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May 23, 2000

Mr. James Hall, Chairman
National Transportation Safety Board
490 L'Enfant Plaza East, SW
Washington, DC 20594

Dear Chairman Hall:

ANOTHER NON RESPONSE

Today I received your letter dated 17 May 2000 answering my letter of 19 February 2000. Once again you have provided no answers to specific questions, just references to the Parties and consultants participation with the implication that their findings agree with your public position. They most assuredly do not.

Either you don't understand their data or you expect the media and the general public to be too ignorant to decipher it. Paragraph three of your letter cited the California Institute of Technology [CIT] report, Exhibit 20F, as if it actually supported your theory. The findings contained at page nineteen of that report prove the theory of a spontaneous center wing tank explosion, as the initiating event in the loss of the aircraft, to be impossible.

EXPLOSION, WHAT EXPLOSION!

The experimental data charted at the top of page 19 (attached) was derived under ideal laboratory conditions. They used a "driver" to assure ignition and assumed that in the real aircraft a hot enough spark (source yet to be discovered) was perfectly positioned in the marginally flammable tank to achieve ignition of the very thin layer of kerosene vapor. After all, your Evergreen flight test program revealed that the tank was non-flammable until it reached 14,000 ft. You also have conveniently ignored the fact the aircraft never achieved that altitude. In CIT's tests, Jet A fuel was ignited in a sealed test container decompressed to a 14,000 ft msl flight level. The results were far less spectacular than your hyperbole would suggest.

The two tests that most closely imitated actual flight conditions experienced by Flight 800 achieved peak pressures significantly below three atmospheres (about 39lbs per square inch). This "explosion" (as you insist on calling it) was really just a burn of vapor on and near the surface of the fuel puddle that required 2 ½ seconds to reach peak pressure in a sealed container.

Here is the bad news, the test chamber was about 1/40 of the volume of the actual aircraft center wing tank and the test tank was ignited using a hot jet of burning gas developed in a

“Driver”. [See the illustration at page sixteen exhibit 20F, attached] The Driver, a much narrower pressure chamber, is designed to spew flaming gas at thousands of degrees Fahrenheit and approaching twelve atmosphere’s pressure into the test chamber containing the fuel puddle. This system would ignite dry pine 2x4’s if they were in that test chamber, what chance does a little puddle of aviation kerosene have?

Here is that really bad news Mr. Hall, all CIT managed to do was light the kerosene’s surface and it still took 2 1/2 seconds to propagate across the small test chamber. The question is [assuming a driver can be found in TWA 800’s wreckage] how long does it take to propagate flame across the huge center wing tank? Would the flame even propagate across a dry tank bottom such as was the condition on much of flight 800’s CWT?

To put CIT’s sealed test pressure in perspective, it is roughly equivalent to what a scuba diver experiences 40 ft. below the surface. Having personally made scuba dives to 140 foot depths in the Mediterranean Sea, I find it incredulous that any engineer would assume the minuscule force described above would shatter into small pieces the wing box of the world’s strongest transport aircraft!

It would not be unreasonable to suggest, that a fireman, equipped with a fire suit and breathing apparatus could set himself up in a lawn chair inside the center wing tank and experience your “explosion” up close and personal with little risk of injury.

What is not covered in exhibit 20F is what role the actual center wing tanks four large external vents would play in further mitigating this minuscule peak pressure. It would certainly be easy to re-create the pressure dynamics of your theory in a 747 center wing tank by internally releasing an appropriate charge of compressed air. Considering the fact that Boeing engineers have stated on record that the tank might hold pressures up to 60 lbs. per square inch, I would think it would behoove you to do those simple tests before some hot shot attorney makes a fool of the NTSB in court. I suppose, however, that if you can ignore the military’s recommendation to explode shoulder fired missile warheads in full inboard fuel tanks to replicate the shattered left wing found on TWA flight 800, you can ignore anything.

COOPERATIVE PARTIES, FACT OR FICTION!

Mr. Hall, It is particularly ironic considering your record of more than four years whining to the congress about how difficult it is to work within the party system, that you are now attempting to hide behind their professional reputations. Your implication that corporations like TWA are willing partners in this federal fiasco takes unmitigated gall. You personally did everything you could, including writing personal letters to the judge, to have TWA check pilot and senior air crash investigator Captain Terry Stacey and others like him imprisoned or removed from the investigation for independently seeking the truth.

THE BOEING CORPORATION

On 28 April 2000, the Boeing Corporation provided its submission to the National Transportation Safety board for the TWA 800 investigation. This detailed 75 page report

(available at [www:twa800.com](http://www.twa800.com)) can be summed up in one sentence. “The Boeing Corporation has expended \$32 million in this investigation, inspected over 850 turbine powered aircraft and cannot find a mechanical or materiel failure that caused the loss of this aircraft.”

Reading between the lines, an aviation expert could make the following additional deduction. Because the Boeing Corporation is in a multi-billion dollar competitive international market, highly regulated by world governments, it must do everything it can to maintain the good will of the U.S. Federal structure, no matter how demeaning or repugnant. Therefore, the corporation will cooperate with anything the administration proposes to explain the loss of this aircraft provided flight safety of their product is not compromised by falsely blaming a safe design feature or aircraft sub-component.

I sincerely hope that the NTSB’s final report in August is based on real evidence rather than these tangential references to scientific studies that do not support your conclusions.

Sincerely,

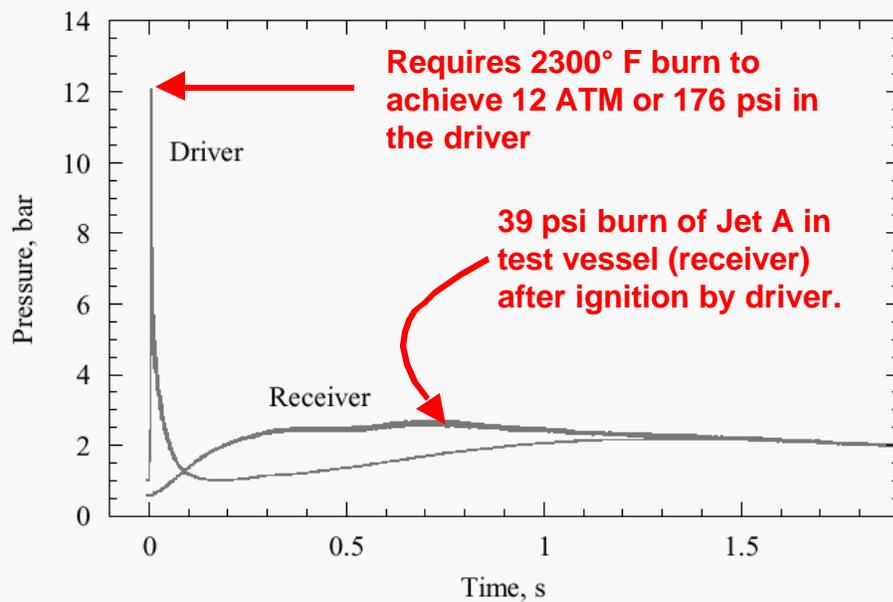
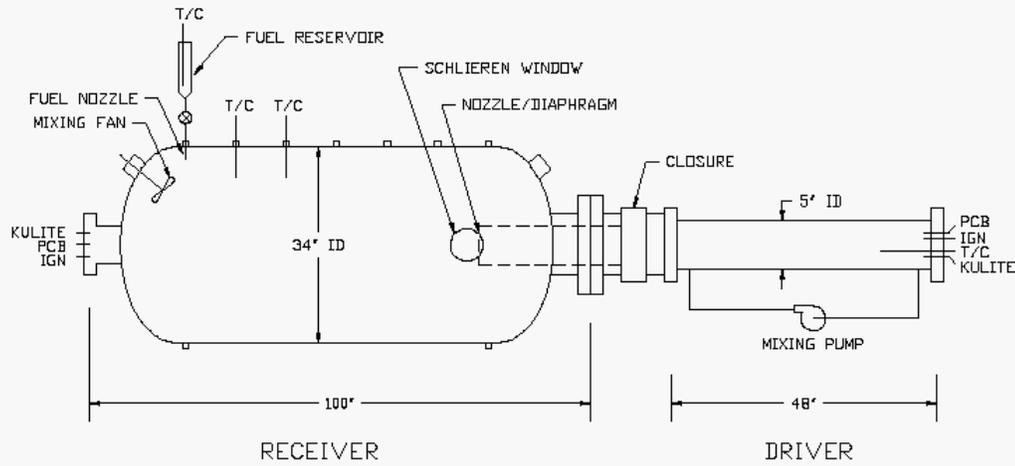
William S. Donaldson, Cmdr. USN, Ret.

Attachments:

Page 16 of Exhibit 20F

Page 19 of Exhibit 20F

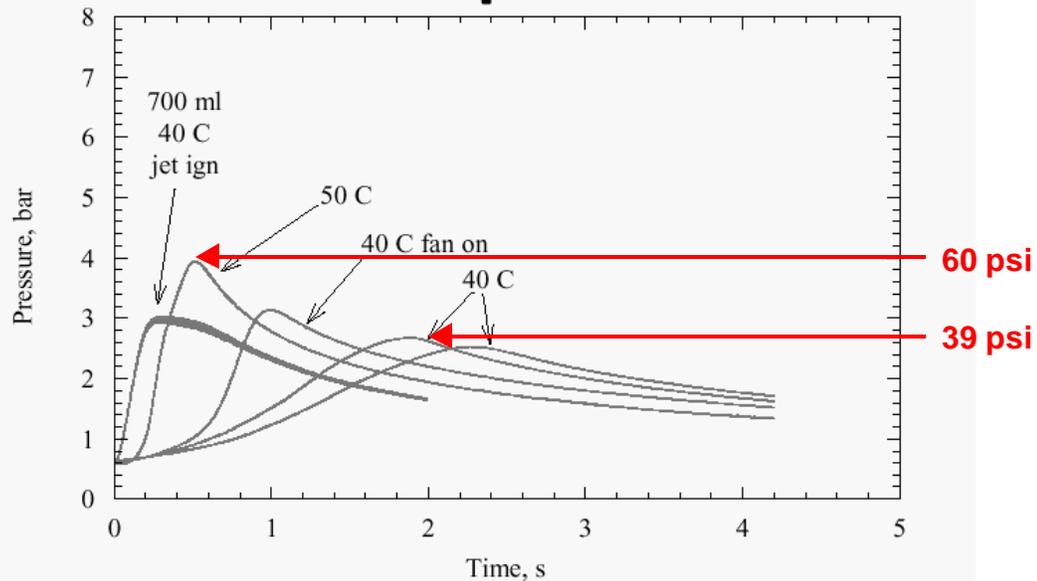
HYJET Facility



Red Annotation by Cmdr. Donaldson

Flammability

Jet A Explosions



- Effect of fuel loading and state
- 1180 liter vessel
- Stagnant puddle of fuel (1 gal) in 4 cases
- fan on in one case
- spray injection in one case