

## Fireball (TWA Flight 800)

by James K. Kallstrom (1970-1997)

It was a hot evening in New York City on Tuesday, July 17, 1996. Most of the heads of Law Enforcement were at the Friars Club for a dinner to honor Ray Kelly, who was leaving the NYPD to become the head of U.S. Customs Service. As the Assistant Director of the NYO and long-time veteran of the office, I had known Ray well and respected him. It was a festive occasion among good friends. As coffee was being served and the speeches were about to begin, my pager screeched its familiar sound. It was the phone number of the NYO duty supervisor with the added suffix "911." Suddenly, other pagers started chirping. The two telephones in the lobby were in use so I called from my Bureau car parked outside. What I learned was chilling! The Federal Aviation Administration (FAA) had notified us that their radar contact with a 747 jetliner en route from JFK airport to Paris, France had disappeared just minutes after take-off. Other aircraft over the Atlantic Ocean near Long Island's Moriches Inlet reported seeing a large fireball in the sky.

It was TWA Flight 800. Hours later, we learned that the passengers included grandparents, the Executive Producer of ABC Sports, a noted American musical composer, 16 members of a high school French club from Pennsylvania, newlyweds, children from 6 months to 16 and a deadheading flight crew — all bound for the City of Lights. All 230 souls from 16 countries were presumed dead. So began one of the largest, gut wrenching and complicated investigations ever conducted by the FBI.

My mind was racing as I drove to 26 Federal Plaza. I told the duty supervisor to begin an established call out and to have all the SACs meet me in the Command Post. The only exception was Lou Schilliro, the SAC of the Criminal Division, whom I sent to the Coast Guard Station at Moriches to assist in search and recovery efforts, open a local FBI command post and begin assigning leads covering Long Island and the surrounding waters. I also dispatched a technical team to assist him with needed communications.

The NYO Command Post was already gathering steam when I arrived. As more and more Agents assembled, they immediately began answering phones, which were ringing off the hooks. The whole world seemed to be calling. The media clamored for any information; state, local and federal officials demanded answers; citizens offered tips; eye-witnesses had stories to tell and — most heart wrenching — stunned family members sought anything the FBI could offer on the fate of their loved ones. For me, that first hour still remains a blur today. I spoke with FBI Director Louie Freeh, Attorney General Janet Reno, the head of the FAA, the president of TWA, as well as the Admiral in charge of the Coast Guard Atlantic. Jim Hall, the Chairman of the National Transportation Safety Board (NTSB) informed me that a ten-man GO Team led by NTSB Vice Chairman, Robert Francis, would depart from Washington for Long Island the next day. I called Assistant Director Bob Bryant, requesting his help in establishing a Navy point of contact at the Pentagon.

The FBI rightly prides itself on its history of pursuing the truth wherever it leads. Our job is, and always has been, to follow every lead wherever it takes us in a professional and "dispassionate" manner. Yet today, more than 20 years after the TWA 800 disaster, I still vividly recall how the FBI/NYO family struggled mightily with "dispassion" in this case. It began with a call from my wife, Susan, as I pulled into the underground parking garage. My dear friend and fellow Agent, Charlie Christopher, had just telephoned our home. He was frantic. My heart sank when I learned that his beloved wife, Janet, was aboard the plane, serving as the senior flight attendant. In a terrible twist of fate, she had switched shifts with a colleague so that she could attend her son's Eagle Scout induction ceremony the following weekend. Charlie's was one of my first calls. For the NYO, this case was now personal.

But what could I tell them? At that point, I knew very little. The plane had arrived at JFK Airport from Athens, Greece that day at 4 pm. After a gate delay of more than an hour, it took off at 8:19 pm bound for Paris, France. At 8:25 pm, the Boston Air Traffic Control Center took over the routine tracking from the JFK Center. Six minutes later, the blip on the radar screen that was TWA 800 disappeared at an altitude of 13,700 feet about 50 miles east of New York City. At 8:38 pm, Boston Center called Boston Coast Guard Command Center confirming aircraft sightings of a "fireball" in the sky. At 8:49 pm, when my pager popped to life at the

Friars Club, nine Coast Guard cutters and patrol boats along with two helicopters and a C130 airplane were already scouring the Atlantic in search of survivors.

Despite the remarkable improvements in air travel safety in recent decades, commercial and private aircraft still crash. The causes span the spectrum — mechanical problems, human error, negligence, weather and even the occasional bird strike. Normally, the NTSB investigates aircraft accidents in the United States. But this case was different. Because jet liners don't just explode at 13,000 feet, a suspicion of terrorism quickly engulfed everyone's mind. Fueling these fears was a steady stream of ominous calls coming in from residents along Long Island's South Shore. They described lights trailing in an upward direction as if someone had fired a ground to air missile. Perhaps a bomb had been carried into the passenger compartment or was concealed in check-in luggage. Every person and thing that had access to the plane at JFK or Athens, Greece would have to be investigated. That would include all airport personnel, all passengers on Flight 800 to Paris, as well as the inbound flight from Athens. Every item of freight placed on the aircraft and the investigation of every freight company employee associated with packing and delivering items to the plane would have to be scrutinized.

These suspicions led to an FBI break with normal protocols by launching a criminal investigation under Title 18 USC, "Crime Aboard American Flag Aircraft" or "Destruction of American Flag Aircraft." The NTSB commenced a parallel inquiry with both agencies working together as partners under their own jurisdiction. From the start, we agreed that if NTSB found clear and conclusive proof of a mechanical/electrical/structural failure, then the FBI would cease investigation. But if we found the "Eureka" piece that proved to our standards — terrorism — then NTSB would close its investigation. I also agreed to Hall's request for the presence of one of his investigators at any FBI interview. NTSB sent only five people (later doubling to ten) to Moriches. By week's end, the Bureau had close to 700 Agents on site rendering Hall's request pointless.

The awkwardness of our partnership soon displayed itself in another way. The NTSB is a truly professional government agency made up of highly talented and dedicated experts. Their mission



Tom Pickard, Director Freeh, Jim Kallstrom and Joe Cantamesa

is to determine the cause or causes of a crash and make recommendations for future correctives. But the NTSB is not the FBI. For them, the Rules of Criminal Procedure, Chain of Custody and the much higher standard of proof, demanded in federal criminal investigations, do not apply. Furthermore, the NTSB, through long standing agreements, includes representatives of the aircraft manufacturer (Boeing), the airplane company (TWA), the engine manufacturers (Pratt and Whitney), the pilots' union and the flight attendants' union in their investigative team. This set-up would later cause me all sorts of personal headaches.

Within hours of the crash the Coast Guard had begun the dangerous task of moving about the flaming wreckage recovering floating bodies for removal to a temporary morgue at their Moriches station. By the following morning, the outlines of our investigative structure were in place. Tom Pickard, the SAC for counterintelligence and counterterrorism, took overall charge of the investigation. Operating from the command center in New York City, Tom oversaw all aspects of the case while continuously updating me on the work produced by Agents assigned to the FBI's Moriches command center. Based on overnight developments, it was clear that an immediate neighborhood-type investigation would be needed along a 15–20-mile southern coastline section of Long Island. There were 75 potential eyewitnesses, who had called in to the Command Post by 4 AM, who had to be located and interviewed. All marinas, as well as any and all vessels, large or small, on the ocean near Moriches (within twenty four hours before and after the disaster) had to be identified and their passengers questioned. If a missile had brought the

plane down, then that crime scene would take up a large part of Nassau and Suffolk counties, and the ocean area south of Long Island, an area of hundreds of square miles. Another nagging question focused on whether any U.S. military assets in the area, carrying ordinances, were capable of bringing the flight down.

After a long night, SAC Joseph Cantamesa left for Moriches the next morning. Joe first coordinated the Coast Guard and dive teams from the FBI, NYPD, New York State Police, as well as, Nassau and Suffolk county police depart-



Bob Francis, VC, NTSB, Kallstrom, Two Unknown, Joe Cantamesa



News media satellite trucks

ments. Later, he served as the FBI's point of contact with the U.S. Navy. For a most crucial yet thankless task, I turned to SAC Carson Dunbar. In the days and weeks ahead, he took control of the massive details associated with administrative support issues. The arrival of forensic teams, evidence response teams, requests to headquarters for Agents with aeronautical engineering, metallurgy, aviation expertise (military or civilian) as well as finding lodging in Queens, Brooklyn, Nassau and Suffolk counties for the ballooning number of Agents arriving from around the country — these were just a few of the challenges Carson faced on an hourly basis.

Although it would be close to a week before the debris fields were even located, it was apparent that evening that we needed a very large facility to lay out what was expected to be thousands of pieces of debris. As luck would have it, Schillero's team soon found a huge and, thankfully, vacant building in Calverton, Long Island about 15 miles from Moriches. Owned by the Grumman Aircraft Company, it had been used in the manufacture of the U.S. Navy/Marine Corps F14 Tomcat fighter plane.

Our attention also turned to JFK airport, where, sadly, the sorry state of security at U.S. airports soon revealed itself. Poor record keeping and the absence of adequate screening of employees working at JFK food courts, newsstands, gift shops, etc. complicated our job, as did the flimsy vetting of freight forwarding company workers who were supposedly part of a so-called trusted network. Digging deeper, we found few, if any, personnel security procedures in place. Worse still, was learning that company officials had virtually no knowledge or manifest confirmation showing which employee packed which crate or what was actually contained in the freight they loaded on the plane.

By week's end, side scan sonar had located the debris fields, allowing recovery operations to begin in full force with the arrival of the Navy flotilla led by Rear Admiral Ed Kristensen from his command ship the USS Oak Hill, and combat salvage ships USS Grasp and USS Grapple. Seventy-five courageous hard-hat divers soon began risking their lives daily in an inky black world hundreds of feet underwater in an effort to recover bodies and evidence amidst jagged and razor sharp pieces of the plane. The black boxes were quickly found and flown to NTSB headquarters in

Washington, where an examination produced little of value. Both the data and voice recorders functioned normally to the end. The only anomaly, interestingly enough, was a millisecond of sound from the voice recorder similar to one heard on Pan American 103, which blew up over Lockerbie, Scotland eight years earlier.

Over the next several months, the Grumman hangar seemed to bulge with the staggering volume of recovered plane parts. What had been an empty cavernous building, steadily morphed into a crazy-quilt of twisted debris — all bearing the unmistakable signatures of sudden violence and death. Metal and plastic pieces — both large and small — airplane tires and landing gears mixed with thousands of miles of wires and cables strung out in long rows or bundled like plates of spaghetti began filling the entire floor space. It was a jigsaw puzzle of staggering dimension which ASAC Ken Maxwell and dozens of other Agents working around the clock seven days a week, began to methodically reassemble. On-site forensic experts from the FBI Laboratory, working with Ken and his team, carefully examined every item — often sending questionable pieces to Washington for more detailed examination — all with negative results. We did, however, learn one thing for certain. The center fuel tank exploded. But we didn't know why. Was it a bomb? Was there an electrical/mechanical failure? Did a missile hit the tank?

One anxious moment came in August, when laboratory technicians found traces of PETN and RDX, chemicals used in plastic explosives, on pieces of two-sided tape that attached carpet tile squares to the floor near Row 22/23 directly over the center fuel tank. Still, despite the uniqueness of this new evidence, there was insufficient proof of a bomb in that particular section of the aircraft. But why was it there?

Then there were the more than 200 eyewitness reports of something in the sky, streaking in an upward direction near the aircraft. Some believed it was a missile. For the next year, while investigators tracked down and interviewed every eye-witness and scientists analyzed every plane part for tell-tale signs of a missile strike, Bureau and military ballistics experts worked feverishly to determine if a land-based projectile could have taken down the plane.

A vast assortment of shoulder-fired missiles were shot at graveyard airframes at the Navy's ballistic testing center at China Lake, CA. The idea was to create a record of warhead strike patterns for identifying unusual damage on the TWA 800 fuselage. Along the way, we were surprised to learn that no missile damage database existed in the FBI or anywhere else in the world. The exercise, however, produced one crucial conclusion. No shoulder-fired projectile, in any arsenal in the world, had the range to engage the aircraft from the Long Island shoreline. If (a big "if") a missile had struck the aircraft, then the killer would have had to have fired the shot from a boat in the ocean directly under the plane as it



Freeh, Bryant and Kallstrom

moved through the sky at hundreds of miles an hour in a easterly direction more than two and a half miles above the earth.

Then, what did those witnesses see that evening? It's all about simple physics — in this case — the speed of sound and the speed of light. There were two explosions that occurred that night. When the center fuel tank exploded, it broke the front of the plane off near the first class cabin section. Most of the witnesses instinctively looked up to the sky when they heard the explosion. Depending on where they were located, however — on the coast or in a boat on the water — the sound of that explosion reached ground level between 40-63 seconds after it occurred. During this window of time, the plane's four engines, powered by the continued flow of fuel, drove the craft another one thousand feet higher before the second and final explosion blew it apart. In fact, what witnesses actually observed was the final seconds of the hulk continuing its upward trajectory amidst burning fuel and debris already blown off the airframe followed by the final explosion. They could not have, under any circumstance, seen a missile hitting the airplane.

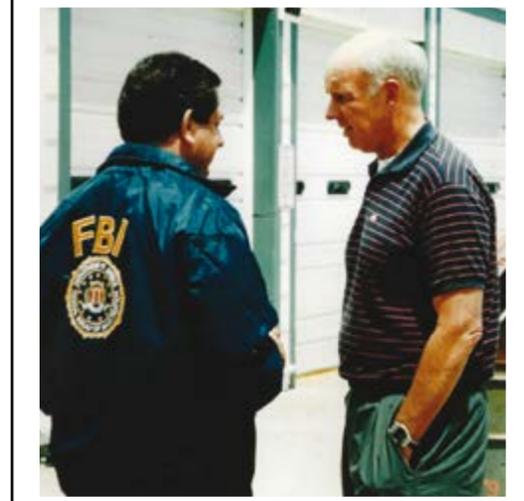
In his 2014 political memoir, *Worthy Fights*, Leon Panetta described a conference he had with FBI Director Bob Mueller about Al Qaeda, while serving as President Obama's CIA Director. No AQ cells had been found in the U.S., Mueller explained, but there was no guarantee that they did not exist. Mueller "warned me," Panetta wrote, that "we didn't know what we didn't know — and that we should assume that Al Qaeda was trying to recruit operatives who would operate in the West."



Pieces of TWA 800

The FBI faced a similar dilemma during this case. With only 70% of wreckage recovered, Jim Hall recommended an end to the investigation with a public announcement. The NTSB's theory was that while the plane sat for hours at the JFK gate, its air conditioning equipment, situated directly under the center fuel tank, gradually vaporized forty gallons of fuel. Shortly after take-off, an electrical spark jumping from the high voltage wires to low voltage wires that powered the fuel pumps, ignited the vaporized fuel in the center fuel tank. The wires were the one thing that were never replaced, as the older planes were recertified by the FAA for continued service. This particular 747 airframe was 25 years old with 16,000 flights to its record. Over time, the sheathing on the wire bundles wore thin, and in some places wore completely off. The NTSB's theory, which had wide agreement, was that this deadly confluence of events caused the horrific explosion.

Thus far, no evidence of a bomb had been found. But as 30% of the airplane was still missing, I insisted that the FBI investigation continue until as much of the aircraft as possible had been recovered and tested. Our thinking was influenced, in part, by our extensive knowledge of the principal conspirator behind the 1993 World Trade Center bombing, Ramzi Yousef. We knew he had constructed a small shape charge bomb from components, which he individually smuggled through airport security and onto a plane in the Philippines. After reassembling the device in the bathroom, Yousef placed it next to a bulkhead seat on the bulkhead with the timer set to go off on the next leg of the journey after he departed the plane. This effort, as we were well aware, was part of a larger plan to bomb 12 aircrafts simultaneously.



Kallstrom and Francis



Coast Guard Operation



Kallstrom, two unidentified, Bob Bryant, Director Freeh and Bob Francis, Vice Chairman of the NTSB

Facing down the head of NTSB meant insisting on a meeting with White House officials. On two occasions, Hall and I met with Leon Panetta, then serving as President Clinton's chief of staff. Hall explained his electrical spark theory as the most likely cause of the explosion, even with only 70% of the aircraft recovered. And as one of the costliest accident investigations ever undertaken by the NTSB, he insisted on ending it, rather than face a further drain on his agency's already depleted budget. When Panetta turned to me, I urged him to reject Hall's plan. Publicly announcing an end to the investigation with only 70% of the plane recovered would not only cause worldwide outrage, but would further enflame the suspicions of the French victims' families that the Clinton Administration was trying to cover something up. Compounding this uproar, I said, was the fact that the FBI would continue its investigation making no final judgements until as much of the plane as could be located was recovered and examined. Panetta saw the political handwriting on the wall. Ignoring Hall and his budget concerns, he simply looked at me and said "Jim, continue to do what you're doing." Over the next five months, scallop trawlers recovered another 27% of the aircraft which we rebuilt and microscopically examined. In the end, much to our great relief, the NTSB conclusion held up. Considering what followed, Panetta's decision to continue the investigation proved to be a wise one.

The TWA 800 investigation experienced everything from bizarre conspiracy theories and baseless claims to outright criminal behavior. Pierre Salinger came up with the most outrageous story. A journalist, then based in Paris for ABC News, Salinger gained

notoriety in the 1960s as the Press Secretary for both Presidents Kennedy and Johnson and later filled a vacancy for a short time in the U.S. Senate. Pierre's "ready, fire, aim" approach to journalism had gotten him into trouble before. In 1988, he claimed that a botched DEA operation caused the explosion of Pan Am 103. Now, here he was once again, only this time he had proof in the form of a confidential document purported to be from French intelligence sources. Waving the document before a worldwide audience, Salinger announced that a missile fired from the USS Normandy, a US Navy frigate, brought down the jumbo jet. As it turned out, the "document" was a hoax that had been making the rounds on the internet for weeks. (A key aspect of our investigation from the start had been the identification and elimination of all military vessels which may have been in the vicinity that evening.) We could have all dismissed such stupidity as a humorous side note to a terrible catastrophe, except for the fact that grieving French families believed his rants. As a result, FBI Agents devoted hundreds of man hours and other resources putting the myth to rest. The captain of the Normandy and every crew member aboard the ship that night were located and interviewed. All missiles were verified and accounted for. Lastly, all records relating to the ship's movements confirmed that TWA 800 was well outside the range of the ship's ordinance that fateful evening.

One of the NTSB's investigators was Robert Terrell Stacey, TWA's chief 747 pilot. Possessing no scientific credentials or experience, Stacey, on his own, concluded that a reddish-brown substance on the backs of passenger seats was explosive residue

or rocket fuel. Working with ex-police officer turned investigative journalist James Sanders, and his wife, Elizabeth, a TWA flight attendant, Stacey stole samples of seat fabric and investigative documents which Sanders incorporated into his book, *The Downing of TWA Flight 800*. Sanders theory — TWA 800 was destroyed by a Navy missile which the government covered-up, in order to prevent a public panic.

We wasted no time with Stacey. After his arrest, he quickly pled guilty to a misdemeanor theft charge. On December 5, 1997, federal prosecutors also charged the Sanders couple with theft of government property. Their defense attorney, Bruce Maffeo, described the prosecution as "extremely vindictive," insisting that the couple had a First Amendment right to expose a cover-up. Both were convicted in the spring of 1999 and sentenced to probation. Later that year, Sanders offered the public *Altered Evidence*: a fairy-tale screed charging that a Navy missile downed TWA 800 during an exercise, while White House officials watched on closed-circuit television.

We never found the leaker, but someone slipped erroneous information to Don Van Atta, an investigative reporter for *The New York Times*, who then called me with a claim that I was about to publicly announce that our discovery of the RDX and PETN had confirmed that the explosion was due to terrorism. Because Don was a friend, I gave it to him straight, acknowledging that we had, in fact, found minute traces of the chemicals but insufficient to cause any explosion. Furthermore, an analysis of that section of the plane produced no evidence of a bomb. I then warned him that publishing such bogus charges would only end in embarrassment for him and the paper. The story, nevertheless, broke the next day, causing further anguish for the victims' families and major headaches with Congress and the White House. It would take months for the FBI team to steady the ship from a public relations standpoint.

The RDX and PETN riddle was resolved when a St. Louis, MO airport police officer came forward with the answer. Years earlier, as part of a training exercise on that plane, designed to familiarize bomb sniffing dogs with the scent of certain chemicals, he had placed detonation cord in the overhead compartment directly above Rows 22/23. What he then told us closed the matter. The detonation cord was defective. It had cracks which caused the RDX and PETN to leak out of the storage bin and onto the floor of the plane. Over the ensuing years, the tiles had been replaced. But

the two sided tape holding them down remained in place.

I gave 157 press conferences over the 15-month life of this case. In every instance, the FBI advised the families of any significant developments before press releases were issued. My public briefing, held in New York City on November 18, 1997, formally ended the pending status of the TWA 800 investigation. Given the magnitude of the tragedy and the fears it provoked, we wanted the victims' families and the world to know with substantial detail that the FBI team left no stone unturned and in most cases — unturned twice!

All 230 victims were recovered and turned over to their families and loved ones for burial along with 39,000 personal items. Ninety-seven percent of the plane was recovered over a 45-square-mile ocean area. (Some pieces were found as far south as Cape May, NJ and as far north as Nantucket Island, MA.) Ninety-six percent was reassembled. More than one million pieces of the aircraft were doubly inspected. We conducted more than 7,000 interviews here and abroad, covered more than 3,000 leads and chemically swabbed 3,000 plane parts looking for traces of explosive evidence. FBI laboratory technicians and independent metallurgy experts conducted secondary inspections of more than 2,000 pieces of wreckage. In addition to tracing every piece of cargo aboard the flight from its point of origin to the 747's cargo holds, FBI Agents investigated every worker who touched the aircraft or placed anything onboard; there was even a box containing human organs for a scheduled transplant in Paris, which was delivered to the pilot a minute before the plane pushed off. Everything was fully documented. In the end, both the FBI and NTSB, were totally satisfied that everything humanly and scientifically possible had been done. The cause of the TWA 800 disaster was an electrical malfunction — not a bomb or missile.

As I close, I want to single out for special appreciation the divers from the NYPD, Nassau and Suffolk county police departments, the New York State Police and the FBI who then, as always, selflessly risked their lives in the service of others.

I end with my heartfelt thanks for the professionalism and tremendous work ethic of all those FBI men and women who assisted in this noble effort. I hope you are as proud of our humanitarianism as I am.

A wise man once said, "Your attitude determines your altitude." You were ALL flying high!



30% of TWA 800



Rebuilding of TWA 800



TWA 800 reconstruction