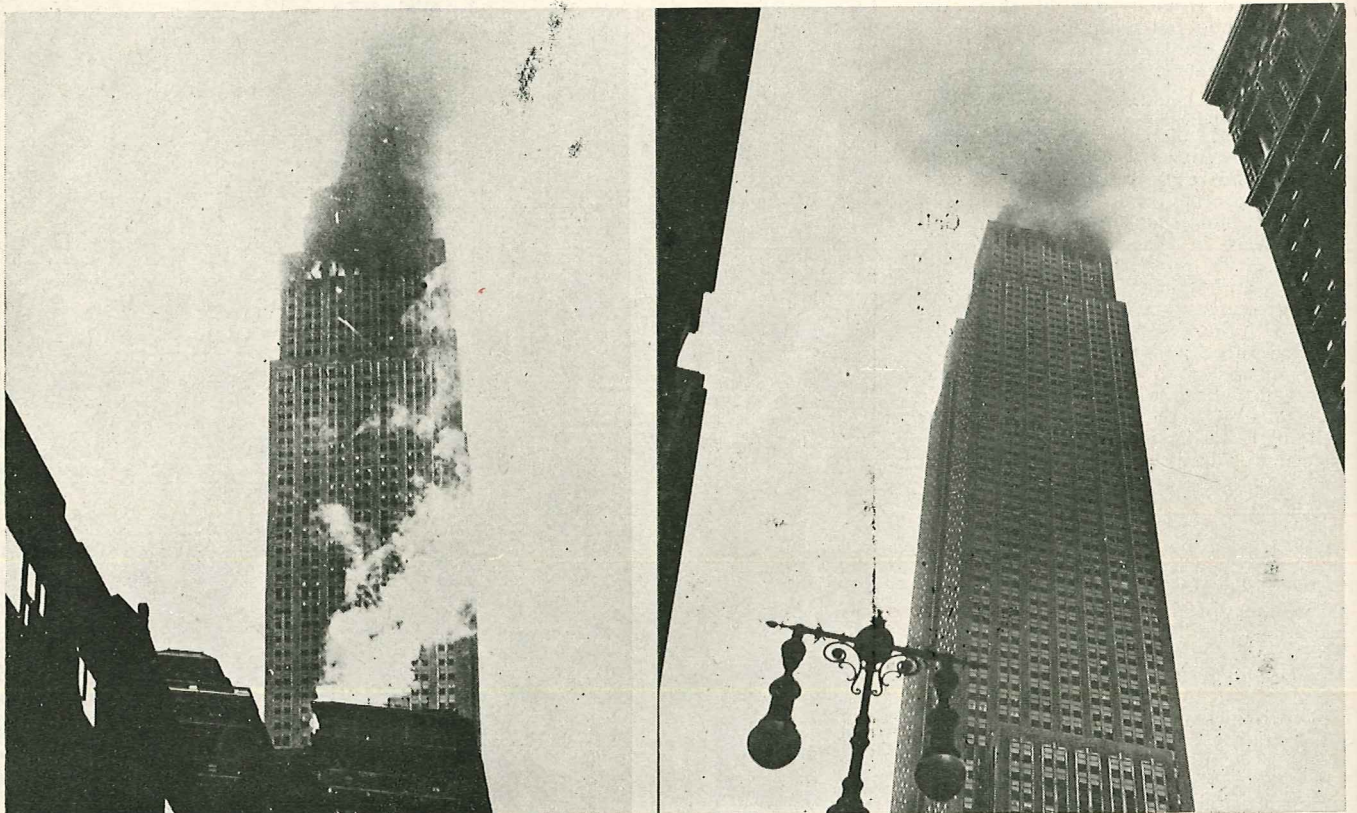
streets, covering an area of 83,580 square feet and containing 37,000,000 cubic feet inside of its 102 stories. There are 63 passenger elevators and four freight cars; the former reach the 80th floor level in one minute. All elevators travel at the rate of 1,250 feet a minute.

The building is equipped with fire alarm signal boxes connected with the American District Telegraph Company's central office and from there relayed to the city fire department. The signal for the building is 3-715-1 which means Special Building signal for street box 715, the terminal one indicating the Empire State Building. Pulling of a building box sounds alarm signals in elevator shafts, engine and pump rooms, house detective's quarters, first aid room as well as the operating offices of the structure.

The building is plentifully equipped with first aid fire fighting appliances and there are three special "fire trucks" designed for wartime defense use by the building fire brigade, which is composed of the working personnel of day and night shifts.

The standpipe system is fed from water mains on Fifth avenue, Thirty-third and Thirty-fourth streets. A special four-inch water supply pipe under Thirty-third street is exclusively for fire fighting purposes. The building has five risers eight inches in diameter, two of which extended to the 83rd floor, two others to the 30th floor and one to the 18th floor. The entire fire standpipe system embraces 7,340 feet of pipe and six miles of hose connected to 2½-inch outlets on all floors.

There are five water supply tanks and five pumps throughout the building. In the sub-cellar is a 750 GPM pump and a 10,000 gallons capacity tank; another pump of 750 GPM is on the 20th floor



Two Views of the Empire State Building Fire. Left: Shortly After the Bomber Crashed. Smoke at Bottom Is from Neighboring Building Where Fire Was Started by Falling Debris. Right: As the Fire Was About Under Control.

and a tank of 5,000 gallons on the 21st floor; the 41st floor has a 750 GPM pump and the 42nd floor a 5,000 gallons tank; the 62nd floor a 750 GPM pump and the 63rd floor a 5,000 gallons tank; the 84th floor a 280 GPM pump and the 85th floor a 3,500 gallons tank. These tank capacities are net volume for fire fighting only, although each tank has many times that more capacity, for commercial and domestic use.

Ten siamese hose line connections are located around the building for use of pumping engines of the fire department. Four of these are on Thirty-third street; four on Thirty-fourth street and two on Fifth avenue. These connections are for 3-inch hose couplings and they lead into six inch connections to the standpipe risers.

There are 324 hose outlets on the floors for 2½-inch connections. The system has twenty-seven control valves on vertical pipes and forty-nine control valves on all other pipes which will enable the fire department to detour or by-pass the water in case of a rupture in the piping or for some other emergency.

The 84th floor pump and the 85th floor tank are for fire service in the tower only. The highest outlet in the system is reported to be 1,230 feet high. The "mast" of the building is 1,250 feet above street level. The system has been constructed to withstand a pressure of 100 PSI at the highest outlet. Each pump is required to deliver water to the tank beyond the next highest intermediate pump and tank station.

FIRE ENGINEERING editors are advised that Mr. C. L. Brown, the present general manager of the building acts as the fire chief. At the time of the fire, the engineers reported at once to Chief Bryant of the 3rd Division on the Thirty-third street side, that building pumps were operating and that 75 lbs. pressure was being maintained. This pressure was held throughout the fire.

FIRE GUARD FOR PIERS AND SHIPS MAKES NOTABLE WARTIME RECORD

Organization Set Up Following "Normandie" Disaster
Prevented Any Major Fire on Ships and Piers

By Jerry Daly

THE benefit of efficient and conscientious fire protection when competently supervised, may be found in the three year fire record of the recently terminated special fire protection detail to several giant piers and ships on the west side waterfront of New York.

The record shows that between the time of the S. S. Normandie* fire on February 9, 1942, and July 5, 1945, when the detail was dismissed at the request of U. S. Army authorities, there had not been one fire of major proportions on any of the piers or ships where the Fire Department special detail was maintained. There were 152 fires of record during the three year period, of which 105 were quickly and effectively extinguished at the point of origin by New York firemen on the spot. City fire apparatus responded to forty-seven of the fires of which thirty-seven required some operations by the responding forces. Ten were precautionary alarms. There was one second alarm for a fire on H. M. S. Aquitania, but that extra alarm was precautionary. The second alarm companies and fireboats stood-by "just in case." One Normandie disaster was enough.

When that infamously, incautious fire of disgracefully careless origin had put the French luxury liner out of the war with lamentable loss to the cause of the

*Renamed U.S.S. Lafayette but never used as such.

Allies, the British Government quickly asked Fire Commissioner Pat Walsh of New York to make a special detail of firemen and appliances to those piers where H. M. S. Queen Mary, H. M. S. Queen Elizabeth and lesser prides of British Admiralty were coming and going with heavy international responsibilities. The request was met promptly by Chief Walsh in cooperation with the U. S. Army under the supervision of Lt. Roscoe Savage, USA, Fire Marshal in charge of the North River Terminal of the Port of Embarkation.

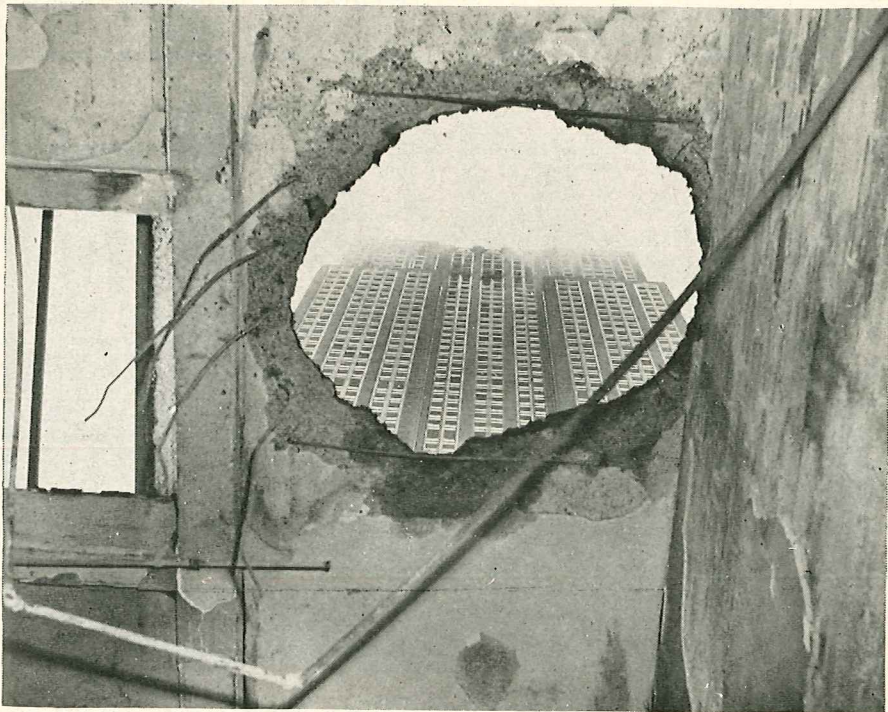
The Fire Department's Assistant Chief-In-Command John J. McCarthy, arranged the details and supplied men and appliances such as hose, nozzles, extinguishers, etc. One officer and five men with 1,000 GPM pumpers were assigned to the principal piers. Suctions were dropped overboard and discharge lines were kept connected. As time wore on and "nerves" settled and more firemen went off to war, the size of the special detail was reduced and 17 army trailer pumps of OCD issue replaced the heavy duty fire apparatus.

The Fire Department managed to get along with one officer and two firemen per pier, per ship. When there were two ships on opposite sides of a pier, one officer and four men comprised the detail. The detail was maintained only when a transatlantic liner was in. The personnel of this special detail was composed of casuals assigned in their turn from fire stations on Manhattan Island. Since most of the piers were in the Ninth Battalion, the Chiefs of that district who are stationed at 48th and 8th, did practically all of the supervision with the higher responsibility resting on the Chiefs of the 2nd and 3rd Divisions which include the waterfront from Houston to 59th. The assignment was a bit of a drain on an already depleted fire fighting force due to the loss of approximately 1,600 men in military service.

Protection of Shipping

The Marine Division of the Fire Department had a special responsibility. When any vessel steamed into the port of New York, it was the duty of the Chief of the Marine Division to go aboard with particular eye to the maintenance of the magazines where ammunition for the ship's protective guns is stored. There were many other apprehensions to agitate the firemen and the Army fire guards. Every time an acetylene torch was used on a ship or a pier, the fire detail automatically thought of the Normandie and stood by until the welding job was done. On the other hand there were the commonly pesky problems of smoking (permitted in crew quarters) with its obvious risks. Smoking is forbidden on deck and dock but violation of the rule is still a headache to the authorities. Particularly is the

(Continued on page 574)



This Odd View Was Taken Through Hole in Roof of Penthouse on 33rd Street, Across the Street from the Empire State Building. Part of the Crashed Plane Landed Here and Set Penthouse Afire