

# Investigator into Lockerbie explosion casts doubt on bomb location

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An air accident investigator into the Pan Am Flight 103 explosion in December 1988 has conceded that mistakes were made in establishing the exact location of the bomb within the Boeing 747. This remarkable admission was made this week, as the trial of two Libyans accused of blowing up the aircraft over Lockerbie, Scotland resumed.

Abdelbaset Ali Muhammad Al-Megrahi and Al Amin Khalifa Fhimah are charged with planting a Semtex-packed cassette recorder on board the Boeing 747. The bomb allegedly destroyed the plane, killing its 259 passengers and crew, as well as 11 Lockerbie residents.

Christopher Protheroe, a senior air accident inspector, told the court that in the 1990 Air Accident Investigation Branch (AAIB) report on the crash a formula used to calculate blast wave effects after an explosion was misapplied. By measuring "Mach stems"—the damage patterns found on a surface caused by the interaction of the direct shockwave from a nearby explosion with shockwaves reflected from the surface itself—scientists can establish where the bomb was placed. Protheroe said that if the calculations of "Mach stem" effects were correctly applied, the estimated location of the bomb would have been around 12 inches, rather than 25 inches, from the wall of the aircraft.

This calculation would place the bomb outside the luggage container AVE 4041 in the forward hold of Flight 103. If true, the new testimony severely undermines the case against the two Libyans. According to the prosecution theory, the two men, working for Libyan intelligence, placed a bomb in an unaccompanied suitcase that was later loaded onto Flight 103 in London and stored in the luggage compartment. Fragments of the suitcase alleged to have contained the bomb, bits of clothing, and the radio and

timer allegedly used are all that the prosecution has to link the accused to the explosion.

Under questioning from defence lawyers, Protheroe insisted that he could not remember who had made the original calculation—whether it was AAIB inspectors or outside persons commissioned by the AAIB researching the blast—and could not explain how the error had been made.

Protheroe's admissions are part of a series of revelations that are discrediting the prosecution's case, and fuelling suspicions that the US may have framed Libya for the bombing, in order to divert attention from Iran. The US government was at that time developing Iran as its ally in the Middle East as a counterweight to Iraq. This possibility was underscored earlier this week when Andrew Fulton, the man leading the Glasgow University Lockerbie Trial Briefing Unit, was found to be a former MI6 station head in Washington DC. Fulton has been forced to resign.

Defence lawyers have also won the right to examine the luggage container itself, which was ripped apart by the blast. Richard Keen QC successfully argued that photographs of the container were misleading and did not give a correct impression of the blast's impact. The court was adjourned for two days to allow the 6 foot-wide container's fragments and its supporting framework to be assembled in the courtroom, where attention will focus on those parts of the container that suffered the most damage.

In addition, MEBO AG, the company said to have manufactured the MST-13 timers allegedly used in the blast, has released a report analysing the contents of the cockpit voice recorder. MEBO's background is in radio engineering. (The report can be found at <http://www.geocities.com/CapitolHill/5260>).

It has long been a mystery as to why the recorder,

which appears to have been functioning correctly up to the time when its electrical supply failed, did not pick up any sound of an explosion, even though a loud noise would have been produced by the blast. MEBO's report suggests that the blast blew a hole in the aircraft so quickly that the pressure difference between the pressurised hold and the outside air effectively drew the sound wave outside the aircraft hull. This suggests that the explosive was placed directly on the aircraft's skin. This would lessen the time between the blast and the hull puncture, and therefore shorten the time that a sound wave would have to travel towards the cockpit. Once outside the aircraft, the sound wave would not have been able to catch up with the cockpit microphone—travelling at 800 km/h—before the recorder failed.

MEBO also pointed to further contradictions in the AAIB's presentation of the blast evidence. A fibreglass container beside AVE 4041 suffered relatively little damage, despite being much nearer the source of the blast (if the prosecution's theory is true) than the wall of the aircraft.

MEBO speculated that the blast was actually caused by "a simple and small chemical 2-hour military timer-/detonator" set to blow up over the Atlantic by whoever planted the bomb.



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