

C01186301

EXHIBIT B

~~SECRET~~

(b) (3)

TO: [redacted]
FROM: [redacted]
DATE: 07-30-96 04:39:55 PM
SUBJECT: Re: Hold The Press

Some excellent ideas. One of the biggest puzzles to me is that the aircraft appears to have dropped 120 knots over ten seconds then sped up to nearly the original climbing speed in the next ten seconds just prior to the some incident (which knocked out the flight recorder).

This suggests to me, two occurrences, the first resulting in the aircraft decelerating and leveling off (120 knots over ten seconds is not a radical deceleration), followed by something drastic which caused the plane to again speed up (perhaps in a decent) and then explode.

Pursuing this from another angle... do we assume that the [redacted] hit is the air explosion or the plane (or remnants) hitting the water? If the latter, we can work backward to the point of explosion using the assessed time it would take for the plane to drop 13,000 feet.

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My powers of explanation are remiss . . . several people have asked me about the large oscillations in aircraft speed . . . I may have to break down and create a PowerPoint picture. I don't think the aircraft total speed decreased. The speeds reported are ground speeds calculated by dividing the ground track distance flown by the time between radar scans. I believe that the total speed of the plane remained around 400 kt. After the initial problem at 13,700 feet, I think the airplane began a steep descent at an angle of 40 to 50 degrees. I calculated that descent angle by assuming the total speed stayed 400kt, and the ground speed went to 270 kt. $\text{Arcos}(270/400) = 47.5 \text{ degrees}$. The resulting decrease in altitude would be 1.43 km, resulting in an altitude of about 9000 ft at the first radar skin track (the first track after loss of the beacon). I say the plane flattened its trajectory because I want it to be at about 8000 feet when it fireballs (if you'll allow me to create a verb), and because the ground speed went back up to 380 kt. This flattening is what I use to generate the aero forces to break the plane up. One could also reasonably postulate that the airplane slowed down, resulting in a less steep initial descent angle, or that it sped up, resulting in an initially higher descent angle. The trick is to come up with a combination of speeds and descent angles that gets you to the right altitude at fireball time.

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Based on the time that [redacted] detected the IR, and the location derived from the [redacted] we think that it most likely saw the explosion on impact (moving the altitude up along the [redacted] line of sight moves the IR event further from the aircraft flight path). See [redacted] note for further graphic detail on the result of impact of one of these aircraft.

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DATE: OCT 2005

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7-30-96

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NOTE FOR:



(b) (3)

FROM:

DATE:

04-15-97 10:19:02 PM

SUBJECT:

TWA Flight 800: Revision of Time and Lat/Long for First Explosion

(b) (6)
(b) (7) (c)

[Redacted] at the FBI believes that the accuracy of the clock aboard TWA Flight 800 is suspect. He would like us to use 831:11.313 PM as the time of the first explosion (last transponded point), rather than 831:07.496 PM as we had been using. I have recalculated the "first explosion" position for TWA Flight 800 using this revised time, assuming the aircraft maintains its heading of 70.93 degrees, ground speed of 641 ft/sec, and altitude of 13,820 feet for the additional 3.817 seconds. The revised coordinates are:

N40 deg/38 min/52.2 sec
W72 deg/40 min/50.5 sec.

All the JFK Airport radar coordinates (sampled every 12 seconds) remain valid and unchanged. The revision simply moves the explosion 3.817 seconds into the future, and therefore places it about 2,450 feet east-northeast of where we had it.

(b) (3)

[Redacted]. After our meeting with the FBI and Sandia Labs tomorrow, I'll adjust our VGs accordingly if the change seems warranted. My preliminary calculations indicate that it would strengthen our case a little that the eyewitnesses saw only the crippled aircraft, and not a missile. In particular, I think it would strengthen the case that the observer on US Air Flight 217 saw the aircraft explode, rather than a missile. Also, it would make the time between when the aircraft first exploded and when it hit the water match the "sound propagation analysis" a little better (it was already within about a second or so). And it would decrease by several seconds our estimate of the time between when the left wing separated and when the aircraft and wing hit the water --- strengthening our case that the many eyewitnesses whose observations were within about 10 seconds of this event could not have seen the initial explosion.

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[Redacted] this revision clearly would require that the aircraft pitch up and ascend much more abruptly after the first explosion than we had previously thought. Because the aircraft would maintain its 641 ft/sec horizontal speed for an additional 3.817 seconds, its horizontal speed would need to slow down much more than before after the first explosion to match our calculated average horizontal speed of 457 ft/sec between the JFK radar hit at 831:10 PM and the next one at 831:22 PM. This would imply a much higher vertical speed. [The total horizontal distance between these two points is about 5,485 feet.]

Anyway, it's late and I'm outta here.

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NOTE FOR:

[Redacted]

(b) (3)

FROM:

DATE:

04-16-97 11:03:16 PM

(b) (6)

SUBJECT:

Location of Eyewitness [Redacted]

(b) (7) (c)

(b) (6)

(b) (7) (c)

(b) (6) Interesting development...I used the mapping software to locate the house from which [Redacted]
(b) (7) (c) observed TWA Flight 800. According to the mapping software, she was in one of the houses over which
[Redacted] observed the event. So her perspective was almost identical to his, but she saw the "orange
ball" fall all the way to the water, followed one to two seconds later by the first boom. Depending on
which "first explosion point" we use (831:11.313 PM or 831:07.496 PM), sound would take 54.30
seconds or 55.43 seconds (respectively) to reach her...corrected for "winds aloft." So the total duration
from the first explosion to water impact based on her observations would be between 52.30 seconds and
54.43 seconds. These are the types of numbers we were trying to obtain for [Redacted] but couldn't
get because he didn't actually see the aircraft hit the water. (By the way, kinda makes me favor the
earlier time for the first explosion...but that's not too important here.)

(b) (6)

(b) (7) (c)

(b) (6) Since [Redacted] was seated at a known location in the house and first saw the "bright white light"
(b) (7) (c) through a specified window, it should be possible to ascertain the approximate azimuth at which her
observations began. More importantly, she estimated that her total observation lasted at most about 30
seconds, including five to ten seconds of "bright white light." So there's no time for a missile here unless
her time estimate is off by about 100%.

See you when you return from your trip, and we can discuss this in detail. (...unless, of course,
Chris Holmes and John Gannon and George Tenet think it's so important that I need to brief it to
Kallstrom and Freeh and Clinton before you return.)

[Redacted] (b) (3)

(b) (6)

(b) (7) (c)

Interesting footnote: [Redacted] was interviewed two days after the disaster, and the report was
transcribed a day after that interview.

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(b) (3)
NOTE FOR: [redacted] (b) (6)
FROM: [redacted] (b) (7) (c)
DATE: 04-29-97 01:18:35 PM (b) (6)
SUBJECT: Summary: FBI's [redacted] Critique of TWA-800 Analysis (b) (7) (c)

It is important to note that of the two FBI agents assigned to the FBI's 'missile team', [redacted] is (b) (6)
completely convinced and satisfied with our analysis and conclusions and [redacted] although not (b) (7) (c)
himself believing a missile was necessarily employed to take down TWA-800, has concerns over our
analysis. All the points documented in his critique sent to us as well as the summary below have been
discussed at length with him during a murder board of the Agency's analysis two weeks ago on April 16,
1997. A summary of our responses will be provided at the end of [redacted] concerns. (b) (6)
(b) (7) (c)

(b) (6)
(b) (7) (c) Summary of FBI's [redacted] Critique of CIA's TWA-800 Analysis:

Areas of Concern:

(b) (6)
(b) (7) (c) 1) Witness [redacted] was the initial witness from which CIA speculated that the aircraft may pitch up and rise shortly after the initial (b) (6)
explosion. A re-interview of [redacted] has witness reporting a slight east to west motion of projectile at almost vertical ascent, which (b) (7) (c)
is opposite of expected west to east motion for initial trajectory of aircraft after initial explosion.

CIA response:

(b) (6)
(b) (7) (c) Although witness [redacted] report was the initial cue which led the CIA to examine the possibility that the (b) (3)
aircraft pitched up and gained altitude shortly after the initial explosion, this belief is now further
supported by; a) NTSB analysis of structural sequencing (that is modeling of how the aircraft came apart
based on where debris was found on the ocean floor) showing the front third of the aircraft left the
remainder of the aircraft and wings 2-4 sec after the initial explosion. Aerodynamics would suggest that
this loss of mass in the front, with wings still creating lift, would cause the aircraft to pitch up and climb
with still operating engines. In conversations with [redacted] Boeing analysts have no problems with (b) (3)
the aircraft pitching up and rising in altitude, should the aircraft begin to come apart in the manner
discussed above. Nonetheless this assumption of upward aircraft motion just after the initial explosion
deals with less than 10 % of all the witnesses examined as over 90 % see a portion of the aircraft's
trajectory closer to the end of the entire event.

(b) (6)
(b) (7) (c) 2) Witness [redacted] in USAir flight, 8,000 ft above TWA-800, subject to 'relative velocity' observations, was in no position to judge (b) (6)
upward or downward motion flight 800. [redacted] does not describe relative motions consistent with TWA-800's direction of motion.
(b) (7) (c) [redacted] is not the 'ideal' or template witness. (b) (6)
(b) (7) (c)

CIA response:

(b) (6)
(b) (7) (c) Witness [redacted] reported that he thought the object which he saw was ascending but that he could not be (b) (6)
sure. Analysis of where TWA-800 was in respect to the USAir flight [redacted] was on at the time of the initial (b) (7) (c)
explosion shows that he had to have seen close to the initial portion of the event after the first explosion
on flight 800. The object he describes could not have been a potential missile unless its trajectory was
directly aft of flight 800's path. This trajectory does not correspond to other witness reports and flight (b) (6)
800's path is consistent with the direction of motion described by [redacted] in a second interview. [redacted] is only (b) (7) (c)
one witness of over 200 examined by CIA analysts to analyze and determine what the witnesses could
have seen and when. He was used only as an example for briefing purposes of one of the best and
closest to the aircraft at the time of the initial explosion. Many others exist consistent with his reported
information.

3) Concerns that the initial "pitch up" must be consistent with the same principles which would stop the "pitch up". The
trajectory must also be consistent with continued motion downrange with apparent directional stability and increasing

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downrange distance (from radar data). If a "pitch up" and ensuing instability are not consistent with what has been determined to date by radar, witness statements, and aerodynamics, then the analysis could be left with its original problem, what do people see ascend?

CIA response:

What happens to the aircraft after the initial pitch up and corresponding aircraft instability in pitch does not affect the results of CIA analysis at all. The aircraft can match radar data points with an initial pitch up which is all that is necessary in order to show a feasible, hypothetical trajectory. All that is necessary to explain in the initial portion of the aircraft's crippled flight is the beginning pitch up and ascending motion. Whatever happens after these first several seconds is not understood by CIA and would require extensive modeling of the aircraft beyond the CIA capabilities. CIA does not attempt to model this portion of the trajectory and only relies on determining 4 key points in the trajectory; 1) the initial upward pitch up and ascent, 2) a rough time position of the aircraft's apex of ascent, 3) the point at which the aircraft's left wing separated from the fuselage near the end of the flight, and 4) the approximate time at which the main fuselage hits the water. Again, modeling the exact second by second trajectory of flight 800's demise is not necessary for CIA to reach its conclusions. We question whether such a model could be created at all.

4) Claiming that a majority of witnesses observing something ascend just prior to an explosion are not witnessing the entire event and only the end (and thus could not see a missile) are based on one of three things:

a) Witness descriptions of the entire observed event occurring in a few up to about 20 sec. How could something which is known to have taken about 50 sec have been reported by many witnesses as only taking a few to about 20 sec?

b) Lack of descriptive narrative for a period of observation - an injured flight 800 at 17,000 ft down to 5-6,000 ft in about 25 sec.

c) 5 Separate witness observations whose lines of bearing to what they observed 'ascend' as plotted by are more consistent with observing something rise closer to the end as opposed to the aircraft at the initial explosion. This is not consistent with the initial Agency projected rise of the aircraft just after the initial explosion. (b) (6) (b) (7) (c)

CIA response:

CIA used several criteria individually as well as in conjunction with one another to place a majority of witnesses in a category as seeing only the end event (thus not possibly have seen a missile before the first explosion). Less than 10 % are believed to have seen something close to the initial event and these are not any of the witness locations determined in c) above. The CIA criteria for placing a majority of witnesses in the end event were: (b) (6) (b) (7) (c)

a) Witness descriptions of events with total duration of observations of a few to about 20 sec and detailing the aircraft hitting the water. These witnesses could not have seen an ascending object prior to this point, 30 sec or more prior. Although acknowledging witness errors in estimating times of observations, CIA does not believe that all witnesses would make errors consistent in the same direction (ie. shorter than the total event as opposed to longer) nor that witnesses would all be off by at least 150 %. If witnesses see the aircraft hit the water after stating observation of the crippled flight for 20 sec, they could not have all mistakenly actually seen a 50 plus sec event.

b) Witnesses reporting observations within a few to 20 sec of hearing sound of initial explosion. Sound takes from 43 sec to over a minute to reach witnesses. Based on the timing of when they heard this first sound compared to when they see the aircraft hit the water and the total duration of their observations, it can be shown that they are observing the final events only (ie. last 20 seconds or so and not the entire 50 sec flight).

c) Witnesses observing a huge explosion and fireball as well as separation of wing from fuselage

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(b) (3) and burning debris falling into water at end of event in about 10 sec. This large explosion and separation of wing and fuselage is known to have occurred in the final seconds of the crippled flight. It is supported by a [] hit of the large fireball at the same approximate time as well as the NTSB structure sequencing group's findings from aircraft debris on the ocean floor. These witnesses could not have seen the initial event having seen the end and only described observations of a few to 20 sec.

d) Many witnesses note an ascending object rising straight up with little or no azimuth change. This suggests either observations of the initial or end event only of the crippled aircraft's flight. When taken in conjunction with those points a - c above, CIA believes they are witnessing the end event only.

e) Many witnesses do not even describe an ascending motion of anykind and only a descending fireball and could thus not have seen an ascending missile.

f) FBI provided locations of 8 positions with azimuth readings to an observed ascending object are more consistent with observations at the end of the cripple flight as opposed to the beginning. All this shows is that these witnesses could have been observing the end of the aircraft's crippled event and that whatever they saw, it is more likely to have occurred near this position as opposed to the position of flight 800 at the time of the initial explosion.

Employing all these factors in conjunction with one another allows CIA to pinpoint the approximate timing of a majority of witness observations to this end time frame. This is intuitively consistent as well. The most visible portion of the aircraft's crippled flight is within the last 10 of about 50 seconds and is the most likely portion of the event most witnesses should observe. These witnesses all describe something consistent with this end event both in details of their observations as well as timing relative to the aircraft's impact with the ocean.

(b) (4) 5) NTSB chaired sequencing group indicated that the aircraft's wing tips separated from the aircraft at some point 10 - 30 seconds after the initial event and were due to a positive 'g' overload. Estimation of this overload range from 3 - 5.2 gs.

[] It is important that this data be taken into account. To be consistent with the Agency scenario, the aircraft would have to achieve this g overload no earlier than 10 sec after the initial event. If the initial 'pitch up' was higher than 3 gs, the Agency scenario would be inconsistent. If the g condition occurred after this initial pitch up and after the aircraft began its descent, no witness observed such a condition in their reporting.

CIA response:

CIA still does not believe that it is necessary to re-create the aircraft's trajectory completely to reach its conclusion. However, matching the NTSB finding is possible in numerous ways throughout the 10 - 30 sec of the crippled aircraft's flight. CIA does not believe that the exact occurrence aboard the aircraft can be determined and is at once leery of using deduced findings from sequencing group work in order to try and fit a model of where in the aircraft's flight such an overload would have occurred. Nevertheless, it is possible for the wing tips to have departed the aircraft after the 10 sec timeframe. The initial explosion could have weakened the wings carry through considerably with the front spar rotating forward shortly after the initial explosion. This was determined by the sequencing group. Thus at any point in time after this point an overload could have caused loss of the wingtips from an overload. This overload could have occurred at any point up to 30 sec into the event. While it is possible that witnesses would not have seen the wingtips separate, it is incorrect to say that they did not absolutely see such and event in the descending fireball, which no one will argue is not portions of flight 800. It is possible the wing tips separated from the fuselage moments before the entire left wing separated plummeting the aircraft into the water. Such a g overload and speeds required could certainly be achievable at this point in the aircraft's flight. CIA does not propose that this occurred only that it is plausible. CIA does not have the capability to do this but insists that it is not necessary to show exactly what happens, only that it is possible to match the sequencing group's findings, in order to reach Agency conclusions.

6) Agency scenario is inconsistent with witness [] report.

(b) (6)
(b) (7) (c)

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CIA response:

CIA does believe that there could be a portion of the trajectory of the crippled aircraft just prior to the largest explosion and wing separation point which could be consistent with witness [redacted] report. We do not believe he witnesses the entire crippled flight of the aircraft.

(b) (6)
(b) (7) (c)

7) The lack of evidence recovered should not be used as a yardstick to measure an objective assessment as to what witnesses observed (what did they see as opposed to missile or mechanical failure)

CIA response:

CIA analysts never utilized the lack of other evidence in the investigation to sway judgments as to what witnesses saw. Objective evaluation of witnesses compared to one another were employed. The fact that no evidence has been recovered merely supports the CIA conclusion.

8) Since so much weight is placed on the accuracy of what witnesses heard (timing and number of booms heard), if no logical explanation of what they could have heard is reached, some doubt should be given as to the accuracy of their observations. It is doubtful that engine stalls would be audible at the distances of most witnesses.

CIA response:

The CIA use of sound analysis is dependent primarily on the correlation of what witnesses observe relative to when they hear the first sound, that of the initial explosion aboard the aircraft. That is the only use of witness reported timing necessary (and it need not be accurate to the exact second) in order to reach Agency conclusions, that the event was approximately 50 seconds (correlation of first sound heard by numerous witnesses as well as approximate last radar point), that the wing separated from the fuselage at about 43 sec (supported by [redacted] and the debris from the ocean floor), and that most witnesses observed the end event only (see CIA response to 4 above). It is not important to determine what exactly caused the explosions on the aircraft which the witnesses heard in order to reach Agency conclusions, only that an audible explosion is possible.

(b) (3)

9) Contrary to Agency briefing, some witnesses do report seeing something hit the aircraft.

CIA response:

CIA categorized 8 witnesses in group III, that is witnesses which distinctly used the words "hit the aircraft". CIA point was that none described observing both ascending object and aircraft simultaneously. CIA is able to place witnesses in group of witnesses with insufficient time to observe anything but final events.

10) Witnesses observing right to left or east to west motion of an ascending something prior to an explosion have not been successfully explained by the Agency scenario.

CIA response:

11) Almost all witnesses observing west to east motion CIA analysts believe see a portion of the crippled aircraft's flight near the end only (this in no way a missile). CIA analysts have theories, which can be briefed, as to what witnesses may be observing but this is not required in order to reach the conclusion that these witnesses must be observing events near the end and not the beginning (where a missile would have to have been employed).

The CIA template used which allows analysts to reach the conclusion that the witnesses did not see a missile hit flight 800 can not account definitively for all witnesses provided by the FBI for analysis. However, 99 % of the witnesses CIA analysts believe are explainable within the Agency scenario. It is unlikely that these few problematic witnesses, not consistent among one another in terms of

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observations, are seeing a possible missile.

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12) IR [] hit timing is contrary to CIA estimation of entire flight duration.

CIA response:

(b) (3)

The timing of the [] IR hit is not at all inconsistent with the Agency scenario and in fact coincides within one second of Agency's approximation of when the large airborne fireball erupts on the aircraft (43 sec) and the left wing separates from the fuselage. No [] hit was found before or after this event, known to be the hottest and most visible event during the aircraft's crippled flight.

(b) (3)

13) Concerns remain that at least 30 witnesses are not accurately accounted for by the Agency scenario. Further concerns emerge over the possible 'missile self destruct/proximity' theory, which would likely leave little if no evidence of a hit on the aircraft.

CIA response:

CIA believes it has accounted adequately for nearly all of the witnesses analyzed. We put very little credence in the self destruct/proximity warhead detonation theory for numerous reasons. If a portable SAM were employed to hit the aircraft, which is technically feasible, we assess that it is highly unlikely that the small warheads (2-3 lbs) would cause the catastrophic loss of an aircraft in the manner of flight 800. This sort of damage and destruction is also not consistent with any past successful portable SAM hits on aircraft of this size. All past portable SAM attacks on aircraft of this size, hit in an engine, and the aircraft returned safely. A self destruct/proximity hit would be even less likely to cause the kind of reaction and chain of events necessary to bring down the aircraft in the manner known.

14) Recommend that the Agency withdraw its conclusions until:

- a) Integrate all radar data when available.
- b) Validate key witness statements to date by re-interviews when available.
- c) Reevaluate the witnesses presenting the problems.
- d) Retract written comments about lack of evidence in case to date. It only complicates law enforcement aspect of case.
- e) Recreate scenario using only 30 or so problematic witnesses.

CIA response:

CIA will integrate all radar data provided but believe it will not significantly change existing data and certainly not affect end conclusions. Re-interviews while useful must be taken with extreme caution due to the time which has passed since the tragic date, August 17, 1996, nearly one year ago. CIA will continue to look at the 'problematic' witnesses but believe we have adequately explained almost all of them within the Agency scenario. CIA analysts reached their conclusions after months of detailed analysis and would be remiss to retract our findings at this point in time. All witnesses must fit into the scenario for it to be an accurate scenario. CIA analysts believe that the problematic 30 already fit into the Agency scenario.

15) Writer believes that the aircraft might have possibly decreased in altitude fairly dramatically before pitching up. The loss of the forward 1/3 of the aircraft downward may have caused a pitch down motion first. This possibility might be successfully incorporated into the scenario to explain some issues like the wingtips loss.

CIA response:

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This scenario, for an initial downward motion of flight 800 just prior to a pitch up is certainly possible and could certainly be consistent with our analysis. As stated earlier, the aircraft's trajectory was not modeled nor is there any effort to try and accurately portray what occurs on the aircraft at all points in the flight. It is not necessary to do this to reach Agency conclusions.

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C01186300

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TO: [redacted] (b) (3)
FROM: [redacted]
DATE: 05-12-97 11:41:55 AM
SUBJECT: Re: Description of TWA Flight 800 for Video

Maximum flight path angle?

Requested info.

1) Time of nose section impact = 38.9 +/- about 2 seconds.

2) Pitch-up takes about 10 seconds (Boeing [redacted] -- it is not "abrupt".

(b) (4)

3) Maximum pitch angle is about 40 degrees (Boeing [redacted] I think the aircraft may possibly have gone all the way over (pitch angle > [redacted] degrees). Maximum altitude = 17400 feet (Boeing [redacted]

(b) (4)

4) Boeing and I agree about the unlikelihood of the wing tips breaking off due to "aerodynamic overload" at a point in the flight where the dynamic pressure is almost nil. To have this occur symmetrically in a low load condition is VERY unlikely. I get an indicated airspeed of about 150 knots -- Boeing [redacted] at peak altitude. Based on trajectory simulation, I do not believe that loss of the wing tips would have any discernible effect on the trajectory provided their loss occurred symmetrically and at T0+10 or later.

(b) (4)

5) Bullet #7 -- altitude unknown.

6) It is my understanding that wing fuel is burnt first and is not "reserve" fuel. No specific fuel tank is the "reserve" tank.

- 7) Under the heading of pure speculation come,
 - a) Wing tip loss is symmetric and causes specific motion (other than at final breakup).
 - b) Engines stall just as the wing tips come off.
 - c) Nose breaks downward (although this is what I would show).
 - d) Stalling engines ignite fuel.
 - e) Left wing spirals leading edge first.

I think stalling engines is the source of the sound people heard. It is not the only possible source of ignition for fuel in the air. Wing tanks could easily have been ruptured by the initial explosion and this fuel ignited by burning debris. I do not think it is a good idea to present speculation as fact. Some speculation is OK and surely expected.

CC:

[redacted]

(b) (3)

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DATE: JUN 2005

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(b) (3)

NOTE FOR: [redacted]
FROM: [redacted]
OFFICE: OTI
DATE: 07-14-97 06:51:40 PM
SUBJECT: Response to DIA/MSIC Concerns Over CIA's TWA Flight 800 Analysis

(b) (3) [redacted] here are my thoughts pertaining to the MSIC concern we discussed earlier today:

DIA/MSIC Concern: "Sound of initial event --- there appear to be inconsistencies between the cockpit voice recorder (CVR), the lack of any visual signature of the 'initial event,' and the statements such as 'It shook the bridge.' Further study should also be conducted to determine if the explosions might have created a shock wave that traveled faster than Mach. These issues must be resolved before credibility is given to the CIA-postulated scenario."

I believe that one of MSIC's concerns here is that the sound recorded on the CVR may not be the loud one that shook the bridge. I have several reasons for believing that the loud sound, if not the one recorded, occurred very soon (a fraction of a second) after the recorded sound. If the loud sound occurred at a significantly later time, the aircraft would have continued its forward motion (at about 640 ft/sec), causing the loud sound to be created at a significantly different position than the one we used in our calculations. This, in turn, would have created anomalies as we compared the relative times at which the first sound arrived at various eyewitnesses. Since we got good consistency in our calculations --- almost good enough for us to geolocate the point at which the loud sound was created without using radar data --- I doubt we have a problem here.

In any event, as we stated in our briefing and in the video, the important thing is that "no loud sound was created before the one at the end of the cockpit voice recording." If a loud sound was produced later, it simply would be **EVEN LESS LIKELY** that any eyewitness could have seen a missile. This is because there would be even **MORE** time between the first explosion and when the aircraft hit the water --- putting the eyewitness sightings of "an ascending streak" even further from the initial explosion.

Concerning the possibility of a shock wave that traveled faster than the speed of sound, I acknowledge that such phenomena do exist --- from nuclear explosions, for instance. But that is not what happened here. First, I highly doubt the explosion created enough energy to produce a sustained supersonic shock wave. Even thunder from a massive lightning strike only travels at the speed of sound. Second, if a sustained shock wave of this type had been created, eyewitnesses at varying distances from the initial explosion would have heard the sound at more closely spaced intervals than those we observed, and our calculations would have shown an inconsistency. Our calculations indicate that sound arrived at various eyewitnesses at about the appropriate relative time when we use a sound speed of 1,089 ft/sec.

Bottom line: I feel comfortable with the postulated CIA scenario as it stands.

[redacted] (b) (3)

CC: [redacted] (b) (3)

Sent on 14 July 1997 at 06:51:40 PM

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(b) (3)

NOTE FOR:



FROM:
OFFICE: OTI
DATE: 11-06-97 08:38:14 PM
SUBJECT: Strong Evidence That CIA Correctly Estimated Where Flight 800 First Exploded

I'm way embarrassed that I didn't think of this earlier, but I think we have a very strong piece of evidence that Flight 800 exploded near where we thought it did originally, rather than where the NTSB proposed...and also that a major secondary explosion occurred about where we said it did, just after the aircraft reached its peak altitude (corroborating eyewitness statements). And we can make these deductions without using any clocks, and without relying on sound propagation.

Both the CIA and NTSB calculated (independently) that the winds aloft were blowing toward an average direction of 120 degrees when the aircraft exploded. Also, the NTSB radar plots show almost a hundred pieces of airborne debris floating toward the ocean's surface for up to six minutes after the plane exploded.

These pieces are clustered in three elongated groups, with the centroid of each elongated cluster aligned at about 125 degrees (consistent with the wind direction). So one can "backtrack" along the falling debris to estimate where each of the three major "events" occurred that produced these falling debris.

The centroid of the easternmost group is aligned (approximately) with where we (and the NTSB) think the major break-up (left wing detachment, etc.) occurred. The centroid of the middle group is aligned (very precisely) with where we estimated the "explosion" after "apogee" occurred. And here's the biggie: The centroid of the westernmost group is aligned with where we think the "first explosion" occurred, and well to the west of where the NTSB thinks it occurred.

Remember, the position of all these falling debris is independent of the clocks used to calibrate each radar...and the clocks are our major source of error in our previous calculations.

Bottom line: I'm kinda glad we didn't adjust all our sound propagation numbers in the video to accomodate the NTSB's estimates.



(b) (3)

CC:
Sent on 6 November 1997 at 08:38:14 PM

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