

WTC7 Measurement FAQ

Maintained by David Chandler

The series of videos describing NIST's claims about the motion of WTC7 and my measurements which contradict their claims have raised a number of questions about the details of the measurements.

Q: John Gross described the measurement of the fall of the roofline to where it disappears between the two buildings, yet you measured it to a different location marked by a reference point on a foreground building. Did you measure something different from NIST?

A: No. NIST is very explicit in their document that they measured the fall of the roofline (described as the top of the parapet) to the height of the top of the windows of the 29th floor.

From p. 41 of NIST NCSTAR 1A

The elevation of the top of the parapet wall was +925 ft 4 in. The lowest point on the north face of WTC 7 visible on the Camera 3 video (Section 5.7.1) prior to any downward movement was the top of the windows on Floor 29, which had an approximate elevation of +683 ft 6 in. Thus, the distance that the roofline moved downward before it disappeared from view was 242 ft.

John Gross misspoke as he was describing the measurement. Note that the oft repeated time of freefall for the first 18 floors (mistakenly described as 17 floors by Shyam Sunder) corresponds to the distance from the roofline to the 29th floor. By the way, the origin of the "18 floors" figure is the fact that it is a 47 story building. $47 - 29 = 18$. Actually the distance is from the top of the windows of the 18th floor to the parapet on the roof, which would be slightly greater than 18 floors.

Q: You refer to the windows on the building, but the surface of the building looks all washed out in this video. How did you identify the 29th floor?

A: The YouTube version of the video shows less resolution than the actual video I used, but even that video is not terribly clear. Some frames have a clearer pattern of windows than others. I captured a single frame in which the windows show up reasonably well, blew it up in a photo editor, enhanced the contrast, and imported it into a geometric tool called The Geometer's Sketchpad. I created a tool in GSP that was a stretchy string of equally spaced dots. I placed the dots on the visible windows and adjusted the spacing of the dots to fit the entire pattern of windows. This bridged the gap over washed out areas of the picture. From this I was able to make a positive ID of the 29th floor. I noticed the correlation with the foreground marker, which made it easy to find on the original video.



Since that time someone sent me a much clearer video where the window spacings are easily recognizable. I was able to confirm my earlier measurement. Note that NIST's new measurement of freefall is consistent with mine, so it is unlikely that I made any major blunders in my measurement.

Q: In one stretch of the video you claim to be counting out frames, but I can't see any change from one frame to the next. How do we know you are actually counting frames?

A: I am in fact counting frames, and the fact that nothing is moving is precisely the point I'm trying to make. You should be able to verify that I am indeed stepping out the frames by noticing the movement of the smoke. You are, of course, welcome to repeat my measurements and convince yourself I'm doing an honest job of it.