

EXHIBIT 8 - THE 105 MILLISECOND LOUD SOUND ON THE COCKPIT VOICE RECORDER

Analysis of TWA FL800's CVR and application of the Doppler test by Cdr. W. S. Donaldson

- 1) The NTSB remains perplexed almost 2 years after the loss of TWA FL800 in trying to explain the 105 ms loud sound found at the end of the CVR. Like the vast amount of other evidence that doesn't fit the NTSB theory, they are now ignoring it.
- 2) The results of the Bruntingthorpe tests in England were supposed to help explain this noise. The intention was to record and compare CVR tapes after the CWT, charged with 8 pounds of propane in the test aircraft, was exploded in England. They used propane because Jet-A fuel will not explode!
- 3) The Bruntingthorpe test series was a disaster for the NTSB theory. The explosion disintegrated the forward wing spar sending pieces all the way to the nose, this would have riddled water tanks and cargo containers forward of the wing. (Not a single hole or fragment from the CWT was found forward in FL800 debris).
- 4) The recorded sounds didn't match FL800's sounds.
- 5) The Bruntingthorpe test results have now been relegated to the growing body of secret information not to be shared with the broad body of investigators, or even those Party Investigators who participated in the tests, much less the Public. It joins the eyewitness statements, unabridged Debris Field data, FBI Lab Tests, NASA Lab Tests, DFDR Data, autopsy shrapnel, etc.
- 6) There are three reasons Bruntingthorpe could not have possibly duplicated the sound found on FL800's CVR.
 - a) The test aircraft was at rest on its landing gear. TWA FL800 was flying at a velocity of 633 ft/sec. The aircraft was not pressurized or subjected to temperature differentials inside and out.
 - b) The NTSB assumed a center tank explosion was the initiating event, it was not. There is no forensic evidence that proves it was.
 - c) No audio tests were done using powerful open air explosions at Bruntingthorpe.
- 7) The reason the NTSB leadership is perplexed about this loud sound is because they refuse to follow where the forensic evidence points. It is ironic because, knowing the speed of sound was approximately 1,100 ft/sec outside FL800's hull, and approximately 10,000 ft/sec in aircraft aluminum, by using simple Doppler mathematics, a precise calculation can be made as to where a loud sound, outside the aircraft, first struck the aircraft and traveled along its hull.
- 8) All explosions in the atmosphere send a shock wave at the speed of sound in all directions about 1.1 ft every 1/1000 second or millisecond (m/s).
- 9) Because TWA FL800 was already traveling forward at 633 ft/sec, or .63 ft/m/s, a shock wave moving forward on the outside hull would only advance .46 ft/ms, but would travel aft along the aircraft hull at 1.73 ft/ms.

- 10) It is a reasonable assumption that shock wave impingement on the aircraft hull from a large anti-aircraft weapon airburst, would provide a continuous loud sound to cockpit microphones until the shock wave cleared the aircraft and the last of the sound returned to the cockpit via the aluminum airframe.
- 11) The forensic evidence suggests the shock wave from a bursting weapon first impinged the hull between Frame 667 and 740, left side. This evidence includes high-energy deformations. The first passenger blown out was sitting at Frame 615, and passengers sitting in the area were laced with shrapnel.
- 12) If a large anti-aircraft warhead airburst detonated, low left, abeam TWA FL800's aircraft station 576, the overpressure wave would first strike the fuselage and the left wing root area, starting the sound recording 2.7 ms later (time required for sound to go to the cockpit in the airframe). Because the aircraft is traveling into the pressure wave at .63 ft/ms and the wave is moving aft at 1.1 ft/ms, the wave will clear the tip of the tail in 89.38 ms. The time required for sound to travel from the tip of the tail back to the cockpit in aluminum is 18.1 ms. The expected duration of sound produced by the preceding scenario is summed up as follows: 89.38 ms, plus 18.1 ms, minus 2.7 ms, equals 104.78 ms. Also, because of the Forward Velocity Stunting of the Doppler effect described above, the shock wave requires an identical time (approx. 105ms) to clear the nose and return to the cockpit in the aluminum airframe.
- 13) It is entirely reasonable to expect that high technology sound laboratories could find audio peaks / frequency changes and correlate the data to the shock wave passing significant aircraft structures such as engine pods, vertical stabilizer, left wing, etc. The fact the NTSB leadership has refused to allow a detailed outside sound analysis specifically tasked to look for evidence supporting missile airburst, is extremely disturbing.
- 14) Just before the end of the tape, the transcript released by the NTSB says there is an "unintelligible" word. Some reports inside the investigation believe the word was "uh-oh". If true, it is very significant and could indicate that one of the crew saw a missile just before impact. Further, why would a crewmember say "uh-oh" just prior to a spontaneous center wing tank explosion? He would have no reason to suspect an explosion was about to occur. For these reasons, it is imperative that this last portion of the tape be released for further analyses by outside experts.