

**The Destruction of the World Trade Center:
Why the Official Account Cannot Be True**
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Authorized Version (with references & notes)

In *The New Pearl Harbor: Disturbing Questions about the Bush Administration and 9/11* (2004), I summarized dozens of facts and reports that cast doubt on the official story about 9/11. Then in *The 9/11 Commission Report: Omissions and Distortions* (2005a), I discussed the way these various facts and reports were treated by the 9/11 Commission, namely, by distorting or simply omitting them. I have also taken this big-picture approach, with its cumulative argument, in my previous essays and lectures on 9/11 (Griffin, 2005b and 2005d).[1] This approach, which shows every aspect of the official story to be problematic, provides the most effective challenge to the official story.

But this way of presenting the evidence has one great limitation, especially when used in lectures and essays: It means that the treatment of every particular issue must be quite brief, hence superficial. People can thereby be led to suspect that a more thorough treatment of any particular issue might show the official story to be plausible after all.

In the present essay, I focus on one question: why the Twin Towers and building 7 of the World Trade Center collapsed. One advantage of this focus, besides the fact that it allows us to go into considerable detail, is that the destruction of the World Trade Center provides one of the best windows into the truth about 9/11. Another advantage of this focus is that it will allow us to look at revelations contained in the 9/11 oral histories, which were recorded by the New York Fire Department shortly after 9/11 but released to the public only in August of 2005.

I will begin with the question of why the Twin Towers collapsed, then raise the same question about building 7.

1. The Collapse of the Twin Towers

Shortly after 9/11, President Bush advised people not to tolerate “outrageous conspiracy theories about the attacks of 11 September” (Bush, 2001).[2] Philip Zelikow, who directed the work of the 9/11 Commission, has likewise warned against “outrageous conspiracy theories” (Hansen, 2005). What do these men mean by this expression? They cannot mean that we should reject all conspiracy theories about 9/11, because the government’s own account is a conspiracy theory, with the conspirators all being members of al-Qaeda. They mean only that we should reject outrageous theories.

But what distinguishes an outrageous theory from a non-outrageous one? This is one of the central questions in the philosophy of science. When confronted by rival theories---let’s say Neo-Darwinian Evolution and Intelligent Design---scientists and philosophers of science ask which theory is better and why. The mark of a good theory is that it can explain, in a coherent way, all or at least most of the relevant facts and is not contradicted by any of them. A bad theory is one that is contradicted by some of the relevant facts. An outrageous theory would be one that is contradicted by virtually all the relevant facts.

With this definition in mind, let us look at the official theory about the Twin Towers, which says that they collapsed because of the combined effect of the impact of the airplanes and the resulting fires. The report put out by FEMA said: “The structural damage sustained by each tower from the impact, combined with the ensuing fires, resulted in the total collapse of each building” (FEMA, 2002).[3] This theory clearly belongs in the category of outrageous theories, because it is contradicted by virtually all the relevant facts. Although this statement may seem extreme, I will explain why it is not.

No Prior Collapse Induced by Fire

The official theory is rendered implausible by two major problems. The first is the simple fact that fire has never---prior to or after 9/11---caused steel-frame high-rise buildings to collapse. Defenders of the official story seldom if ever mention this simple fact. Indeed, the supposedly definitive report put out by NIST---the National Institute for Standards and Technology (2005)---even implies that fire-induced collapses of large steel-frame buildings are normal events (Hoffman, 2005).[4] Far from being normal, however, such collapses have never occurred, except for the alleged cases of 9/11.

Defenders of the official theory, of course, say that the collapses were caused not simply by the fire but the fire combined with the damage caused by the airliners. The towers, however, were designed to withstand the impact of airliners about the same size as Boeing 767s.[5] Hyman Brown, the construction manager of the Twin Towers, said: "They were over-designed to withstand almost anything, including hurricanes, . . . bombings and an airplane hitting [them]" (Bollyn, 2001). And even Thomas Eagar, an MIT professor of materials engineering who supports the official theory, says that the impact of the airplanes would not have been significant, because "the number of columns lost on the initial impact was not large and the loads were shifted to remaining columns in this highly redundant structure" (Eagar and Musso, 2001, pp. 8-11). Likewise, the NIST Report, in discussing how the impact of the planes contributed to the collapse, focuses primarily on the claim that the planes dislodged a lot of the fire-proofing from the steel.[6]

The official theory of the collapse, therefore, is essentially a fire theory, so it cannot be emphasized too much that fire has never caused large steel-frame buildings to collapse---never, whether before 9/11, or after 9/11, or anywhere in the world on 9/11 except allegedly New York City---never.

One might say, of course, that there is a first time for everything, and that a truly extraordinary fire might induce a collapse. Let us examine this idea. What would count as an extraordinary fire? Given the properties of steel, a fire would need to be very hot, very big, and very long-lasting. But the fires in the towers did not have even one of these characteristics, let alone all three.

There have been claims, to be sure, that the fires were very hot. Some television specials claimed that the towers collapsed because the fire was hot enough to melt the steel. For example, an early BBC News special quoted Hyman Brown as saying: "steel melts, and 24,000 gallons of aviation fluid melted the steel." Another man, presented as a structural engineer, said: "It was the fire that killed the buildings. There's nothing on earth that could survive those temperatures with that amount of fuel burning. . . . The columns would have melted" (Barter, 2001).[7]

These claims, however, are absurd. Steel does not even begin to melt until it reaches almost 2800° Fahrenheit.[8] And yet open fires fueled by hydrocarbons, such as kerosene---which is what jet fuel is---can at most rise to 1700°F, which is almost 1100 degrees below the melting point of steel.[9] We can, accordingly, dismiss the claim that the towers collapsed because their steel columns melted.[10]

Most defenders of the official theory, in fact, do not make this absurd claim. They say merely that the fire heated the steel up to the point where it lost so much of its strength that it buckled.[11] For example, Thomas Eagar, saying that steel loses 80 percent of its strength when it is heated to 1,300°F, argues that this is what happened. But for even this claim to be plausible, the fires would have still had to be pretty hot.

But they were not. Claims have been made, as we have seen, about the jet fuel. But much of it burned up very quickly in the enormous fireballs produced when the planes hit the buildings, and rest was gone within 10 minutes,[12] after which the flames died down. Photographs of the towers 15 minutes after they were struck show few flames and lots of black smoke, a sign that the fires were oxygen-starved. Thomas Eagar, recognizing this fact, says that the fires were "probably only about 1,200 or 1,300°F" (Eagar, 2002).

There are reasons to believe, moreover, that the fires were not even that hot. As photographs show, the fires did not break windows or even spread much beyond their points of origin (Hufschmid, 2002, p. 40). This photographic evidence is supported by scientific studies carried out by NIST, which found that of the 16 perimeter columns examined, "only three columns had evidence that the steel reached temperatures above 250°C [482°F]," and no evidence that any of the core columns had reached even those temperatures (2005, p. 88).

NIST (2005) says that it "did not generalize these results, since the examined columns represented only 3 percent of the perimeter columns and 1 percent of the core columns from the fire floors". That only such a tiny percent of the columns was available was due, of course, to the fact that government officials had most of the steel immediately sold and shipped off. In any case, NIST's findings on the basis of this tiny percent of the columns are not irrelevant: They mean that any speculations that some of the core columns reached much higher temperatures would be just that---pure speculation not backed up by any empirical evidence.

Moreover, even if the fire had reached 1,300°F, as Eagar supposes, that does not mean that any of the steel would have reached that temperature. Steel is an excellent conductor of heat. Put a fire to one part of a long bar of steel and the heat will quickly diffuse to the other parts and to any other pieces of steel to which that bar is connected.[13]

For fires to have heated up some of the steel columns to anywhere close to their own temperature, they

would have needed to be very big, relative to the size of the buildings and the amount of steel in them. The towers, of course, were huge and had an enormous amount of steel. A small, localized fire of 1,300°F would never have heated any of the steel columns even close to that temperature, because the heat would have been quickly dispersed throughout the building.

Some defenders of the official story have claimed that the fires were indeed very big, turning the buildings into "towering infernos." But all the evidence counts against this claim, especially with regard to the south tower, which collapsed first. This tower was struck between floors 78 and 84, so that region is where the fire would have been the biggest. And yet Brian Clark, a survivor, said that when he got down to the 80th floor: "You could see through the wall and the cracks and see flames . . . just licking up, not a roaring inferno, just quiet flames licking up and smoke sort of eking through the wall." [14] Likewise, one of the fire chiefs who had reached the 78th floor found only "two isolated pockets of fire." [15]

The north tower, to be sure, did have fires that were big enough and hot enough to cause many people to jump to their deaths. But as anyone with a fireplace grate or a pot-belly stove knows, fire that will not harm steel or even iron will burn human flesh. Also in many cases it may have been more the smoke than the heat that led people to jump.

In any case, the fires, to weaken the steel columns, would have needed to be not only very big and very hot but also very long-lasting. [16] The public was told that the towers had such fires, with CNN saying that "very intense" fires "burned for a long time." [17] But they did not. The north tower collapsed an hour and 42 minutes after it was struck; the south tower collapsed after only 56 minutes.

To see how ludicrous is the claim that the short-lived fires in the towers could have induced structural collapse, we can compare them with some other fires. In 1988, a fire in the First Interstate Bank Building in Los Angeles raged for 3.5 hours and gutted 5 of this building's 62 floors, but there was no significant structural damage (FEMA, 1988). In 1991, a huge fire in Philadelphia's One Meridian Plaza lasted for 18 hours and gutted 8 of the building's 38 floors, but, said the FEMA report, although "[b]eams and girders sagged and twisted . . . under severe fire exposures. . . , the columns continued to support their loads without obvious damage" (FEMA, 1991). In Caracas in 2004, a fire in a 50-story building raged for 17 hours, completely gutting the building's top 20 floors, and yet it did not collapse (Nieto, 2004). And yet we are supposed to believe that a 56-minute fire caused the south tower to collapse.

Unlike the fires in the towers, moreover, the fires in Los Angeles, Philadelphia, and Caracas were hot enough to break windows.

Another important comparison is afforded by a series of experiments run in Great Britain in the mid-1990s to see what kind of damage could be done to steel-frame buildings by subjecting them to extremely hot, all-consuming fires that lasted for many hours. FEMA, having reviewed those experiments, said: "Despite the temperature of the steel beams reaching 800-900°C (1,500-1,700°F) in three of the tests. . . , no collapse was observed in any of the six experiments" (1988, Appendix A).

These comparisons bring out the absurdity of NIST's claim that the towers collapsed because the planes knocked the fireproofing off the steel columns. Fireproofing provides protection for only a few hours, so the steel in the buildings in Philadelphia and Caracas would have been directly exposed to raging fires for 14 or more hours, and yet this steel did not buckle. NIST claims, nevertheless, that the steel in the south tower buckled because it was directly exposed to flames for 56 minutes. [18]

A claim made by some defenders of the official theory is to speculate that there was something about the Twin Towers that made them uniquely vulnerable to fire. But these speculations are not backed up by any evidence. And, as Norman Glover, has pointed out: "[A]lmost all large buildings will be the location for a major fire in their useful life. No major high-rise building has ever collapsed from fire. The WTC was the location for such a fire in 1975; however, the building survived with minor damage and was repaired and returned to service" (Glover, 2002).

Multiple Evidence of Controlled Demolition

There is a reverse truth to the fact that, aside from the alleged cases of 9/11, fire has never caused large steel-frame buildings to collapse. This reverse truth is that every previous total collapse has been caused by the procedure known as "controlled demolition," in which explosives capable of cutting steel have been placed in crucial places throughout the building and then set off in a particular order. Just from knowing that the towers collapsed, therefore, the natural assumption would be that they were brought down by explosives.

This a priori assumption is, moreover, supported by an empirical examination of the particular nature of the collapses. Here we come to the second major problem with the official theory, namely, that the

collapses had at least eleven features that would be expected if, and only if, explosives were used. I will briefly describe these eleven features.

Sudden Onset: In controlled demolition, the onset of the collapse is sudden. One moment, the building is perfectly motionless; the next moment, it suddenly begins to collapse. But steel, when heated, does not suddenly buckle or break. So in fire-induced collapses---if we had any examples of such---the onset would be gradual. Horizontal beams and trusses would begin to sag; vertical columns, if subjected to strong forces, would begin to bend. But as videos of the towers show,[19] there were no signs of bending or sagging, even on the floors just above the damage caused by the impact of the planes. The buildings were perfectly motionless up to the moment they began their collapse.

Straight Down: The most important thing in a controlled demolition of a tall building close to other buildings is that it come straight down, into, or at least close to, its own footprint, so that it does not harm the other buildings. The whole art or science of controlled demolition is oriented primarily around this goal. As Mark Loizeaux, the president of Controlled Demolition, Inc., has explained, "to bring [a building] down as we want, so . . . no other structure is harmed," the demolition must be "completely planned," using "the right explosive [and] the right pattern of laying the charges" (Else, 2004).[20] If the 110-story Twin Towers had fallen over, they would have caused an enormous amount of damage to buildings covering many city blocks. But the towers came straight down. Accordingly, the official theory, by implying that fire produced collapses that perfectly mimicked the collapses that have otherwise been produced only by precisely placed explosives, requires a miracle.[21]

Almost Free-Fall Speed: Buildings brought down by controlled demolition collapse at almost free-fall speed. This can occur because the supports for the lower floors are destroyed, so that when the upper floors come down, they encounter no resistance. The fact that the collapses of the towers mimicked this feature of controlled demolition was mentioned indirectly by The 9/11 Commission Report, which said that the "South Tower collapsed in 10 seconds" (Kean and Hamilton, 2004, p. 305).[22] The authors of the report evidently thought that the rapidity of this collapse did not conflict with the official theory, known as the "pancake" theory. According to this theory, the floors above the floors that were weakened by the impact of the airliner fell on the floor below, which started a chain reaction, so that the floors "pancaked" all the way down.

But if that is what happened, the lower floors, with all their steel and concrete, would have provided resistance. The upper floors could not have fallen through them at the same speed as they would fall through air. However, the videos of the collapses show that the rubble falling inside the building's profile falls at the same speed as the rubble outside[23] (Jones, 2006). As Dave Heller, a builder with degrees in physics and architecture, explains:

the floors could not have been pancaking. The buildings fell too quickly. The floors must all have been falling simultaneously to reach the ground in such a short amount of time. But how? . . . In [the method known as controlled demolition], each floor of a building is destroyed at just the moment the floor above is about to strike it. Thus, the floors fall simultaneously, and in virtual freefall. (Garlic and Glass 6)

Total Collapse: The official theory is even more decisively ruled out by the fact that the collapses were total: These 110-story buildings collapsed into piles of rubble only a few stories high. How was that possible? The core of each tower contained 47 massive steel box columns.[24] According to the pancake theory, the horizontal steel supports broke free from the vertical columns. But if that is what had happened, the 47 core columns would have still been standing. The 9/11 Commission came up with a bold solution to this problem. It simply denied the existence of the 47 core columns, saying: "The interior core of the buildings was a hollow steel shaft, in which elevators and stairwells were grouped" (Kean and Hamilton, 2004, 541 note 1). Voila! With no 47 core columns, the main problem is removed.

The NIST Report handled this most difficult problem by claiming that when the floors collapsed, they pulled on the columns, causing the perimeter columns to become unstable. This instability then increased the gravity load on the core columns, which had been weakened by tremendously hot fires in the core, which, NIST claims, reached 1832°F, and this combination of factors somehow produced "global collapse" (NIST, 2005, pp. 28, 143).

This theory faces two problems. First, NIST's claim about tremendously hot fires in the core is completely unsupported by evidence. As we saw earlier, its own studies found no evidence that any of the core

columns had reached temperatures of even 482°F (250°C), so its theory involves a purely speculative addition of over 1350°F.[25] Second, even if this sequence of events had occurred, NIST provides no explanation as to why it would have produced global—that is, total—collapse. The NIST Report asserts that “column failure” occurred in the core as well as the perimeter columns. But this remains a bare assertion. There is no plausible explanation of why the columns would have broken or even buckled, so as to produce global collapse at virtually free-fall speed, even if they had reached such temperatures.[26]

Sliced Steel: In controlled demolitions of steel-frame buildings, explosives are used to slice the steel columns and beams into pieces. A representative from Controlled Demolition, Inc., has said of RDX, one of the commonly used high explosives, that it slices steel like a “razor blade through a tomato.” The steel is, moreover, not merely sliced; it is sliced into manageable lengths. As Controlled Demolition, Inc., says in its publicity: “Our DREXSTM systems . . . segment steel components into pieces matching the lifting capacity of the available equipment.”[27]

The collapses of the Twin Towers, it seems, somehow managed to mimic this feature of controlled demolitions as well. Jim Hoffman (2004), after studying various photos of the collapse site, said that much of the steel seemed to be “chopped up into . . . sections that could be easily loaded onto the equipment that was cleaning up Ground Zero.”[28]

Pulverization of Concrete and Other Materials: Another feature of controlled demolition is the production of a lot of dust, because explosives powerful enough to slice steel will pulverize concrete and most other non-metallic substances into tiny particles. And, Hoffman (2003) reports, “nearly all of the non-metallic constituents of the towers were pulverized into fine power.”[29] That observation was also made by Colonel John O’Dowd of the U.S. Army Corps of Engineers. “At the World Trade Center sites,” he told the History Channel, “it seemed like everything was pulverized” (History Channel, 2002).

This fact creates a problem for the official theory, according to which the only energy available was the gravitational energy. This energy would have been sufficient to break most of the concrete into fairly small pieces. But it would not have been anywhere close to the amount of energy needed to turn the concrete and virtually all the non-metallic contents of the buildings into tiny particles of dust.

Dust Clouds: Yet another common feature of controlled demolitions is the production of dust clouds, which result when explosions eject the dust from the building with great energy. And, as one can see by comparing videos on the Web, the collapses of the towers produced clouds that are very similar to those produced by controlled demolitions of other structures, such as Seattle’s Kingdome. The only difference is that the clouds produced during the collapses of the towers were proportionally much bigger.[30]

The question of the source of the needed energy again arises. Hoffman (2003), focusing on the expansion of the North Tower’s dust cloud, calculates that the energy required simply for this expansion---ignoring the energy needed to slice the steel and pulverize the concrete and other materials---exceeded by at least 10 times the gravitational energy available.

The official account, therefore, involves a huge violation of the laws of physics---a violation that becomes even more enormous once we factor in the energy required to pulverize the concrete (let alone the energy required to break the steel).

Besides the sheer quantity of energy needed, another problem with the official theory is that gravitational energy is wholly unsuited to explain the production of these dust clouds. This is most obviously the case in the first few seconds. In Hoffman’s words: “You can see thick clouds of pulverized concrete being ejected within the first two seconds. That’s when the relative motion of the top of the tower to the intact portion was only a few feet per second.”[31] Jeff King (2003), in the same vein, says: “[A great amount of] very fine concrete dust is ejected from the top of the building very early in the collapse. . . [when] concrete slabs [would have been] bumping into each other at [only] 20 or 30 mph.”

The importance of King’s point can be appreciated by juxtaposing it with the claim by Shyam Sunder, NIST’s lead investigator, that although the clouds of dust created during the collapses of the Twin Towers may create the impression of a controlled demolition, “it is the floor pancaking that leads to that perception” (Popular Mechanics, 2005). The pancaking, according to the official theory being defended by Sunder, began at the floor beneath the holes created by the impact of the airliners. As King points out, this theory cannot handle the fact, as revealed by the photographs and videos, that dust clouds were created far above the impact zones.

Horizontal Ejections: Another common feature of controlled demolition is the horizontal ejection of other materials, besides dust, from those areas of the building in which explosives are set off. In the case of the Twin Towers, photos and videos reveal that “[h]eavy pieces of steel were ejected in all directions for distances up to 500 feet, while aluminum cladding was blown up to 700 feet away from the towers” (Paul and Hoffman, 2004, p. 7). But gravitational energy is, of course, vertical, so it cannot even begin to explain these horizontal ejections.

Demolition Rings: Still another common feature of collapses induced by explosions are demolition rings, in which series of small explosions run rapidly around a building. This feature was also manifested by the collapses of the towers.[32]

Sounds Produced by Explosions: The use of explosives to induce collapses produces, of course, sounds caused by the explosions. Like all the previous features except the slicing of the steel columns inside the building, this one could be observed by witnesses. And, as we will see below, there is abundant testimony to the existence of such sounds before and during the collapses of the towers.

Molten Steel: An eleventh feature that would be expected only if explosives were used to slice the steel columns would be molten steel, and its existence at the WTC site was indeed reported by several witnesses, including the two main figures involved in the clean up, Peter Tully, president of Tully Construction, and Mark Loizeaux, president of Controlled Demolition, Incorporated. Tully said that he saw pools of “literally molten steel” at the site. Loizeaux said that several weeks after 9/11, when the rubble was being removed, “hot spots of molten steel” were found “at the bottoms of the elevator shafts of the main towers, down seven [basement] levels” (both statements quoted in Bollyn, 2004).[33] Leslie Robertson, a member of the engineering firm that designed the Twin Towers, said: “As of 21 days after the attack, the fires were still burning and molten steel was still running” (Williams, 2001). Knight-Ridder journalist Jennifer Lin, discussing Joe “Toolie” O’Toole, a Bronx firefighter who worked for many months on the rescue and clean-up efforts, wrote: “Underground fires raged for months. O’Toole remembers in February seeing a crane lift a steel beam vertically from deep within the catacombs of Ground Zero. ‘It was dripping from the molten steel,’ he said” (Lin, 2002). Greg Fuchek, vice president of sales for LinksPoint, Inc., which supplied some of the computer equipment used to identify human remains at the site, described the working conditions as “hellish,” partly because for six months, the ground temperature varied between 600 degrees Fahrenheit and 1,500 degrees or higher. Fuchek added that “sometimes when a worker would pull a steel beam from the wreckage, the end of the beam would be dripping molten steel” (Walsh, 2002). And still more witnesses spoke of molten steel.[34] This testimony is of great significance, since it would be hard to imagine what, other than high explosives, could have caused some of the steel to melt.

The importance of the nature of the collapses, as summarized in these 11 features, is shown by the fact that attempts to defend the official theory typically ignore most of them. For example, an article in *Popular Mechanics* (2005), seeking to debunk what it calls some of the most prevalent myths about 9/11 fabricated by “conspiracy theorists,” completely ignores the suddenness, verticality, rapidity, and totality of the collapses and also fails to mention the testimonies about molten steel, demolition rings, and the sounds of explosions.[35]

2. Testimonies about Explosions and Related Phenomena in the 9/11 Oral Histories

Most of these 11 features---all but the slicing of the core columns and the molten steel in the basements---are features that, if they occurred before or during the collapses of the towers, could have been observed by people in the area. And, in fact, testimonies about some of these phenomena have been available, since shortly after 9/11, from reporters,[36] fire fighters,[37] police officers,[38] people who worked in the towers,[39] and one prominent explosives expert, Van Romero, [40] who said on that very day after viewing the videotapes, that the collapses not only resembled those produced by controlled implosions but must, in fact, have been caused by “some explosive devices inside the buildings” because they were “too methodical” to have been chance results of the airplane strikes (Uyttebrouck, 2001).[41] Some of these testimonies were very impressive. There were, however, only a few of them and they were

scattered here and there. No big body of testimony was readily accessible. But this situation has dramatically changed. Shortly after 9/11, the New York Fire Department recorded over 500 oral histories, in which firefighters and emergency medical workers recounted their experiences of that day. [Emergency Medical Services had become a division within the Fire Department(Dwyer, 2005a).] Mayor Bloomberg's administration, however, refused to release them. But then the New York Times, joined by several families of 9/11 victims, filed suit and, after a long process, the New York Court of Appeals ordered the city to release the bulk of these oral histories, which it did in August 2005[42] (Dwyer, 2005b). The Times then made them publicly available (NYT, 2005).[43]

These oral histories contain many dozens of testimonies that speak of explosions and related phenomena characteristic of controlled demolition. I will give some examples.

Explosions

Several individuals reported that they witnessed an explosion just before one of the towers collapsed. Battalion Chief John Sudnik said: "we heard . . . what sounded like a loud explosion and looked up and I saw tower two start coming down" (NYT, Sudnick, p. 4).

Several people reported multiple explosions. Paramedic Kevin Darnowski said: "I heard three explosions, and then . . . tower two started to come down" (NYT, Darnowski, p. 8).

Firefighter Thomas Turilli said, "it almost sounded like bombs going off, like boom, boom, boom, like seven or eight" (NYT, Turilli, p. 4).

Craig Carlsen said that he and other firefighters "heard explosions coming from . . . the south tower. . . . There were about ten explosions. . . . We then realized the building started to come down" (NYT, Carlsen, pp. 5-6).

Firefighter Joseph Meola said, "it looked like the building was blowing out on all four sides. We actually heard the pops" (NYT, Meola, p. 5).

Paramedic Daniel Rivera also mentioned "pops." Asked how he knew that the south tower was coming down, he said:

It was a frigging noise. At first I thought it was---do you ever see professional demolition where they set the charges on certain floors and then you hear 'Pop, pop, pop, pop, pop'? . . . I thought it was that. (NYT, Rivera, p. 9)

Collapse Beginning below the Strike Zone and Fire

According to the official account, the "pancaking" began when the floors above the hole caused by the airplane fell on the floors below. Some witnesses reported, however, that the collapse of the south tower began somewhat lower.

Timothy Burke said that "the building popped, lower than the fire. . . . I was going oh, my god, there is a secondary device because the way the building popped. I thought it was an explosion" (NYT, Burke, pp. 8-9).

Firefighter Edward Cachia said: "It actually gave at a lower floor, not the floor where the plane hit. . . . [W]e originally had thought there was like an internal detonation, explosives, because it went in succession, boom, boom, boom, boom, and then the tower came down" (NYT, Cachia, p. 5).

The importance of these observations is reinforced by the fact that the authors of the NIST Report, after having released a draft to the public, felt the need to add the following statement to the Executive Summary:

NIST found no corroborating evidence for alternative hypotheses suggesting that the WTC towers were brought down by controlled demolition using explosives planted prior to September 11, 2001. . . . Instead, photos and videos from several angles clearly showed that the collapse initiated at the fire and impact floors and that the collapse progressed from the initiating floors downward.

Firefighters Burke and Cachia presumably now need to ask themselves: What are you going to believe, your own eyes or an official government report?

Flashes and Demolition Rings

Some of the witnesses spoke of flashes and of phenomena suggestive of demolition rings. Assistant Commissioner Stephen Gregory said: "I thought . . . before . . . No. 2 came down, that I saw low-level flashes. . . . I . . . saw a flash flash flash . . . [at] the lower level of the building. You know like when they demolish a building?" (NYT, Gregory, pp. 14-16).

Captain Karin Deshore said: "Somewhere around the middle . . . there was this orange and red flash

coming out. Initially it was just one flash. Then this flash just kept popping all the way around the building and that building had started to explode. . . . [W]ith each popping sound it was initially an orange and then a red flash came out of the building and then it would just go all around the building on both sides as far as I could see. These popping sounds and the explosions were getting bigger, going both up and down and then all around the building" (NYT, Deshore, p. 15).

Firefighter Richard Banaciski said: "[T]here was just an explosion. It seemed like on television [when] they blow up these buildings. It seemed like it was going all the way around like a belt, all these explosions" (NYT, Banaciski, pp. 3-4).

Deputy Commissioner Thomas Fitzpatrick said: "It looked like sparking around one specific layer of the building. . . . My initial reaction was that this was exactly the way it looks when they show you those implosions on TV" (NYT, Fitzpatrick, pp. 13-14).

Horizontal Ejections

A few witnesses spoke of horizontal ejections. Chief Frank Cruthers said: "There was what appeared to be . . . an explosion. It appeared at the very top, simultaneously from all four sides, materials shot out horizontally. And then there seemed to be a momentary delay before you could see the beginning of the collapse" (NYT, Cruthers, p. 4).

This testimony is important, because the official theory holds that the ejections were produced by the floors collapsing. So listen to firefighter James Curran, who said: "I looked back and . . . I heard like every floor went chu-chu-chu. I looked back and from the pressure everything was getting blown out of the floors before it actually collapsed" (NYT, Curran, pp. 10-11).

Battalion Chief Brian Dixon said, "the lowest floor of fire in the south tower actually looked like someone had planted explosives around it because . . . everything blew out on the one floor" (NYT, Dixon, p. 15).[44]

Synchronized Explosions

Some witnesses said that the explosions seemed to be synchronized. For example, firefighter Kenneth Rogers said, "there was an explosion in the south tower. . . . I kept watching. Floor after floor after floor. One floor under another after another . . . [I]t looked like a synchronized deliberate kind of thing" (NYT, Rogers, pp. 3-4).[45]

Why Does the Public Not Know of These Reports?

If all these firefighters and medical workers witnessed all these phenomena suggestive of controlled demolition, it might be wondered why the public does not know this. Part of the answer is provided by Auxiliary Lieutenant Fireman Paul Isaac. Having said that "there were definitely bombs in those buildings," Isaac added that "many other firemen know there were bombs in the buildings, but they're afraid for their jobs to admit it because the 'higher-ups' forbid discussion of this fact" (Lavello, n.d.). Another part of the answer is that when a few people, like Isaac and William Rodriguez, have spoken out, the mainstream press has failed to report their statements.

3. Implications

The official theory about the collapse of the towers, I have suggested, is rendered extremely implausible by two main facts. First, aside from the alleged exception of 9/11, steel-frame high-rise buildings have never been caused to collapse by fire; all such collapses have all been produced by carefully placed explosives. Second, the collapses of the Twin Towers manifested at least 11 characteristic features of controlled demolitions. The probability that any of these features would occur in the absence of explosives is extremely low. The probability that all 11 of them would occur is essentially zero.[46]

We can say, therefore, that the official theory about the towers is disproved about as thoroughly as such a theory possibly could be, whereas all the evidence can be explained by the alternative theory, according to which the towers were brought down by explosives. The official theory is, accordingly, an outrageous theory, whereas the alternative theory is, from a scientific point of view, the only reasonable theory available.[47]

4. Other Suspicious Facts

Moreover, although we have already considered sufficient evidence for the theory that the towers were brought down by explosives, there is still more.

Removal of the Steel: For one thing, the steel from the buildings was quickly removed before it could be properly examined,[48] with virtually all of it being sold to scrap dealers, who put most of it on ships to Asia.[49] Generally, removing any evidence from the scene of a crime is a federal offense. But in this case, federal officials facilitated the removal.[50]

This removal evoked protest. On Christmas day, 2001, the New York Times said: "The decision to rapidly recycle the steel columns, beams and trusses from the WTC in the days immediately after 9/11 means definitive answers may never be known." [51] The next week, Fire Engineering magazine said: "We are literally treating the steel removed from the site like garbage, not like crucial fire scene evidence (Brannigan, Corbett, and Dunn, 2002). . . . The destruction and removal of evidence must stop immediately" (Manning, 2002).

However, Mayor Bloomberg, defending the decision to dispose of the steel, said: "If you want to take a look at the construction methods and the design, that's in this day and age what computers do.[52] Just looking at a piece of metal generally doesn't tell you anything." [53] But that is not true. An examination of the steel could have revealed whether it had been cut by explosives.

This removal of an unprecedented amount of material from a crime scene suggests that an unprecedented crime was being covered up.[54]

Evidence that this cover-up was continued by NIST is provided by its treatment of a provocative finding reported by FEMA, which was that some of the specimens of steel were "rapidly corroded by sulfidation" (FEMA 2002, Appendix C). This report is significant, because sulfidation is an effect of explosives. FEMA appropriately called for further investigation of this finding, which the New York Times called "perhaps the deepest mystery uncovered in the investigation" (Killough-Miller, 2002). A closely related problem, expressed shortly after 9/11 by Dr. Jonathan Barnett, Professor of Fire Protection Engineering at Worcester Polytechnic Institute, is that "[f]ire and the structural damage . . . would not explain steel members in the debris pile that appear to have been partly evaporated" (Glanz, 2001). But the NIST report, in its section headed "Learning from the Recovered Steel," fails even to mention either evaporation or sulfidation.[55] Why would the NIST scientists apparently share Mayor Bloomberg's disdain for empirical studies of recovered steel?

North Tower Antenna Drop: Another problem noted by FEMA is that videos show that, in the words of the FEMA Report, "the transmission tower on top of the [north tower] began to move downward and laterally slightly before movement was evident at the exterior wall. This suggests that collapse began with one or more failures in the central core area of the building" (FEMA 2002, ch. 2).[56] This drop was also mentioned in a New York Times story by James Glanz and Eric Lipton, which said: "Videos of the north tower's collapse appear to show that its television antenna began to drop a fraction of a second before the rest of the building. The observations suggest that the building's steel core somehow gave way first" (Glanz and Lipton, 2002). In the supposedly definitive NIST Report, however, we find no mention of this fact. This is another convenient omission, since the most plausible, and perhaps only possible, explanation would be that the core columns were cut by explosives---an explanation that would fit with the testimony of several witnesses.

South Tower Tipping and Disintegration: If the north tower's antenna drop was anomalous (from the perspective of the official theory), the south tower's collapse contained an even stranger anomaly. The uppermost floors---above the level struck by the airplane---began tipping toward the corner most damaged by the impact. According to conservation-of-momentum laws, this block of approximately 34 floors should have fallen to the ground far outside the building's footprint. "However," observe Paul and Hoffman, "as the top then began to fall, the rotation decelerated. Then it reversed direction [even though the] law of conservation of angular momentum states that a solid object in rotation will continue to rotate at the same speed unless acted on by a torque" (Paul and Hoffman, 2004, p. 34).

And then, in the words of Steven Jones, a physics professor at BYU, "this block turned mostly to powder in mid-air!" This disintegration stopped the tipping and allowed the uppermost floors to fall straight down into, or at least close to, the building's footprint. As Jones notes, this extremely strange behavior was one

of many things that NIST was able to ignore by virtue of the fact that its analysis, in its own words, “does not actually include the structural behavior of the tower after the conditions for collapse initiation were reached” (NIST 2005, p. 80, n. 12). This is convenient because it means that NIST did not have to answer Jones’s question: “How can we understand this strange behavior, without explosives?” (Jones, 2006). This behavior is, however, not strange to experts in controlled demolition. Mark Loizeaux, the head of Controlled Demolition, Inc., has said:

[B]y differentially controlling the velocity of failure in different parts of the structure, you can make it walk, you can make it spin, you can make it dance We'll have structures start facing north and end up going to the north-west. (Else, 2004)

Once again, something that is inexplicable in terms of the official theory becomes a matter of course if the theory of controlled demolition is adopted.

WTC Security: The suggestion that explosives might have been used raises the question of how anyone wanting to place explosives in the towers could have gotten through the security checks. This question brings us to a possibly relevant fact about a company---now called Stratesec but then called Securacom---that was in charge of security for the World Trade Center. From 1993 to 2000, during which Securacom installed a new security system, Marvin Bush, the president’s brother, was one of the company’s directors. And from 1999 until January of 2002, their cousin Wirt Walker III was the CEO (Burns, 2003).[57] One would think these facts should have made the evening news---or at least The 9/11 Commission Report.

These facts, in any case, may be relevant to some reports given by people who had worked in the World Trade Center. Some of them reportedly said that although in the weeks before 9/11 there had been a security alert that mandated the use of bomb-sniffing dogs, that alert was lifted five days before 9/11 (Taylor and Gardiner, 2001).

Also, a man named Scott Forbes, who worked for Fiduciary Trust---the company for which Kristen Breitweiser’s husband worked---has written:

On the weekend of [September 8-9, 2001], there was a “power down” condition in . . . the south tower. This power down condition meant there was no electrical supply for approximately 36 hours from floor 50 up. . . . The reason given by the WTC for the power down was that cabling in the tower was being upgraded Of course without power there were no security cameras, no security locks on doors [while] many, many “engineers” [were] coming in and out of the tower.[58]

Also, a man named Ben Fountain, who was a financial analyst with Fireman’s Fund in the south tower, was quoted in People Magazine as saying that during the weeks before 9/11, the towers were evacuated “a number of times” (People Magazine, 2001).

Foreknowledge of the Collapse: One more possibly relevant fact is that then Mayor Rudy Giuliani, talking on ABC News about his temporary emergency command center at 75 Barkley Street, said:

We were operating out of there when we were told that the World Trade Center was gonna collapse, and it did collapse before we could get out of the building.[59]

This is an amazing statement. Prior to 9/11, fire had never brought down a steel-frame high-rise. The firemen who reached the 78th floor of the south tower certainly did not believe it was going to collapse. Even the 9/11 Commission reported that to its knowledge, “none of the [fire] chiefs present believed that a total collapse of either tower was possible” (Kean and Hamilton, 2004, p. 302). So why would anyone have told Giuliani that at least one of the towers was about to collapse?

The most reasonable answer, especially in light of the new evidence, is that someone knew that explosives had been set in the south tower and were about to be discharged. It is even possible that the explosives were going to be discharged earlier than originally planned because the fires in the south tower were dying down more quickly than expected, because so much of the plane’s jet fuel had burned up in the fireball outside the building.[60] This could explain why although the south tower was struck second, suffered less structural damage, and had smaller fires, it collapsed first---after only 56 minutes. That is, if the official story was going to be that the fire caused the collapse, the building had to be brought

down before the fire went completely out.[61]

We now learn from the oral histories, moreover, that Giuliani is not the only one who was told that a collapse was coming. At least four of the testimonies indicate that shortly before the collapse of the south tower, the Office of Emergency Management (OEM) had predicted the collapse of at least one tower.[62] The director of OEM reported directly to Giuliani.[63] So although Giuliani said that he and others “were told” that the towers were going to collapse, it was his own people who were doing the telling. As New York Times reporter Jim Dwyer has pointed out, the 9/11 Commission had access to the oral histories.[64] It should have discussed these facts, but it did not.

The neglect of most of the relevant facts about the collapses, manifested by The 9/11 Commission Report, was continued by the NIST Report, which said, amazingly: The focus of the Investigation was on the sequence of events from the instant of aircraft impact to the initiation of collapse for each tower. For brevity in this report, this sequence is referred to as the “probable collapse sequence,” although it does not actually include the structural behavior of the tower after the conditions for collapse initiation were reached. . . . [Our simulation treats only] the structural deterioration of each tower from the time of aircraft impact to the time at which the building . . . was poised for collapse (80n, 140).

Steven Jones comments, appropriately:

What about the subsequent complete, rapid and symmetrical collapse of the buildings? . . . What about the antenna dropping first in the North Tower? What about the molten metal observed in the basement areas . . . ? Never mind all that: NIST did not discuss at all any data after the buildings were “poised for collapse.” Well, some of us want to look at all the data, without computer simulations that are “adjusted” to make them fit the desired outcome. (Jones, 2006)

Summary: When we add these five additional suspicious facts to the eleven features that that the collapses of the Twin Towers had in common with controlled demolitions, we have a total of sixteen facts about the collapses of these buildings that, while being inexplicable in terms of the official theory, are fully understandable on the theory that the destruction of the towers was an inside job.

5. The Collapse of Building 7

As we have seen, the 9/11 Commission simply ignored the facts discussed above. Still another matter not discussed by the Commission was the collapse of building 7. And yet the official story about it is, if anything, even more problematic than the official story about the towers—as suggested by the title of a New York Times story, “Engineers Are Baffled over the Collapse of 7 WTC” (Glanz, 2001).[65]

Even More Difficult to Explain

The collapse of building 7 is even more difficult to explain than the collapse of the towers in part because it was not struck by an airliner, so none of the theories about how the impacts of the airliners contributed to the collapses of the towers can be employed in relation to it.

Also, all the photographic evidence suggests that the fires in this building were small, not very hot, and limited to a few floors. Photographs of the north side of the building show fires only on the 7th and 12th floors of this 47-floor building. So if the south side, which faced the towers, had fires on many other floors, as defenders of the official account claim, they were not big enough to be seen from the other side of the building.[66]

It would not be surprising, of course, if the fires in this building were even smaller than those in the towers, because there was no jet fuel to get a big fire started. Some defenders of the official story have claimed, to be sure, that the diesel fuel stored in this building somehow caught fire and created a towering inferno. But if building 7 had become engulfed in flames, why did none of the many photographers and TV camera crews on the scene capture this sight?

The extreme difficulty of explaining the collapse of building 7—assuming that it is not permissible to mention controlled demolition---has been recognized by the official bodies. The report prepared under FEMA’s supervision came up with a scenario employing the diesel fuel, then admitted that this scenario had “only a low probability of occurrence.”[67] Even that statement is generous, because the probability that some version of the official story of building 7 is true is the same as it is for the towers, essentially zero, because it would violate several laws of physics. In any case, the 9/11 Commission, perhaps

because of this admission by FEMA, avoided the problem by simply not even mentioning the fact that this building collapsed.

This was one of the Commission's most amazing omissions. According to the official theory, building 7 demonstrated, contrary to the universal conviction prior to 9/11, that large steel-frame buildings could collapse from fire alone, even without having been hit by an airplane. This demonstration should have meant that building codes and insurance premiums for all steel-frame buildings in the world needed to be changed. And yet the 9/11 Commission, in preparing its 571-page report, did not devote a single sentence to this historic event.

Even More Similar to Controlled Implosions

Yet another reason why the collapse of building 7 is especially problematic is that it was even more like the best-known type of conventional demolition—namely, an implosion, which begins at the bottom (whereas the collapse of each tower originated high up, near the region struck by the plane). As Eric Hufschmid has written:

Building 7 collapsed at its bottom. . . . [T]he interior fell first. . . . The result was a very tiny pile of rubble, with the outside of the building collapsing on top of the pile.[68]

Implosion World.com, a website about the demolition industry, states that an implosion is "by far the trickiest type of explosive project, and there are only a handful of blasting companies in the world that possess enough experience . . . to perform these true building implosions." [69] Can anyone really believe that fire would have just happened to produce the kind of collapse that can be reliably produced by only a few demolition companies in the world? The building had 24 core columns and 57 perimeter columns. To hold that fire caused this building to collapse straight down would mean believing that the fire caused all 81 columns to fail at exactly the same time. To accept the official story is, in other words, to accept a miracle. Physicist Steven Jones agrees, saying:

The likelihood of near-symmetrical collapse of WTC7 due to random fires (the "official" theory)---requiring as it does near-simultaneous failure of many support columns---is infinitesimal. I conclude that the evidence for the 9/11 use of pre-positioned explosives in WTC 7 (also in Towers 1 and 2) is truly compelling.[70]

Much More Extensive Foreknowledge

Another reason why the collapse of building 7 creates special problems involves foreknowledge of its collapse. We know of only a few people with advance knowledge that the Twin Towers were going to collapse, and the information we have would be consistent with the supposition that this knowledge was acquired only a few minutes before the south tower collapsed. People can imagine, therefore, that someone saw something suggesting that the building was going to collapse. But the foreknowledge of building 7's collapse was more widespread and of longer duration. This has been known for a long time, at least by people who read firefighters' magazines.[71] But now the oral histories have provided a fuller picture.

Widespread Notification: At least 25 of the firefighters and medical workers reported that, at some time that day, they learned that building 7 was going to collapse. Firefighters who had been fighting the fires in the building said they were ordered to leave the building, after which a collapse zone was established. As medical worker Decosta Wright put it: "they measured out how far the building was going to come, so we knew exactly where we could stand," which was "5 blocks away" (NYT, Wright, pp. 11-12).

Early Warning: As to exactly when the expectation of the collapse began circulating, the testimonies differ. But most of the evidence suggests that the expectation of collapse was communicated 4 or 5 hours in advance.[72]

The Alleged Reason for the Expectation: But why would this expectation have arisen? The fires in building 7 were, according to all the photographic evidence, few and small. So why would the decision-makers in the department have decided to pull firefighters out of building 7 and have them simply stand around waiting for it to collapse?

The chiefs gave a twofold explanation: damage plus fire. Chief Frank Fellini said: "When [the north

tower] fell, it ripped steel out from between the third and sixth floors across the facade on Vesey Street. We were concerned that the fires on several floors and the missing steel would result in the building collapsing" (NYT, Fellini, p. 3).

There are at least two problems with each part of this explanation. One problem with the accounts of the structural damage is that they vary greatly. According to Fellini's testimony, there was a four-floor hole between the third and sixth floors. In the telling of Captain Chris Boyle, however, the hole was "20 stories tall" (2002). It would appear that Shyam Sunder, the lead investigator for NIST, settled on somewhat of a compromise between these two views, telling *Popular Mechanics* that, "On about a third of the face to the center and to the bottom--approximately 10 stories--about 25 percent of the depth of the building was scooped out" (*Popular Mechanics*, March 2005).

The different accounts of the problem on the building's south side are not, moreover, limited to the issue of the size of the hole. According to Deputy Chief Peter Hayden, the problem was not a hole at all but a "bulge," and it was "between floors 10 and 13" (Hayden, 2002).

The second problem with these accounts of the damage is if there was a hole that was 10 or 20 floors high, or even a hole (or a bulge) that was 4 floors high, why was this fact not captured on film by any of the photographers or videographers in the area that day?

With regard to the claims about the fire, the accounts again vary greatly. Chief Daniel Nigro spoke of "very heavy fire on many floors" (NYT, Nigro, p. 10). According to Harry Meyers, an assistant chief, "When the building came down it was completely involved in fire, all forty-seven stories" (quoted in Smith, 2002, p. 160). That obvious exaggeration was also stated by a firefighter who said: "[Building 7] was fully engulfed. . . . [Y]ou could see the flames going straight through from one side of the building to the other" (NYT, Cassidy, p. 22).

Several of the testimonies, however, did not support the official line. For example, medical technician Decosta Wright said: "I think the fourth floor was on fire. . . . [W]e were like, are you guys going to put that fire out?" (NYT, Wright, p. 11). Chief Thomas McCarthy said: "[T]hey were waiting for 7 World Trade to come down. . . . They had . . . fire on three separate floors . . . , just burning merrily. It was pretty amazing, you know, it's the afternoon in lower Manhattan, a major high-rise is burning, and they said 'we know'" (NYT, McCarthy, pp. 10-11).

The second problem with the official account here is that if there was "very heavy fire on many floors," why is this fact not captured on any film? The photograph that we have of the north side of the building supports Chief McCarthy's view that there was fire on three floors. Even if there were fires on additional floors on the south side of the building, there is no photographic support for the claim that "the flames [on these additional floors went] straight through from one side of the building to the other." Moreover, even if the department's official story about the collapse of building 7 were not contradicted by physical evidence and some of the oral histories, it would not explain why the building collapsed, because no amount of fire and structural damage, unless caused by explosives, had ever caused the total collapse of a large steel-frame building.[73] And it certainly would not explain the particular nature of the collapse--that the building imploded and fell straight down rather than falling over in some direction, as purportedly expected by those who gave the order to create a large collapse zone. Battalion Chief John Norman, for example, said: "We expected it to fall to the south" (Norman 2002). Nor would the damage-plus-fire theory explain this building's collapse at virtually free-fall speed or the creation of an enormous amount of dust--additional features of the collapses that are typically ignored by defenders of the official account.

The great difficulty presented to the official theory about the WTC by the collapse of building 7 is illustrated by a recent book, *102 Minutes: The Untold Story of the Fight to Survive Inside the Twin Towers*, one of the authors of which is New York Times reporter Jim Dwyer, who wrote the stories in the Times about the release of the 9/11 oral histories. With regard to the Twin Towers, Dwyer and his co-author, Kevin Flynn, support the theory put out by NIST, according to which the towers collapsed because the airplanes knocked the fire-proofing off the steel columns, making them vulnerable to the "intense heat" of the ensuing fires.[74] When they come to building 7, however, Dwyer and Flynn do not ask why it collapsed, given the fact that it was not hit by a plane. They simply say: "The firefighters had decided to let the fire there burn itself out" (Dwyer and Flynn, 2005, p. 258). But that, of course, is not what happened. Rather, shortly after 5:20 that day, building 7 suddenly collapsed, in essentially the same way as did the Twin Towers.

Should this fact not have led Dwyer and Flynn to question NIST's theory that the Twin Towers collapsed because their fireproofing had been knocked loose? I would especially think that Dwyer, who reported on

the release of the 9/11 oral histories, should re-assess NIST's theory in light of the abundant evidence of explosions in the towers provided in those testimonies.[75]

Another Explanation: There is, in any case, only one theory that explains both the nature and the expectation of the collapse of building 7: Explosives had been set, and someone who knew this spread the word to the fire chiefs.

Amazingly enough, a version of this theory was publicly stated by an insider, Larry Silverstein, who owned building 7. In a PBS documentary aired in September of 2002, Silverstein, discussing building 7, said:

I remember getting a call from the, er, fire department commander, telling me that they were not sure they were gonna be able to contain the fire, and I said, "We've had such terrible loss of life, maybe the smartest thing to do is pull it." [76] And they made that decision to pull and we watched the building collapse. (PBS, 2002) [77]

It is very puzzling, to be sure, that Silverstein, who was ready to receive billions of dollars in insurance payments for building 7 and the rest of the World Trade Center complex, on the assumption that they had been destroyed by acts of terrorism, would have made such a statement in public, especially with TV cameras running. But his assertion that building 7 was brought down by explosives, whatever the motive behind it, explains why and how it collapsed.

We still, however, have the question of why the fire department came to expect the building to collapse. It would be interesting, of course, if that information came from the same agency, the Office of Emergency Management, that had earlier informed the department that one of the towers was going to collapse. And we have it on good authority that it did. Captain Michael Currid, the president of the Uniformed Fire Officers Association, said that some time after the collapse of the Twin Towers, "Someone from the city's Office of Emergency Management" told him that building 7 was "basically a lost cause and we should not lose anyone else trying to save it," after which the firefighters in the building were told to get out (Murphy, 2002, pp. 175-76).[78]

But that answer, assuming it to be correct, leaves us with more questions, beginning with: Who in the Office of Emergency Management knew in advance that the towers and building 7 were going to collapse? How did they know this? And so on. These questions could be answered only by a real investigation, which has yet to begin.

6. Conclusion

It is, in any case, already possible to know, beyond a reasonable doubt, one very important thing: the destruction of the World Trade Center was an inside job, orchestrated by domestic terrorists. Foreign terrorists could not have gotten access to the buildings to plant the explosives. They probably would not have had the courtesy to make sure that the buildings collapsed straight down, rather than falling over onto surrounding buildings. And they could not have orchestrated a cover-up, from the quick disposal of the steel to the FEMA Report to The 9/11 Commission Report to the NIST Report. All of these things could have been orchestrated only by forces within our own government.

The evidence for this conclusion has thus far been largely ignored by the mainstream press, perhaps under the guise of obeying President Bush's advice not to tolerate "outrageous conspiracy theories." We have seen, however, that it is the Bush administration's conspiracy theory that is the outrageous one, because it is violently contradicted by numerous facts, including some basic laws of physics.

There is, of course, another reason why the mainstream press has not pointed out these contradictions. As a recent letter to the Los Angeles Times said:

The number of contradictions in the official version of . . . 9/11 is so overwhelming that . . . it simply cannot be believed. Yet . . . the official version cannot be abandoned because the implication of rejecting it is far too disturbing: that we are subject to a government conspiracy of 'X-Files' proportions and insidiousness.[79]

The implications are indeed disturbing. Many people who know or at least suspect the truth about 9/11 probably believe that revealing it would be so disturbing to the American psyche, the American form of

government, and global stability that it is better to pretend to believe the official version. I would suggest, however, that any merit this argument may have had earlier has been overcome by more recent events and realizations. Far more devastating to the American psyche, the American form of government, and the world as a whole will be the continued rule of those who brought us 9/11, because the values reflected in that horrendous event have been reflected in the Bush administration's lies to justify the attack on Iraq, its disregard for environmental science and the Bill of Rights, its criminal negligence both before and after Katrina, and now its apparent plan not only to weaponize space but also to authorize the use of nuclear weapons in a preemptive strike.

In light of this situation and the facts discussed in this essay---as well as dozens of more problems in the official account of 9/11 discussed in my books---I call on the New York Times to take the lead in finally exposing to the American people and the world the truth about 9/11. Taking the lead on such a story will, of course, involve enormous risks. But if there is any news organization with the power, the prestige, and the credibility to break this story, it is the Times. It performed yeoman service in getting the 9/11 oral histories released. But now the welfare of our republic and perhaps even the survival of our civilization depend on getting the truth about 9/11 exposed. I am calling on the Times to rise to the occasion.

ENDNOTES

[1] Both lectures are also available on DVDs edited by Ken Jenkins (kenjenkins@aol.com). See also Griffin, 2005c.

[2] Bush's more complete statement was: "We must speak the truth about terror. Let us never tolerate outrageous conspiracy theories concerning the attacks of 11 September---malicious lies that attempt to shift the blame away from the terrorists themselves, away from the guilty." Excellent advice.

[3] This report was carried out by the American Society of Civil Engineers (ASCE) on behalf of the Federal Emergency Management Agency (FEMA). The public was exposed to this theory early on, with CNN saying shortly after 9/11: "The collapse, when it came, was caused by fire. . . . The fire weakened that portion of the structure which remained after the impact. . . to the point where it could no longer sustain the load" (CNN, September 24, 2001).

[4] NIST describes the collapses of the towers as instances of "progressive collapse," which happens when "a building or portion of a building collapses due to disproportionate spread of an initial local failure" (NIST Report, p. 200). NIST thereby falsely implies that the total collapses of the three WTC buildings were specific instances of a general category with other instances. NIST even claims that the collapses were "inevitable."

[5] Leslie Robertson, who was a member of the firm (Worthington, Skilling, Helle and Jackson) that was responsible for the structural design of the Twin Towers, said that the Twin Towers were designed to withstand the impact of a Boeing 707, at that time (1966) the largest airliner. See "The Fall of the World Trade Center," BBC 2, March 7, 2002 (<http://www.bbc.co.uk/science/horizon/2001/worldtradecentertrans.shtml>). For a comparison of the 707 and the 767, see "Boeing 707-767 Comparison," What Really Happened (http://www.whatreallyhappened.com/boeing_707_767.html). Also relevant is the fact that in 1945, a B-25 bomber struck the Empire State Building at the 79th floor, creating a hole 20 feet high. But there was never the slightest indication that this accident would cause the building to collapse (see Glover, 2002).

[6] The NIST Report (2005, pp. xliii and 171) says: "the towers withstood the impacts and would have remained standing were it not for the dislodged insulation (fireproofing) and the subsequent multifloor fires."

[7] Supported by these authorities, the show went on to claim that "as fires raged in the towers, driven by aviation fuel, the steel cores in each building would have eventually reached 800°C [1472°F]---hot enough

to start buckling and collapsing.”

[8] In Griffin, 2004, pp. 12-13, I cite Professor Thomas Eagar’s acknowledgment of this fact.

[9] Given the fact that the claim that the fires in the towers melted its steel is about as absurd, from a scientific point of view, as a claim could be, it is amazing to see that some scientific journals seemed eager to rush into print with this claim. On the day after 9/11, for example, New Scientist published an article that said: “Each tower [after it was struck] remained upright for nearly an hour. Eventually raging fires melted the supporting steel struts” (Samuel and Carrington, 2001). The article’s title, “Design Choice for Towers Saved Lives”, reflects the equally absurd claim---attributed to “John Hooper, principal engineer in the company that provided engineering advice when the World Trade Center was designed”---that “[m]ost buildings would have come down immediately.”

[10] Stating this obvious point could, however, be costly to employees of companies with close ties to the government. On November 11, 2004, Kevin Ryan, the Site Manager of the Environmental Health Laboratories, which is a division of Underwriters Laboratories, wrote an e-mail letter to Dr. Frank Gayle, Deputy Chief of the Metallurgy Division, Material Science and Engineering Laboratory, at the National Institute of Standards and Technology (NIST). In this letter, Ryan stated: “We know that the steel components were certified to ASTM E119. The time temperature curves for this standard require the samples to be exposed to temperatures around 2000°F for several hours. And as we all agree, the steel applied met those specifications. Additionally, I think we can all agree that even un-fireproofed steel will not melt until reaching red-hot temperatures of nearly 3000°F. Why Dr. Brown would imply that 2000°F would melt the high-grade steel used in those buildings makes no sense at all.” After Ryan allowed his letter to become public, he was fired. His letter is available at <http://www.septembereleventh.org/newsarchive/2004-11-11-ryan.php>.

[11] One well-known attempt to defend the official account has tried to use the absurdity of the steel-melting claim against those who reject the official account. In its March issue of 2005, Popular Mechanics magazine published a piece entitled “9/11: Debunking the Myths” (<http://www.popularmechanics.com/science/defense/1227842.html?page=1&c=y>). This article sets out to debunk what it alleges to be “16 of the most prevalent claims made by conspiracy theorists.” One of these “poisonous claims,” according to Popular Mechanics, results from the fact that that these “conspiracy theorists” have created a straw-man argument---pretending that the official theory claims that the buildings came down because their steel melted---which the conspiracy theorists could then knock down. Popular Mechanics “refutes” this straw-man argument by instructing us that “[j]et fuel burns at 800° to 1500°F, not hot enough to melt steel (2750°F). However, experts agree that for the towers to collapse, their steel frames didn’t need to melt, they just had to lose some of their structural strength.” As we have seen, however, the idea that the towers collapsed because their steel melted was put into the public consciousness by some early defenders of the official theory. For critics of this theory to show the absurdity of this claim is not, therefore, to attack a straw man. The idea that the official theory is based on this absurd claim is, in any case, not one of “the most prevalent claims” of those who reject the official theory.

[12] Even Shyam Sunder, the lead investigator for the NIST study, said: “The jet fuel probably burned out in less than 10 minutes” (Field, 2004). The NIST Report itself says (p. 179): “The initial jet fuel fires themselves lasted at most a few minutes.”

[13] The NIST Report (2005, p. 68), trying to argue that steel is very vulnerable unless it is protected by insulation, says: “Bare structural steel components can heat quickly when exposed to a fire of even moderate intensity. Therefore, some sort of thermal protection, or insulation, is necessary”. As Hoffman (2005) points out, however: “These statements are meaningless, because they ignore the effect of steel’s thermal conductivity, which draws away heat, and the considerable thermal mass of the 90,000 tons of steel in each Tower.” Also, I can only wonder if the authors of the NIST Report reflected on the implications of their theory for the iron or steel grating in their fireplaces. Do they spray on new fireproofing after enjoying a blazing hot fire for a few hours?

[14] Quoted in "WTC 2: There Was No Inferno," What Really Happened (http://www.whatreallyhappened.com/wtc2_fire.html).

[15] Quoted in "Tape Sheds Light on WTC Rescuers," CNN, August 4, 2002 (<http://archives.cnn.com/2002/US/08/04/wtc.firefighters/>). The voices of the firefighters reportedly "showed no panic, no sense that events were racing beyond their control." (Dwyer and Fessenden, 2002)

[16] As Eric Hufschmid (2002, p. 33) says: "A fire will not affect steel unless the steel is exposed to it for a long . . . period of time".

[17] CNN, September 24, 2001.

[18] Kevin Ryan, in his letter to Frank Gayle (see note 10, above), wrote in criticism of NIST's preliminary report: "This story just does not add up. If steel from those buildings did soften or melt, I'm sure we can all agree that this was certainly not due to jet fuel fires of any kind, let alone the briefly burning fires in those towers. . . . Please do what you can to quickly eliminate the confusion regarding the ability of jet fuel fires to soften or melt structural steel."

[19] See, for example, Eric Hufschmid's "Painful Deceptions" (available at www.EricHufschmid.Net); Jim Hoffman's website (<http://911research.wtc7.net/index.html>); and Jeff King's website (<http://home.comcast.net/~jeffrey.king2/wsb/html/view.cgi-home.html-.html>), especially "The World Trade Center Collapse: How Strong is the Evidence for a Controlled Demolition?"

[20] Incredibly, after explaining how precisely explosives must be set to ensure that a building comes straight down, Loizeaux said that upon seeing the fires in the Twin Towers, he knew that the towers were "going to pancake down, almost vertically. It was the only way they could fail. It was inevitable." Given the fact that fire had never before caused steel-frame buildings to collapse, let alone in a way that perfectly mimicked controlled demolition, Loizeaux's statement is a cause for wonder. His company, incidentally, was hired to remove the steel from the WTC site after 9/11.

[21] The fire theory is rendered even more unlikely if the first two characteristics are taken together. For fire to have induced a collapse that began suddenly and was entirely symmetrical, so that it went straight down, the fires would have needed to cause all the crucial parts of the building to fail simultaneously, even though the fires were not spread evenly throughout the buildings. As Jim Hoffman has written: "All 287 columns would have to have weakened to the point of collapse at the same instant" ("The Twin Towers Demolition," 9-11 Research.wtc7.net, n.d., <http://911research.wtc7.net/talks/towers/slides.html>).

[22] That statement is probably a slight exaggeration, as the videos, according to most students, seem to suggest that the collapses took somewhere between 11 and 16 seconds. But this would still be close to free-fall speed through the air.

[23] As physicist Steven Jones puts it, "the Towers fall very rapidly to the ground, with the upper part falling nearly as rapidly as ejected debris which provide free-fall references Where is the delay that must be expected due to conservation of momentum---one of the foundational Laws of Physics? That is, as upper-falling floors strike lower floors---and intact steel support columns---the fall must be significantly impeded by the impacted mass. . . . [B]ut this is not the case. . . . How do the upper floors fall so quickly, then, and still conserve momentum in the collapsing buildings? The contradiction is ignored by FEMA, NIST and 9/11 Commission reports where conservation of momentum and the fall times were not analyzed" (Jones, 2006; until then available at <http://www.physics.byu.edu/research/energy/htm7.html>).

[24] Each box column, besides being at least 36 by 16 inches, had walls that were at least 4 inches thick at the base, then tapered off in the upper floors, which had less weight to support. Pictures of columns can be seen on page 23 of Hufschmid, 2002. The reason for the qualification "at least" in these statements is that Jim Hoffman has recently concluded that some of them were even bigger. With reference to his article "The Core Structures: The Structural System of the Twin Towers," 9-11 Research.wtc7.net, n.d. [<http://911research.wtc7.net/wtc/arch/core.html>], he has written (e-mail letter of

October 26, 2005): "Previously I've been saying that the core columns had outside dimensions of 36" X 16", but I now think that at least 1/3 of them had dimensions of 54" X 22", based on early articles in the Engineering News Record and photographs I took of close-up construction photos on display at the Skyscraper Museum in Manhattan. . . . Also, according to the illustration in the Engineering News Record, the thickness of the steel at the bases was 5", not 4".

[25] And, as Hoffman (2005) says, NIST's claim about these tremendously hot fires in the core is especially absurd given the fact that the core "had very little fuel; was far from any source of fresh air; had huge steel columns to wick away the heat; [and] does not show evidence of fires in any of the photographs or videos." All the evidence, in other words, suggests that none of the core columns would have (from the fire) reached the highest temperatures reached by some of the perimeter columns.

[26] NIST rests its theory largely on the idea that collapse began with the failure of the trusses. Being much smaller and also less interconnected, trusses would have been much easier to heat up, so it is not surprising that the NIST Report focuses on them. To try to make its theory work, however, NIST claims that the trusses became hotter than their own evidence supports. That is, although NIST found no evidence that any of the steel had gotten hotter than 1112°F (600°C), it claims that some of the steel trusses were heated up to 1,292°F (700°C) (2005, pp. 96, 176-77). A supposedly scientific argument cannot arbitrarily add 180°F just because it happens to need it. In any case, besides the fact that this figure is entirely unsupported by any evidence, NIST's theory finally depends on the claim that the core columns failed as "a result of both splice connection failures and fracture of the columns themselves," because they were "weakened significantly by . . . thermal effects" (2005, pp. 88, 180). But there is no explanation of how these massive columns would have been caused to "fracture," even if the temperatures had gotten to those heights. As a study issued in the UK put it: "Thermal expansion and the response of the whole frame to this effect has not been described [by NIST] as yet" (Lane and Lamont, 2005).

[27] The RDX quotation is in Tom Held, 'Hoan Bridge Blast Set Back to Friday,' www.jsonline.com (Milwaukee Journal Sentinel), Updated Dec. 19, 2000 (<http://www.jsonline.com/news/metro/dec00/hoan20121900a.asp>). The DREXS quotation is in Hufschmid's video, "Painful Deceptions" (www.EricHufschmid.Net).

[28] In that statement, Hoffman said that most of the sections seemed to be no more than 30-feet long. He later revised this, saying that, judging from an aerial image taken 12 days after the attacks, most of the pieces seemed to be between 24 and 48 feet long, with only a few over 50 feet. He also noted that "the lengths of the pieces bears little resemblance to the lengths of the steel parts known to have gone into the construction," which means that one could not reasonably infer that the pieces simply broke at their joints (e-mail letter, September 27, 2005).

[29] The available evidence, says Hoffman (2003), suggests that the dust particles were very small indeed---on the order of 10 microns.

[30] Hoffman ("The Twin Towers Demolition") says that the clouds expanded to five times the diameter of the towers in the first ten seconds. The Demolition of the Kingdome can be viewed at the website of Controlled Demolition, Inc. (<http://www.controlled-demolition.com/default.asp?reqLocId=7&reqItemId=20030317140323>). The demolition of the Reading Grain Facility can be seen at ImplosionWorld.com (<http://implosionworld.com/reading.html>).

[31] Jim Hoffman, "The Twin Towers Demolition."

[32] For visual evidence of this and the preceding characteristics (except sliced steel), see Hufschmid's Painful Questions; Hufschmid's video "Painful Deceptions" (available at www.EricHufschmid.Net); Jim Hoffman's website (<http://911research.wtc7.net/index.html>); and Jeff King's website (<http://home.comcast.net/~jeffrey.king2/wsb/html/view.cgi-home.html-.html>), especially "The World Trade Center Collapse: How Strong is the Evidence for a Controlled Demolition?"

[33] Bollyn says (e-mail letter of October 27, 2005) that these statements were made to him personally during telephone interviews with Tully and Loizeaux, probably in the summer of 2002. Bollyn added that although he is not positive about the date of the telephone interviews, he is always "very precise about quotes" (http://www.americanfreepress.net/09_03_02/NEW_SEISMIC_/new_seismic_.html).

[34] Professor Allison Geyh (2001) of Johns Hopkins, who was part of a team of public health investigators who visited the site shortly after 9/11, wrote: "In some pockets now being uncovered they are finding molten steel". Dr. Keith Eaton, who somewhat later toured the site with an engineer, said that he was shown slides of "molten metal, which was still red hot weeks after the event" (Structural Engineer, 2002, p. 6). Herb Trimpe (2002), an Episcopalian deacon who served as a chaplain at Ground Zero, said: "[I]t was actually warmer on site. The fires burned, up to 2,000 degrees, underground for quite a while. . . . I talked to many contractors and they said . . . beams had just totally had been melted because of the heat."

[35] This article in Popular Mechanics is, to be blunt, spectacularly bad. Besides the problems pointed out here and in note 11, above, and note 39, below, the article makes this amazing claim: "In the decade before 9/11, NORAD intercepted only one civilian plane over North America: golfer Payne Stewart's Learjet, in October 1999." In reality, as genuine 9/11 researchers know, the FAA reported in a news release on Aug. 9, 2002, that it had scrambled fighters 67 times between September 2000 and June 2001, and the Calgary Herald (Oct. 13, 2001) reported that NORAD scrambled fighters 129 times in 2000. By extrapolation, we can infer that NORAD had scrambled fighters over 1000 times in the decade prior to 9/11. The claim by Popular Mechanics could be true only if in all of these cases, except for the Payne Stewart incident, the fighters were called back to base before they actually intercepted the aircraft in question. This is a most unlikely possibility, especially in light of the fact that Major Mike Snyder, a NORAD spokesperson, reportedly told the Boston Globe a few days after 9/11 that "[NORAD'S] fighters routinely intercept aircraft" (Johnson, 2001).

As to why Popular Mechanics would have published such a bad article, one clue is perhaps provided by the fact that the article's "senior researcher" was 25-year old Benjamin Chertoff, cousin of Michael Chertoff, the new head of the Department of Homeland Security (see Bollyn, 2005a). Another relevant fact is that this article was published shortly after a coup at this Hearst-owned magazine, in which the editor-in-chief was replaced (see Bollyn, 2005b). Young Chertoff's debunking article has itself been effectively debunked by many genuine 9/11 researchers, such as Jim Hoffman, "Popular Mechanics' Assault on 9/11 Truth," Global Outlook 10 (Spring-Summer 2005), 21-42 (which was based on Hoffman, "Popular Mechanics' Deceptive Smear Against 9/11 Truth," 911Review.com, February 15, 2005 [<http://911review.com/pm/markup/index.html>]), and Peter Meyer, "Reply to Popular Mechanics re 9/11," http://www.serendipity.li/wot/pop_mech/reply_to_popular_mechanics.htm. To be sure, these articles by Hoffman and Meyer, while agreeing on many points, take different approaches in response to some of the issues raised. But both articles demonstrate that Popular Mechanics owes its readers an apology for publishing such a massively flawed article on such an important subject.

[36] NBC's Pat Dawson reported from the WTC on the morning of 9/11 that he had been told by Albert Turi, the Fire Department's Deputy Assistant Chief of Safety, that "another explosion . . . took place . . . an hour after the first crash . . . in one of the towers here. So obviously . . . he thinks that there were actually devices that were planted in the building" (Watson and Perez, 2004). A Wall Street Journal reporter said: "I heard this metallic roar, looked up and saw what I thought was just a peculiar site of individual floors, one after the other exploding outward. I thought to myself, 'My God, they're going to bring the building down.' And they, whoever they are, HAD SET CHARGES I saw the explosions" (Shepard and Trost, 2002). BBC reporter Steve Evans said: "I was at the base of the second tower . . . that was hit. . . . There was an explosion. . . . [T]he base of the building shook. . . . [T]hen when we were outside, the second explosion happened and then there was a series of explosions" (BBC, Sept. 11, 2001; quoted in Bollyn, 2002).

[37] In June of 2002, NBC television played a segment from tapes recorded on 9/11 that contained the following exchange involving firefighters in the south tower:
Official: Battalion 3 to dispatch, we've just had another explosion.

Official: Battalion 3 to dispatch, we've had additional explosion.

Dispatcher: Received battalion command. Additional explosion ("911 Tapes Tell Horror Of 9/11," Part 2, "Tapes Released For First Time", NBC, June 17, 2002 [www.wnbc.com/news/1315651/detail.html]).

Firefighter Louie Cacchioli reported that upon entering the north tower's lobby, he saw elevator doors completely blown out and people being hit with debris. "I remember thinking . . . how could this be happening so quickly if a plane hit way above?" When he reached the 24th floor, he encountered heavy dust and smoke, which he found puzzling in light of the fact that the plane had struck the building over 50 stories higher. Shortly thereafter, he and another fireman "heard this huge explosion that sounded like a bomb. It was such a loud noise, it knocked off the lights and stalled the elevator." After they pried themselves out of the elevator, he reported, "another huge explosion like the first one hits. This one hits about two minutes later . . . [and] I'm thinking, 'Oh. My God, these bastards put bombs in here like they did in 1993!' . . . Then as soon as we get in the stairwell, I hear another huge explosion like the other two. Then I heard bang, bang, bang---huge bangs" (Szymanski, 2005a). A briefer account of Cacchioli's testimony was made available in the Sept. 24, 2001, issue of *People* magazine, some of which is quoted in Griffin, 2004, Ch. 1, note 74.

[38] Terri Tobin, a lieutenant with the NYPD public information office, said that during or just after the collapse of the south tower, "all I heard were extremely loud explosions. I thought we were being bombed" (Fink and Mathias, 2002, p. 82). A story in the *Guardian* said: "In New York, police and fire officials were carrying out the first wave of evacuations when the first of the World Trade Centre towers collapsed. Some eyewitnesses reported hearing another explosion just before the structure crumbled. Police said that it looked almost like a 'planned implosion'" (Borger, Campbell, Porter, and Millar, 2001).

[39] Teresa Veliz, who worked for a software development company, was on the 47th floor of the north tower when suddenly "the whole building shook. . . . [Shortly thereafter] the building shook again, this time even more violently." Veliz then made it downstairs and outside. During this period, she says: "There were explosions going off everywhere. I was convinced that there were bombs planted all over the place and someone was sitting at a control panel pushing detonator buttons" (Murphy, 2002).

William Rodriguez worked as a janitor in the north tower. While he was checking in for work in the office on sub-level 1 at 9:00 AM, he reports, he and the other 14 people in the office heard and felt a massive explosion below them. "When I heard the sound of the explosion," he says, "the floor beneath my feet vibrated, the walls started cracking and everything started shaking. . . . Seconds [later], I hear another explosion from way above. . . . Although I was unaware at the time, this was the airplane hitting the tower." Then co-worker Felipe David, who had been in front of a nearby freight elevator, came into the office with severe burns on his face and arms yelling "explosion! explosion! explosion!" According to Rodriguez: "He was burned terribly. The skin was hanging off his hands and arms. His injuries couldn't have come from the airplane above, but only from a massive explosion below" (Szymanski, 2005b). Stationary engineer Mike Pecoraro, who was working in the north tower's sixth sub-basement, stated that after his co-worker reported seeing lights flicker, they called upstairs to find out what happened. They were told that there had been a loud explosion and the whole building seemed to shake. Pecoraro and Chino then went up to the C level, where there was a small machine shop, but it was gone. "There was nothing there but rubble," said Pecoraro. "We're talking about a 50 ton hydraulic press--gone!" They then went to the parking garage, but found that it, too, was gone. "There were no walls." Then on the B Level, they found that a steel-and-concrete fire door, which weighed about 300 pounds, was wrinkled up "like a piece of aluminum foil." Finally, when they went up to the ground floor: "The whole lobby was soot and black, elevator doors were missing. The marble was missing off some of the walls" (Chief Engineer, 2002).

One of the "prevalent claims" of 9/11 skeptics that *Popular Mechanics* tries to debunk (see note 11, above) is the claim that explosives were detonated in the lower levels of the tower. The magazine, however, conveniently ignores the testimonies of Veliz, Rodriguez, and Pecoraro.

[40] This expert is Van Romero, vice president for research at the New Mexico Institute of Mining and Technology. Romero had previously been the director of this institute's Energetic Materials Research and Testing Center, which studies the effects of explosions on buildings.

[41] Romero, it is true, changed his public stance 10 days later, as announced in Fleck, 2001. But this is not a convincing retraction. "Subsequent conversations with structural engineers and more detailed looks at the tape," according to this article, led Romero to conclude that "the intense heat of the jet fuel fires weakened the skyscrapers' steel structural beams to the point that they gave way under the weight of the floors above." But there is no indication as to what any structural engineer said, or what Romero saw in his "more detailed looks at the tape," that led him to change his earlier view that the collapses were "too methodical" to have been produced by anything except explosives. There is no suggestion as to how weakened beams would have led to a total collapse that began suddenly and occurred at virtually free-fall speed. Romero has subsequently claimed that he did not change his stance. Rather, he claimed that he had been misquoted in the first story. "I was misquoted in saying that I thought it was explosives that brought down the building. I only said that that's what it looked like" (Popular Mechanics, 2005). But if that is the truth, it is strange that the second story, written by Fleck, did not say this but instead said that Romero had changed his mind. Romero clearly did change his mind---or, to be more precise, his public stance.

A clue to the reason for this change may be provided by another statement in the original article, which said that when the Pentagon was struck, "[Romero] and Denny Peterson, vice president for administration and finance [at New Mexico Tech], were en route to an office building near the Pentagon to discuss defense-funded research programs at Tech" (Uyttebrouck, 2001). Indeed, as pointed out in a later story on the New Mexico Tech website ("Tech Receives \$15 M for Anti-Terrorism Program" [<http://infohost.nmt.edu/mainpage/news/2002/25sept03.html>]), the December 2003 issue of Influence magazine named Romero one of "six lobbyists who made an impact in 2003," adding that "[a] major chunk of [Romero's] job involves lobbying for federal government funding, and if the 2003 fiscal year was any indication, Romero was a superstar," having obtained about \$56 million for New Mexico Tech in that year alone. In light of the fact that Romero gave no scientific reasons for his change of stance, it does not seem unwarranted to infer that the real reason was his realization, perhaps forced upon him by government officials, that unless he publicly retracted his initial statements, his effectiveness in lobbying the federal government for funds would be greatly reduced. Romero, to be sure, denies this, saying: "Conspiracy theorists came out saying that the government got to me. That is the farthest thing from the truth" (Popular Mechanics, 2005). But that, of course, is what we would expect Romero to say in either case. He could have avoided the charge only by giving a persuasive account of how the buildings could have come down, in the manner they did, without explosives.

[42] As Dwyer explained, the oral histories "were originally gathered on the order of Thomas Von Essen, who was the city fire commissioner on Sept. 11, who said he wanted to preserve those accounts before they became reshaped by a collective memory."

[43] The 9/11 oral histories are available at a New York Times website (http://graphics8.nytimes.com/packages/html/nyregion/20050812_WTC_GRAPHIC/met_WTC_histories_full_01.html). I am heavily indebted to Matthew Everett, who located and passed on to me virtually all the statements I have quoted from these oral histories.

[44] Like many others, Dixon indicated that he later came to accept the official interpretation, adding: "Then I guess in some sense of time we looked at it and realized, no, actually it just collapsed. That's what blew out the windows, not that there was an explosion there but that windows blew out." I have here, however, focused on what the witnesses said they first experienced and thought, as distinct from any interpretation they may have later accepted.

[45] Some of the testimonies also mentioned the creation of a dust cloud after the explosions. One firefighter said: "You heard like loud booms . . . and then we got covered with rubble and dust" (NYT, Viola, p. 3). Another said: "That's when hell came down. It was like a huge, enormous explosion. . . . The wind rushed. . . , all the dust. . . and everything went dark" (NYT, Rivera, p. 7). Lieutenant William Wall said: "[W]e heard an explosion. We looked up and the building was coming down We ran a little bit and then we were overtaken by the cloud" (NYT, Wall, p. 9). Paramedic Louis Cook, having said that there was "an incredible amount of dust and smoke," added that there was, "without exaggerating, a foot and a half of dust on my car" (NYT, Cook, pp. 8, 35).

[46] Even if we were generous to a fault and allowed that there might be as high as a 1-in-10 chance (a chance much higher than 1-in-100, or 1-in-500) that any one of the 11 features could occur without explosives, the chance that all 11 of them would occur together would be one in 100 billion. (This calculation with its very generous assumption of 1-in-10 does assume the 11 are independent of each other. For more completeness, if only 6 were independent while 5 were correlated to others, we would still have one chance in a million. Yet, if the chance were 1-in-100 and each is independent, we would have one chance in ten-to-the-22nd-power.)

Were we to also add in the probability that all these features would occur in three buildings on the same day, the probability would become so vanishingly small that it would be hardly distinguishable from zero.

On the other hand, if explosives were used in the buildings, there would be a high probability that all 11 features would have occurred in all three buildings. For this argument, I am indebted to James Fetzer, who---through his essay "Conspiracy Theories: The Case of 9/11"---inspired it, and to Paul Zarembka, who helped with the final formulation.

[47] A nice summary of the argument for this conclusion has been provided by Nila Sagadevan (e-mail communication of November 8, 2005) in response to a person who asked: "Are you saying all the floors simply fell down as though there were nothing supporting them?" Stating that this is precisely what he was saying, he then suggested the following thought-experiment:

Imagine a massive steel cable, lowered from a tall crane, firmly secured to the middle of the uppermost (110th) floor of one of the towers.

Now, imagine that this floor were somehow decoupled from the rest of the structure beneath it.

Summon your personal genie and have him make all 109 floors and supporting structures beneath this now-supported slab magically disappear.

What we now have is our concrete floor slab dangling 1,350 feet up in the sky, suspended by a cable from our imaginary crane.

Now, have your genie cut the cable.

Your 110th floor would now freefall through the air and impact the ground in about 9 seconds (which is about how long it took for the top floors of both towers to reach the ground).

Now, imagine a variation of this scenario: We will not decouple the top floor nor dabble with a crane.

Instead, we shall ask our genial genie to magically "soften" all the supporting columns of the lower 109 floors.

Wouldn't every one of these floors and their now-softened supporting structures immediately begin to buckle under the weight of the 110th floor?

Wouldn't this buckling significantly slow down the descent of the top floor by continuing to offer a degree of resistance to its descent?

Wouldn't these progressive viscous "arrests"—the sagging steel aided by ripping rivets, shearing bolts and tearing welds—slow down the top floor's fall significantly?

Wouldn't this cause the top floor to take a lot longer than 9 seconds to eventually reach the end of its descent and come to rest atop the crushed pile of floors beneath it?

But on September 11, 2001, every floor, of every tower, fell as though nothing existed below it but air.

For that to happen, every supporting (i.e., resisting) column beneath every collapsing floor would have had to have been taken out of the way.

Only well-placed explosives can do that.

This is what happens in a controlled demolition.

Sagadevan's point is not significantly affected if we say that the collapse time was closer to 15 seconds, since that is still very close to free-fall speed through the air.

[48]The official investigators found that they had less authority than the clean-up crews, a fact that led the Science Committee of the House of Representatives to report that "the lack of authority of investigators to impound pieces of steel for examination before they were recycled led to the loss of important pieces of evidence" (<http://www.house.gov/science/hot/wtc/charter.htm>).

[49] "Baosteel Will Recycle World Trade Center Debris," Eastday.com, January 24, 2002 (<http://www.china.org.cn/english/2002/Jan/25776.htm>).

[50] This removal was, moreover, carried out with the utmost care, because "the loads consisted of highly sensitive material." Each truck was equipped with a Vehicle Location Device, connected to GPS. "The software recorded every trip and location, sending out alerts if the vehicle traveled off course, arrived late at its destination, or deviated from expectations in any other way. . . . One driver . . . took an extended lunch break of an hour and a half. . . . [H]e was dismissed" (Emigh, 2002).

[51] New York Times, December 25, 2001. This protest was echoed by Professor Abolhassan Astaneh-Asl, Professor of Civil Engineering at the University of California at Berkeley, who said: "Where there is a car accident and two people are killed, you keep the car until the trial is over. If a plane crashes, not only do you keep the plane, but you assemble all the pieces, take it to a hangar, and put it together. That's only for 200, 300 people, when they die. In this case, you had 3,000 people dead. You had a major . . . manmade structure. My wish was that we had spent whatever it takes. . . . Get all this steel, carry it to a lot. Instead of recycling it. . . . After all, this is a crime scene and you have to figure out exactly what happened" (CBS News, March 12, 2002).

[52] Bloomberg was thereby recommending precisely what Bill Manning, the editor of Fire Engineering, had warned against when he wrote: "As things now stand . . . , the investigation into the World Trade Center fire and collapse will amount to paper-and computer-generated hypotheticals" (Manning, 2002). What Bloomberg desired and Manning feared is exactly what we got with the NIST Report. It is, in fact, even worse. Physicist Steven Jones, after pointing out that there are "zero examples of fire-caused high-rise collapses" and that even NIST's "actual [computer] models fail to collapse," asks: "So how does the NIST team justify the WTC collapses?" He answers: "Easy, NIST concocted computer-generated hypotheticals for very 'severe' cases," and then these cases were further modified to get the desired result. The NIST Report, Jones adds, admits this, saying on page 142: "The more severe case . . . was used for the global analysis of each tower. Complete sets of simulations were then performed for [these cases]. To the extent that the simulations deviated from the photographic evidence or eyewitness reports [e.g., complete collapse occurred], the investigators adjusted the input" (Jones, 2006).

[53] "Baosteel Will Recycle World Trade Center Debris."

[54] Bill Manning wrote: "The structural damage from the planes and the explosive ignition of jet fuel in themselves were not enough to bring down the towers. Fire Engineering has good reason to believe that the 'official investigation' blessed by FEMA . . . is a half-baked farce that may already have been commandeered by political forces whose primary interests, to put it mildly, lie far afield of full disclosure. Except for the marginal benefit obtained from a three-day, visual walk-through of evidence sites conducted by ASCE investigation committee members---described by one close source as a 'tourist trip'---no one's checking the evidence for anything" (Manning, 2002).

[55] See the section headed "The ASCE's Disclosures of Steel Sulfidation" in Hoffman, 2005.

[56] For visual evidence, see Hoffman, "North Tower Collapse Video Frames: Video Evidence of the North Tower Collapse," 9-11 Research.wtc7.net, n.d. (http://911research.wtc7.net/wtc/evidence/videos/wtc1_close_frames.html).

[57] Marvin Bush's role in the company is mentioned in Craig Unger, 2004, p. 249.

[58] Forbes' statement is posted at www.apfn.org/apfn/patriotic.htm.

[59] For Giuliani's complete statement, see "Who told Giuliani the WTC Was Going to Collapse on 9/11?", What Really Happened, n.d. (http://www.whatreallyhappened.com/wtc_giuliani.html); it can be heard at www.wireonfire.com/donpaul.

[60] As Hufschmid points out, "photos show the spectacular flames vanished quickly, and then the fire . . .

slowly diminished" (2002, p. 38).

[61] "If the . . . intention was to blame the collapse on the fires," Peter Meyer has written, "then the latest time at which the towers could be collapsed would be just as the fires were dying down. Since the fire in the South Tower resulted from the combustion of less fuel. . . , the fire in the South Tower began to go out earlier. . . . Those controlling the demolition thus had to collapse the South Tower before they collapsed the North Tower" (Peter Meyer, n.d.).

[62] Emergency Medical Services (EMS) Division Chief John Peruggia said that he was told that the "north tower was in danger of a near imminent collapse." Medical technician Richard Zarrillo, evidently a liaison between the OEM and EMS, said that he was told that "the buildings are going to collapse." Fire Marshal Stephen Mosiello and Deputy Assistant Chief of Safety Albert Turi also used the plural ("buildings") in reporting what they heard from Zarrillo. Turi reported that when Zarrillo was asked "where are we getting these reports?", his reply was: "you know, we're not sure, OEM is just reporting this" (NYT, Oral Histories of Peruggia, Zarrillo, Mosiello, and Turi).

[63] In "A Brief History of New York City's Office of Emergency Management," we read: "1996: By executive order, the Mayor's Office of Emergency Management is created. The Director reports directly to the Mayor, and serves as the local Director of Civil Defense" (http://www.nyc.gov/html/oem/html/other/oem_history.html).

[64] "The city . . . initially refused access to the records to investigators from . . . the 9/11 Commission" but "relented when legal action was threatened" (Dwyer, 2005b).

[65] Glanz (2001) wrote that "[e]xperts said no building like it, a modern, steel-reinforced high-rise, had ever collapsed because of an uncontrolled fire."

[66] For photographs and discussion, see Hufschmid, 2002, pp. 62-65, and the section entitled "The 'Raging' Fires at WTC Tower Seven" in "The World Trade Center Fires (Not So Hot Eh?)," Global Research, September 27, 2004 (<http://globalresearch.ca.myforums.net/viewtopic.php?t=523>).

[67] FEMA, 2002, Ch. 5, Sect. 6.2, "Probable Collapse Sequence," discussed in Griffin, 2004, p. 22.

[68] Hufschmid, 2002, p. 64. The collapse of building 7 also had all the other features of conventional demolitions, such as beginning suddenly and then going down at virtually free-fall speed---which in this case meant under 7 seconds. This similarity to conventional implosions was commented on by Dan Rather. Showing a video of the collapse of building 7 on CBS that very evening, Rather said that it was "reminiscent of those pictures we've all seen too much on television before when a building was deliberately destroyed by well-placed dynamite to knock it down" (CBS News, September 11, 2001). Videos of the collapse of building 7, which have seldom appeared on mainstream television, can be viewed at various websites, including www.geocities.com/killtown/wtc7.html and www.whatreallyhappened.com/wtc7.html. Particularly good for this purpose is Eric Hufschmid's DVD, "Painful Deceptions" (available at www.EricHufschmid.Net).

[69] Implosion World.com (<http://www.implosionworld.com/dyk2.html>).

[70] Steven Jones, e-mail letter, October 10, 2005.

[71] See Norman, 2002, and Firehouse Magazine, 2002a and 2002b.

[72] Chief Frank Fellini said that the collapse zone was established "five or six hours" before the building came down, which would have been around noon (NYT, Fellini, p. 3). This time fits with the testimony of a firefighter who said he "heard reports all day long of 7 World Trade possibly coming down" and of another who said: "We hung out for hours waiting for seven to come down" (NYT, Murray, p. 12, and Massa, pp. 17-18).

[73] Even earthquakes, which have produced some partial collapses, have never produced total collapses.

[74] “[F]ederal investigators concluded that it had been primarily the impact of the planes and, more specifically, the extreme fires that spread in their wake, that had caused the buildings to fall. . . . After the planes hit, . . . [m]uch of the spray-on fireproofing in the impact zone was dislodged, leaving the structural steel exposed and mortally vulnerable to the intense heat” (Dwyer and Flynn, 2005, p. 252). These co-authors (p. 253) even endorse NIST’s claim—which is totally unsupported (Hoffman, 2005)—that the collapses became “inevitable.”

[75] Dwyer, in fact, wrote an article entitled “Vast Archive Yields New View of 9/11,” *New York Times*, August 13, 2005 (<http://www.nytimes.com/2005/08/13/nyregion/nyregionspecial3/13records.html?ex=1131339600&en=e619ef623287178f&ei=5070>). But he did not mention the “new view” that would be suggested by the testimonies about explosions.

[76] Silverstein’s statement has been quoted in many places, including Morgan and Henshall (2005). A critique of this book entitled “9/11 Revealed? New Book Repeats False Conspiracy Theories,” put out by the U.S. State Department (<http://usinfo.state.gov/media/Archive/2005/Sep/16-241966.html>), claims that “[t]he property owner was referring to pulling a contingent of firefighters out of the building in order to save lives because it appeared unstable.” But that is hardly a plausible interpretation, especially given the following sentence and the fact that elsewhere during the documentary (PBS, 2002), we hear the expression clearly used to mean “bring the building down.”

[77] Silverstein’s statement can be viewed (http://www.infowars.com/Video/911/wtc7_pbs.WMV) or heard on audio file (<http://VestigialConscience.com/PullIt.mp3>). For a discussion, see Baker, n.d.

[78] Currid, incidentally, was re-elected president in 2002 (<http://www.uniondemocracy.com/UDR/34-NYC%20Public%20Employees.htm>).

[79] Letter to the *LA Times Magazine*, September 18, 2005, by William Yarchin of Huntington Beach, California, in response to an interview with me in that magazine, conducted by Mark Ehrman, entitled “Getting Agnostic about 9/11,” published August 28, 2005.

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