

**Aviation Safety Investigation Report
199300887**

**Boeing Co
B747**

07 April 1993

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Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number:	199300887	Occurrence Type:	Incident
Location:	En-route Bangkok - London		
State:	Other	Inv Category:	4
Date:	Wednesday 07 April 1993		
Time:	0335 hours	Time Zone	UTC
Highest Injury Level:	None		

Aircraft Manufacturer:	Boeing Co		
Aircraft Model:	747-438		
Aircraft Registration:	VH-OJQ	Serial Number:	25546
Type of Operation:	Air Transport Passenger Scheduled		
Damage to Aircraft:	Nil		
Departure Point:	Bangkok Thailand		
Departure Time:			
Destination:	London Heathrow England		

Approved for Release: Tuesday, August 3, 1993

Approximately 9 hours 45 minutes after departure, the "FLIGHT FIRE CARGO FWD" warning message illuminated with associated warning bell. Although the non-normal checklist items were carried out, which included discharging both fire bottles, the message remained illuminated together with a status message "CARGO FWD-2 LOOP A AND B". An emergency was declared and the aircraft diverted to Stockholm, the nearest suitable airport. The warning message and fire bell recurred several times during final approach and landing.

Investigation revealed that a quantity of fresh vegetables being carried in the forward cargo bay had elevated the humidity to a level sufficient to cause condensation on the "cold soaked" smoke sensors, thus activating the fire warning system.

The manufacturer is aware of the problem and intends to issue a modification, which will involve fitting an insulation blanket to the sensing units. The operator of this aircraft has obtained the details of the service bulletin and will be modifying its B747-400 aircraft as soon as is practicable.