

Why the damage to WTC Bldgs. 3 and 6 does not support the beam weapon hypothesis and some correspondence with Dr. James Fetzer about it

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(updated March 20, 2007)

On Jan. 17, 2007 Dr. Steven Jones was a guest of Dr. James Fetzer's, on his radio show. The discussion on the show centered mostly around the recent debate, in the 911 research community, over the actual mechanism which caused the destruction of the Twin Towers (other than the official story of plane impacts and fire, which is rejected by both groups involved in the debate). Additionally, there is debate over what caused the great collateral damage to the buildings and vehicles around them. The damage to the WTC complex bathtub, or perceived lack of it, is also a point involved in the debate. This debate has pitted the controlled demolition theory and the somewhat recently proposed beam weapon theory (which postulates that an energy or beam weapon could have been used to destroy the towers and cause damage to the adjacent buildings and vehicles near them) against each other.

An archive of the Jan. 17th Steve Jones interview on Jim Fetzer's show can be heard at

http://www.911podcasts.com/files/audio/JimFetzer-StevenJones_20070117.mp3

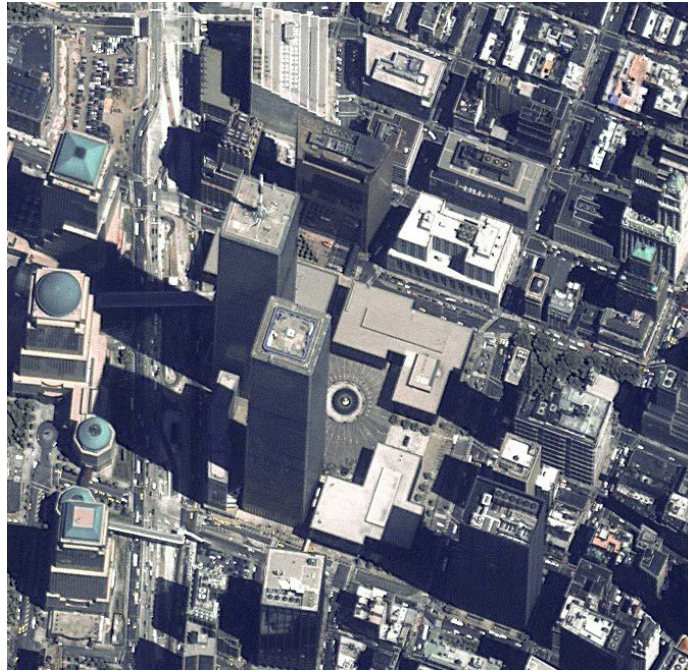
One of the main reasons the beam weapon theory has seemed to have garnered support by some 911 activists, like Dr. Fetzer, is their attempt to reconcile in their minds the horrendous damage to WTC Bldg.'s 3 and 6.

For some perspective take a look at where WTC3 (the Marriott hotel) and WTC6 were located in the complex, as shown in the plan view below, with the towers and Bldg. 7 only shown as silhouettes and footprints.



Layout of the World Trade Center complex

With the towers many times their height, WTC3 and WTC6 were effectively right below the towers, as seen in this aerial view. WTC3 (the Marriott hotel) is in the shadow of Tower 2, to its left, and WTC6 is directly in front of Tower 1.



Aerial view of the World Trade Center complex before Sept. 11, 2001

After the collapses of the towers Bldg. 3 exhibited a large vertical slash through it and Bldg. 6 a large vertical hole. The photos below show WTC3 during and after the collapse of Tower 2 and WTC6 after the collapses of both towers.



WTC3 during the collapse of Tower 2, where it is about to be hit with large heavy debris raining down on it.



September 11, 2001

Photo © 2001 Bill Biggart

WTC3 after the collapse of the South Tower exhibiting the large vertical slash through it



WTC6 after the collapses of the Twin Towers exhibiting heavy damage to three sides of the building, deepening in the center. Aerial views from directly above can be misleading as they make it appear as though the building simply has a hole in it.

As a mechanical engineer involved in the design of aerospace equipment I am quite familiar with both dynamic and static loads. One other interest I have here is that at one point in my career I worked for the company and engineering group that designed and built the antenna mast which sat atop the North Tower. The group that designed the WTC antenna mast belonged to RCA at the time it was built.

It is obvious, from the photos, that a huge amount of heavy debris, falling from great height, collided with the buildings immediately adjacent to the towers. It is probably safe to say that those grasping for an explanation of the damage to WTC3 and WTC6 do not appreciate the forces that would have been involved and the destruction that debris was capable of. While it is not entirely possible to know the exact magnitude of the forces it can easily be shown that they were tremendous, since the loads would have been impulsive. Impulsive loads are dynamic and they amplify the force involved to many times the weight of the impacting object.

An impulsive load is a function of the change in momentum with respect to the duration of the impulse. The equation for an impulsive force due to a collision is

$$Force = \frac{m_i v_i - m_f v_f}{\Delta t} = m \frac{\Delta v}{\Delta t} = ma$$

which one can see ultimately breaks down to Isaac Newton's famous equation $F = ma$, since the change in velocity with respect to time gives the deceleration.

As there was approximately 100,000 tons of structural steel in each tower, there would have been a lot of hard objects of significant weight falling, onto the immediately adjacent buildings. The 360 foot tall antenna mast, which sat atop the North Tower, easily weighed in at 100 tons or more. For the sake of argument, and not to say that the antenna mast itself hit WTC6, we will use it as an example of what kind of loads a heavy hard structural item, impacting the roof of a building like WTC6, would cause, after having fallen over 1000 feet. For simplicity, we will say it fell exactly 1000 feet before impacting the roof of WTC6. The drag on the mast during the fall would be somewhat negligible, due to the small surface area to mass ratio of the structural steel, so we will use freefall times to find the velocity at impact, using the equation

$$t = \sqrt{2y/g}$$

which yields 7.88 seconds for a fall time, and with the equation

$$v = v_0 + gt$$

where the initial velocity (v_0) is zero and the acceleration due to gravity is 32.2 ft/sec², we get

$$velocity = 253.7 \text{ ft./s}$$

which is equal to 173 mph, for those who don't normally think of speed in terms of ft/s.

Now being somewhat conservative and assuming the duration of the collision is a rather long one at 50 milliseconds or 1/20th of a second, the deceleration is

$$\frac{253.7 \text{ ft./s}}{.050s} = 5074 \text{ ft./s}^2$$

which we then divide by the acceleration of gravity to find the number of g's involved.

$$\frac{5074 \text{ ft./s}^2}{32.2 \text{ ft./s}^2} = 157.5 g's$$

This is not unusual at all for velocity shock and is actually on the low side of what is normally seen with hard rigid items involved in high speed collisions.

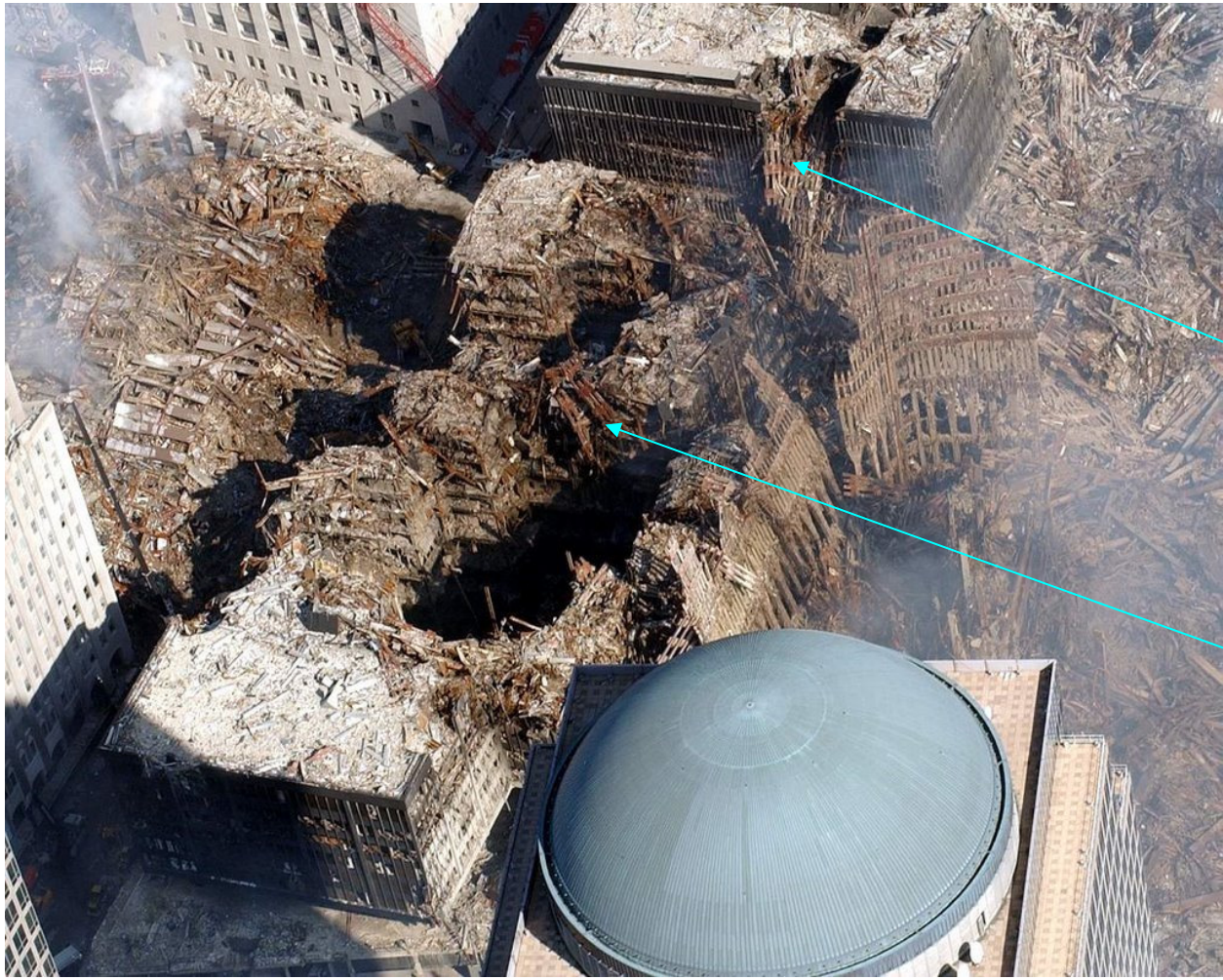
Now with a force 157.5 times it's weight; it would be nearly 16,000 tons or 32,000,000 pounds of force, which the antenna mast would have been applying to the roof of WTC6. This force is equivalent to the static weight of a 650-foot long U.S. Navy heavy cruiser. One can easily imagine that these buildings would not be designed to support the weight of a ship of that size on their roofs. This force would have also acted on a much smaller area than the hull of the ship, causing extremely high stresses and ultimate local failures of parts of the structure of WTC6. Imagine the ship standing on end on the roofs of these buildings, to understand the smaller area notion. One just needs to think about a relatively compact and hard 100 ton object, moving at 173 mph and hitting these buildings, to realize the damage that would ensue.

Of course, the antenna mast wasn't the only thing falling from great height that day, as it is obvious from the photos that there were many huge pieces of structural steel falling on the immediately adjacent buildings. The damage to WTC Bldg.'s 3 and 6 was part of the original argument for the theory that a beam weapon was responsible for the destruction on Sept. 11, 2001 in Lower Manhattan. Recently the damage to the other two immediately adjacent buildings, WTC Bldg.'s 4 and 5, has been used in attempts to bolster that theory and so deserve mention here and are the reason I have updated this letter.



WTC6 (at lower left) and WTC5 (at lower right) after the collapse of both towers

The photos show that these buildings were also hit by massive amounts of very heavy hard debris falling from great heights. In the relatively close up photo of WTC5 and WTC6 below one can still see pieces of some of the familiar tower perimeter columns inside WTC6 and protruding from one of the holes they have put in the side of WTC5.



WTC6 and WTC5, after the collapses of both towers, showing evidence of Twin Tower steel in their damaged areas (blue arrows point to the perimeter column steel being discussed)



What is left of WTC4 showing a huge amount of the familiar tower perimeter beams, which obliterated half of the building. (blue arrow points to the perimeter column steel being discussed)



A close up of WTC4, after the collapses, exhibiting the tower perimeter beams. Judging by the vehicles in the street, the debris height appears to be two to three stories high.

Due to its close proximity and what is seen in the photos above, it appears that a whole wall of the South Tower fell on the completely collapsed portion of Bldg. 4. If one does the math for the potential impulsive loads, generated by the collision of the parts of that wall with the building, it will show that the load from that hit could be imagined as the building having a couple of aircraft carriers being placed on it. The impacted area of the building would surely collapse to the ground with that kind of load imposed on it, and that is what we see.

I am certain that scale models of these adjacent buildings, with items from tower models scaled for height, mass, and density, falling onto them, would produce very similar damage to what we see in the aftermath photos of these buildings.

After hearing, on the radio show, the argument that something like a beam weapon had to be employed, to cause the destruction seen in WTC3 and WTC6, I sent Dr. Fetzer an e-mail letter. In that e-mail **I explained that impulsive loads were the most probable cause for the damage exhibited on the smaller buildings directly adjacent to the Twin Towers.** The text of my e-mail to him is below.

Jim,

I listened to your Jan. 17th interview of Professor Jones over the weekend. I have to say I wish you would slow down and just think through what you are saying. There are many reasons why the use of a beam weapon does not provide an adequate explanation for how the Twin Towers were brought down.

It seems your main reasons for considering the beam weapon are the dustification of the concrete and furnishings in the Twin Towers, the large slash through Bldg. 3, the hole in Bldg. 6, the burned out cars, and the damage or lack of it to the bathtub.

In looking at the slash through Bldg. 3 it is very rough and jagged. Would a beam weapon do that? I seriously doubt it. The conjecture for the use of a beam weapon seems to be just that. Nobody has explained how it performed the damage to Bldg.'s 3 and 6 other than for Judy Wood to say they were missing the towers and getting the hang of it when they did that damage. That just isn't a very solid explanation. Nobody supporting this speculation has said how a beam weapon could start the collapse in each tower near the impact points of the aircraft or how it melted metal. A shoot down of a missile with a laser or any other beam, even if possible, would be a very focused event. Nobody has explained how a weapon that depends on focused energy could do what we see being done to all of the steel and concrete in the Twin Towers. There is also circumstantial evidence to say this capability doesn't even exist since why would the massive and expensive ABM's, recently installed in Alaska, have been built. There is a huge difference between an EMP weapon which could be used to fry an aircraft's electronics and cause it to crash, like what might have happened to Senator Paul Wellstone's plane, and a beam weapon of the order needed to demolish huge buildings.

Could heavy falling debris cause the damage we see in Bldg.'s 3 and 6? It certainly can when falling from a great height, since the impulsive load onto a rigid structure would be tremendous and those structures were not designed to handle such loads and would certainly fail locally. The damage from the debris would also be random and jagged just like what we see.

The Twin Towers had four inch thick concrete floors, so with 110 stories they had 440 inches or the equivalent of a thirty-seven foot high column of concrete over a one acre area. A demolition theory requires the towers to be destroyed from the top down in a rolling wave to mimic a collapse. The impulsive loads of the steel and debris onto each rigid lower floor would be huge in a demolition of this type. The demolition of the Kingdome does not even begin to compare to how the continuous explosions and impulsive loads acted on each floor in the towers. The dustification can be explained by both explosions and huge impulsive loads, from the debris falling from above onto each four inch thick floor. Look at the huge dust cloud generated by the demolition of Bldg. 7 and realize that was happening every third floor or so on the towers due to the way it was demolished, from the top down.

The bathtub was damaged to some degree. It needed to be quickly reinforced, as it had moved over three feet in some areas. The falling debris was also not concentrated once it got to the bottom, since much of it had been blown far outside of the footprint of the towers. There also would have been damping at this point, due to loose material already on the ground, since the basements had been blown out, preventing massive impulses.

As for the burned out cars, we know incendiaries were used in the destruction of the towers due to the presence of molten metal in the rubble. This is a very feasible explanation. The use of a beam weapon for their explanation requires it to be very erratic. That doesn't square with it's need to be somewhat precise in the destruction of the towers. A beam weapon also doesn't explain the focused squib explosions emanating from the sides of the towers, well below the demolition wave but way above the 30th floor, which you believe was where a demolition started.

I agree that it is legitimate to initially consider various theories, to see which best fit the evidence, but I think it can be easily shown that both the beam weapon and mini-nuke theories don't explain the evidence. There was no radioactivity found in the ground zero dust and the beam weapon needs a lot of help to explain anything. Both of these theories should be near non-starters for anyone thinking rationally.

Tony Szamboti
Dr. Fetzer responded in an amiable way

Thanks, Tony. I will share your thoughts with Judy and Morgan. Just for the record, I have been endorsing STUDYING alternative hypotheses, such as mini-nukes, directed-energy, solar energy, lasers, masers, and plasmoids. I don't know what caused this massive destruction, but I, personally, cannot see any way in which thermite/thermate can be the whole story. [NB: no one is saying thermite/thermate is the "whole story".] My purpose has been to encourage research on multiple possibilities. That's not only highly rational but the core of science.

Jim

And there were two additional exchanges

Jim,

As far as the slash through Bldg. 3 and the hole in Bldg. 6, that damage is easily explainable due to the huge impulsive loads from the debris falling from great heights. The framework of those buildings could not take those loads and there certainly would have been localized failures, just like the piece of ice and a meteorite recently crashed through people's roofs. It is right and rational to look at all possibilities and study alternative hypotheses. However, the second phase in that approach is to heavily scrutinize these theories as to how well their use, in an explanation, fits the data. It doesn't look like either mini-nuke or beam weapon theories can stand up under scrutiny. They simply don't fit the evidentiary data and should be cast aside.

Tony Szamboti

With the last being

Tony,

I appreciate your thoughts. If a theory cannot withstand critical scrutiny, then it should be rejected. And that, of course, includes the thermite/thermate hypothesis Steve has advanced. Do you endorse it? My inference is that you do. I am organizing a conference in Madison for late July to address these issues, including sessions on the possible use of conventional explosives and of non-conventional explosives. Steve has declined to chair the panel on conventional modes of demolition. Perhaps you could persuade him to change his mind. I think you might make an excellent second member of such a panel. You and Steve could do a nice job on this. Give it a shot.

Jim

I am in no way trying to knock Dr. Fetzer here, as I believe his heart is in the right place. I am only trying to show him that **it is extremely likely that the damage to the adjacent buildings had a much more simplistic cause than being the result of the use of a beam or directed**

energy weapon. As I have shown, the heavy collateral damage, to the immediately adjacent buildings, is easily explainable with the gravitational energy in the debris falling from the towers during their collapses. This is a natural explanation for what is observed, but one may need to understand the tremendous forces involved before being able to accept it.

There are other seeming anomalies in the destruction that day, which some want to attribute to a beam weapon, such as randomly missing car door handles. In looking at the photos, it turns out that the only place the door handles are missing are where the cars were burnt. It is not hard to realize what happened there, if one knows that many modern cars use injection molded plastic door handles. The door handles simply melted, leaving a hole in the car door where they had been. The fires these cars experienced could easily be explainable by their being rained on with the molten metal results of the incendiaries most probably used in the destruction of the towers.

While it can explain the damage to the immediately adjacent buildings, and also the holes in the streets, due to impulsive loads from the heavy debris, gravitational energy alone does not seem capable of explaining the sudden onset and near free fall collapses of the towers. I believe it can be shown that the impulsive loads would not have been large enough, in what would have been a very short fall, even if there was sufficient loss of strength of the beams in the aircraft impact areas, to cause the observed collapses of the towers. **Mechanical Engineer Gordon Ross has shown that there would not have been enough energy to continue a complete collapse due to the initial momentum being arrested by the undamaged portion of the building below.** His paper "Momentum Transfer Analysis of the Collapse of the Upper Storeys of WTC1" can be found at

<http://www.journalof911studies.com>

Gravitational energy also cannot explain the molten metal found in the rubble of the Twin Towers and WTC Bldg. 7 or the burned up vehicles. It does not explain the testimony of dozens of firefighters and other emergency personnel about seeing, hearing, and feeling explosions during the collapses of the towers. Nor can it explain the small bone fragments found on the roofs of tall buildings hundreds of feet away from the towers. **The use of incendiaries and explosives in the destruction of the towers, being initiated at or near the aircraft impact points on the towers in a top down demolition, could explain these observations and anomalies. Thus, I do support the controlled demolition hypothesis, for the collapses of the Twin Towers and WTC Bldg. 7, put forth by physics professor Dr. Steven Jones in his paper, "Why Indeed Did the WTC Buildings Completely Collapse" which can also be found at**

<http://www.journalof911studies.com>

I would be willing to attend the conference in Madison, WI, if it is necessary at that point, and if it will help. I can be contacted at

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