

# When nobody knows anything, everybody is an expert



There are no scientific reports about what the airplane did to the structure of the towers because the rubble was destroyed before scientists had a chance to properly study it. We can only guess at whether the airplanes were shredded into pieces; whether large pieces penetrated deep into the tower; and how much damage was done to the structure of the towers. Also, there are no scientific reports on the effect the fire had on the structure. We can only guess at the temperature the steel beams reached; which of the beams reached a high temperature; and what effect those high temperatures had on the structure of the towers.

The only source of information about the collapse are photographs and television news reports. Unfortunately, those images show only the outside of the building. This incredible lack of information about the World Trade Center collapse creates an interesting situation: **there are no experts on the collapse.**

If FEMA had hired a group of scientists to analyze the collapse, those scientists would be the experts. In such a case, FEMA would have produced detailed reports and diagrams that showed which part of the steel structure was damaged by the airplanes; the temperature reached at various locations in the crash zones; and which part of the structures failed first. If anybody had questions about the collapse, those scientists would be the authorities.

Unfortunately, the FEMA report is mainly just structural information about the buildings; it does not explain why the towers collapsed. Their report also has a few brief speculations as to the possible temperatures in the fire zone and the damage caused by the airplane, but their guesses are no better than anybody else's. Their guesses are based on images from video and photographs, rather than scientific analyses of the rubble, but each of us is capable of looking at those same photographs and speculating on what they mean.

## How can conspiracy theories be disproved?

The lack of serious information makes it easy to create conspiracy theories, and difficult to disprove them. Conspiracy theories cannot be disproved with material from the FEMA report, or with the reports of other experts, because nobody knows anything about the collapse. Disproving a conspiracy theory requires looking at the same photographs and news video that everybody else looks at, and then finding a more convincing speculation of what those photographs mean.

## When everybody is blind...

Nobody can seriously claim to be an expert on the collapse of the World Trade Center simply because nobody had a chance to study the rubble. Everybody who has looked at the photographs and television news video knows as much about the collapse as the most knowledgeable scientists. Therefore, everybody who has viewed the photographs and video can claim to be an expert. I looked at the photos, for example; therefore, I am an expert. You will be an expert after you look at the photos in this book.

If you think my statements are an exaggeration, consider what some "official" experts are saying.

### Charles Clifton, structural engineer

Clifton is a technical expert for the Heavy Engineering Research Association in New Zealand. One of his specialties is *"determining the behavior of steel framed buildings under the extreme events of severe earthquake or severe fire."* He wrote an analysis of the collapse of the towers that is referred to at hundreds of Internet sites, including universities that have the technical expertise to verify his analysis, such as the University of Illinois and the Institute for Structural Mechanics in Germany. This should qualify him as an "expert."

The first point I would like to make about his analysis is that he has a disclaimer that supports my previous remarks that nobody knows anything:

*I don't have access to material / data from the wreckage of these buildings so I am not in a position to make detailed observations.*

He admits that his lack of information makes it impossible for him to truly explain the collapse, but he does not seem to realize that nobody else has any data, either. His remark would have been more accurate if he had written it this way:

*Nobody has access to material / data from the wreckage of these buildings so nobody is in a position to explain the collapse.*

His theory is based on photographs and TV news. He described it this way:

*On the basis of what I have seen and heard reported to date...*

A “real” analysis is not based on what was “reported.” Normally, scientists do their own research and verify all facts rather than believe what they saw on television. A scientific report of the collapse would state: *“Our analysis of the steel beams in the rubble shows...”* rather than *“According to the Channel 4 Action Reporters...”*

Unfortunately, the rubble was destroyed, so every analysis of the collapse is actually just an analysis of photographs and CNN reports. This creates the bizarre situation in which scientists and engineers write highly technical reports and then support their theories with remarks about what they saw on television. In fact, Clifton actually quotes a television reporter:

*Having done this calculation it is more easy to understand what our eyes showed us – namely the planes slicing through the perimeter frames “like a knife through butter” as one reporter has stated.*

If Clifton had been able to inspect the rubble he would have been able to create diagrams of the steel beams in the building that would identify the steel columns that broke or bent when the airplane hit them. He would also be able to show which of the floors and elevator shafts were damaged by the airplane, and how severe the damage was. Television reporters and magazines would reproduce his diagrams and quote passages from his report. However, since Clifton has no idea what happened when the plane entered the building, the situation was reversed; i.e., he quoted television reporters rather than reporters quoting him.

Clifton is an expert on severe fires in steel buildings. His experience with fires suggests to him that fire could not have caused the towers to collapse. His conclusion is that the *plane crash*, not the fire, was the main reason for the collapse:

*This impact damage – not the severity of the fire – I contend is the principal cause of the ultimate collapse.*

### **Henry Koffman of USC**

Many people believe the steel either melted or came close to melting. Henry Koffman, director of the Construction Engineering and Management Program at the University of Southern California, made such a remark in an interview:

*The bottom line, in my opinion, is that intense heat from the jet fuel fires melted the steel infrastructure, which went past its yield strength and led to the collapse of the buildings...*

### **Professor Eagar of MIT**

Thomas Eagar is a professor of Materials Engineering and Engineering Systems. The Minerals, Metals & Materials Society published his analysis that explains the fire could not possibly have been hot enough to melt steel. His main points were:

- Steel melts at 1500°C (2700°F).
- Jet fuel produces a maximum temperature of approximately 1000°C (1800°F) when mixed with air in *perfect* proportions.
- It is virtually impossible for an airplane crash to coincidentally mix the fuel and air in perfect proportions. Therefore, the temperature of the steel was certainly *significantly less* than the maximum of 1000°C.

People who claim the steel *melted* violate the laws of physics, and people who claim it reached temperatures *near 1000°C* violate the laws of statistics.

Professor Eagar did not discover something new about fire. Rather, it has been known for centuries that hydrocarbons cannot melt iron. Centuries ago it was discovered that charcoal produces a higher temperature than hydrocarbons, but even charcoal cannot melt iron unless the charcoal and iron are placed in a properly designed furnace. Also, air must be blasted on the charcoal to provide plenty of oxygen. This is where the expression “blast furnace” comes from.

Eagar points out that residential fires are usually in the 500°C to 650°C range. He does not speculate on the temperatures in World Trade Center fires, but he mentions that if the steel reached 650°C (1,200°F) it would have lost half its strength. However, he points out that the towers were designed to handle such high wind forces that even at half-strength the towers were strong enough to stand up. Eagar’s conclusion is that the collapse was due to the combination of *thermal expansion* in the steel beams, which caused the beams to buckle, and a loss of strength from the high temperatures.

What temperature does Eagar believe is realistic for the fires in the tower? His written report did not give an estimate, although he hints at 650°C. In a television interview he gave estimates:

*I think the World Trade Center fire was probably only 1,200°F or 1,300°F.*

The only problem with his estimate was that after three sentences he increased it:

*The World Trade Center fire did melt some of the aluminum in the aircraft and hence it probably got to 1,300°F or 1,400°F.*

I suppose if he had continued to talk, after another few sentences the temperature would have climbed to 1500°F. Eagar was obviously making up temperature estimates right then and there, rather than reading from a report.

Eagar is one of the few experts who follow the laws of physics and statistics, but he has no idea why the buildings collapsed. Since nobody analyzed the rubble, nobody can say for certain if the fire had melted any aluminum, or if the steel structure reached temperatures as high as 1,400°F, or whether any beams buckled. Like everybody else, this professor has no data to support his theory or his temperature estimates.

### **Professor Bazant of Northwestern University**

Professor Bazant published his theory in the *Journal of Engineering Mechanics*. He believes the fire was so hot that it caused the steel beams to bend and buckle. One of his remarks about the temperature:

*...sustained temperatures apparently exceeding 800°C.*

Notice his phrase “apparently exceeding.” Since he could not inspect the rubble, he has no idea what the actual temperature was. In his conclusions he puts the following remark in parentheses to prevent people from complaining about his 800°C (1470°F) estimate:

*(though possibly well below 800°C)*

Bazant’s theory requires the steel to reach very high temperatures, but in his conclusions he admits in parentheses that the steel may have been well below 800°C. However, if the steel was “well below” 800°C, his theory becomes invalid. In other words, the remark he put in parentheses should have been written like this:

*(Though possibly well below 800°C, in which case please disregard my theory.)*

Bazant has no idea what was happening inside the towers; rather, he is merely speculating on the possible temperature.

### **Professor Connor of MIT**

An article in the October 2001 issue of *Scientific American* quotes Connor:

*In my theory, the hot fire weakened the supporting joint connection...*

Since all joints and steel beams were sold as scrap or buried in landfills before anybody could analyze them,

nobody knows what effect the fire had on those joints. For all we know the joints were weakened by the airplane crash, not the fire, which would mean Clifton was correct that the airplane crash was the most significant factor in the collapse. It is also possible that corrosion had weakened a lot of the joints years before the planes hit the building. Also, some of the bolts may not have been tightened properly, and some welds may have been defective. Those rusty and defective joints may have been the main reason the buildings collapsed; the airplane crash and fire may have only initiated the collapse.

### **Nobody knows nothing!**

Some of the experts know more about fires or engineering than you and I, but they do not know what happened inside the towers after the airplanes crashed into them. The experts are looking at the same photographs and CNN video that you and I have seen. We are all experts on the collapse because nobody analyzed the rubble; we are all experts because we are equally ignorant about what happened that day.

The experts cannot even agree on whether the towers were designed properly. For example, the October, 2001 issue of *Scientific American* quotes Robert McNamara, president of the engineering firm McNamara and Salvia:

*the World Trade Center was probably one of the more resistant tall building structures, ...nowadays, they just don’t build them as tough as the World Trade Center.*

The FEMA reports also implies the towers were strong:

*The floor framing system for the two towers was complex and substantially more redundant than typical bar joist floor systems.*

Other experts claim that *older buildings* were stronger than the “lightweight” and “economical” World Trade Center. Still other experts write articles that imply that the towers had an unusual “tube” design which was not as strong as the older, conventional designs.

Which of these experts is correct? Were the towers made of thin steel in order to save money? Or were the towers stronger than the older buildings? Was the “tube” design the reason the towers collapsed, or was it the reason the towers were “one of the more resistant” of buildings? Or are all of the experts merely making wild speculations?

Furthermore, why don’t the experts have an explanation for the collapse of Building 7 if they know so much about fire and engineering?

### Information is not easy to find

An article in *Science* magazine mentions that William Grosshandler, chief of the fire research division of Building and Fire Research Laboratory of NIST wants his lab to analyze the smoke plumes from the towers:

*“But that sort of analysis requires high-quality video and still photos of the smoke plume, which have been hard to come by.*

Associated Press, Reuters, and other conventional news agencies will gladly provide photos, but locating photos and video taken by individuals is extremely difficult. Many citizens got together to give blood and raise money, but not many people want to help gather information for an investigation. To make the situation worse, a few newspapers have reported that the FBI confiscated video from some security cameras and individual citizens (this is discussed in the last chapter).

The difficulty in acquiring information has caused news reporters to provide inaccurate information. Two examples are from *USA Today* and *US News and World Report*.

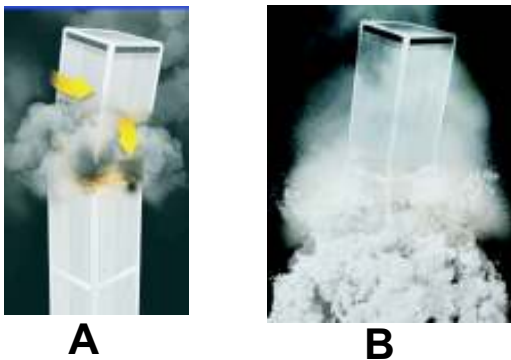
### *US News and World Report*

This magazine has an article that claims the temperature was beyond the maximum possible temperature of about 1800°F:

*Weakened by the nearly 2,000-degree heat, the remaining columns buckle.*

*The structural steel above and around the fire begins to expand and soften like heated plastic in the intense heat.*

Their report on the Internet had not been corrected as of June 2002. They also claim that the top of the South Tower began its collapse by tipping and rotating. (Figure 2-1A).



**Figure 2-1** *US News & World Report* shows the South Tower tipping and rotating, and then collapsing from its bottom.

However, I cannot see the top of the tower rotating when I look at videos or photographs. Their next diagram of the collapse (Figure 2-1B) could mislead readers into assuming the collapse started at the ground after the top stopped rotating. This drawing contradicts photos of the event.

Their drawing of the North Tower also implies it collapsed from the bottom. More amusing is the smoke ring around the middle of the tower; it reminds me of the rings on the planet Saturn (Figure 2-2). Some interesting ribbons and puffs of dust formed as the towers collapsed, but photos of the North Tower as it collapsed do not look anything like Figure 2-2 (take a quick glance at page 60).

### *USA Today*

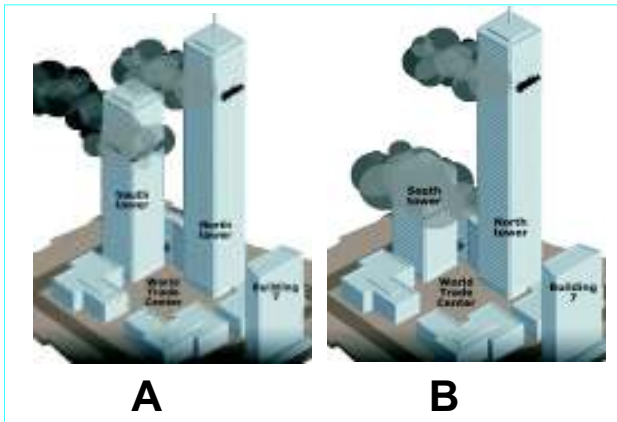
This newspaper posted an animated collapse at their Internet site. Rather than tilt and rotate, their animation shows the South Tower falling vertically (Figure 2-3). However, photos show the top tilted as it fell. They also claim the final pile of rubble was 6 or 7 stories tall. While the tips of some pieces of steel may have reached that high, the bulk of the rubble was low to the ground. There were even pits below ground level where basements collapsed. On September 23, the government agency NOAA flew an airplane over the World Trade Center to create a three-dimensional elevation map of the area, and their maps also show the piles of rubble very low to the ground.

### Maps of the Pentagon are incorrect

Recently Steve Koeppel, a former Air Force pilot, pointed out to the Internet site *thepowerhour.com* that some maps show the airplane hitting the Pentagon at the wrong location. For example, a map by *Los Angeles Times* (Figure 2-4) shows the crash location at the southeast wall, but the true location is the *northwest* wall. Furthermore, according to military officials, the airplane hit the Pentagon at an angle rather than perpendicular, which means it was heading northeast when it hit, as shown in the corrected map (Figure 2-5).

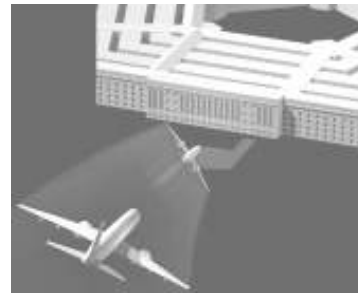


**Figure 2-2** *US News & World Report* incorrectly imply the collapse of the North Tower started at the bottom.



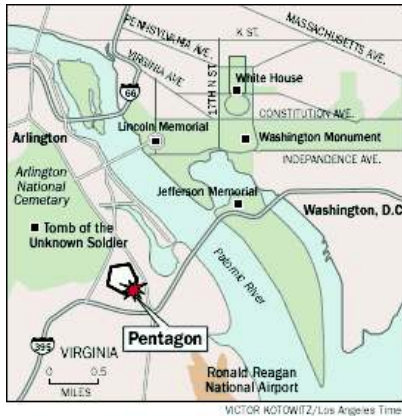
**Figure 2-3** USA Today incorrectly shows the top of the South Tower falling vertically. The top of the South Tower actually tipped towards Building 4. It was the **North** Tower that fell vertically.

US News and World Report shows the plane hitting the Pentagon while diving at a steep angle (Figure 2-6), but according to military officials it came in almost horizontal, and it was skimming the surface of the grass. It was so close to the ground that it knocked down a lamp post along the highway in front of the Pentagon. One *Washington Post* drawing is correct, but their closeup shows the plane hitting perpendicular to the building (Figure 2-7). The *ArmyTimes* also goofed (Figure 2-8). One of the few drawings that follows the official military explanation is from the group involved with Thierry Meyssan who wrote *The Frightening Fraud* (Figure 2-9).

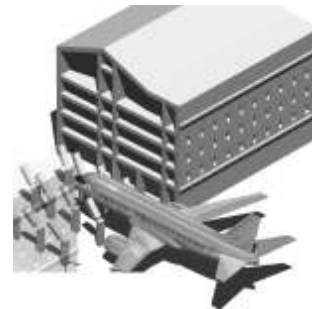


**Figure 2-6**

The plane did **not** dive towards the Pentagon, as US News & World Report shows.



**Figure 2-4** The Los Angeles Times shows the plane hitting at the southeast wall.

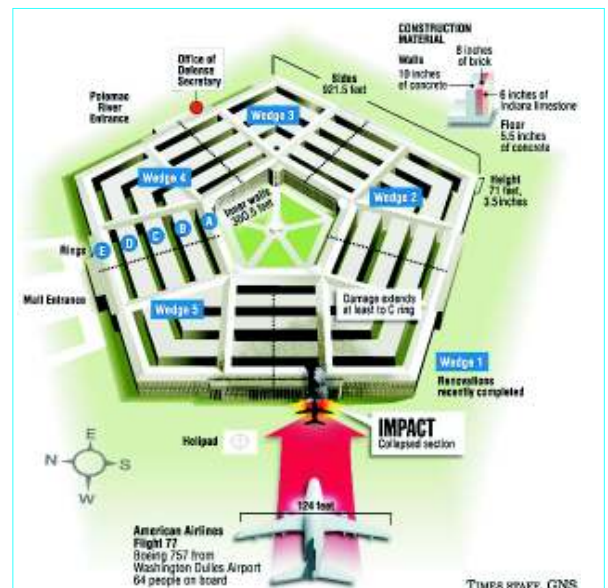


**Figure 2-7**

The plane did **not** hit the Pentagon perpendicular, as one *Washington Post* drawing shows.



**Figure 2-5** The correct location was the **northwest** wall. Also, the plane hit at an angle.



**Figure 2-8** The *ArmyTimes* incorrectly shows Flight 77 hitting perpendicular.

### The “9-11 Collages” should be removed

Thousands of people posted pages on the Internet in response to the 9-11 attack. Most are a random collection of photos, and most seem to be designed to stimulate anger towards terrorists. These pages remind me of children’s collages.

These 9-11 collage pages are a nuisance because they contain highly compressed photos that can easily be misinterpreted, and they do not have links to the original, high resolution photos to allow verification of the images.<sup>†</sup> The three images in Figure 2-10 are examples. Somebody extracted those images from video, compressed to an extreme, and posted them on the Internet. A dark blob appears to travel across the sky (towards the right). Some people believe the blob is proof that the attack is a fraud and that the US military was involved. Their reasoning is:

- No commercial aircraft was flying at that location, so it must be a military aircraft.
- Since the military denies their aircraft were in the area at the time, the military must be involved with this attack.

Before you believe such a theory, note that other photographs show both TV news and police helicopters in the area, so the blob could be one of them. It is also possible that the blob in is just an “artifact” caused by the software that compressed the video. However, I suspect the person who posted the images deliberately created the blob to make fun of conspiracy theories or to fool people. (Some photos on the Internet have been obviously edited to deceive or amuse us, such as the photos that show the face of the devil in the smoke.)

Matt Drudge, the political commentator, was one of many people fooled by the images in Figure 2-10. Drudge wrote an article for his Internet site about the “*flying mystery object*” and included six frames of the video. While he had doubts about the validity of the video, the best policy is to ignore theories that are based on compressed images. Demand the original, high-resolution images. Also, take a look at other video and photos taken at the same time to ensure you are not viewing an edited photo.

Hopefully the photos and drawings in this book will clear up some of the confusion about what happened on September 11th. However, some people will probably scan pages from this book, compress them to such an extent that all details are lost, and then add the images to their collages without bothering to let readers know the source. This

<sup>†</sup> The JPG compression technique causes a loss of detail as a side effect. The higher the level of compression, the greater the loss of detail. Unfortunately, most Internet images are compressed to an extreme to make them transmit faster.

defeats the purpose of the book, which is to *reduce* confusion by providing high quality images. Those of you with collages of photos should either explain where readers can find the original photos, or get rid of your collages.



**Figure 2-9** This 3-D simulation by the French group that wrote *The Frightening Fraud* shows the plane at the correct angle and distance above the ground.



**Figure 2-10** Three frames of video that have been compressed to the point that all details have been lost.