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A number of people have asked me for my response to Dave Thomas'[1] critique of my dynamic analysis of the motion of the North Tower of the World Trade Center. I have been reluctant to engage with self-styled debunkers who make endless transparently false or deceptive propagandistic arguments. I don't find these people to be worth the time and energy to respond. However, for the benefit of those who are having trouble seeing through this particular set of arguments, here is an outline of my rebuttal. This will no doubt stir up another round of rhetoric, but for what it's worth, here is my response.

My analysis of the downward acceleration of the North Tower is given here: http://journalof911studies.com/volume/2010/ChandlerDownwardAccelerationOfWTC1.pdf and summarized in a brief video here: http://www.youtube.com/watch?v=ZjSd9wB55zk.
Dave Thomas purports to discredit my analysis here: http://www.nmsr.org/nmsr911c.htm

In his article he describes the "reality" of the collapse as periods of freefall interspersed with very brief, intense impacts. This description seems to harken back to the long-since-abandoned floor-by-floor pancake theory. If the floors had pancaked, the core structure would have remained. NIST, early on, rejected the pancaking floors model because it does not explain the destruction of the columns, which are the real issue. The core columns form a building within a building. The problem (as recognized by Bazant and NIST) is how to account for the destruction of the columns. In crushing the columns (causing them to buckle) there would be no periodic periods of freefall. It would have to be an essentially continuous process.

In his article Thomas discounts the resistance of the columns, making his analysis completely fanciful. Thomas cannot discount the resistance of the columns because they are the key elements that require crushing.

My analysis points out that since the acceleration of the building was uniformly downward at 2/3 the acceleration of gravity, the resistive force was therefore only 1/3 of the weight of the falling mass. Dave Thomas argues that this is only the average resistive force. He asserts that the force of resistance during the collapse actually consisted of brief impacts on a time scale of a few milliseconds, separated by periods of freefall. The short time scale of the impacts would amplify the force up to a level that could destroy the structure of the tower. The idea that a structure with a cross sectional area over an acre in size could undergo synchronized micro impacts focused into millisecond-scale events is preposterous, and totally without evidence to support it. The suggestion also confuses the crushing of

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1 From Wikipedia listed under "Dave Thomas (physicist)":
"Dave Thomas is a physicist and mathematician, mostly known for his writings and research on the paranormal (such as UFO sightings in Roswell, New Mexico and Aztec, New Mexico, as well as finding codings in other texts that dispute the credibility of the Bible Code). Thomas is a graduate of the New Mexico Institute of Mining and Technology, with a bachelor's degree in mathematics and physics and a masters degree in mathematics. He is known for his work debunking the Bible code. Thomas is currently president of New Mexicans for Science and Reason and a past president of the New Mexico Academy of Science, and is also a Fellow of the Committee for Skeptical Inquiry."

Dave Thomas refers to me as "The top 9/11 Truth Physicist." That designation clearly belongs to Steven Jones. I do not bill myself as a physicist, although some of my PhD colleagues do, since I do, in fact, do physics. My title was Associate Professor of Physics for four years in a college teaching position, but I have spent most of my 35 year career teaching high school. I call myself a physics teacher, and that is the way I introduced myself to the world in the video where I challenged NIST. I am comfortable with that title. (I am now a retired physics teacher.) I don't like sparring over titles. I prefer to let my work speak for itself. For the record, I have a BS in physics, an MA in education, and an MS in mathematics, so apparently Dave Thomas (physicist) and I have comparable educational backgrounds.

the columns with the periodic impacts of the floors.

If you look at the start of the collapse of the North Tower, the first thing to move is the antenna. The antenna was supported on the hat truss which capped the 47 core columns. For the antenna to move downward, along with the roofline, from the very outset, tells us that all 47 core columns were cut. Since the roofline descends straight down, remaining nearly level (within a few degrees) the cutting of the columns must have been synchronized. The top block is the first part of the building to be destroyed. It is about half gone by the time the top section, as a whole, starts moving down the building.

Dave Thomas asserts that I fail to grasp that a falling block should deliver a "dynamic load" in addition to the static load. I am fully aware of the concept of dynamic load. The problem with that argument is that yes, that's what one would expect, but that is not what is observed. Dynamic load arises from the rate of change of momentum. In order to deliver an excess force the falling block would need to lose some of its momentum, in other words slow down. Since the roofline is experiencing uniform downward acceleration, the top block is not losing momentum at all, so it cannot deliver an excess force. The measurement of the actual motion proves that it is not crushing the underlying structure at all. It is falling into a void as the underlying structure is being pulverized by other forces.

Tony Szamboti (mechanical engineer who has done a detailed analysis of the requirements needed to cause the columns to buckle) has argued that since the top section of the building is highly fragmented it is not capable of delivering a coherent impulse to the columns to cause them to buckle. He cites as an example that a tied bundle of 2x4s dropped onto the roof of a building can do severe damage, due to its large mass and a coherent impact. However the same number of loose 2x4s dumped onto the roof would dissipate the impact into many small impacts and not be able to do the same damage. Dave Thomas responds with an experiment in which he drops a “loosely tied” bag of rice onto a scale, in an attempt to discredit Tony Szamboti's argument, arguing that the bag of rice is held loosely. Comparing a bag of rice to loose debris is sleight of hand. It would be more to the point to pour loose rice onto the scale. His demonstration demonstrates nothing. He is merely attempting to confuse the lay onlooker.

Dave Thomas makes arbitrary, ad hoc, unreasonable, assumptions and deceptive arguments that do not stand up to the most cursory scrutiny. I do not find Dave Thomas to be an honest critic. He feigns respect for me, for rhetorical purposes, but I make no such pretense. I believe he is engaging in blatant propagandistic behavior.