

EXPLOSION & FIRE IN ANNADALE, S.I.



by
A.C. ANTHONY W. DeVITA
Assistant Chief, S.I.B.C.

Photo by R. Simiuouskas

...blast levels a two-and-a-half story dwelling, blows walls off adjacent homes and hurls man 80 feet to his death.

May 22, 1987 was a partly cloudy, summer-like day. Temperatures were at the 65°F mark, winds were calm and the relative humidity stood at 52%. With a barometric pressure of 30.18, all indications were for another beautiful day in the borough of Staten Island.

People of the mostly residential Annadale section were going about their business on this quiet Friday morning. There was no hint that this serenity would change in an instant for the residents in and around 122 Poillon Avenue. Yet a tremendous explosion, causing one fatality, several injuries, the complete destruction of a two-and-one-half story wood frame dwelling and extensive damage to other property would occur before this morning was over.

This disaster would affect many people and their homes in the area and set the wheels in motion for a large scale public and private inter-agency effort before the situation was stabilized and eventually brought under control.

Just before the explosion, approximately eight miles away in the Port Richmond section of Staten Island, fire companies of the 22nd Battalion were in the

process of overhauling an "all hands" fire in a vacant church at 134 Faber Street. The fire had been declared under control and a 10-41 Code 1 was transmitted for three separate fires in this vacant structure.

At approximately 1123 hours, as the Staten Island Borough Commander, Assistant Chief Anthony W. DeVita, Car 8, and his Executive Officer, Deputy Chief Warren R. Haring, Car 8B, were supervising the mop up operation and discussing details of the church fire, when a dull but distinctive thud was heard and felt by many members operating at this fire.

Upon hearing this unusual sound of undetermined origin, it was immediately assumed that it came from inside the church. This caused considerable concern as the potentially weakened structure was in a state of disrepair and companies were committed to an interior operation. A quick handi-talkie check with Battalion Chief Fred Reich of Battalion 22, supervising the operation, proved that the cause of the sound did not emanate from the church.

Shortly thereafter, the Staten Island Communications Office was flooded with calls reporting an explosion. The first box to be transmitted was 3496 at 1125

hours. Two engine companies, two ladder companies and Battalion 23 responded to the report of a boat explosion. The location, Cleveland Street and the waterfront, was about two miles from the actual blast site.

Additional calls continued to pour in to the Staten Island Communications Office from many different locations on the island. Most were calls reporting an explosion-like noise with no specific location given. But when several calls were received from the Poillon Avenue and Amboy Road area with more detailed information, Supervising Dispatcher, Ivan Goldberg made the decision to transmit Box 4443 at Poillon Avenue and Amboy Road and to re-route the second due units responding to Box 3496 in to Box 4443. The time was 1127 hours and the stage was set for the arduous task that lay ahead.

CONDITIONS ON ARRIVAL

Arriving first at 1132 hours, Engine Company 164, commanded by Lieutenant George W. Allan, was met with a scene that wouldn't be soon forgotten.

- What was formerly 122 Poillon Avenue, a two-and-a-half story frame dwelling, was now reduced to rubble, burning intensely, and seriously exposing the frame dwellings on either side.

- Debris was widely strewn in this heavily wooded residential area. Furniture, construction materials, clothing and other personal belongings were hanging from trees and bushes for a radius of approximately 150 feet from the fire building.

- Exposure #2, 128 Poillon Avenue, exposure #4, 112 Poillon Avenue and #4A, 108 Poillon Avenue, were all so heavily damaged that a casual observer might have assumed an explosion had occurred in any one or all of these homes.

- A seriously injured male civilian, approximately 60 years old, was lying on the front lawn of exposure #4, several feet from the street and about 80 feet from the front of the fire building. It was not clear whether he was an occupant of the fire building, of an exposure, or just an unfortunate passerby.

- A number of other buildings in the immediate area were damaged to some degree, mostly in the form of broken windows.

- After a quick assessment, and realizing the potential problems that would have to be addressed in short order, Lieutenant Allan immediately ordered his chauffeur to take the hydrant in front of exposure #4 and his company to stretch and operate a 2½" line on the still burning remains of the fire building.

- In addition, he quickly transmitted a 10-75 for an "explosion" at the location, requested another Engine and Ladder company and the response of an EMS Ambulance, Brooklyn Union Gas and Con Edison. His judgment and call proved to be correct. All units requested were not only utilized but heavily engaged at different times throughout the operation which lasted for approximately eight hours.

Engine Company 167, second to arrive, immediately administered first aid to the critically injured civilian in addition to assisting with the stretching and positioning of the first handline on the fire. This proved to be particularly difficult due to the amount of rubble

and debris that literally impeded access to the fire building. Engine Company 162, third to arrive, stretched, charged, and operated the second handline to the fire building on the exposure #2 side.

In addition to extinguishing fire, both lines were also used to protect search and rescue efforts, not only in the immediate area of the fire building, but in adjacent exposures, which were badly damaged wood frame dwellings reportedly occupied.

Ladder Company 76, the first truck to arrive, was split into teams to simultaneously conduct a primary search of accessible places around the perimeter of the fire building and exposures #2, #3 and #4. Ladder Company 82, the second truck to arrive, assisted Ladder Company 76 in this major search effort.

When Acting Battalion Chief James M. Cline of the 23rd Battalion arrived on the scene at 1135 hours, he had a total of four Engine Companies, three Ladder Companies and one Rescue Company responding or at the scene. He transmitted the following report:

- Three houses involved, one totally destroyed and the ruins fully involved.

- Exposures #2 and #4 heavily damaged as a result of the initial explosion.

- A 10-45 Code 2 for a civilian discovered on the front lawn of exposure #4.

- Two handlines stretched and in operation on the fire building.

- Primary search underway around immediate perimeter of the fire building and in exposures #2 and #4.

- EMS on the scene and, assisted by FDNY members, attending to the critically injured victim.

Members searching rubble had their work cut out for them. This view of exposure 4 dramatically shows the power of the explosion which flung a window up to the roof where it can be seen imbedded at the peak.

Photo by R. Simiouskas



- All hands operating and heavily engaged.

As Deputy Chief Haring, Car 8-B, arrived on the scene and made a quick assessment, he immediately ordered the response of Rescue Company 1, which had been relocated into the quarters of Rescue Company 5. The Chief also issued orders to expand the primary search into exposures 4-A and 4-B that were also considerably damaged as a result of the blast.

Several minutes later, Assistant Chief DeVita, Car 8, arrived at the Poillon Avenue location and assumed overall command of the operation. It was now 1153 hours, 26 minutes since the initial alarm was transmitted and additional information was now available and reported to Car 8.

- A female companion of the initial victim, was reported missing, possibly buried in the rubble of the demolished fire building.

- The fire was being fueled by natural gas, escaping uncontrolled in the basement under the remaining debris of the structure.

- The primary search of exposure #2 and #4 was completed and three (3) injured civilians had been accounted for.

- The primary search of the area surrounding the fire building was negative.

- A secondary search of all affected areas was in progress. Some of the areas to be searched were as far as 150 feet from the explosion sight and in heavy brush and trees.

- NYPD Officers and Emergency Service personnel were assisting FDNY members in the removal of debris and searching for victims in the surrounding area.

At this time a FDNY Command Post was established and an overall assessment of the situation made. In order to determine what strategy to employ, and to obtain the required assistance, it was necessary to coordinate our efforts with those of other agencies at the scene. Therefore, officers in charge of these agencies were requested to report to this Command Post.

The first order of business after establishing the Command Post was to contact supervisory personnel from Brooklyn Union Gas and Con Edison in order to expedite the shutting down of all utilities into the affected homes, particularly the still-burning, uncontrolled flow of gas into the basement of the fire building. This was a major problem, hampering search and rescue efforts.

The Department's Hazardous Materials Unit was special called for possible use of their Thermal Camera. This is a relatively new piece of equipment in the FDNY which has been used at other collapse sites. The Thermal Camera is a portable, battery-powered device which operates much like a movie camera and is capable of detecting differences in ambient temperatures in its field of view. It is capable of detecting all or part of a human body buried in the rubble that might go otherwise unnoticed.

The Field Communications Unit was also special called at this time for coordinating, monitoring and reporting.

When the "All Hands" Chief, Battalion Chief

Edward E. Anderson of the 21st Battalion arrived on the scene, he was ordered to relieve the Chief of the 23rd Battalion who was being removed to a local hospital for treatment of injuries sustained during the operation.

B.C. Anderson was ordered to supervise the search and rescue effort underway in the fire building. Personnel from two engine companies, two ladder companies and one rescue company were committed to this task. The fire was still actively burning and could not be extinguished because of the flow of gas so a close watch would have to be kept. This phase of the operation was especially critical due to uncertainty as to the actual cause of the initial explosion and the possibility that another could occur. Since the area of the search continued to expand and the need for a coordinated and thorough examination was obvious, D.C. Haring was ordered to supervise and control this task. Three additional ladder companies were special called at 1225 hours to accomplish this assignment. The response of these additional units to the scene was expedited due to the fact that Supervising Dispatcher Goldberg had immediately relocated three ladder companies into the surrounding area upon initial confirmation of a major explosion. He did this in contemplation of just such a request and naturally it cut down on valuable response time for these units.

At 1225 hours, Brooklyn Union Gas reported that all gas supplying the fire building had been shut down. This permitted units operating in the fire building to extinguish the remaining pockets of fire and move into areas as yet unsearched. This also allowed trained specialists of the FDNY Bureau of Fire Investigation and NYPD Bomb Squad complete access to the fire building.

The primary search in all areas except the fire building was completed and reported as negative. All

Smoke rises from the burning remains of 122 Poillon Ave., ctr. Arriving units found the fire building destroyed and exposures 2, l. and 4, r., heavily damaged. Hose lines had to be used carefully to avoid extinguishing burning natural gas which was eventually shut off by personnel of Brooklyn Union Gas.

Photo by Sales, The News





Photo by Sales, The News

This view of exposure 2 reveals the tremendous force of the explosion. Miraculously, a teenage boy who was sleeping on the second floor of this house escaped with minor injuries. Note the amount of debris, and half-buried car, which hampered rescue workers at the scene.

occupants of the exposed buildings were accounted for and the secondary search of all exposures was negative. Now the major task ahead was to complete the search of the fire building and the surrounding area remote from the site.

In order to deal more effectively and thoroughly with this complex operation and to ensure that each problem or area of concern was properly addressed, each Chief Officer on the scene was given a defined task and assigned a specific area of responsibility with instructions to report directly to the Officer in Command on a timely basis. In addition, any unusual or extenuating conditions were to be reported at once. This approach to the situation ensures a complete and organized effort by all units whereby key items of concern are accounted for. Duplication of effort and the chance of missing a critical area are minimized when

This aerial view shows remains of fire building, ctr., and exposures 2, 1, and 4, r. The one fatality, a 60-year-old man, was thrown approximately 80 feet from the fire building. Debris—from construction materials to clothing—was spread over an area with a radius of 150 feet.

Photo by Sales, The News



operating in this fashion.

Therefore, the following sector assignments had been made:

Deputy Chief Haring, SIBC—after being relieved of command by Car 8, was assigned to supervise and coordinate the search effort for victims in all exposures and the large wooded area around and remote from the fire building.

Acting Battalion Chief Cline, 23rd Battalion, assumed original command of incident and was responsible for initial strategy and tactics employed to control the situation.

Battalion Chief Anderson, 21st Battalion, "All Hands" Chief assigned to relieve the 23rd Battalion and to perform immediate supervision of units operating in and around the perimeter of the fire building.

Battalion Chief McDonald, Safety Operating Battalion, assigned to monitor handi-talkie communications, surveyed scene of operations while shoring of exposures 2 and 4 were performed to prevent further collapse of these buildings.

Battalion Chief Zavekas, 43rd Battalion, assigned to act as liaison between the inter-agency and FDNY Command Posts.

Due to the various agencies on the scene and the special need for close coordination between all those involved, the NYPD's Assistant Chief Samuel C. Marino, Commanding Officer of the Borough of Staten Island, established a Command Post to deal with specific problems other than fire related matters. Due to Chief Marino's superb efforts, the flow of communications between the FDNY, NYPD, Department of Buildings, EMS, American Red Cross, Brooklyn Union Gas, Con Edison and the media was greatly enhanced. In order to keep abreast of the developing situations at this command post, Battalion Chief Daniel J. Zavekas of the 43rd Battalion was special called to the scene to act as the FDNY representative. Arriving at 1305 hours, B.C. Zavekas reported to the FDNY Command Post and was ordered to establish a liaison between our Department and the inter-agency Command Post, and to document the events that took place so as to provide a permanent log of the incident.

At 1415 hours Chief Marino called a meeting of all agency heads present in order to exchange information and to update one another as to progress made or conditions remaining that had to be addressed. Some of the most important topics were:

- Progress of the joint FDNY/NYPD search for victims and evidence in the remains of the fire building and the area remote from the site.
- The structural stability of damaged exposures and a determination as to the cause of the explosion.
- Gas shut off to numbers 100 through 128 Poillon Avenue.
- NYPD request for lighting equipment in preparation for the possibility of a continuing night time operation.
- Search for valuables in debris before removal to the

Fresh Kills landfill. (After reaching this site it would be dumped in a location isolated from other refuse to allow for further search if necessary.)

- Information to be given the news media.

Present at the scene by this time were Mayor Koch, Borough President Lamberti, Fire Commissioner Spinnato, Police Commissioner Ward, FDNY Chief of Department Butler and NYPD Chief of Department Johnson who were interviewed by various members of the news media.

Finally, it was agreed to hold another meeting at 1630 hours to update the entire situation.

Once the gas supply to the fire building was shut off at the curb valve by Brooklyn Union Gas personnel, final extinguishment of the fire was a relatively easy matter. Hand lines were advanced, and as visible fire was knocked down, Ladder and Rescue Company personnel began to remove structural members and debris in order to further continue the search.

At 1239 hours, just 14 minutes after the gas was shut off, the fire was declared under control. The primary search of the remainder of the fire building was negative and a more thorough search and investigation was begun. In addition to ensuring that any possible victim still in the debris would be found, the cause and origin of the explosion had to be determined.

This phase of the operation was performed under the direct supervision of Battalion Chief Anderson. As a precaution, members were advised to be aware of any unusual objects or devices uncovered during the overhaul. While engine and ladder company members were performing their function, fire marshal and bomb squad personnel were searching for the cause of this disaster.

This proved to be no easy matter. The tremendous force of the explosion caused extensive damage not only to the structural components of this two and a half story frame dwelling but to its utility systems as well. The explosion caused complete damage to the building and scattered its structure and contents over an area several hundred feet in diameter. The poured concrete foundation walls of the full basement, protruding above ground level, were separated and blown outward from the main foundation. A steel reinforced concrete ceiling (approximately 20 ft. x 14 ft.) located at the rear of the basement had been lifted into the rear yard and had partially collapsed into the basement.

The NYPD Bomb Squad ruled out the possibility that an explosive device, such as a bomb, caused the explosion. The Bomb Squad based this on an analysis of the nature of the blast and its effect and on the lack of physical evidence of such a device. Since searchers uncovered seven 5-gallon fuel cans, one 2½-gallon fuel can, four plastic and one glass bottle all containing a liquid with an odor similar to flammable liquid, the possibility of an incendiary device had to be considered.

As more debris was cleared from the basement area, a closer examination of the remaining natural gas supply system could be made. It was found that a gas clothes dryer located in the basement had been disconnected from its gas source. In the immediate area a flexible metal gas line connected to a rigid metal gas pipe was found. The rigid gas pipe, approximately

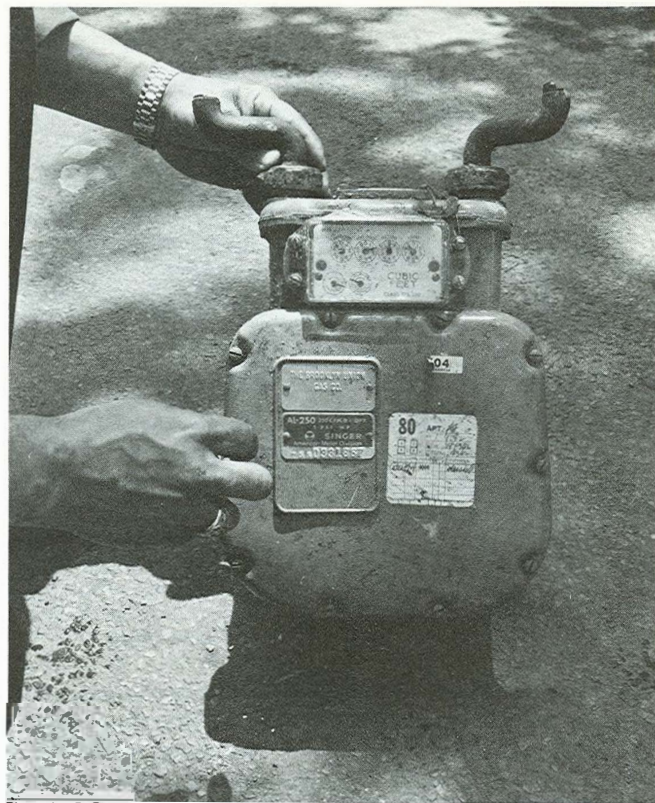


Photo by R. Simiuskas

The gas meter from 122 Poillon Ave., which was found intact, provided important information to investigators. Their analysis of records of several years of gas usage at that address revealed that 3500 cu. ft. of gas was unaccounted for. This was more than twice the amount necessary to have caused this incident.

three feet long, had a shut off valve at the opposite end, on the gas source side, and that valve was in the open position. More important, it was found that the threads on both the gas dryer and flexible connection were compatible fittings and in good working order. A gas hot water heater also located in the basement was found in the off position, its gas piping had been broken away from the unit. Examination also revealed that a fire originated in the rear section of the basement as a result of the explosion.

Fortunately, the results of the secondary search proved to be negative. However, the victim originally found unconscious on the lawn of exposure #4 succumbed to his injuries less than an hour after the explosion. The Medical Examiner's report would indicate that, 59 year old Frank Marschall who lived alone in the fire building, was very close to the blast and died as a result of multiple injuries of the body surface and internal organs. In fact, the force of the explosion hurled the victim's body from the building he lived in onto his neighbor's front lawn, a distance of some 80 feet.

INVESTIGATION

Investigation into the explosion and subsequent death of the owner and sole occupant of 122 Poillon Avenue commenced on the day of the blast and continued in a cooperative effort involving the following organizations: New York State Public Service Commission, New York City Fire Marshals, New York City Arson and Explosion Squad, New York City Bomb Squad, and Crimes Against Persons Squad.

Productive Cooperation

Dear Commissioner Spinnato:

I would like to extend my appreciation and thanks to you and the following members of your department: Chief DeMeo, Chief Hughes, Chief Poidomani, Firefighter Gordon, and Firefighter Sherman.

Their professionalism and cooperation in expediting a number of projects under review by the Office of Environmental Impact enabled us to meet the deadlines and priorities established by the Mayor's Office regarding shelters and transitional housing for homeless individuals and families.

I look forward to continued productive cooperation between our departments as issues of mutual concern arise.

Sincerely,
Harvey W. Schultz,
Commissioner
City of New York
Dept. of Environmental
Protection

Cooperation and Assistance

Dear Commissioner Spinnato:

I would like to take this opportunity to express my thanks to the firefighters of Engine Co. 304, Ladder 162, the Haz Mat Unit and Rescue Co. 4 for their tremendous cooperation and assistance in securing and handling a loaded 3000 gallon fuel oil tanker which was overturned in an accident at 86th Rd. and Bell Blvd. in Queens. We in turn had to right the vehicle and see that it was towed to the customer's place of business.

Sincerely,
Murray Rude
Murray Rude Services, Inc.
494 Morgan Ave.
Brooklyn, NY

Private Sector Praise

Dear Commissioner Spinnato:

It is far too seldom that the private sector acknowledges the fine work being done by our Fire Department.

Therefore, I would like to commend Engine Co. 33 for the outstanding performance during a fire in the early morning hours of January 8th at 24 Fifth Ave. [*Editor's Note: Engine Cos 14, 18 and Ladder Cos. 3, 9 and 5 also responded.*]

What could have been a hysterical and confusing situation was replaced with an orderly, calming and expeditious experience.

To say the least, it is gratifying and comforting to know that the New York City Fire Department is ready and available at a moment's notice.

Sincerely,
Nathan Brodsky
Twenty Four Fifth Ave.
Associates
24 Fifth Ave., New York, NY

Bridgeport Collapse

Captain John J. Fanning
Hazardous Materials Co. #1
F.D.N.Y.

Dear Captain,

It recently came to my attention that you devoted many hours in the rescue operation after the collapse of the building in Bridgeport, Connecticut. Your actions are an extraordinary example of courage and selflessness.

Since many of those who suffered during this tragedy were from my Congressional District, I take this opportunity to thank you for your leadership throughout the rescue operation.

Sincerely yours,
John G. Rowland
Member of Congress
Fifth District
Connecticut

World-size Acclaim

Dear Commissioner Spinnato:

Just a short note to commend the firefighters from Engine Co. 273, Ladder Co. 129-40-18 Union Street, Flushing, Queens.

Our building located at 133-33 Sanford Ave., Flushing was evacuated due to a smoky fire on the fourth floor—quite frightening. Your men and women arrived and controlled the flames and kept the damage to a minimum—with no loss of life. Our entire building extends its gratitude to the dispatchers and of course the finest firefighters—not in the state—not in the country—in the world.

Thanks again for a great job,
Jim Beaukelaer
Co-Chairman
Warren Tenants Assn.
133-33 Sanford Avenue
Flushing, New York 11201

A Superb Job

Dear Commissioner Spinnato:

On a recent Tuesday I brought my kindergarten class to the firehouse of Ladder Co. 159 and Engine 309.

My compliments to Firefighters Leroy O'Neill, Tony Vanacore and Justin Van Wert. These men did a superb job in explaining the equipment and discussing safety rules.

Firefighter Van Wert visited our class prior to the trip to acquaint us with his equipment.

Many thanks to such dedicated men.

Sincerely,
Barbara Green
PS 207
Brooklyn, NY

Valuable Support

Dear Commissioner Spinnato:

I would like to take this opportunity to commend Deputy Chief Inspector Joseph L.

Venditto and his staff in the Explosives Unit of the Bureau of Fire Prevention for the assistance provided in bringing a bombing investigation to a successful conclusion. As you may have read, this Bureau successfully completed a year long investigation of four abortion bombings in New York City with the arrest of Dennis Malvasi.

During the course of the investigation, agents had occasion to review the files maintained by the Fire Department's Explosives Unit. The courtesy and expertise extended by Chief Venditto and his staff, particularly Thomas Coll and Pompeo Avellino, was instrumental in developing the first major "break" in the investigation. Based upon witness identification, a sketch and physical description of the bombing suspect was developed. Some 2,700 Explosives Unit files were reviewed, and two dozen photographs extracted, assembled and shown to several witnesses who identified Albert Alfano, an alias used by Malvasi, as the bombing suspect. Subsequent investigation has developed conclusive evidence that Malvasi is in fact the abortion clinics bomber.

The files maintained by the Explosives Unit were comprehensive, complete and meticulously kept. The assistance provided by Thomas Coll and Pompeo Avellino expedited the tedious task of reviewing thousands of files.

The success achieved in this case can, in large measure, be related to the cooperation extended by Chief Venditto and his staff. Kindly extend my sincere appreciation for his valuable assistance to ATF. [*Editor's Note: Malvasi aka Alfano pleaded guilty in Manhattan Federal Court on June 12, 1987, and faces up to 25 years in prison.*]

Very Truly Yours,
Robert J. Creighton
Special Agent in Charge
Dept. of the Treasury
Bureau of Alcohol,
Tobacco and Firearms

They Saved My House

Commissioner Spinnato:

On Monday my neighbor ran into my home and told me to get out immediately as my house was on fire. She escorted me and my ten-month-old niece to the front door. She then called the Fire Department and calmed me down. I will never forget the hospitality of my neighbors and their offers of shelter and food.

The fire was raging when the firefighters arrived. [*Editor's Note: Engine Cos. 156 and 155, Ladder Cos. 79 and 78, Batt. 22 and Fire Salvage responded to this fire.*] It looked like the house was a goner. Smoke filled the neighborhood.

Many onlookers remarked on how professional and well trained the firefighters were. Each had a job to do and knew how to do it. There is no doubt in my mind that they saved my house.

Sincerely,
Evelyn Nix
346 Pelton Ave.
Staten Island, NY