

The Pentagon Attack: Problems with Theories Alternative to Large Plane Impact

First Published January, 2011. Version 3, April 2016.

By John D. Wyndham (PhD, Physics)

Abstract: The widespread belief among those who question the official account of 9/11, that a large plane did not hit the Pentagon on 9/11, is unsupported by the evidence. The failure of the 9/11 truth movement to reach consensus on this issue after almost a decade is largely due to a failure to rigorously apply the scientific method to each proposed theory. This paper, by so applying the evidence to each proposed theory, shows that a large plane hitting the Pentagon is by far the most plausible theory.

Introduction

While the public at large accepts the government account of what happened at the Pentagon on 9/11, namely, that a Boeing 757 under the control of hijackers hit the Pentagon, an alternative theory was established at the beginning by those who doubted the government's truthfulness and saw something that made no sense: the crash scene seemed to have too little plane debris, and the hole in the building seemed too small for a large plane to have entered the building.

The "no plane" theory was first promulgated by French author Thierry Meyssan in his book "The Frightening Fraud" published in 2002. Currently two groups are mainly responsible for propagating the theory that "no plane" hit the Pentagon: Pilots for 9/11 Truth and the Citizen Investigation Team (CIT). Several individual well-known authors also hold the theory.

The paradigm for the Pentagon now entrenched in the 9/11 truth movement is as follows: "You can propose or research anything, as long as you don't step outside the "too little debris and too small a hole for a large plane" hypothesis. The actual evidence, however, directs that we must step outside this paradigm. Recently, a number of authors have questioned the prevailing paradigm in published, peer-reviewed papers and in other venues.

This paper shows that the existing paradigm has survived mainly because of a failure to adhere to the scientific method, in particular the requirement that a theory address and explain all or most of the evidence, as shown in the section "A Frequently-Violated Principle" below. The evidence actually supports the account of a large plane, most probably a Boeing 757, hitting the Pentagon on 9/11. However, it is not a goal of this paper to determine or prove the identity of the large plane whose impact is pointed to by the evidence. This paper does not address the hijacker story which other evidence shows is certainly inadequate to explain all the related events.

Some important recent papers¹ by Frank Legge, Warren Stutt, and David Chandler treat issues that are highly germane to the Pentagon problem, and pertinent in many cases to those discussed here. The reader may profitably study these papers before proceeding with this one.

¹ Frank Legge, "What Hit the Pentagon? Misinformation and its Effect on the Credibility of 9/11 Truth," July, 2009

<http://www.journalof911studies.com/volume/2009/WhatHitPentagonDrLeggeAug.pdf>

Frank Legge, and Warren Stutt, "Flight AA77 on 9/11: New FDR Analysis Supports the Official Flight Path..." January, 2011

<http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter%2092.pdf>

Frank Legge and David Chandler, "The Pentagon Attack on 9/11: A Refutation of the Pentagon Flyover Hypothesis Based on Analysis of the Flight Path," Sept., 2011

Description of Main and Alternative Theories

As discussed in this paper, the *main theory* for the damage at the Pentagon is that a large plane, probably a Boeing 757, struck the Pentagon on 9/11. This theory does not rule out the additional use of a missile or explosives. While this theory is held at present only by a minority within the 9/11 truth movement, it is by far the main theory where the general public is concerned.

The government claim is that AA Flight 77, a Boeing 757 piloted by Hani Hanjour, struck the Pentagon. This paper does not attempt to come to any conclusion as to whether the large plane in the main theory was actually AA Flight 77, or whether it was piloted by Hani Hanjour or by some other person or means.

Alternative theories include “impossible maneuver²,” “north of CITGO³,” “flyover,” “small plane,” “missile⁴,” “pre-planted explosives⁵ (bombs),” or combinations of these. These theories all exclude the possibility that a large plane struck the Pentagon. However, see the disclaimer by Pilots for 9/11 Truth to understand their nuanced stance on flyover⁶.

Judging from the level of disagreement and amount of discussion on “no Boeing” topics, one might think that there exists a plausible alternative to the main theory (large plane impact) and that this would be the well known flyover theory in one of its forms. This appears to be the case only because many of those engaging in the dispute have failed to notice that the proponents of the flyover theory have neglected to adequately explain the form of damage and the large amount of aircraft debris at the Pentagon. Because any viable theory must explain the extensive damage and debris, the alternative theories will need to incorporate into themselves the explosives (bombs) theory in some form. Since few dispute that a large plane approached the Pentagon, ultimately the competition is between the large plane impact theory and the flyover/explosives theory

The evidence for the north of CITGO path has been heavily criticized in a paper⁷ by Frank Legge and David Chandler, who show that the curve required for the north path would necessitate a very steep bank angle. No witness reported a steep bank. The CIT evidence for a north-of-CITGO path, which infers that plane impact did not occur, lacks credibility for several other reasons: it is an inference from an imprecise observation; some witnesses appear to have been led in their descriptions of the flight path; there are only a small number (about 12) such witnesses; there is only one questionable witness who has been interpreted, apparently falsely, as indicating the plane flew over or turned away. See the section “Eyewitness Testimony.”

This paper presents the main physical and eyewitness evidence for and against each individual theory. It is then a simple matter to consider whether a combination of two or more theories (such as the flyover and explosives theories) can explain the evidence where individual theories themselves are inadequate for the task.

<http://stj911.org/contributions/index.html> and its Addendum:

<http://www.foreignpolicyjournal.com/2011/12/27/addendum-to-the-paper-refuting-the-pentagon-flyover-hypothesis/>

² Pilots for 9/11 Truth, <http://pilotsfor911truth.org/>

³ Ranke, C. and A. Marquis, “National Security Alert”,

<http://www.citizeninvestigationteam.com/>

⁴ <http://www.odeion.org/cruisemissile/index.html>

⁵ Barbara Honegger, <http://vimeo.com/28718716>, (Part 1) <http://vimeo.com/28740527>, (Part 2) and April Gallop,

<http://video.google.com/videoplay?docid=3965407869390415574#>

⁶ http://pilotsfor911truth.org/article_corrections.html

⁷ Frank Legge and David Chandler: “The Pentagon Attack on 9/11: A Refutation of the Pentagon Flyover Hypothesis Based on Analysis of the Flight Path”, http://stj911.org/legge/Legge_Chandler_NOC_Refutation.html

Problems for All Alternative Theories

Alternative theories to the main theory require that most eyewitness testimony is *mistaken* or *fraudulent*, and that all or part of the observed damage and debris was *staged*. At the outset, this sets a high bar of proof for the alternative theories.

The paper uses these definitions for the terms *mistaken* and *fraudulent* as applied to eyewitness testimony, and the term *staged* as applied to damage and debris:

- *Mistaken* witness testimony may occur when the witness is prompted by a skillful “de-briefer” to re-interpret their experience, or when some form of psychological or peer-pressure, due perhaps to a perceived need to protect one’s income, family, and so on, causes the witness to question his or her recollection of an event. In cases where a witness misinterprets or fails to see, hear, or smell something that other witnesses testify to, there could be many reasons for this failure, including inferior location, poor timing, lack of attentiveness, distraction, impaired senses, and poor communication skills.
- *Fraudulent* witness testimony occurs when the witness knowingly and willfully lies, either for some personal reason, or as part of a wider conspiracy to defraud.
- *Staged* as applied to an event means that the damage and debris scene was arranged to fool an onlooker into believing something that is not true, such as, for example, that a large plane hit the Pentagon when this did not actually occur. A staged event is necessarily fraudulent.

Critics frequently point to apparent inconsistencies in witness testimony, especially as regards plane impact. These inconsistencies may be ascribed to different communication styles, different vantage points, poor use of language, and the fact that the plane traveled across the Pentagon lawn in less than one second, allowing only a fleeting glimpse by most witnesses.

The cost and complexity of staging the eyewitnesses, controlling contrary witnesses, and creating the damage and debris scene at the Pentagon to simulate a large plane crash would be considerable – even unthinkable. Why not just crash a large plane into the building and be done with it?

A Frequently-Violated Principle

The scientific method requires that a theory address all or most of the available relevant evidence. This is particularly true for competing theories. Any theory that fails to address the evidence and explain it is discarded in favor of one that does address and explain the evidence. When criticizing a particular aspect of a theory, it is not acceptable to maintain the criticism if it is contradicted by solid evidence or leads to consequences which cannot be explained.

If a criticism leads to a significant consequence, the onus is on the critic to explain that consequence. If the critic cannot do so, the critic has little right to demand a response from those defending a particular theory. A case in point is the free fall of WTC7 for 2.25 seconds. The critics of the National Institute of Standards and Technology’s (NIST) theory have a right to demand an explanation, since they can explain the observation of free fall on the basis that explosives were used, a more likely theory and one backed up by other evidence.

Sincere criticisms of a theory and the pointing out of errors in logic and calculations have always been a welcome part of scientific discourse. However, when a critic disparages one theory while implicitly or explicitly promoting an alternative theory that cannot withstand close examination, it is incumbent upon scientists and others to demand a full and rigorous examination of the critic’s theory according to the scientific method.

As one example, a critic of the “large plane” theory may say: “You can see at a glance that the building could never have absorbed a Boeing 757.” To maintain such a criticism, the critic must give an alternative, credible explanation for any evidence that indicates a large plane such as a Boeing 757 did hit the Pentagon. For example the critic must explain the shape of the impact damage: a hole large enough for the heavy parts and external damage for the light parts. We see that the criticism has a consequence, and unless that consequence can be addressed rigorously and scientifically, the criticism fails.

A second example is the damage to the low wall and generator trailer. The heavy generator trailer was given a massive horizontal blow that gouged one end and caused it to rotate about 45° from a position parallel to the West wall of the Pentagon. A gouge of smaller width across the top of the trailer, corresponding to a Boeing 757 first flap canoe beyond the right engine, was discovered. A portion of a surrounding fence was knocked down. At the same time a gouge was made in the low concrete wall at lower elevation than the top of the trailer (indicating left wing tilted down), and at a distance from the main trailer gouge corresponding to the distance between the two engines of a Boeing 757. There are eyewitnesses who described the wing tilt and trailer collision. A critic's claim that this damage was created in real time using explosives implies a highly-complicated staged event that includes witness manipulation of some kind, in addition to suppression of contrary witness testimony. Thus, the critic who suggests bombs were used here raises substantial unresolved problems that must be addressed if the criticism is to be viable.

The above examples illustrate the main contention of this paper, that the ten-year standoff on what caused the Pentagon damage has created a large set of issues which are unresolved. This indicates that there has been a general failure to demand that certain criticisms conform rigorously with the requirements of the scientific method.

The remainder of this paper documents problems that face theories alternative to large plane impact. The problems described here deal only with the main physical evidence and eyewitness observations. While problems internal to a given alternative theory are not included here, some of these latter problems have been addressed by authors such as Frank Legge, Warren Stutt, David Chandler, Jon Cole, Victoria Ashley and Jim Hoffman.

General Assessment of the Pentagon Evidence

Significant portions of the relevant evidence for the Pentagon attack appear to have been routinely ignored, discounted, or trivialized within the 9/11 truth movement in favor of the alternative theories. This is true for both the physical evidence and the substantial body of eye-witness testimony involving large plane impact. Writers, such as Hoffman, Legge, Chandler, and Cole have offered plausible reasons⁸ for the peculiar psychology behind this discounting of the evidence. In this way, some of the stronger evidence has been called weak in contrast to evidence that has been more vigorously promoted by a compelling speaker or writer.

Consider a comparison with the evidence for plane impacts at the World Trade Center (WTC). Apart from the clear capture on video tape of planes impacting the Twin Towers, there is no more key evidence for those plane impacts than there is for a plane impact at the Pentagon. There may, in fact, be much less.

⁸ <http://911research.wtc7.net/talks/noplane/index.html>
<http://scienceof911.com.au/pentagon/critique-of-barbara-honegger/>
<http://911blogger.com/news/2011-01-01/joint-statement-pentagon-david-chandler-and-jon-cole>

For example, like the Pentagon, the WTC planes were never identified using time-change parts. Unlike the Pentagon, no black boxes with Flight Data Recorder (FDR) data have been produced for WTC planes. As for the Pentagon, no planes were reconstructed and plane debris at the WTC was not photographed extensively and identified. Seasoned pilots claim that even an experienced pilot would have difficulty hitting the Towers at the plane speeds, just as Hani Hanjour is not credible as the pilot of AA Flight 77. The WTC planes penetrated very substantial steel columns and largely disappeared into the building, as did the plane that evidence indicates hit the Pentagon. Bodies were not available for public identification, and so on. There are almost no witness accounts or photographs of the debris inside the Towers after impact, while there are a substantial number for the Pentagon. Given this comparison, it is surprising that so much contention has arisen about the Pentagon and not about the WTC planes. Additional strong physical and eyewitness evidence at the Pentagon arguably more than makes up for the lack of a clear photograph of a plane impact.

Adopting an Approach to the Evidence

No attempt is made here to prove that AA Flight 77 (a Boeing 757), whether piloted by Hani Hanjour, by remote control, or by persons unknown, impacted the Pentagon. The approach here simply aims to determine whether a large plane, or some other mechanism such as bombs or evidence staging, was responsible for the observed damage and debris.

In the main body of the paper, each theory is evaluated as to how well it explains on its own the visible damage and debris inside the Pentagon and outside in the near vicinity. The results are presented in a main table.

Other evidence, some of which may be inconclusive or undergoing debate, is collected and evaluated in Appendix A. The possible effect of this evidence on the conclusions in the main body of the paper is also assessed. Much of this additional evidence is not applicable to the goal set here, a goal which excludes determination of whether the large plane in question was AA Flight 77, its point of origin, what time impact occurred, how the plane was piloted, and who was on board.

Additional appendices include a more detailed discussion of the bomb theory, low wall/generator damage, internal damage and penetration path, and theory-specific tables in support of the main table.

Eyewitness Testimony

There are a large number of recorded eyewitness testimonies⁹ to the event at the Pentagon and its aftermath. The vast majority describe a large plane approaching the Pentagon, hitting the Pentagon, resulting in damage and debris after the strike. These testimonies are on the whole remarkably consistent, as can be seen by dividing the Pentagon event into three sub-events:

- A. Plane approaches Pentagon from Sheraton hotel (6.5 sec).
- B. Plane travels across Pentagon lawn from highway and hits the West wall (1 sec or less).
- C. Damage and debris are inspected at the Pentagon (several hours to a few days).

⁹ "Eric Bart's Pentagon Attack Eyewitness Account Compilation," 9-11 Research (<http://911research.wtc7.net/pentagon/evidence/witnesses/bart.html>).
<http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html>
<http://sites.google.com/site/wtc7lies/911pentagonflight77evidencesummary>

Time frames in A and B are based on a plane speed of 420 mph and are probably high, according to the FDR and radar data¹⁰ which indicate a higher plane speed and hence shorter time frames.

For sub-event A, the majority of witnesses¹¹ saw a large airliner flying at high speed and descending close to the ground as it approached the Pentagon. Several commented on the sound of the engines with phrases like “powered descent,” “spooling up,” and “full throttle.”

For sub-event B, the great majority of witnesses (numbering 31 or more) are in general agreement, especially considering the very small amount of time for observation. The majority (see these examples¹²) saw a large airliner fly low across the lawn and impact the Pentagon West wall, disappearing into the building with a large fireball. Most witnesses described a large plane; some¹³ saying it was an American Airlines Boeing 757 or 737.

For sub-event C, some of the witnesses¹⁴ saw little plane debris on the lawn outside the building, and saw few or no large pieces of the airplane body. A number of sub-event C witnesses¹⁵ did see plane debris, some airplane parts, and some pieces of airplane body. Those witnesses who observed both B and C sub-events remarked, in some cases¹⁶, on the lack of plane debris in sub-event C while still claiming to have seen the plane impact the

¹⁰ Legge, F. and W. Stutt, “Flight AA77 on 9/11: New FDR Analysis Supports the Official Flight Path...”

[http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter 92.pdf](http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter%2092.pdf)

¹¹ Some example testimonies are: 9/11 Research quoting Deb Anlauf,

<http://911research.wtc7.net/pentagon/evidence/witnesses/sgydk.html>

James, I., <http://www.youtube.com/watch?v=wVrV4P6kfAE&feature=related>

Paik, E., <http://911reports.wordpress.com/2010/02/03/shinki-and-ed-paik-accounts-vs-cit-methods/>

Morin, T., http://remember911.albertarose.org/survivor_pentagonwitness.htm

Hemphill, A., by Craig Ranke, <http://www.citizeninvestigationteam.com/1/Albert-Hemphill-5-24-2010.mp3>

¹² Steve Storti: <http://sl.zetaboards.com/pumpitout/topic/3482275/1/>

Albert Hemphill: <http://sl.zetaboards.com/pumpitout/topic/3369020/>

Alan Wallace: <http://sl.zetaboards.com/pumpitout/topic/3269928/>

Noel Sepulveda: <http://sl.zetaboards.com/pumpitout/topic/3340388/>

Penny Elgas: <http://sl.zetaboards.com/pumpitout/topic/1757591/>

Major Lincoln Lieber: <http://sl.zetaboards.com/pumpitout/topic/3269452/>

Father Stephen McGraw: <http://sl.zetaboards.com/pumpitout/topic/3485532/>

Donald Bouchoux: <http://sl.zetaboards.com/pumpitout/topic/3485511/>

Robert Leonard: <http://sl.zetaboards.com/pumpitout/topic/3480236/>

¹³ Tim Timmerman (Bart’s list): “It was a Boeing 757, American Airlines, no question.”

Terry Morin (Bart’s list): “It looked like a 737 and I so reported to authorities.”

¹⁴ Jamie McIntyre CNN Pentagon Broadcast on 9/11

http://www.911myths.com/html/jamie_mcintyre_and_the_pentago.html

¹⁵ Judy Biggert, member of congress (Bart’s list): “There was a seat from a plane, there was part of the tail and then there was a part of green metal, I could not tell what it was, a part of the outside of the plane,” she said. “It smelled like it was still burning.”

For more witnesses to plane debris, see:

http://www.geoffmetcalf.com/pentagon/pentagon-email_20020316.html

¹⁶ Christine Peterson (Bart’s list): “It was so close that I could read the numbers under the wing. And then the plane crashed. My mind could not comprehend what had happened. Where did the plane go? For some reason I expected it to bounce off the Pentagon wall in pieces. But there was no plane visible,…”

building, thus implying that the bulk of the aircraft penetrated the building. Others used words that specifically indicated penetration¹⁷.

As defined in this paper, eyewitness testimony at the Pentagon on 9/11 and shortly afterwards includes the following **categories** of witnesses, presented according to the theory their testimony supports:

1. Witnesses who saw the approach and/or impact of a large plane (measured in scores, 31 to 89 - 100)
2. Witnesses who saw the approach and/or impact of a small plane (about 4)
3. Witnesses who claimed to have seen a north-of CITGO path (about 12, many of whom also claim that plane impact with the Pentagon did occur)
4. Witnesses who claim to have seen a plane fly low over, or away from, the Pentagon (CIT cites 1 questionable¹⁸ witness)
5. Witnesses who inferred bombs or explosives from the sound and/or odor (about 12), and far less if the more reliable tests of odor and observed casualties are applied. See Appendix B.
6. Witnesses who inferred a missile from the sound or otherwise (about 6).

There is a further large group of *general* witnesses comprising those who may or may not have seen an impacting object, but who saw damage and plane debris¹⁹ after the event.

Category 1: Category 1 witnesses, those who saw the approach and/or impact of a large plane, are in the great majority. Those who claim to have seen actual plane impact range upwards from about 31,²⁰ considered a reliable figure by some researchers,²¹ to as high as around 89 to 100. Many of these witnesses have been interviewed more than once. As a group, these witnesses support the main theory of large plane impact. Because this great majority of witnesses are all actual eyewitnesses, as opposed to witnesses who inferred something, either from a perceived, apparent flight path of a plane, or by way of sound or odor, or other less direct means, category 1 witnesses are by far the most compelling group of witnesses. It is imperative, therefore, that the alternative theories (whose witness numbers are far less, and whose witnesses suffer the disadvantage of having to *infer* a conclusion) address and explain the existence of the category 1 witnesses rather than simply ignoring them, or suggesting without proof that they are part of a wider conspiracy to defraud.

Frank Probst (Bart's list): "the jet vanishing in a cloud of smoke and dust, and bits of metal and concrete drifting down like confetti."
Skarlet (Bart's list): "A huge jet. Then it was gone." "Buildings don't eat planes. That plane, it just vanished. There should have been parts on the ground. It should have rained parts on my car. The airplane didn't crash. Where are the parts?"

¹⁷ Sean Boger: <http://www.youtube.com/watch?v=31LTIqcoTUg>

Isobel James: <http://www.youtube.com/watch?v=wVrV4P6kfAE&feature=related>

Steve Storti, <http://sl.zetaboards.com/pumpitout/topic/3482275/1/>

"When it had plunged in as far as its tail fin, there was huge explosion."

Penny Elgas (Bart's list): "And then I saw an explosion and watched the tail of the plane slip into the building."

Terry Morin (Bart's list): "The tail was barely visible when I saw the flash and subsequent fireball rise approximately 200 feet above the Pentagon."

¹⁸ See Roosevelt Roberts' testimony in two separate interviews at <http://memory.loc.gov/service/afc/afc2001015/sr/sr348a01.mp3> and <http://s3.invisionfree.com/CIT/ar/t288.htm>. Robert's testimony is confusing and some say it is open to interpretation. See section "Eyewitness Testimony," Category 4.

¹⁹ <http://visibility911.com/blog/?cat=131>

²⁰ Jerry Russell, "Eyewitnesses and the Plane-Bomb Theory," <http://www.911-strike.com/PlaneBomb.htm>

²¹ David Ray Griffin, "9/11 Ten Years later," p. 173, Olive Branch Press, 2011

Category 2: Only about 4 witnesses²² described a smaller object, such as a commuter plane.

Category 3: The CIT group of witnesses (about 12) is those whose testimony appears to suggest a plane flight path north of the CITGO station. Such a path, if impact were to follow, could not reasonably create the observed damage trail and could not avoid creating damage inside the Pentagon in its direction of travel. Consequently, the proponents of this theory claim the plane flew over the Pentagon. Drawbacks to this theory include: (a) There is thus far only one questionable witness to a plane flying away. (b) The CIT witnesses appear in some instances to have been led by their interviewer (for example, the interview²³ of Albert Hemphill by Craig Ranke). (c) Many CIT witnesses also testify to plane impact²⁴. The theory also suffers from the difficulty in assessing the position of the plane by witnesses not immediately underneath, for example those at the cemetery, and the fact that flyover is inferred rather than observed. Legge and Chandler have further pointed out that the proposed deviation from the established approach path would require a strikingly large plane bank angle, which no witness reported.²³

Category 4: CIT claims that one witness saw a plane fly low over, or away from, the Pentagon. This witness is Roosevelt Roberts. His testimony has been subject to extensive discussion²⁵. His testimony is confusing and some describe it as open to interpretation. Careful study²⁶ however shows he is not a witness to “flyover” and not a witness to “fly away”. The only option remaining is “impact.” The plane he reports over the South parking lot, and over the light poles, he describes as traveling east, hence toward the Pentagon. He makes it clear that he saw two planes, apparently the one officially described as AA Flight 77 and the other a C-130. Roberts' CIT questioners jump from one plane to the other in a way that puzzles him so he seeks clarification and obtains it. Referring then to the second plane he describes it as doing a U-turn and heading south west. We know he cannot be referring to the first plane as it would be impossible for it to turn in the space available, so it must be the C-130. Later he says that both planes came from the same direction, thus confirming again that he saw the approach of the plane which hit the Pentagon. According to the radar evidence the C-130 came in from the west, did a U-turn to the left, about 2 minutes after the impact, and headed back west, not south west. The discrepancy between west and south west is no doubt just a small orientation error. The C-130²⁷ was never lower than 2000 ft, far too high to be mistaken for the plane over the light poles.

Category 5: A small number (less than 12) of witnesses smelled cordite²⁸, or otherwise inferred a bomb or bombs from the sound, or from discrepancies between stopped clocks²⁹ and the time of plane impact obtained

²² Steve Patterson, (Bart's list): “The plane, which appeared to hold about eight to 12 people, headed straight for the Pentagon but was flying as if coming in for a landing on a nonexistent runway.”

²³ See Legge and Chandler,
[http://stj911.org/legge/Legge Chandler NOC Refutation.html](http://stj911.org/legge/Legge%20Chandler%20NOC%20Refutation.html)

²⁴ Sarns, C., <http://csarnsblog.blogspot.com/>

²⁵ See the video at <http://www.youtube.com/watch?v=GSjZDDzmXFE&fmt=18>, “Roosevelt Roberts Jr. Explained.” See also the discussion on CIT at: <http://www.truthaction.org/forum/viewtopic.php?t=7290&postdays=0&postorder=asc&start=15>

See also: <http://911blogger.com/news/2010-10-27/911bloggercom-accused-leading-911-truth-site-working-other-side#comment-240301>

²⁶ From a joint discussion between Frank Legge and the author.

²⁷ <http://www.youtube.com/watch?v=VF5bN6er5TQ>

²⁸ Gilah Goldsmith (Bart's list): “We saw a huge black cloud of smoke,” she said, “saying it smelled like cordite, or gun smoke.”

²⁹ The Smithsonian has a “dropped” clock frozen at 9:32, whereas the FDR file indicates close to 9:38 am.
<http://www.americanhistory.si.edu/september11/collection/record.asp?ID=19>. See also Barbara Honegger's evidence at <http://vimeo.com/28718716>.

from the FDR analysis and other sources. Adam Larson³⁰ has disputed the earlier time. A recent paper by this author shows by experiment that the “dropped” clocks evidence is untrustworthy.³¹ Regarding direct evidence that bombs³² were used in addition to the impact of a large plane, many witnesses, including April Gallop in her March 2007 presentation, did not report multiple explosions, whereas many other witnesses reported secondary explosions after the plane impact that they did not attribute to bombs (see Barbara Honegger’s Work in Appendix B). Nine witnesses³³ were outside the Pentagon close to the impact point, and present for an extended period before the impact. Although they were in a position to report an explosion or damage appearing in the wall of the Pentagon prior to the plane impact, none of these witnesses does so, indicating that there was only one major explosive event, not two. It may seem unlikely that bombs could be timed to go off precisely at the same time as outer wall impact occurred, but this remains as a possibility.

Barbara Honegger’s evidence and witnesses for bombs, bodies and damage in the A and B rings is examined in Appendix B, along with April Gallop’s testimony. These individuals suggest or argue that there was no plane (Gallop) or impacting object (Honegger), although Honegger also suggests the possibility of a small, later or near-simultaneous impacting object from the outside, in addition to bombs. However, the testimony of these two well-known and vocal individuals must still be assessed in light of the evidence of the many more witnesses who saw a large plane impact. Again, plane impact does not rule out the additional use of bombs. None of the evidence substantially supports the use of bombs to create part or all of the damage trail ending at the C ring hole, and there is eyewitness testimony but no physical evidence for deaths and damage in the A and B rings. See Appendix B.

Category 6: Barbara Honegger, in her San Diego 2011 presentation, lists those witnesses (about 6) who inferred a missile hit. These include Major Doug Rokke, a DU (Depleted Uranium) expert who suggests there is evidence for a single missile hit in addition to inside explosives. Other “missile” witnesses listed by Honegger are: Lou Rains, Rick M., Mike Walter, Michael Dipaula, and David Edwards.

Summary of Eyewitness Testimony

The great majority of Pentagon eyewitnesses saw a large plane descend at high speed and approach and impact the Pentagon. Many were in positions that would have enabled them to see the plane fly over the Pentagon, if it had done so, but there were no such reports, and instead many reported impact. If the plane had deviated north of the CITGO service station it would have been banked very steeply. There were no reports of a steep bank and several reports that the bank was slight. On the face of it, this body of evidence weighs against all theories that do not include a plane hitting the Pentagon, namely, the “flyover” theories, and the missile and bomb theories. To continue to be viable, these theories must include staged physical evidence and explain the majority witness testimony. The latter explanation must include a method for suppressing eyewitness testimony by those not part of any conspiracy to defraud.

Requirement: Those who hold to the above alternative theories must produce a credible alternative explanation for the eyewitness testimony for a large plane approaching and hitting the Pentagon, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled.

³⁰ <http://frustratingfraud.blogspot.com/2007/12/932-event-evidence-addressed.html>

³¹ John D. Wyndham, “The Pentagon Attack: The Event Time Revisited,” March, 2013, http://www.scientificmethod911.org/docs/Pentagon_Event_Time_March_2013.pdf

³² Victor Correa (Bart’s list): “We thought it was some kind of explosion. That somehow someone got in here and planted bombs because we saw these holes.”

³³ <http://www.scienceof911.com.au/pentagon/critique-of-barbara-honegger>

The majority eyewitness accounts weigh strongly against the small plane theory where the plane size is concerned, but do not totally exclude it at this point.

Airplane Debris

The presence of airplane debris outside the Pentagon after the event is confirmed by photographs, videos and eyewitness testimony. Some witnesses saw relatively large pieces of fuselage and various plane parts, while others testified to “millions”³⁴ of small pieces of plane skin or “confetti,” recognizable by the aluminum metal and green or yellow paint used on the inside of plane bodies.

Some of the larger pieces of plane debris for which photographs exist are:

- Engine Rotor
- Combustion Chamber Casing
- Engine Compressor (low pressure turbine)
- Wheel Hub or Rim (2 or more found)
- Landing Gear Shaft
- Hull Piece on lawn
- Other Hull Debris with American Airlines markings
- Tire
- Blue Plane Seats

These pieces have been independently studied and analyzed³⁵ through the photographs, and there is a growing consensus, albeit with some dissenting voices³⁶, that the pieces are consistent with engine and other parts of a Boeing 757. The first three items listed above are thought to be from a Rolls-Royce RB211-535 engine, the vast majority of which engines are only used on one type of plane - the Boeing 757. One investigator claims these parts to be a “perfect match” for a Boeing 757, or “at least consistent.” Likewise, the wheel hubs, landing gear shaft, and tire are a match, and the hull pieces have the silver, white, and red markings of American Airlines. The blue seats are consistent with a Boeing 757.

The presence of airplane debris outside and inside the building, even in quantities considered to be small, weighs against the “flyover” theories, and the missile and bomb theories. These theories must now be combined with a staged event to remain viable. The airplane debris, as described above, weighs heavily against the small plane theory.

³⁴ Brian Ladd, firefighter, Alfred Goldberg et al., *Pentagon 9/11* (Washington DC: Office of the Secretary of Defense, 2007), 68.

<http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html#> “Raining debris” after (see references 534 through 545)
<http://www.youtube.com/watch?v=ClVHovq4iTk>

³⁵ <http://911research.wtc7.net/talks/noplane/parts.html>
<http://911research.wtc7.net/essays/pentagon/index.html#parts>
<http://www.911-strike.com/engines.htm>
<http://www.abovetopsecret.com/forum/thread79655/pg1>
<http://www.rense.com/general32/phot.htm>
<http://www.aerospaceweb.org/question/conspiracy/q0265.shtml>

³⁶ <http://tomflocco.com/fs/WitnessesLink.htm>
http://www.democraticunderground.com/discuss/duboard.php?az=view_all&address=104x3051519

Requirement: Those who hold to the above alternative theories must produce a credible alternative explanation for the airplane debris, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled.

The Overall Damage Path

As related by most eyewitnesses, a large plane flew low from the highway over the Pentagon lawn and hit the Pentagon West wall. Descriptions from various witnesses, photographs and FDR data fill in details that include:

- The plane knocked down several light poles
- The left wing finally was tilted down
- The right engine struck a generator trailer
- The left engine struck a low concrete wall
- The plane mostly disappeared into the building
- There was a large fireball
- The façade had a hole 18 ft wide where the plane body is presumed to have hit
- There was a gash 96 ft wide where plane wings would have hit
- The lawn was untouched afterwards except for debris
- Windows above the 18 ft wide hole were unbroken
- The internal column damage indicates the path direction of material and debris flow from the exterior inwards
- There was a hole in the C ring wall that was roughly circular
- The downed light poles, trailer damage, low concrete wall and façade damage, interior columns damage, and hole in the C ring are in a straight line
- The direction of this line is in accordance with the radar reports and the FDR file.

The overall appearance of the damage trail is consistent with the passage of a large plane. The façade can be viewed as a giant shredder (steel plus concrete) through which a plane has passed at high speed, further shredding itself by impacting the interior supports and by the edge-on impact with the second floor, and creating inside the building a high velocity flow of material that builds up pressure on the C ring wall until it gives way. A substantial amount of debris flows out through the hole created.

The overall damage trail weighs against the “flyover” theories, the small plane theory (separation of light poles in a direction perpendicular to the path is about 100 ft), and the missile theory. The direction of the damage trail is contrary to a north-of-CITGO path for the plane. To continue to be viable, one must add a staged event to these theories.

In theory, well-placed explosives or bombs might have been used to create the damage trail, but additional staged events are still needed to explain the eyewitness testimony and airplane debris.

Requirement: Those who hold to the above alternative theories must produce a credible alternative explanation for the overall damage trail, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled.

Downed Light Poles

In the aftermath of the event at the Pentagon, there were five downed light poles that formerly stood beside the main highway and an exit ramp. This is confirmed by photographs and eyewitness testimony. Their former positions were on either side of a damage trail or path consistent with the passage of a large plane. The separation of the poles perpendicular to the damage trail is about 100 ft. The wingspan of a Boeing 757 is almost 125 ft. The fact that other poles close to the plane path were not clipped sets an upper limit of 130³⁷ ft to the wingspan. Thus, the evidence is consistent with the wingspan of a Boeing 757. Photographs show that the impact point on the poles becomes progressively lower as the plane descends on approach to the Pentagon³⁸.

Several witnesses (for example, Bright³⁹, Khavkin⁴⁰, Hagos⁴¹) reported that they saw the plane clip the poles. Others reported the plane clipped a telephone pole and utility pole guide. Witnesses such as Hemphill and Morin described a minor flash as the plane crossed the highway toward the Pentagon, indicating a collision with some object. A taxi cab driver, Lloyd England, reported that a severed pole damaged his windshield as his taxi traveled on the highway. Other witnesses support this much-maligned⁴² report. Some witnesses saw the light poles after they were downed. There are 22 citations of the plane hitting lamp poles and other objects to be found at this location.⁴³ There are no witnesses who saw the poles suddenly destruct in the absence of a plane or who noticed damaged poles lying on the ground prior to the impact.

The downed light poles are in the “best evidence” category that a large plane flew low over the lawn from the highway toward the Pentagon. There is no sign of explosive damage; the poles appear to have been struck a massive horizontal blow which not only severed them at the ground and impact point but also bent them, as would be expected given their inertia.

The eyewitness and physical evidence provided by the downed light poles points to the passage through them of a large plane that hit the Pentagon a second or less later. This weighs against all the alternative theories except for explosives (bombs) for the physical damage, and a staged event is still needed to explain the witness testimony.

Requirement: Those who hold to the alternative theories must produce a credible alternative explanation for the downed light poles, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled.

³⁷ David Ray Griffin, “9/11 Ten Years Later,” p. 171, Olive Branch Press, 2011

³⁸ See figure 8, “Calculated path through light poles to Impact with Pentagon,” Legge, F. and W. Stutt, “Flight AA77 on 9/11: New FDR Analysis Supports the Official Flight Path...”

[http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter 92.pdf](http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter%2092.pdf)

³⁹ Mark Bright (Bart’s list): “I knew it was going to strike the building because it was very, very low -- at the height of the street lights. It knocked a couple down.”

⁴⁰ D.S.Khavkin: “First, the plane knocked down a number of street lamp poles, then headed directly for the Pentagon and crashed on the lawn near the west side the Pentagon.” http://news.bbc.co.uk/2/hi/talking_point/1540586.stm

⁴¹ Afework Hagos (Bart’s list): “It was tilting its wings up and down like it was trying to balance. It hit some lampposts on the way in.”

⁴² http://911review.com/articles/ashley/pentagon_con.html

⁴³ <http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html>

Low Concrete Wall and Generator Trailer Damage

In the aftermath of the event at the Pentagon, photographs and eyewitness testimony show that a low concrete wall (1-2 ft high) and a generator trailer, positioned on opposite sides of the plane path indicated by the damage trail, were struck forcefully⁴⁴.

The blow at the low concrete wall produced a gouge with the shape of a large plane engine. The blow at the trailer created a wide gouge with size as for a large plane engine, and a narrow gouge with size and position corresponding to the first flap canoe beyond the engine of a Boeing 757. The angles of the trailer gouges with respect to the trailer face are consistent with the path of an airliner that hit the light poles, assuming the trailer was initially parallel to the Pentagon West wall, but was spun 45° toward the building by the blow.

The separation of the low wall gouge and the wide trailer gouge is approximately equal to the distance between the left and right engines of a Boeing 757, provided the trailer was initially in position parallel to the Pentagon West wall. The position heights of the wall gouge and wide trailer gouge above ground, if due to the engines, indicate a downward tilt of the left wing. Several eyewitnesses⁴⁵ described such a downward tilt of the left wing of a large plane that they saw hit the Pentagon.

The low concrete wall damage establishes the left engine as passing just above the lawn, so that the lawn itself was untouched. For more details of the wall and generator trailer damage, see Appendix C.

The damage to the low wall and trailer is strong physical evidence for the main theory. This damage weighs against the flyover theories, small plane theory, and missile only theory. It is difficult to see how bombs could cause the damage and spin the generator 45° toward the building. A staged event is required for these theories to remain viable.

Requirement: Those who hold to any of the alternative theories must produce a credible alternative explanation for the concrete wall and trailer damage, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled.

The Building Façade Damage

The overall damage to the Pentagon West wall, a hole at the first and second floors of 18 ft diameter, roughly centered above a 96 ft gash in the first floor, indicates impact and penetration of the building by an airplane-shaped object⁴⁶. The body of a Boeing 757 is roughly a cylinder 13 ft in diameter, and the wingspan is almost 125 ft. The 96 ft gash is more than wide enough to accommodate both engines and the wing tip damage is approximately correct for a Boeing 757.

⁴⁴ Jim Hoffman, <http://911research.wtc7.net/essays/pentagon/index.html> Frank Probst (Bart's list): The plane's right wing went through a generator trailer "like butter," Probst said. The starboard [sic] engine hit a low cement wall and blew apart.

⁴⁵ Mary Ann Owens (Bart's list): "the left wing dipped and scraped the helicopter area just before the nose crashed into the southwest wall of the Pentagon" Noel Sepulveda (Bart's list): "The right engine hit high, the left engine hit low."

Jack Singeton (Bart's list): "The plane's left wing actually came in near the ground and the right wing was tilted up in the air."

⁴⁶ Jim Hoffman, <http://911research.wtc7.net/essays/pentagon/index.html#facade>

The building façade damage is roughly in the shape of a Boeing 757 and weighs against the flyover theories and missile only theory. The bomb theory would imply a complicated group of simultaneous explosions.

Requirement: Those who hold to any of the above alternative theories must produce a credible alternative explanation for the façade damage, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled.

The Interior Columns Damage and Debris

The pattern of interior supporting column damage⁴⁷ indicates the forward motion (from building exterior to the interior) of material traveling at high speed. Some columns were missing, bent, or otherwise damaged.

Many columns showed shredded or wrecked pieces of metal wrapped⁴⁸ around them or stacked beside them. In one photograph⁴⁹ of the interior, there is a massive amount of debris below an intact ceiling. This debris could not have occurred due to a cave-in of the floor above. Both these photographic observations of the interior point to plane impact rather than bombs. It took at least two days to remove most of the debris, so if this debris had been trucked in as part of a staged event, it would likely have been noticed.

Based on a diagram⁵⁰ of the column damage, Dwain Deets⁵¹ states that there is “no penetrator path” without intact columns between the impact point and exit hole. However, the author has analyzed the column damage and penetration path in Appendix D, and finds no significant impediment to debris reaching the C ring wall and punching a hole there. Major column failure ends about 160 ft in from the impact point. However, since the plane was fragmented, it could pass columns. See the F4 Phantom experiment⁵² where a plane propelled at high speed into a massive concrete wall was completely fragmented. See Appendix D.

The interior damage weighs against the flyover theories. The width of the damage pattern weighs against the small plane theory. The missile theory cannot explain the width of the damage to the supporting columns. The bomb theory would imply a complicated group of simultaneous explosions. A staged event is required to explain the large amount of debris mixed with plane parts.

Requirement: Those who hold to any of the above alternative theories must produce a credible alternative explanation for the interior damage and debris, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled.

⁴⁷ Jim Hoffman, <http://911research.wtc7.net/essays/pentagon/index.html#interior>

⁴⁸ <http://www.rense.com/general32/phot.htm>
<http://www.oilempire.us/pentagon-truth.html>

⁴⁹ Frank Legge, photograph on page 6,
<http://www.journalof911studies.com/volume/2009/WhatHitPentagonDrLeggeAug.pdf>

⁵⁰ See the Pentagon Building Performance Report at
<http://fire.nist.gov/bfrlpubs/build03/PDF/b03017.pdf>, page 53

⁵¹ Quoted by Barbara Honegger, Toronto hearings, 9/11/11, slide 25

⁵² The F4 experiment: <http://www.youtube.com/watch?v=TVz5vhNvskk>

The C Ring Hole Damage

The hole in the C ring is consistent with the impact of high speed material⁵³. It is not surprising that the hole should be almost circular (see Appendix B) as the arrival of thousands of small fragments over a very short period of time would build up pressure over an appreciable area. There was a lot of debris outside the C ring hole in the AE driveway, including part of the landing gear, a tire, and plane skin fragments.

The above explanation and the near-circular shape of the C ring hole has been criticized by Barbara Honegger who does not consider the impact of many plane fragments, but gives arguments as to why the debris could not have penetrated the forest of columns, as in Deet's "no penetrator path." Honegger maintains only head-on impact, rather than oblique impact, could create the almost circular shape, and in this claim she is supported by mechanical engineer, Michael Meyer, who postulates the use of shaped charge explosives to create the hole. There is no reported physical evidence to support this contention. These critics also claim that the plane parts found in the AE driveway were planted. A photograph of the hole taken before cleanup shows the debris to have poured out at an angle corresponding roughly with the flight path. That there is this tapered heap, including plane parts, passing through the hole, argues against the use of an explosive charge as, in that case, the debris would be only masonry. See Appendix B for further counter-arguments to these criticisms, and for an analysis supporting the creation of a near-circular hole by plane debris. See Appendix D for arguments countering Deets' "no penetrator path" theory.

Barbara Honegger's claim of three exit holes in the C ring, "evidence" she uses in support of the bomb theory, is false. The other two "holes" are a single doorway and a large roll-up door through which smoke escaped. In the aerial photograph of the three openings, shown in Honegger's Toronto Hearings 2011 talk, the middle or large opening clearly has a well-defined rectangular shape. See footnote 14 in Legge and Stutt¹⁰ for this explanation and a photograph showing the open single door.

The C ring damage weighs against the flyover theories. The hole could conceivably be caused by a missile, but there is an absence of supporting evidence and it is difficult to imagine how a missile would not have gone on to damage the B ring. The bomb theory would require a very special placement of explosives. A staged event is required for the plane debris.

Requirement: Those who hold to any of the above alternative theories must produce a credible alternative explanation for the C ring damage and debris, in order to still claim that these theories are viable. If no credible evidence or explanation can be produced, these theories must be discarded.

Status: Requirement not fulfilled. See Appendix B for a detailed rebuttal of Honegger's and Meyer's claims.

Summary

The main theory, and alternative theories, and the different observations that these theories must explain are summarized in Table 1, Theory and Observation Summary.

If a theory can explain the observation, the word YES is used. If the theory cannot explain the observation, NO is used.

Any level of support other than YES requires development of a credible explanation or new evidence for the previous theory to remain viable. The alternative theories to large plane impact all imply a staged event and fraud and conspiracy among witnesses, or a means of inducing mistaken testimony.

⁵³ Jim Hoffman, <http://911research.wtc7.net/essays/pentagon/index.html#interior>

Note: The levels of support assigned in cases where YES or NO do not apply are subjective and liable to change.

Tables 3 through 8 (Appendix E) contain the details for each of the six different theories being considered. The text indicates how the support rating for the theory and a particular evidence item was determined.

Table 1: Theory and Observation Summary

Do the Observations Support the Theory?

| Observation | Theory | | | | | |
|------------------------------------|--------------------|---------------------------------|----------------------------|---------------------|----------------|-------------------|
| | Large Plane Impact | Flyover and Impossible Maneuver | Flyover and North of CITGO | Small Plane Impact | Missile Impact | Bombs, Explosives |
| Eyewitness testimony ⁵⁴ | YES | NO | NO | NO to very little | NO | NO |
| Airplane debris | YES | NO | NO | NO to very unlikely | NO | NO |
| Overall damage path | YES | NO | NO | NO | NO | NO |
| Downed light poles | YES | NO | NO | NO | NO | NO |
| Concrete wall and trailer damage | YES | NO | NO | NO | NO | NO |
| Building façade damage | YES | NO | NO | NO to unlikely | NO | Possibly |
| Interior columns damage & debris | YES | NO | NO | NO to unlikely | NO | NO |
| C Ring hole | YES | NO | NO | Possibly | Possibly | Possibly |

Conclusion

Clearly, the main theory, that a large plane such as a Boeing 757 hit the Pentagon, is by far the most plausible theory compared with the alternative theories. The main theory still has some unanswered questions, but it is much stronger than any of the alternative theories.

At present (November 2011) the available evidence points strongly to the main theory, and away from all the alternative theories which would require difficult explanations for staged events.

This analysis does not close the door on this issue or any other of the Pentagon issues⁵⁵, but leaves it open for further research and evidence as indicated in the tables for each of the different theories. However, the essence

⁵⁴ To understand this row, consult the section "Summary of Eyewitness Testimony" on page 9 and the Individual Theory Details (Tables 3 through 8 in Appendix E).

⁵⁵ Kevin Ryan, "Two dozen questions about Flight 77 and the Pentagon that might lead to justice,..." July 9, 2011

of this paper is that the scientific method proves all alternatives to large plane impact virtually impossible. It is hoped that the 9/11 truth movement will accept these current findings and acknowledge the preeminence of the large plane impact theory at this time.

This acceptance would have the following benefits:

- Recognition of the strengths and weaknesses of each theory according to an important principle in the scientific method
- Forestalling of a government disclosure about the Pentagon that undermines credibility of the truth movement and its well-developed WTC research results
- Minimizing public rejection of valid 9/11 evidence when it is presented at the same time as some of the more unlikely Pentagon damage theories.

Acknowledgements: The author would like to thank David Ray Griffin for inviting him to participate in forming Scientists for 9/11 Truth in the role of Coordinator, and to express appreciation to the Organizing Members of Scientists, Niels Harrit, Steven Jones, Frank Legge, and Kevin Ryan for accepting him in this role, and for the many invigorating, scientific discussions that ensued.

Special thanks are due to Frank Legge who guided the author's initial inquiries into the Pentagon problem, who answered questions, engaged in discussions, provided support and reference material, and who wrote the paper¹ that first caused the author to question the existing paradigm for the Pentagon.

The author also acknowledges a key insight by Niels Harrit, namely, the existence of an underlying paradigm in the Pentagon debate which appears to be confusing analysts. In response, the author has suggested an alternative paradigm to be considered as a precursor to the goal of achieving a higher level of consensus.

Thanks are also due to Elizabeth Woodworth for her support of the author's preliminary and later efforts.

In addition, thanks are due to David Chandler for his recent writings on the Pentagon, and for his participation with the above-mentioned individuals in a group discussion that sparked this paper.

Credit is due to Debora Blake, whose creative graphics in the first rendition of the Scientists' website, prompted the author to feature Frank Legge's paper "What Hit the Pentagon? Misinformation and its Effect on the Credibility of 9/11 Truth" on the website.

The author acknowledges the pioneer work of Jim Hoffman and Victoria Ashley who, since 2004 and in opposition to the existing paradigm, have maintained that a large plane, most likely a Boeing 757, did indeed hit the Pentagon on 9/11.

Lastly, the author would like to thank the anonymous reviewers who read the paper and provided useful feedback and criticisms that, when responded to by the author, led to some significant new insights and improvements.

<http://digwithin.net/2011/07/09/two-dozen-questions-about-flight-77-and-the-pentagon-that-might-lead-to-justice/>

David Ray Griffin: "9/11 Ten Years Later," Olive Branch Press, 2011, chapter 7.

Appendix A

Other Evidence for the Pentagon Event

This appendix contains a compilation and summary of other evidence pertinent to the event at the Pentagon on 9/11. Some of this evidence is at present incomplete, unverified, or disputed. Some of the evidence, if it were to be verified or generally accepted, would further support the conclusions in this paper. In some cases, this additional evidence has no bearing on the paper's conclusions, and has been discussed at length by other authors. Attention is drawn to those cases where the evidence could change the paper's conclusions, pro or con. The potential effect of the additional evidence is summarized in Table 2 at the end of this appendix.

The Flight Data Recorder (FDR) and Related Items

Several evidence items and data that potentially offer details about AA Flight 77 and its flight path on 9/11 are a video tape of passengers, including those designated officially as the hijackers, taken at Dulles airport, the flight data recorder (FDR), and data from the Bureau of Transportation Statistics (BTS). Unlike the WTC planes, the black box with FDR data for the plane that crashed at the Pentagon was found, reputedly near the entrance hole, or the C ring punch out hole. This FDR data was released by the National Transportation Safety Board (NTSB) in January, 2002. This data and its proper analysis have since been pursued, amidst contention, mainly through the work of Pilots for 9/11 Truth (PFT) and researchers such as Frank Legge and Warren Stutt.

The Dulles "hijacker video" has been examined by Jay Kolar⁵⁶ who concludes that this video evidence was staged or doctored.

Charges⁵⁷ are made that the Flight Data Recorder (FDR) claimed for AA Flight 77 exhibits several anomalies: there were no serial numbered parts on the FDR as required; the aircraft type and fleet data were missing; the flight did not leave from Dulles Gate D26; the plane aligned its INS (Inertial Navigation System) in flight thus indicating military capabilities; the FDR data showed that, once closed, the cockpit door was never opened during flight and that the plane was too high to have hit the Pentagon and was traveling at a higher speed than the official speed. As for Flight 11 that reputedly impacted the WTC North Tower, BTS data show that AA Flight 77 was not scheduled to fly that day.

Most of these charges have been responded to as follows:

- Aircraft fleet and individual ID were found within the data file. It has been decoded as aircraft 35, fleet 1, but cannot be further interpreted without access to American Airlines records.⁵⁸
- Warren Stutt found nothing anomalous in the data within the FDR file .
- The positioning system drifts while the plane is on the ground⁵⁹, sufficiently to confuse the gate number from which the plane departed.
- For the cockpit door anomaly, an NTSB document⁶⁰ indicates the sensor or system was not operating.

⁵⁶ Jay Kolar, "The Alleged 9/11 Hijackers," presentation on 9/9/11 at the Toronto Hearings.

⁵⁷ Barbara Honegger, slides 71-75, Toronto Hearings presentation, 2011. Pilots for 9/11 Truth, "Overwhelming Evidence ...

"<http://pilotsfor911truth.org/no-hard-evidence-aa77.html>

⁵⁸ Warren Stutt, personal communication through Frank Legge.

⁵⁹ Legge and Stutt,

http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter_92.pdf

⁶⁰ See Specialist's Factual Report, page I-8. <http://www.webcitation.org/5RfC3xUsq>

- The fully and properly decoded FDR file shows the plane descending to the correct level to hit the light poles and the Pentagon. The trajectory was the same as shown by radar, and aimed directly at the impact point from the last radar position. The final speed was higher than the “official” speed. It appears the official speed was arrived at from a truncated version of the FDR file while the plane was still accelerating.⁶¹
- As in the case of flight 11, the BTS data does not prove that flight AA Flight 77 did not fly.

Pilots for 9/11 Truth now question the validity of the FDR data on which their calculation was based. Legge and Stutt can find no evidence that the FDR file is not legitimate but it did need special treatment to decode the final data frame.

While the above FDR and other issues are currently under contention or in some cases unresolved, they do not affect the conclusions in this paper about large plane impact, since they all pertain to an attempt to prove the plane’s identity as AA Flight 77. As stated earlier, such proof is not a goal of this paper. In the author’s opinion, deeper questions arise here, for example: Was the Pentagon plane a different, modified Boeing 757 that was under the control of persons or devices other than the alleged hijackers from the start?

AA Flight 77 In-Flight and Aftermath Issues

The following observations and evidence items are listed here for the record. None of them adversely affect the arguments and conclusions in Table 1 pointing to large plane impact.

- Transportation Secretary Norman Mineta’s testimony⁶², suppressed in the 9/11 Commission Report, about Vice President Dick Cheney’s conversation in the Presidential Emergency Operations Center (PEOC) under the White House with a young man before the Pentagon event (“do the orders still stand”) is well-known evidence that the Pentagon attack was allowed to happen at highest levels.
- The question of the credibility of in-flight phone calls from AA Flight 77 has been investigated by different researchers⁶³, but is still under contention⁶⁴.
- The fact that the “hijacker” pilot in the official story, Hani Hanjour, was a terrible pilot, and could not have flown the suggested trajectory to hit the Pentagon has been much discussed, as well as the steep downward spiral observed by radar controllers who said it was like a military aircraft. However, the FDR file shows the plane did not at any time descend unusually fast or steeply, nor did it bank steeply. Only in the last 30 seconds did it accelerate. Barbara Honegger offers an interesting thought here: the plane observed on radar doing a military style maneuver and traveling a steep downward path in a 270° - 330° arc was not the large plane that hit the Pentagon, but the reconnaissance plane sent a few minutes after the event by Gen. Larry Arnold to observe the damage. This plane, piloted by Major Dean Eckmann, arrived at the Pentagon at about 9:37am. That the pilot reported there was no evidence a plane had hit the Pentagon is not surprising, since the plane almost entirely penetrated the building. For

⁶¹ Frank Legge and Warren Stutt,

http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter_92.pdf

⁶² <http://www.youtube.com/watch?v=bDfdOwt2v3Y>

⁶³ David Ray Griffin: “9/11 Ten Years Later,” Olive Branch Press, 2011, chapter 5.

⁶⁴ Erik Larsen, <http://911blogger.com/news/2011-02-10/critique-david-ray-griffin-s-911-fake-calls-theory>

comparison purposes, see the aerial photo⁶⁵ of the C-130 that hit the ground floor of an apartment building in Teheran.

- There is some physical evidence (photograph/location in Legge and Stutt¹⁰) that a wing tip of the plane clipped a rung on a VDOT camera pole on its approach to the Pentagon, just before the plane began to impact the light poles. This evidence, if credible, adds to the observations that establish the approach path and very low altitude of the plane just before it crossed the Pentagon lawn.
- The official autopsy report⁶⁶ for the deaths at the Pentagon reputedly contains no victim descriptions that include Arab DNA. This only raises questions about the presence and identity of any “hijackers.”

The Five-Frame Video of the Pentagon Event

By all accounts, there were about 85 or more video cameras in the vicinity of the Pentagon that might have captured the Pentagon event. All of these were confiscated by the government within minutes after the event. Because of their different situation and frame rates, it is probable that very few of the cameras captured any footage of the event. At the Moussaoui trial, the government did eventually release two videos,⁶⁷ of which the most discussed and useful is a five-frame sequence taken from a security checkpoint north of the impact hole and showing some white smoke on an approach of some object, a massive fireball, and then debris fragments. As released, the sequence has an incorrect date/time stamp.

But one frame in particular shows a fuzzy object resembling a plane tail projecting upwards above the top of a metal box that is apparently obscuring the approaching object itself. In the next frame, this fuzzy tail-like image is gone, and the fireball takes place. There is an excellent simulation⁶⁸ of a large plane impact at the Pentagon that incorporates this five frame sequence. Although researchers (for example, Hoffman⁶⁹, Honegger) have questioned the five frames as doctored, staged or fraudulent, this video cannot be so easily dismissed, and may provide good, additional evidence for large plane impact. The white smoke has been interpreted in different ways: (a) as indicating a missile, (b) as caused by a light pole lamp that was ingested by the right engine of a large plane. Verification of the five frame video’s authenticity and resolution of the date/time stamp discrepancy is needed here.

The Event Time – Stopped Clocks

Barbara Honegger has recently presented⁷⁰ several pieces of evidence that the Pentagon event occurred at around 9:32am, about 5 minutes earlier than the officially-stated time (now removed from the Pentagon memorial site itself). As noted earlier, this evidence is disputed by Adam Larson.

The Pentagon event time has now been fully addressed by me in a separate paper⁷¹ which shows, by experiment, that the “stopped clocks” evidence is untrustworthy, and that the evidence points very strongly to a

⁶⁵ <http://911research.wtc7.net/talks/noplane/crashdebris.html>

⁶⁶ <http://www.rinf.com/news/nov05/more-9-11.html>

⁶⁷ <http://blog.outragedmoderates.org/2006/05/judicial-watch-obtains-images-of-911.html>

⁶⁸ Integrated Consultants, Inc., <http://www.youtube.com/watch?v=YVDdjLQkUV8>

⁶⁹ <http://911research.wtc7.net/pentagon/analysis/videoframes.html>

⁷⁰ Barbara Honegger, presentation at The Toronto Hearings, 2011

⁷¹ John D. Wyndham, “The Pentagon Attack: The Event Time Revisited,” March, 2013, [http://www.scientificmethod911.org/docs/Pentagon Event Time March 2013.pdf](http://www.scientificmethod911.org/docs/Pentagon%20Event%20Time%20March%202013.pdf)

single major event at 9:37:45, the official time that a large jetliner hit the Pentagon. The question of impact time does not affect the conclusions in Table 1.

The Lack of a Seismic Signal at the Pentagon

Regarding the event at the Pentagon, Terry C. Wallace, Southern Arizona Seismic Observatory, who is considered an authority in this area, is reported⁷² as having stated the following: "I looked pretty hard -- and to be honest I can't find any [event] CONCLUSIVELY above the noise. I calculated an expected magnitude assuming that the impact was on the wall, not vertical (like UA flight), and got a magnitude of 0.8. The noise at all the stations (closest is 60 km away) is above this." Thus, according to this expert, a detectable seismic signal was not expected to occur.

The lack of a seismic signal, especially when no signal would be expected, does not affect the conclusions in Table 1.

Miscellaneous Observations

The following miscellaneous observations all have the potential to affect the evidence summary in Table 1, most likely in favor of the large plane impact theory.

- One witness, Frank Probst (see Bart's list), reported that an engine had clipped the antenna off a Jeep Grand Cherokee stalled in traffic not far away. Since the engines hang about 10 ft lower than the wing, and one wing was tilted down at the left, this account may be accurate. If so, it supports the large plane impact theory. [Note: Frank Probst also reported the plane's right wing went through a generator trailer "like butter," ... "The starboard [sic] engine hit a low cement wall and blew apart."]

Some other curious observations on the morning of 9/11 in the aftermath of the Pentagon attack were these:

- A long line of men,⁷³ some in white shirts, were observed, videoed and photographed walking closely together across the Pentagon lawn, looking for and picking up pieces of debris. Were they looking, for example, for time-change parts that could reveal the identity of the plane? The Pentagon lawn was subsequently covered in sand⁷⁴, ostensibly to provide a firm surface for vehicles.
- Another group of men in white shirts was observed and photographed carrying a large object, possibly a section of a plane wing, under a blue tarp. Government secrecy, while all pervading in the Pentagon event, may have reached a new high in this mysterious action. However, an alternative claim⁷⁵ is that this object is nothing more than a blue tent.
- There are various interpretations of the testimony of a C-130 pilot dispatched to the Pentagon. It is reported⁷⁶ by the pilot, Lt Col Steve O'Brien, that he saw an American Airlines plane impact the Pentagon, but critics such as Barbara Honegger and Jim Fetzer claim the pilot is lying. The pilot's voice

⁷² "Eric Bart's Pentagon Attack Eyewitness Account Compilation," 9-11 Research (<http://911research.wtc7.net/pentagon/evidence/witnesses/bart.html>)

⁷³ <http://home.comcast.net/~skydrifter/lawn4.jpg>
<http://www.rumormillnews.com/cgi-bin/archive.cgi?read=90752>

⁷⁴ <http://www.freedomfiles.org/war/pentagon.htm>

⁷⁵ <http://www.rense.com/general70/tarp.htm>

See also 21:01 at <http://www.ccdominoes.com/lc/lcg2.html>

⁷⁶ <http://www.youtube.com/watch?v=HFTNPemZHXE>

was recorded by Air Traffic Control⁷⁷ (ATC). In this video (GOFER06 - DCA Radar and TYSON ATC Mix), GOFER06 is the C-130, and the large plane, supposedly AA Flight 77, is LOOK. Its radar trace is headed by the letter "S". LOOK is identified by the C-130 pilot as a Boeing 757 that then crashes into the Pentagon West wall. The radar evidence and the ATC recording, and the testimony of the C-130 pilot, all support a large plane, most probably a Boeing 757, impacting the Pentagon.

The additional Pentagon evidence presented in this appendix is summarized in Table 2 below. If the evidence likely has no effect on the conclusions in Table 1, n/a (not applicable) is used.

As can be seen, the additional evidence, if resolved, is mainly supportive of the large plane impact theory. At present, there is no expected resolution of the additional evidence that would weigh heavily against this theory. Once again, in conjunction with Table 1, the large plane impact theory is by far the most plausible theory for explaining the damage and debris at the Pentagon on 9/11.

⁷⁷ Radar and ATC recording, <http://www.youtube.com/watch?v=VF5bN6er5TQ>

Table 2: Additional Pentagon Evidence

What Potential Exists to Affect the Conclusions in Table 1?

| Observation, Evidence, or Theory | Is This Evidence or Theory Applicable? | Would Proof or Resolution Support the Large Plane Impact Theory? | Comments |
|---|---|---|---|
| Dulles Video | n/a | n/a | This video can likely only shed light on the hijacker story |
| FDR data issues | n/a | YES | This data could provide identification and establish the course of the plane, including impact. |
| Norman Mineta's Testimony | n/a | n/a | This data can likely only shed light on government malfeasance |
| Cell Phone Calls | n/a | n/a | This data can likely only shed light on the hijacker story and/or government malfeasance |
| Spiral Path | n/a | n/a | This data can likely only shed light on the hijacker story |
| VDOT Camera Pole Rung | YES | YES | This evidence would provide additional support for a plane flying low over the highway interchange toward the Pentagon, and for its wingspan |
| Autopsy Results | n/a | n/a | This evidence can likely only shed light on the hijacker story |
| Five Frame Video | YES | YES - qualified | If the video and the fuzzy tail-like object were authenticated, yes, otherwise the video might be used to support a missile |
| Event Time | n/a | n/a | This data can likely only shed light on bureaucratic competency. [The event time is discussed more fully in a new paper ⁷⁸ showing that the official time of 9:37:45 am is supported by the evidence.] |
| Seismic Signal | YES | n/a | The present lack of a signal is unlikely to have any bearing on the evidence for large plane impact |
| Clipped Car Antenna | YES | YES | If this evidence was shown to be credible, it would support the large plane impact theory, as well as the small plane impact theory |
| Men Picking Up Debris | YES | Perhaps - qualified | If it were known what the men were looking for, part numbers for example, this could support the large plane impact theory. It is difficult to comprehend what possible objects they could be looking for in the case of the bomb theory, since their very action would be a give away that a staged event had taken place. |
| Object Under Blue Tarp | YES | Perhaps - qualified | As previous, any object under the tarp has the potential to provide evidence for plane impact |
| C-130 flight | YES | YES | The pilot's testimony and the radar data support a large plane, identified as a Boeing 757, impacting the Pentagon |

⁷⁸ John D. Wyndham, "The Pentagon Attack: The Event Time Revisited," March, 2013, [http://www.scientificmethod911.org/docs/Pentagon Event Time March 2013.pdf](http://www.scientificmethod911.org/docs/Pentagon%20Event%20Time%20March%202013.pdf)

Appendix B

Examination of the Explosives (Bomb) Theory

As mentioned in the section “Description of Main and Alternative Theories,” the chief competitor for the main theory of large plane impact is the explosives or bomb theory when coupled with the flyover theory. The flyover theories must look wholly to the bomb theory to explain the observed damage and debris. The missile theory, and to a lesser extent the small plane theory, must also incorporate the bomb theory into their explanations.

April Gallop, a well-known and vocal witness who was inside the building when the event occurred, and Barbara Honegger, who has done research in this area, have both figured largely in molding others’ views on what took place at the Pentagon in the context of the bomb theory. The purpose in beginning this discussion by focusing on these two individuals is to provide balance to what they have said, since widely communicated or heavily promoted views can often seem more compelling than is warranted by the actual testimony.

April Gallop’s Testimony

April Gallop was an Army Specialist at the time. The following analysis is based on April Gallop’s March, 2007 presentation⁷⁹ at Irvine, Ca., and on Barbara Honegger’s work cited at the beginning of the next section.

Much has been made of April Gallop’s “debriefing” that occurred days after the event. However, we have no independent knowledge, apart from Gallop’s testimony, of the nature of this debriefing, nor do we have corroborating stories from others who were also debriefed. Even Gallop herself, in her 2007 presentation, states that the debriefing was “not very blunt,” and that no one tried specifically to steer her as to what to say. Given the military context, and allowing for the personal qualities of interviewer and interviewee, there is no reason to suppose that the interview was carried out in a manner any more authoritarian or directing than that experienced by many motorists at a traffic stop. In any case, this testimony is not as relevant as that of Gallop’s account of the event itself.

There is ambiguity in Gallop’s account, as on one occasion she said there was an explosion when she reached to turn on her computer and on another occasion she said the explosion occurred when she pressed the button. After the explosion she found herself covered in debris. There had been no prior alerts, which was surprising for the Pentagon as practice alerts were frequent. She freed herself from the debris, managed to grab her child, who had been injured, and followed some people out through a window.⁸⁰ Later, however, she claimed⁸¹ her exit was through the impact hole which was an inferno at the time. An estimates of the distance from the impact hole to her desk (1st floor, E ring, 5th corridor, 1-7) is about 150 feet. She saw no plane debris during this brief journey, and did not smell jet fuel. Once outside, she collapsed, and was then moved to another location on the lawn. A photo shows her lying on her back on the lawn receiving attention. The location must have been close to the roadway, for she states that the people around her there were trying to stop passing cars to have the wounded transported to hospitals.

The essential features of Gallop’s 2007 presentation are these: She had not touched the computer when the boom occurred (10:10 into the video); there was just one boom; she had very little chance to see any plane debris during her short passage out of the hole, and on her way to a spot near the roadway, and the fact that she saw none is therefore not surprising. Apart from her not smelling jet fuel (a negative observation), there is

⁷⁹ April Gallop, <http://video.google.com/videoplay?docid=3965407869390415574#>

⁸⁰ Alfred Golberg et al., “Pentagon 9/11,” 2007, Chapter II, page 30 (see also p.260, top).

⁸¹ See April Gallop video, <http://www.youtube.com/watch?v=5U5hOyZlrcY&feature=gv>

nothing in Gallop's testimony here to point to a bomb rather than a plane impact that sounded like a bomb. Gallop never mentions she harbored any suspicion that the boom was caused by a bomb. There is nothing in Gallop's presentation to imply more than one event.

As noted above, Gallop in her 2007 presentation never states she actually hit the "on" key on her computer, never says she surmised that the explosion or boom was due to a bomb, and never mentions a second or other explosion. Gallop clearly states "I go to touch" or "I went to touch" but she does not state that she "touched." It is disconcerting, then, that Honegger, in "The Pentagon Attack Papers" in 2006, has Gallop testifying that, with her military training, Gallop could tell that the explosion "sounded and acted like a bomb," (Honegger's words). Furthermore, in her San Diego 2011 presentation and her 2011 Toronto Hearings presentation, Honegger repeats this claim with a quote attributed to Gallop, "I thought it was a bomb," and then claims Gallop heard "two explosions," one of which occurred after Gallop "hit" the "on" button on her computer. In these three instances, Honegger imputes to Gallop details that Gallop never mentions in her 2007 talk (but see "Ripple Effect" below), six years after 9/11 and enough time for Gallop to have solidified the important parts of her testimony.

In her account, Gallop mentions she saw a number of computers on fire. It is possible these fires were caused by current surge due to the impacting event, and were not indicative of explosives. Any such surge would tend to manifest itself preferentially in devices such as computers. In contrast to Gallop's failure to smell jet fuel, there are 15 different accounts⁸² of jet fuel by a number of witnesses, many of whom did smell jet fuel.

The conclusion this author draws is that Gallop, by her own words, heard only one explosion which she did not attribute to a bomb, and that this explosion was not connected to her touching her computer. If Gallop's testimony in or since 2007 changed significantly, it is possible that she was influenced in some way and that her subsequent testimony is mistaken in the sense defined in this paper.

Barbara Honegger's Work

The following analysis is based on Barbara Honegger's presentation⁸³ at San Diego (January, 2011), her essay "The Pentagon Attack papers"⁸⁴, and on her presentation at the Toronto Hearings⁸⁵ in September, 2011.

Barbara Honegger is a trained, degreed journalist⁸⁶ with an extensive government and military background. She currently works as Senior Military Affairs Journalist at the Naval Postgraduate School, the nation's premier defense and security research university, where she has served since 1995. Her chief claims are that explosives or bombs were mainly responsible for the damage at the Pentagon, and that the event took place at around 9:32am, earlier than the official time of 9:37:45. Her evidence for the earlier event time is described in Appendix A. A new paper by this author shows that the evidence supports the official time of 9:37:45am.⁸⁷ She cites a number of witnesses, some unnamed, who deduce bombs from the sound and odor, but otherwise offers no hard, physical evidence of any damage that can definitely be attributed to a bomb. Apart from the C ring hole, she makes no effort to apply the bomb theory to any of the actual damage and debris beginning at the downed light poles in the damage trail, nor does she try to explain the large number of witnesses to plane

⁸² <http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html>

⁸³ Barbara Honegger, <http://vimeo.com/28718716>, (Part 1)

<http://vimeo.com/28740527>, (Part 2)

⁸⁴ See Appendix, "The Terror Conspiracy," by Jim Marrs, The Disinformation Company Limited, 2006 and later editions.

⁸⁵ The Toronto Hearings, Transcripts to be released soon.

⁸⁶ Barbara Honegger, 1989. *October Surprise*. New York: Tudor. ISBN 0-944276-46-6.

⁸⁷ John D. Wyndham, "The Pentagon Attack: The Event Time Revisited," March, 2013, http://www.scientificmethod911.org/docs/Pentagon_Event_Time_March_2013.pdf

impact. Consequently, her theory at present fails to account for the bulk of the eyewitness reports and physical damage and debris, a fact reflected in the Table 1 and Table 8 summaries.

According to Honegger, April Gallop is the “key inside Pentagon witness,” and Honegger relates having debriefed Gallop under oath in a two hour, as yet unpublished video (although the transcript is “available”) when she and Gallop were in Irvine, Ca. in 2007. Contrary to Gallop’s words in her own 2007 talk, Honegger claims Gallop hit the “on” button on her computer when the boom occurred, that Gallop “thought it was a bomb,” and that Gallop heard two explosions. Honegger also shows a clip of Gallop, apparently from the movie “9/11 Ripple Effect,” in which Gallop also states the boom occurred when she hit the “on” button. This clip may also date from the Irvine event at which Dave von Kleist, the maker of “Ripple Effect,” was host. In summary, the Gallop testimony for a bomb or bombs is unsatisfactory because of the discrepancies noted here and elsewhere.

Besides Gallop, Honegger cites the following witnesses as suggesting a bomb or bombs, but does not give references or the exact words used in many cases:

- Michael Nielsen, Fort Monmouth TDY Financial Auditor (“100s ran down the hall shouting bombs”)
- Individuals named Danner, Don Perkal, and Gilah Goldsmith (detected cordite, not jet fuel, by the odor)
- Naval Command Center Lt. McKeown (heard a series of bombs)
- Lt. Col. Thurman (like a bomb, two part explosion)
- Robert Andrews, Assistant Secretary of Defense for Special Operations on 9/11, (“my aide and I had to walk over dead bodies on the inside of the A ring”), in a sworn affidavit
- Lisa Burgess, Stars and Stripes reporter (walking across the courtyard on the Pentagon innermost corridor, heard two booms, one large, one smaller, whose shock wave knocked her against the wall)
- An unnamed Marine Major, to the Washington Post (the B ring between the 4th and 5th corridors was decimated, with intense heat, so you could not enter)
- Lt. Kevin Schaeffer, Naval Command Center (“entire command center exploded in a gigantic orange fireball”)
- Unnamed Washington Post reporters on 9/11 (the deeper you went into the building, the hotter)

In addition, Lt. Col. Victor Correa also inferred bombs. This is a fairly substantial body of witnesses, but not nearly as large as the body of witnesses who saw a plane approach and impact the Pentagon. While Honegger infers that the above-listed witness testimonies suggest bombs, this cannot necessarily be deduced in all cases. There is no previous account or record of what it sounds or feels like on the inside of a building impacted by a large airliner to use for comparison purposes. Perhaps the most compelling testimonies for the presence of bombs are the reports of the smell of cordite (several different witnesses), and the report of dead bodies inside the A ring (Robert Andrews). Equally compelling as the smell of cordite is the smell of jet fuel in support of plane impact.

It is well to remember that there were many reports of multiple or secondary explosions⁸⁸ from witnesses who did not attribute these explosions to bombs. For example, one witness surmised that “tanks full of propane and aviation fuel had begun igniting, and they soon began exploding, one by one.”

In “The Pentagon Attack Papers,” Honegger cites witnesses in the Pentagon West section who reported that the “blast caused its windows *first* to expand *outwards*, and then *inwards*.” But this behavior, if accurately described, might have been from a sudden pressure increase caused by the ignition of jet fuel, which had been finely divided by the violent impact, rather than from an internal bomb blast.

As noted in the section on the C ring hole, Honegger’s claim of three exit holes in the C ring is false. The other two “holes” are a single doorway and a large roll-up door through which smoke escaped. See footnote 14 in Legge and Stutt⁸⁹ for the explanation and a photograph.

To summarize, there is some credible evidence for a bomb or bombs, exploding at the same time as a large plane impacting the building. This evidence at present lies mainly in the reports of cordite odor and deaths in the inner rings beyond the C ring. There is a possibility that some office areas or computers were destroyed for specific reasons, such as destroying, as Honegger points out, records of missing funds, measured in billions and trillions, or investigations, such as Able Danger, an investigation showing pre-knowledge of terrorists where such knowledge is denied by the U.S. government. The most highly damaged interior portion of the west-wing Pentagon was the Naval Command Center (NCC) where all but one person died, except for 18 intelligence personnel in an NCC hardened room. This area was well off the line of plane debris propagation, but nevertheless the damage might have been caused by a peculiar distribution of debris and/or plane fuel. More evidence is needed here.

Because of government secrecy, there is no information on who died in the A ring, as reported by Robert Andrews, or the probable cause for death. Given Lisa Burgess’ testimony above, about the shock wave that knocked her against a wall, it seems quite possible that an intense shock wave in an inner corridor could have killed some people in this fashion. The cordite odor and these reported deaths require further investigation.

An Analysis of the Bomb Theory and its Comparison with Large Plane Impact

The proponents of the bomb theory have made very little attempt to explain the damage and debris at the Pentagon. With the exception of her presentation of Michael Meyer’s explosive charge theory for the C ring hole damage, which implies planted or staged plane debris in the AE driveway, Honegger has made no attempt at all. Thus, the bomb theory, practically speaking, is as undeveloped and incomplete as the flyover theories which must also rely entirely on bombs and staged evidence to explain the damage and debris trail.

Nevertheless, many researchers, who essentially ignore the extensive eyewitness and physical evidence that currently supports the large plane impact theory, continue to claim that it would be “easy for” and “likely that” the perpetrators of a hoax, in which no impacting object was involved, to have staged the damage and debris trail with the help only of bombs or explosives. To rebut such a facile claim, this section presents a step-by-step examination and comparison of the bomb theory and the large plane theory and their application to the task of explaining the damage and debris trail. This examination will take place in reverse order, beginning with the C ring hole. Bear in mind that, according to the bomb theory, the perpetrators were clearly attempting to simulate the impact and penetration of a large plane, as shown by the official story and overall damage trail.

⁸⁸ See the section “Secondary Explosions” that lists 12 such testimonies at <http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html>

⁸⁹ Frank Legge and Warren Stutt, “Flight AA77 on 9/11,” [http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter 92.pdf](http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter%2092.pdf)

Explaining the C Ring Hole Damage and Debris

Bomb Theory: Well-placed explosives, such as the shaped charges⁹⁰ proposed by Michael Meyer, were used to create an almost circular hole. The airplane debris found in the AE driveway outside the hole was planted.

Large Plane Impact Theory: The pressure built up by the high speed arrival of a multitude of plane pieces, many small,⁹¹ caused the relatively weak wall to be broken through, depositing some plane debris in the AE driveway.

Analysis: Weighing against the bomb theory are these considerations:

It would be highly improbable that someone could have set charges in place and planted plane debris evidence in the AE driveway without being seen. Arranging a random pile of debris with plane parts in real time is no mean feat. No evidence of any left-over material from the shaped charges was reported, and it would seem impossible to have prevented such discovery by those not party to the plot. By what possible method of calculation would the perpetrators have determined that a large plane could reach the C ring wall and end there? While possible, this scenario lacks credibility.

On the other hand, the large plane impact theory has been criticized by Meyer who claims that “it is physically impossible for the C ring wall to have failed [due to the impact of plane debris] to a neat clean circle.” This criticism, however, is without foundation, for the following reasons:

The body of a Boeing 757 is very like a metal cylinder 13 ft in diameter and 154 ft in length. Such a cylinder, striking and penetrating the wall of the Pentagon at a speed of over 500 miles/hour, at an angle of 38° from normal, and shredding itself at the outer wall and on internal support columns into a multitude of relatively small pieces, would create a high velocity flow of material with some properties similar to those of a high speed liquid jet. The time to traverse the building to reach the C ring wall is estimated as less than one second.

It is often asserted that the aluminum plane could not penetrate the several walls of the C, D and E rings. This is shown to be a false argument as the plane only had to penetrate the outer wall to arrive at the C-ring wall. This has been explained by Jim Hoffman⁹².

Once the pressure on the C ring wall built up sufficiently to break the wall, the energy in the fragments still arriving would cause material to flow out through the hole in the direction the fragments had been traveling. An examination of an early photograph⁹³ with the C ring hole still smoking supports this scenario. The great mass

⁹⁰ Barbara Honegger’s presentation, The Toronto Hearings, 2011

⁹¹ This scenario was first proposed to the author by Frank Legge (private communication and website, <http://www.scienceof911.com.au/pentagon>). See also “Firefight: Inside the Battle to Save the Pentagon on 9/11,” by Patrick Creed and Rick Newman, 2008, page 27: “The 182,000-pound aircraft was morphing into an enormous mass of energy and matter, plowing forward like a horizontal volcanic eruption.” “As the mass traveled through the building, it began to resemble a shaped charge, a form of explosive that funnels its force into a small, directed area—like a beam of energy—in order to punch holes through armor or other strong material.”

⁹² <http://911review.com/errors/pentagon/punchout.html>
<http://911research.wtc7.net/essays/pentagon/index.html#parts> (see photographs at “Lack of Obstructions”)

⁹³ See <http://911research.wtc7.net/pentagon/evidence/photos/punchout.html>, (first photograph)

of debris in the AE driveway is clearly in line with the flight path, supporting the above scenario based on large plane impact.

It is important to address the claim by Meyer, a reputed expert in shaped charges, that it would be “physically impossible” for the plane debris to produce a “neat clean circle.” Barbara Honegger presented this claim at the Toronto Hearings (2011) as strong evidence that explosives, not damage from a large plane impact, were responsible for the C ring hole and its almost circular shape. In rebutting Meyer’s claim, it is only necessary to rely on the physical geometry of a large plane, such as a Boeing 757, the laws of physics, and the actual evidence itself.

As noted previously, the body of a Boeing 757 closely approximates a cylinder of diameter 13 ft and length 154 ft. The high velocity flow of material proposed earlier was very likely essentially cylindrical. Upon debris impacting the inside of the C ring wall at an angle of 38° to normal, the impact area would resemble an ellipse, since a section at an angle to the face of a cylinder is an ellipse. The theoretical expected ratio of the long and short axes of the elliptical impact area is given by $1/\cos 38^\circ = 1.27$, with the long axis being horizontal, and the short axis being vertical. Since the body of a Boeing 757 is actually 12.33 ft wide and 13.5 ft high, a more accurate calculation gives a long/short axis ratio for the likely impact hole of 1.16.

The impacting material would deliver a pressure or “punch” resolvable into two components, one a force perpendicular to the wall, and another parallel to the wall. The perpendicular force or pressure would then punch an almost circular hole through the weak wall in the direction of least resistance. Once open, residual debris would travel outside the hole in line with the flight path.

An examination of another photograph⁹⁴ of the C ring hole supports this scenario. In the last (sixth) photograph shown, debris has been removed from the front of the hole. The hole is seen to be not circular, but slightly oval with the long axis horizontal, and with a long to short axis ratio between 1.13 and 1.27, depending on where the measurements are taken. Within the expected limits of error for this type of measurement, the above scenario, based on large plane impact, for producing a near circular hole is supported.

In a third photograph⁹⁵ of the C ring hole taken in the AE driveway, debris is visible inside the hole at right. It is possible that this inside material was deflected from the wall before or at the same time as the wall gave way. As noted by Legge⁹⁶, “we do not know whether the material which hits the wall first would be deflected along the wall due to its angular approach. It could well be that it was followed so closely by further fragments that it was pressed against the wall and could not move until the pressure was sufficient that the wall gave way. Then the new arriving fragments would find no resistance and would carry on in the original direction.”

To summarize, the large plane impact theory provides a credible physical explanation for the C ring “punch out” hole, with none of the problems that attend the bomb theory.

Explaining the Interior Column and Other Damage and Interior Debris

Bomb Theory: Persons unknown placed bombs throughout the interior first floor where impact was to appear to occur, and in the area to the left of the impact hole (as seen from outside,) to simulate the passage of material from a large plane that penetrated the outer wall at 38° to normal. The column damage was tapered toward the inside of the building.

⁹⁴ See <http://911research.wtc7.net/pentagon/evidence/photos/punchout.html>, (last or sixth photograph)

⁹⁵ <http://911review.com/errors/pentagon/punchout.html>

⁹⁶ Frank Legge, private communication.

Large Plane Impact Theory: As the body of the plane penetrated the interior forest of vertical columns, it shredded itself. Plane parts and pieces intermingled randomly with building material and furniture, wires were wrapped around columns, and columns were broken or showed signs of abrasive impact by bowing in a direction indicated by the likely path of the moving plane material. The foregoing description is supported by eyewitness testimony and photographs. One photograph⁹⁷ verifies some of this description. There is a great amount of debris, but the ceiling is intact, showing that it did not come from the floor above. Some columns are bowed out to the left (the photograph, was taken looking toward the C ring wall with light streaming in from the collapsed floors on the right – see Frank Legge’s website⁹⁸ for a higher resolution image).

Analysis: The bomb theory cannot readily explain the bowed, abraded columns, with wire wrapped around some, the large amount of debris but intact overhead ceilings, the presence of plane parts, all of which would require deft expertise, staging, and the trucking in of debris, on the part of the perpetrators.

To summarize, the interior damage and debris are readily explained by the large plane impact theory, while the bomb theory is once again fraught with the problems of how such a complex scene could be envisioned and staged without discovery.

Explaining the Building Façade Damage and Exterior Plane Debris

Bomb Theory: Bombs and explosives were placed so as to simulate the façade damage that would be caused by large plane impact. At the same time, airplane debris and skin pieces were blown up to appear outside.

Large Plane Impact Theory: A large plane impacted the façade causing the observed damage.

Analysis: Once again, the bomb theory requires the perpetrators to place explosives without being observed, both inside and outside the building. The perpetrators must also have performed some analysis to determine the size, location, and shape of the façade holes and damage. Why did they omit some clear indication of where the tail struck? They may have allowed for a downward tilt of the wings at left, and also co-opted a number of “witnesses” into the plot who would testify to such a tilt. At the same time, they arranged to suppress the testimony of any real witnesses who would see the façade suddenly explode for no reason at the same time as the plane roared overhead. The timing of the façade damage had to be rigorously synchronized so as to follow the generator trailer/low wall damage and the earlier light poles damage. At the same time, the perpetrators arranged for small pieces of plane debris to rain down over the whole area on the onlookers⁹⁹, and also at the same time to bring larger plane parts and deposit them around the building in different locations, all without being observed by any honest witnesses who happened to be in the vicinity. Again, this scenario is simply not credible.

In the large plane theory, the large plane impacted and the lighter parts, which did not penetrate, fragmented into a shower of mainly small and a few large plane pieces, causing the observed damage and debris field. While critics may demur that the scene was not what they would have expected, it is advisable to ask oneself just how many buildings have been impacted by large planes at very high speed, and what basis is there for presuming to know just how such impacts should look?

⁹⁷ <http://911research.wtc7.net/talks/noplane/interior.html>

⁹⁸ <http://www.scienceof911.com.au/pentagon>

⁹⁹ [http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html# “Raining debris” after](http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html#%20Raining%20debris%20after) (see references 534 through 545)
<http://www.youtube.com/watch?v=ClVHovq4iTk>

See the section “Airplane Debris” in the main paper for additional references.

Explaining the Generator Trailer and Low Wall Damage

Bomb Theory: Basing their calculations again on a Boeing 757, the perpetrators of the bomb plot simulated the trailer and low wall damage to reflect the distance separating the plane engines, the location of the first flap canoe beyond the right engine, a downward tilt of the wings to the left, and a rotation of the heavy trailer about the undamaged end to a position which was about 45° to the West wall. They again co-opted witnesses to testify to the wall and trailer plane impacts, and the downward tilt of the left wing. They also arranged to suppress the testimony of any honest witnesses who suddenly observed the damage and trailer movement appear shortly after some explosions occurred at the light poles and at the nearby fence.

Large Plane Impact Theory: The impact of the plane's right engine gave the heavy generator trailer a massive horizontal blow that gouged one end and caused it to rotate about 45 degrees from a position parallel to the West wall. A gouge of smaller width across the top of the trailer, corresponding to a Boeing 757 first flap canoe beyond the right engine, was made simultaneously to the blow that caused rotation. A portion of a surrounding fence was knocked down. At the same time a gouge was made in the low concrete wall at lower elevation than the top of the trailer (indicating left wing tilted down), and at a distance from the trailer gouges corresponding to the distance between the two engines of a Boeing 757. There are eyewitnesses who described the wing tilt and low wall and trailer collisions.

Analysis: The perpetrators of the bomb plot would have to plant explosives in or around the low concrete wall, the fence and generator trailer without being seen. The blasts would be synchronized to take place after the light poles damage occurred, but before the façade damage and accompanying fireball. The gouges in the wall and trailer, and the rotation of the trailer, would need considerable care to accomplish. Especially problematic would be rotating the trailer while the other end remained in a fixed position. Again, this scenario is just not credible.

The large plane impact theory readily explains all the observations without requiring any fraudulent or mistaken testimony on the part of witnesses.

Explaining the Light Poles Damage

Bomb Theory: Pre-placed bombs simulated massive horizontal blows that bent, cut, and toppled five light poles on the highway overpass and exit ramp. Alternatively the poles were removed and replaced during the previous night with bent and broken poles. Although next to a major highway, the set up was performed secretly without observation by any honest onlooker. The witnesses who were in a position to see the light poles self-destruct, or to see the substitute poles before the event, were co-opted into the plot to testify about a large plane hitting the poles. Testimony by other witnesses was suppressed.

Large Plane Impact Theory: The low-flying large plane impacted the light poles causing the observed damage.

Analysis: Once again, the bomb theory demands extreme technical ability to synchronize the timing and type of damage, as well as the co-opting and suppression of multiple witnesses whose presence on the highway could not be reasonably controlled. No evidence has been presented that the eyewitnesses to the poles being struck are mistaken or fraudulent. This scenario is simply not credible.

The large plane impact theory is straight forward as far as explaining the damage, and requires no witness tampering.

Summary

The cost, complexity, and difficulty of creating the Pentagon damage and debris scene using bombs and explosives in real time is too great for any rational consideration whatsoever. The large plane impact theory is therefore by far the most plausible theory based on the evidence and is highly likely to remain so.

Appendix C Details of Damage to Low Wall and Generator Trailer Assuming Strike by a Boeing 757

In this Appendix, the low wall and generator trailer or unit damage is compared with the geometry of a Boeing 757 airliner, with particular reference to the wing structure and engines. It is shown that the damage is entirely consistent with the physical dimensions and features of a Boeing 757.

The layout of the low wall, said to be part of a ventilation system or utility access, and the generator trailer is shown schematically in Figure 1¹⁰⁰. The top of the diagram is roughly South, the right side is roughly West.

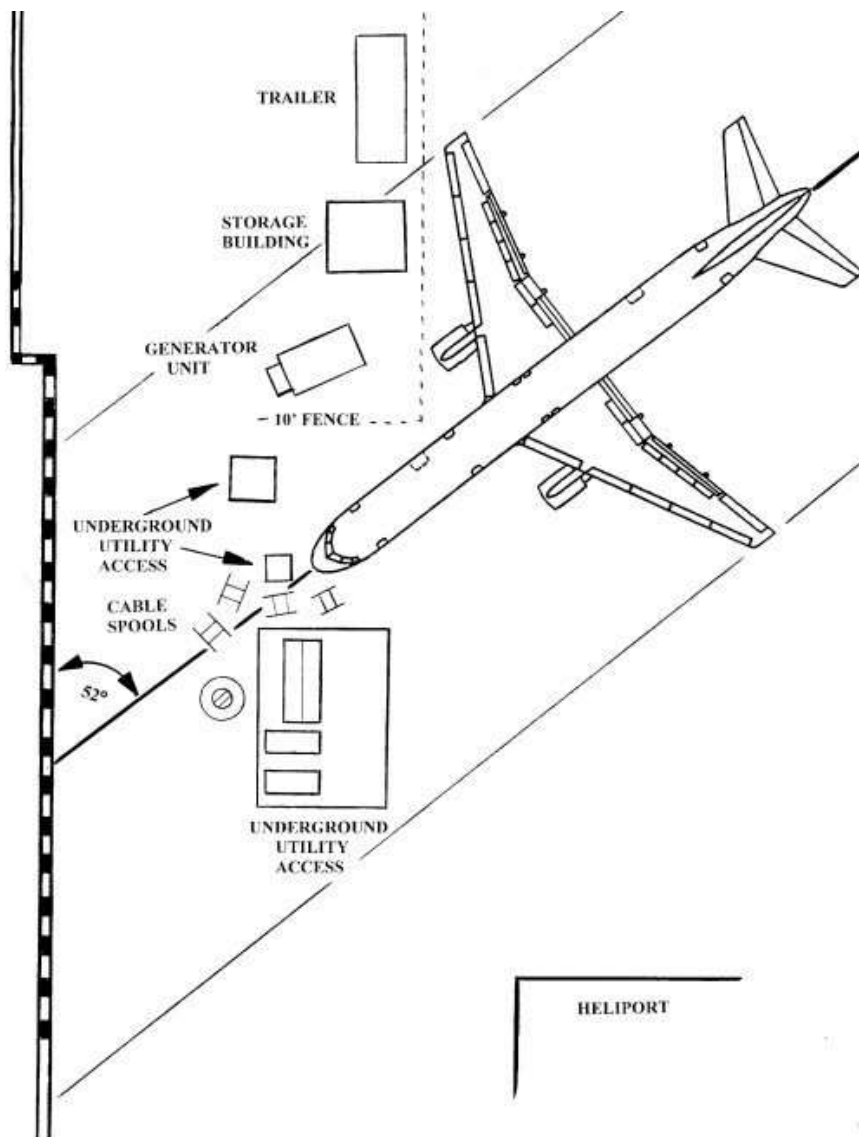


Figure 1

¹⁰⁰ This figure is from Russell Pickering's "Pentagon Research," <http://home.comcast.net/~skydrifter/exp.htm>

The diagram shows the path of a Boeing 757 with respect to the south portion of the low wall (just under the cable spools in the figure) and generator unit, shown in its position after being struck

The heavy diesel generator trailer, if originally parallel to the West wall of the Pentagon, was knocked at one end (the North end) by the right (starboard) engine of the Boeing 757 and rotated about 45° from the original direction of its long axis. The blow of the right engine, extending about 9 ft below the wing, created a large gouge that extended vertically downward several feet into the trailer body, and northwards (down in the diagram). A 10 ft fence that surrounded the trailer was broken through. About 10 ft away from the southern most edge of the engine gouge, and on the top of the trailer, was a shallow gouge 1 to 2 ft wide. This shallow gouge can be attributed to the first flap canoe beyond the right engine on the wing. The shallow gouge appears to be slanted at about the same angle (38°) to the normal as the flight path is slanted with respect to the normal to the Pentagon West wall. You can find photos of the trailer and fence damage here¹⁰¹.

The damage to the trailer and fence, and the movement of the trailer from a position aligned with the Pentagon West wall, are highly consistent with them being struck by the right engine and first flap canoe beyond it of a Boeing 757, with right wing tilted upward. The damage pattern matches both the size and shape of the engine and first flap canoe and their relative positions on the wing. To create or fabricate such a damage pattern, in such a massive object, by some other method would be simply beyond consideration.

The damage to the low concrete wall occurred in the south portion (top part in figure), just at the southwest corner. This damage is highly consistent with the wall being struck by the left engine of a Boeing 757, as observed and described by at least one witness cited earlier.

The position close to the ground of the wall gouge, together with the trailer gouges higher off the ground, is highly consistent with a tilt of the wings, as described by several witnesses in earlier citations. The damage to both trailer and wall is highly consistent with the distance apart of the engines of a Boeing 757 (42.5 ft), given the angle of attack of the airliner (38° from a normal to the West wall of the Pentagon). Again, to create or fabricate such a damage pattern by some other method would be simply beyond consideration.

To summarize, the damage to the low concrete wall and generator trailer is easily explained in all its detail by the impact of an airliner such as a Boeing 757. Conversely, this damage is virtually inexplicable if it was caused by some other method, such as explosives. The testimony of witnesses, as regards the type and path of the plane, its wing tilt, and its striking the low wall and trailer, combines with the physical evidence here to produce a virtually irrefutable argument that a Boeing 757 did indeed hit the Pentagon.

¹⁰¹ <http://www.abovetopsecret.com/forum/thread79655/pg1>

Appendix D Interior Columns Damage And Penetration Path

Figure 2 shows the interior columns damage and the presumed path of debris from a Boeing 757 after striking the outer wall of the E ring until final exit through a hole in the C ring. This image was obtained by cropping from page 53 of the Pentagon Building Performance report.

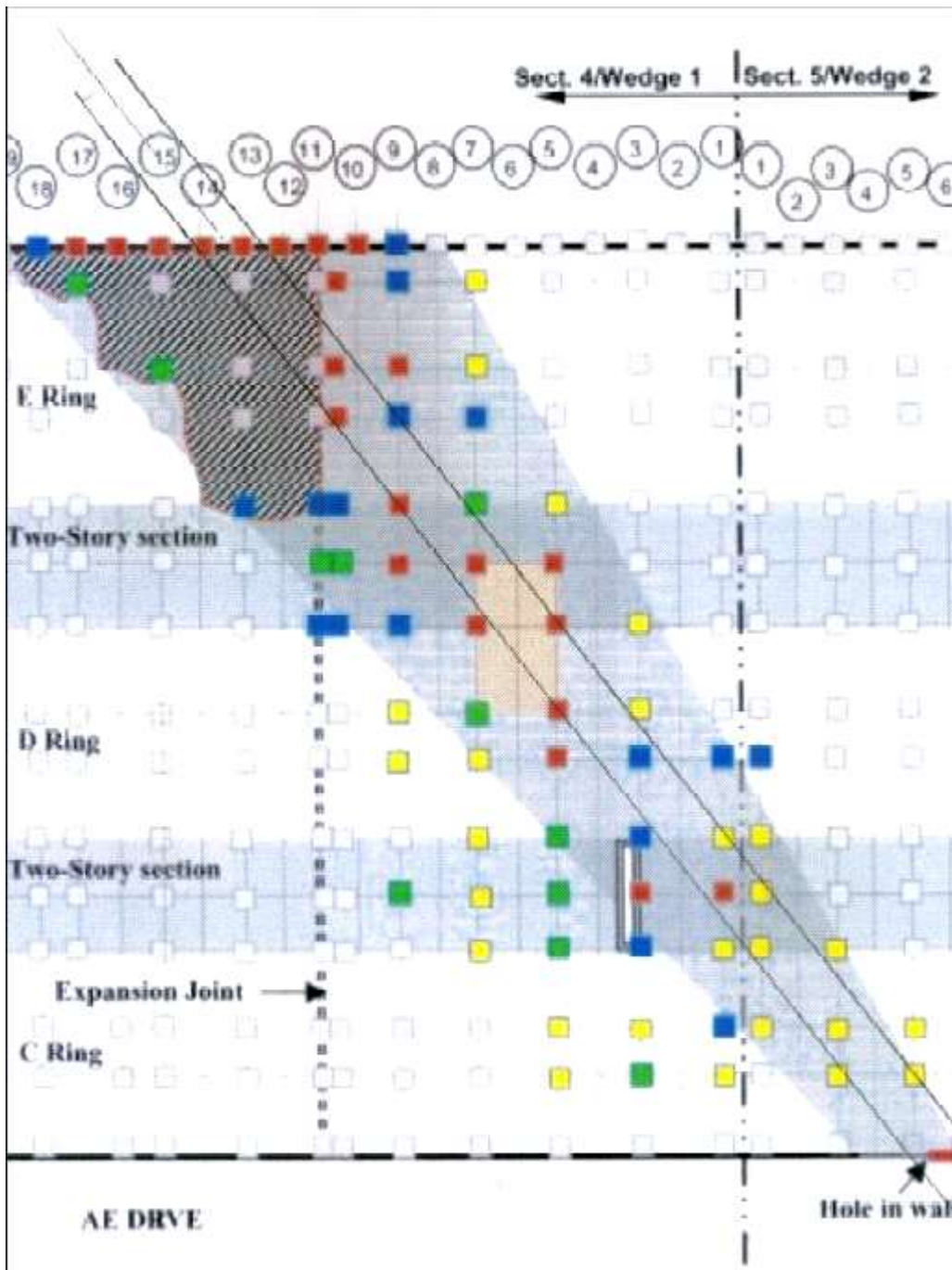


Figure 2

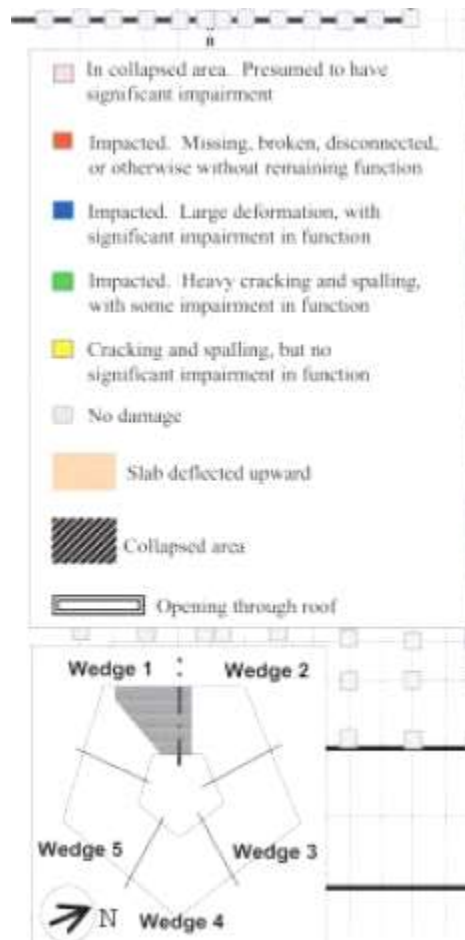


Figure 3

Figure 3 is the legend that accompanies Figure 2. Squares indicate supporting columns.

The two parallel lines added by the author and drawn along the axis of the damage path in Figure 2 have a separation of 12.33 ft, which is equal to the width of the body of a Boeing 757. The perpendicular distance from the top horizontal row of columns to the bottom horizontal row marking one boundary of the AE driveway is 220 ft. The distance the debris traveled at an angle to the Pentagon walls, from the outer building façade to the C ring hole, is approximately 280 ft.

The colored squares represent interior columns in floor 1, the main path of the plane. Intact columns are 14 inches (1.17 ft) square. As seen from the direction of debris flow, the columns would appear to be approximately 20 inches (1.67 ft) wide, but oriented in the most advantageous position for debris to flow around them. Note that, in Figure 2, the cross-sectional size of the columns is not to scale, leading the casual viewer to believe that the plane body path was blocked to a far greater extent than it actually was. As depicted in Figure 2, the columns are over 5 ft square in cross-section, well over four times as much as the actual value of 1.17 ft.

The pink columns in the collapsed area are, according to the legend, “presumed to have significant impairment.” Since the examination that produced these figures must have occurred after the collapse, there is no way of knowing the degree of impairment. It seems altogether possible that, after the plane impact, these pink columns were missing, broken, or disconnected like the red columns. If so, then it seems likely that the

initial debris flow cleared a path 12.33 ft wide and about 158 ft in length along the damage path, to the blue “impacted” column sitting almost in the center of the two parallel lines that represent the plane width. The debris following the initial debris would thus have an almost clear path for about 158 ft of the 280 ft path. Impeding flow in the remainder of the path beyond the blue column are a red (possibly missing) column, two yellow (cracked, no significant impairment) columns situated towards the edges of the 12.33 ft wide path, and one more yellow column situated roughly in the middle of the path. Given that each column presents only an apparent width of 1.67 ft in this 12.33 ft wide path, and is oriented for the easiest possible debris flow, it does not seem surprising at all that a sufficient quantity of debris, including relatively large parts, could reach the C ring wall and break through it.

Remember that once the outer façade was broken through, creating an 18 ft wide hole (apparent width as seen by the entering plane body of 14.2 ft, wide enough for a 12.33 ft wide body), the remainder of the plane body would experience no further resistance from it. The fuselage is not strong enough to convey much of the impact deceleration force back through the body, so initially the front of the body would collapse, building up pressure on the wall. Once the wall gives way, the body continues on through the hole at close to its original speed¹⁰², breaking and removing columns and shredding itself in the process.

Some eyewitnesses¹⁰³ described the plane as simply disappearing or sliding into the building.

Dwain Deets’ “no penetrator path” concept is apparently flawed as, according to the above analysis, it is not surprising that sufficient material reached the C ring wall at a sufficiently high speed to break through it.

¹⁰² This is proved by the F4 Phantom experiment⁵². It can be seen that the body of the aircraft does not slow down perceptibly while the front of it is compressed and fragmented by high speed impact with an impenetrable concrete block. In the case of the Pentagon attack the wall was not impenetrable but the behaviour would have been similar until the wall gave way

¹⁰³ <http://arabesque911.blogspot.com/2007/04/911-and-pentagon-attack-what.html> See the section “Witnesses described the plane hitting the Pentagon.”

Appendix E Individual Theory Details

Table 3: Main Theory (Large Plane Impact)

Do the Observations Support the Theory?

| Observation | Large Plane Impact | Theory Details |
|----------------------------------|--------------------|--|
| Eyewitness testimony | YES | The vast majority of eyewitnesses (31 to as high as 89 to 100) saw a large plane impact the Pentagon. All of the CIT group of witnesses agree that this was a large commercial plane and many of them also maintain that the plane impacted the Pentagon. There is only one questionable witness to flyover. The numbers of witnesses for small plane impact, missile impact, and explosives as the main event are small by comparison with those for large plane impact. Hence the preponderance of eyewitness testimony supports large plane impact. |
| Airplane debris | YES | There is more than ample eyewitness, video and photographic evidence for airplane debris, both outside and inside the Pentagon. |
| Overall damage path | YES | The overall damage path is highly consistent with the passage of a large plane across the highway and Pentagon lawn, striking the façade and creating a damage trail that ends with the hole in the C ring. |
| Downed light poles | YES | The downed light poles are consistent with the eyewitness evidence that they were impacted by a large plane with wingspan of at least 100 ft. The upper limit to the wingspan, so as not to strike additional poles, is 130 ft. The wingspan of a Boeing 757 is almost 125 ft. |
| Concrete wall and trailer damage | YES | The low concrete wall and trailer damage support the passage through them of a Boeing 757 or similar large plane in all details. One witness said the left engine disintegrated on impact with the wall. |
| Building façade damage | YES | Basically, an 18 ft wide hole above a 96 ft gash. The gash is more than wide enough to admit both engines, Further damage on the façade corresponds approximately with the wingspan of a Boeing 757. |
| Interior columns damage & debris | YES | The interior column damage and damage width is consistent with the rush of a large quantity of plane debris from a large plane. |
| C Ring hole | YES | The wall apparently was not very strong. The plane debris pushed it out leaving a nearly round hole. Plane parts were found outside in the AE roadway, together with debris lying in the direction of the damage path. |

Table 4: Flyover Theory (Impossible Maneuver)

Do the Observations Support the Theory?

| Observation | Flyover and Impossible Maneuver | Theory Details |
|----------------------------------|---------------------------------|---|
| Eyewitness testimony | NO | The theory is substantially contradicted by the great many witnesses who described a large plane impact. There is only one questionable witness to flyover. Requires staged event with theory and evidence. |
| Airplane debris | NO | There should be no plane debris. Requires staged event with theory and evidence. |
| Overall damage path | NO | There should be no overall path damage. Requires staged event with theory and evidence. |
| Downed light poles | NO | The light poles should have remained standing. Requires staged event with theory and evidence. |
| Concrete wall and trailer damage | NO | The low concrete wall and trailer should not have been damaged. Requires staged event with theory and evidence. |
| Building façade damage | NO | There should be no damage to the façade. Requires staged event with theory and evidence. |
| Interior columns damage & debris | NO | There should be no interior column damage and debris. Requires staged event with theory and evidence. |
| C Ring hole | NO | The C ring hole should not have occurred. Requires staged event with theory and evidence. |

Research by Frank Legge and others¹⁰⁴, has shown the invalidity of Pilots for 9/11 Truth g-force calculation for plane pull-out from the dive on approach to the Pentagon. Research in conjunction with Warren Stutt¹⁰⁵ has shown the invalidity of the contention that the plane was too high to have hit the Pentagon. Pilots for 9/11 Truth now question the validity of the FDR data on which their calculation was based. Legge and Stutt can find no evidence that the FDR file is not legitimate but it did need special treatment to decode the final data frame.

¹⁰⁴ Clinger, W., <http://www.cesura17.net/~will/Ephemera/Sept11/Balsamo/balsamo2.html#finalseconds>

¹⁰⁵ [http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter 92.pdf](http://www.journalof911studies.com/volume/2010/Calibration%20of%20altimeter%2092.pdf)

Table 5: Flyover Theory (North of CITGO)

Do the Observations Support the Theory?

| Observation | Flyover and North of CITGO | Theory Details |
|----------------------------------|-----------------------------------|---|
| Eyewitness testimony | NO | The theory is substantially contradicted by the great many witnesses who described a large plane impact. There is only one questionable witness to flyover.. Many of the CIT group of witnesses (about 12) also saw or inferred a large plane impact. Requires staged event with theory and evidence. |
| Airplane debris | NO | There should be no plane debris. Requires staged event with theory and evidence. |
| Overall damage path | NO | There should be no overall path damage. Requires staged event with theory and evidence. |
| Downed light poles | NO | The light poles should have remained standing. Requires staged event with theory and evidence. |
| Concrete wall and trailer damage | NO | The low concrete wall and trailer should not have been damaged. Requires staged event with theory and evidence. |
| Building façade damage | NO | There should be no damage to the façade. Requires staged event with theory and evidence. |
| Interior columns damage & debris | NO | There should be no interior column damage and debris. Requires staged event with theory and evidence. |
| C Ring hole | NO | The C ring hole should not have occurred. Requires staged event with theory and evidence. |

The evidence for the north of CITGO path has been heavily criticized in a paper¹⁰⁶ by Frank Legge and David Chandler, who show that the curve required for the north path would necessitate a bank angle so steep as to attract attention and create discussion. No witness reported a steep bank. The few who mentioned bank reported that it was slight. It is reasonable to conclude that there was no steep bank, no deviation around the CITGO station and hence that the plane flew virtually straight from the last radar position to the impact point.

¹⁰⁶ Frank Legge and David Chandler: "The Pentagon Attack on 9/11: A Refutation of the Pentagon Flyover Hypothesis Based on Analysis of the Flight Path"
[http://stj911.org/legge/Legge Chandler NOC Refutation.html](http://stj911.org/legge/Legge%20Chandler%20NOC%20Refutation.html)

Table 6: Small Plane Impact

Do the Observations Support the Theory?

| Observation | Small Plane Impact | Theory Details |
|----------------------------------|---------------------|---|
| Eyewitness testimony | NO to very little | A few (4) eyewitnesses described the plane as a smaller, commuter plane. The great majority of witnesses described a large plane. May need staged event with theory and evidence. |
| Airplane debris | NO to very unlikely | Some plane parts ¹⁰⁷ have been identified as coming from a Boeing 757, though this evidence is disputed by some. The rating here could change if it is shown that the parts' evidence is untrustworthy. |
| Overall damage path | NO | The damage weighs against a small plane because of the wingspan required (at least 100 ft to clip the light poles). The low wall and trailer damage indicate a large plane such as a Boeing 757. Hence the rating here is NO. Requires staged event with theory and evidence. |
| Downed light poles | NO | The light poles should have remained standing. Requires staged event with theory and evidence. |
| Concrete wall and trailer damage | NO | The separation of the wall and trailer damage weighs against a small plane. Requires staged event with theory and evidence. |
| Building façade damage | NO to unlikely | The 96 ft gash and the superficial damage indicate a plane with a wider wingspan, too wide for a small plane. The 18 ft hole may be too large for a small plane. |
| Interior columns damage & debris | NO to unlikely | The amount of column damage and internal debris seems too much for a small plane. |
| C Ring hole | Possibly | A small plane may have caused this damage. |

¹⁰⁷ Pentagon & Boeing 757 Engine Investigation,
<http://www.aerospaceweb.org/question/conspiracy/q0265.shtml>
<http://911research.wtc7.net/essays/pentagon/index.html#parts>
<http://www.abovetopsecret.com/forum/thread79655/pg1>
<http://www.911-strike.com/engines.htm>

Table 7: Missile Impact

Do the Observations Support the Theory?

| Observation | Missile Impact | Theory Details |
|----------------------------------|-----------------------|---|
| Eyewitness testimony | NO | The theory, as the main event, is substantially contradicted by the great many witnesses who described a large plane impact. Only about 6 witnesses inferred a missile. Requires staged event with theory and evidence. |
| Airplane debris | NO | There should be no plane debris. Requires staged event with theory and evidence. |
| Overall damage path | NO | There should be no wide path damage. Requires staged event with theory and evidence. |
| Downed light poles | NO | The light poles should have remained standing. Requires staged event with theory and evidence. |
| Concrete wall and trailer damage | NO | The low concrete wall and trailer should not have been damaged. Requires staged event with theory and evidence. |
| Building façade damage | NO | The damage to the façade appears to be from the impact of a large plane, not a missile. Requires staged event with theory and evidence. |
| Interior columns damage & debris | NO | There should be no widespread interior column damage and debris. Requires staged event with theory and evidence. |
| C Ring hole | Possibly | The C ring hole could be caused by a missile. The absence of damage at the B ring would be hard to explain. Needs additional evidence. |

Use of a missile in addition to large plane impact is not ruled out.

Table 8: Bombs (Explosives)

Do the Observations Support the Theory?

| Observation | Bombs, Explosives | Theory Details |
|----------------------------------|-------------------|--|
| Eyewitness testimony | NO | The theory as a main event is substantially contradicted by the great many witnesses who described a large plane impact, though simultaneous use of explosives is not ruled out. Honegger offers a number of witnesses who suggest the use of bombs, but these are in the minority (about 12). Requires staged event with theory and evidence to explain the large number of eyewitnesses to plane impact. |
| Airplane debris | NO | There should be no plane debris. Requires staged event with theory and evidence. |
| Overall damage path | NO | The cost and complexity of faking the path damage using explosives, while theoretically possible, is beyond practical consideration. Requires staged event with theory and evidence. |
| Downed light poles | NO | The practical difficulty of severing the poles at ground level, above ground level and bending them with bombs, while giving the appearance of being the result of a blunt horizontal impact, is immense. Requires staged event with theory and evidence. |
| Concrete wall and trailer damage | NO | Simulating the damage with explosives is too difficult and unlikely to be seriously considered. Requires staged event with theory and evidence. |
| Building façade damage | Possibly | Simulating the damage with explosives is difficult and unlikely, but possible. Requires staged event with theory and evidence. |
| Interior columns damage & debris | NO | Possibly for the damage, but where did all the debris come from? Requires staged event with theory and evidence. |
| C Ring hole | Possibly | Simulating the damage with explosives is possible (Honegger and Meyer) and implies staged plane debris planted in the AE driveway. Requires staged event with theory and evidence. |

The damage and debris is far from random, instead exhibiting features consistent with the passage and impact of a large plane. Therefore the use of explosives or bombs to create the observed scene would have to be specifically staged. Such a staging is fraught with difficulty, as shown in Appendix B. Use of explosives to augment the large plane impact damage, or to create other damage and casualties at the same time, is not ruled out.

Changes That Appear in Version 2 March, 2013

These changes were made to Version 1, January 2012.

Page 7: Referenced Jerry Russell for the “31” eyewitnesses to plane impact (reference 20).

Page 9: In the main section “Eyewitness Testimony,” subsection “Category 5,” removed a questionable speculation about AA Flight 77’s clock being fast, and referred to a new paper by this author, “The Pentagon Attack: The Event Time Revisited.”

Page 20: Rewrote the section “The Event Time – Stopped Clocks” in Appendix A based on further research detailed in a new paper by this author, “The Pentagon Attack: The Event Time Revisited.” This paper includes a full description of the opposing views in the evidence assembled by Barbara Honegger and Adam Larson. The “stopped clocks” evidence was found by experiment to be untrustworthy. The evidence points strongly to an event time close to the official time of 9:37:45 am.

Page 24: In Appendix B, “April Gallop’s Testimony,” changed Gallop’s title from “Army officer” to “Army Specialist.” Also modified and amplified the description of Gallop’s escape route which was through a window and not, as she later claimed, through the impact hole that was an inferno at the time.

Page 25: Referenced a new paper by this author, “The Pentagon Attack: The Event Time Revisited,” in the second paragraph, section “Barbara Honegger’s Work,” Appendix B.

Page 30: Corrected an estimate of the length of a second floor gash from 20 – 30 feet to 70 – 80 feet, based on a reevaluation of the photograph which was taken during clean-up. This photograph is of a portion of the building that was still standing after the impacted portion collapsed. See “Explaining the Interior Column and Other Damage and Interior Debris,” subsection “Large Plane Impact Theory,” Appendix B.

Tables 3, 5, 6, 7, 8: The text in “Eyewitness Testimony” was amplified to better illustrate what is meant by eyewitness testimony for the particular theory.

Changes That Appear in Version 3 April, 2016

These changes were made to Version 2, March 2013.

Page 24: The distance from the impact hole to Gallop’s desk is now estimated at 150 feet (Honegger, Seattle talk, 2013).

Page 30: The second floor gash description has been removed. There was no such gash. What appeared to be a gash (as seen in the photograph) was actually the collapsed portion of the second floor.