



# National Transportation Safety Board Aviation Incident Data Summary

<b>Location:</b>	Lyon, France	<b>Incident Number:</b>	SEA04IA010
<b>Date &amp; Time:</b>	10/02/2003, 0740 UTC	<b>Registration:</b>	N479EV
<b>Aircraft:</b>	Boeing 747-100	<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 121: Air Carrier - Scheduled		

## Analysis

While the aircraft was in cruise flight at flight level 400, the right wing overheat light illuminated. The crew accomplished the appropriate checklist, and then about five minutes later the engine number three and engine number four B fire loop indicators illuminated. Soon thereafter an acrid odor was detected by the flight crew, and smoke was seen coming from behind the P-6 circuit breaker panel. The crew then became aware of a small fire in the fire detection card file, which they extinguished with a hand-held fire extinguisher. The crew then diverted to a nearby airport and completed an uneventful precautionary landing. The post-event investigation revealed that the fire detection card for engine number four B Loop fire detection (card A16), and its associated socket connector, had suffered severe thermal damage to include partial destruction. A series of tests and examinations were not able to detect evidence of any specific anomalies in the A16 card, the card file, the card file protection circuit, or any of the aircraft's systems. There was no evidence of a lightning strike being the initiating event, and the aircraft has continued in service since the time of this event without generating any other maintenance discrepancies known to be directly related to the fire detection card files.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this incident to be: An undetermined malfunction in an aircraft system while in cruise flight leading to a fire in the engine number four B Loop portion (Card A16) of the fire detection controls cardfile.

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: CRUISE

### Findings

1. (C) OVERHEAT WARNING SYSTEM - MALFUNCTION  
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Occurrence #2: FIRE  
Phase of Operation: CRUISE

### Findings

2. (C) OVERHEAT WARNING SYSTEM - FIRE  
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Occurrence #3: MISCELLANEOUS/OTHER  
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. PRECAUTIONARY LANDING - INTENTIONAL - PILOT IN COMMAND

### Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	53
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	11783 hours (Total, all aircraft), 6253 hours (Total, this make and model), 115 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

### Co-Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	38
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	Airplane Single-engine
<b>Flight Time:</b>	4650 hours (Total, all aircraft), 409 hours (Total, this make and model), 206 hours (Last 90 days, all aircraft), 48 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	N479EV
<b>Model/Series:</b>	747-100	<b>Engines:</b>	4 Turbo Fan
<b>Operator:</b>	Evergreen International Airlines	<b>Engine Manufacturer:</b>	Pratt & Whitney
<b>Operating Certificate(s) Held:</b>	Flag carrier (121)	<b>Engine Model/Series:</b>	JT9-7A
<b>Flight Conducted Under:</b>	Part 121: Air Carrier - Scheduled		

### Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Weather Information Source:</b>	Pilot
<b>Lowest Ceiling:</b>	None	<b>Wind Speed/Gusts, Direction:</b>	Light and Variable / , Variable
<b>Temperature:</b>		<b>Visibility</b>	20 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Kuwait City (OKBK)	<b>Destination:</b>	Frankfurt (FRA)

## Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Minor
Passenger Injuries:	N/A	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	None

Latitude, Longitude:

## Administrative Information

Investigator In Charge (IIC):	Orrin K Anderson	Adopted Date:	09/01/2004
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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