U.S. Department of Transportation
Federal Aviation Administration
Aircraft Certification Service

National Resource Specialist Program

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SUBJECT: Subject: Parliamentary Inquiry, B747 El Al Accident

Your Reference LI/LW/cwvs/F165

In response to your request for information the following is provided.

Average Fuel Fire Temperature:

The actual temperature of the post crash fire is dependent on a large number of variables; fuel type, fuel and air temperature, vaporization and misting of fuel, etc. An average value would be in the range of 1800 to 2000^{0}F (990 to 1100^{0}C).

Temperature/Time to melt Depleted Uranium:

Depleted Uranium (DU) has a Melting Point of 1132^{0}C (2070^{0}F). For melting to occur, the DU would have to be directly in a very high temperature fuel fire to heat up to the melting point, and this would take some time due to the thermal mass of the balance weights and any protection provided by surrounding structure. It is considered that the melting of part of the mass balances would be unlikely in a typical post crash fire.

Has Boeing noticed any DU melting after an aircraft fire:

The DU used in the mass balance weights is plated with Nickel and then Cadmium. The melting point of Nickel is 1453° C, (2650° F) that will provide some protection against the DU melting in a 2000° F fire.

The Boeing Accident Investigation Group has reviewed its information and can not identify any accident where there was any evidence of balance weights melting.

Judy Birmingham

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