
Smoke emergency in cruise, Boeing 747-200F, January 5, 2001

Micro-summary: This Boeing 747-200F transport experienced a smoke emergency in cruise, followed by a diversion.


Event Date: 2001-01-05 at 1410 HST


Investigative Body: National Transportation Safety Board (NTSB), USA


Investigative Body's Web Site: <http://www.nts.gov/>

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|---|--|---------------------------------|----------------------------------|--------------------------------------|------------------|
|  | | NTSB ID: LAX011A073 | | Aircraft Registration Number: N470EV | |
| | | Occurrence Date: 01/05/2001 | | Most Critical Injury: None | |
| | | Occurrence Type: Incident | | Investigated By: NTSB | |
| Location/Time | | | | | |
| Nearest City/Place Honolulu | | State HI | Zip Code 96819 | Local Time 1410 | Time Zone HST |
| Airport Proximity: Off Airport/Airstrip | | Distance From Landing Facility: | | Direction From Airport: | |
| Aircraft Information Summary | | | | | |
| Aircraft Manufacturer Boeing | | Model/Series 747-200F | | Type of Aircraft Airplane | |
| Sightseeing Flight: No | | | Air Medical Transport Flight: No | | |
| Narrative | | | | | |
| <p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On January 5, 2001, approximately 1410 Hawaiian standard time, a Boeing 747-200F transport category airplane, N470EV, experienced smoke in the cockpit en route from Honolulu, Hawaii, to Pago Pago, American Samoa. The pilot declared an emergency and landed uneventfully in Honolulu. The airplane was not damaged and there were no injuries to the airline transport rated pilot, co-pilot, and flight engineer. The airplane was operated by Evergreen International Airlines, Inc., McMinnville, Oregon, as a regularly scheduled cargo flight under the provisions of 14 CFR Part 121. An instrument flight plan was filed for the flight.</p> <p>According to the operator, the flight was approximately 1 hour out of Honolulu at a flight level of 34,000 feet msl, when the flight crew detected the odor of burning insulation. The flight engineer examined the main cargo deck and aft upper deck and found no anomalies. Upon his return to the cockpit, the flight engineer noticed smoke coming from the aft right corner of the center pedestal. The flight crew performed the electrical fire/smoke checklist and the smoke dissipated.</p> <p>After the airplane returned to Honolulu (at 1512), maintenance personnel and Federal Aviation Administration (FAA) inspectors examined the center console area. While troubleshooting the wiring in the center console, one of the mechanics burned himself on the lower incandescent lamp dimmer (Boeing part number 60B40024-3). The FAA inspectors reported the case was still hot after having power removed for over 2 hours. Neither circuit breaker attached to the dimmer had opened. When the mechanic manually opened the circuit breakers, they were so hot the mechanic burned his fingers again. Examination of the dimmer and attached circuit breakers after their removal revealed scorching around the LV1 lead and scorching on the lower side of both circuit breaker covers.</p> <p>The dimmer component for an incandescent lamp displayed a manufacturer part number of 2-459 and a serial number of 1175. It was manufactured in July 1970. According to the FAA inspectors, the part appeared to be manufactured by EDC, Lynnwood, Washington. A label, located on the base of the component, indicated it was bench checked on January 20, 1995, by Astro-Aire Enterprises, Oakland, California.</p> <p>No additional anomalies were noted and a new dimmer component was inserted. No anomalies were reported after the dimmer replacement.</p> <p>A search of the FAA's Service Difficulty Report Database revealed seven reported incidents involving overheating/burning dimmer control sharing the same part numbers.</p> <p>The switch and related circuit breakers were sent to the National Transportation Safety Board Materials Laboratory for examination, but were lost in transit.</p> | | | | | |
| FACTUAL REPORT - AVIATION | | | | | |
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|  National Transportation Safety Board FACTUAL REPORT AVIATION | | NTSB ID: LAX011A073 | | | | |
| | | Occurrence Date: 01/05/2001 | | | | |
| | | Occurrence Type: Incident | | | | |
| Landing Facility/Approach Information | | | | | | |
| Airport Name | | Airport ID: | Airport Elevation Ft. MSL | Runway Used | Runway Length | Runway Width |
| Runway Surface Type: Unknown | | | | | | |
| Runway Surface Condition: Unknown | | | | | | |
| Type Instrument Approach: Unknown | | | | | | |
| VFR Approach/Landing: Forced Landing | | | | | | |
| Aircraft Information | | | | | | |
| Aircraft Manufacturer Boeing | | Model/Series 747-200F | | Serial Number 20653 | | |
| Airworthiness Certificate(s): Normal | | | | | | |
| Landing Gear Type: Retractable - Tricycle | | | | | | |
| Homebuilt Aircraft? No | | Number of Seats: | | Certified Max Gross Wt. LBS | Number of Engines: 4 | |
| Engine Type: Turbo Fan | | Engine Manufacturer: Pratt & Whitney | | Model/Series: JT9D-3 SER | | Rated Power: |
| - Aircraft Inspection Information | | | | | | |
| Type of Last Inspection Unknown | | Date of Last Inspection | | Time Since Last Inspection Hours | Airframe Total Time Hours | |
| - Emergency Locator Transmitter (ELT) Information | | | | | | |
| ELT Installed? No | | ELT Operated? | | ELT Aided in Locating Accident Site? | | |
| Owner/Operator Information | | | | | | |
| Registered Aircraft Owner Wells Fargo Bank Northwest NA | | Street Address 79 S Main St. | | | | |
| | | City Salt Lake City | | State UT | Zip Code 84111 | |
| Operator of Aircraft Evergreen International Airlines, Inc. | | Street Address 3850 Three Mile Lane | | | | |
| | | City McMinnville | | State OR | Zip Code 97128 | |
| Operator Does Business As: | | | | Operator Designator Code: EIAA | | |
| - Type of U.S. Certificate(s) Held: | | | | | | |
| Air Carrier Operating Certificate(s): Flag Carrier/Domestic | | | | | | |
| Operating Certificate: | | | Operator Certificate: | | | |
| Regulation Flight Conducted Under: Part 121: Air Carrier | | | | | | |
| Type of Flight Operation Conducted: Scheduled; Domestic; Cargo | | | | | | |
| FACTUAL REPORT - AVIATION | | | | | | |

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|  <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p> | NTSB ID: LAX01IA073 |
| | Occurrence Date: 01/05/2001 |
| | Occurrence Type: Incident |

First Pilot Information

| | | | | |
|-----------------|-----------------|------------------|---------------|-----|
| Name On File | City On File | State On File | Date of Birth | Age |
|-----------------|-----------------|------------------|---------------|-----|

| | | | |
|--------|---------------------|--------------------------------------|---------------------|
| Sex: M | Seat Occupied: Left | Principal Profession: Civilian Pilot | Certificate Number: |
|--------|---------------------|--------------------------------------|---------------------|

Certificate(s): Airline Transport; Flight Instructor; Commercial; Flight Engineer

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): Airplane Multi-engine; Airplane Single-engine; Instrument Airplane

| | |
|---|---------------------------------|
| Type Rating/Endorsement for Accident/Incident Aircraft? Yes | Current Biennial Flight Review? |
|---|---------------------------------|

| | | |
|------------------------|-----------------------|----------------------------|
| Medical Cert.: Unknown | Medical Cert. Status: | Date of Last Medical Exam: |
|------------------------|-----------------------|----------------------------|

| - Flight Time Matrix | All A/C | This Make and Model | Airplane Single Engine | Airplane Multi-Engine | Night | Instrument | | Rotorcraft | Glider | Lighter Than Air |
|-----------------------|---------|---------------------|------------------------|-----------------------|-------|------------|-----------|------------|--------|------------------|
| | | | | | | Actual | Simulated | | | |
| Total Time | | | | | | | | | | |
| Pilot In Command(PIC) | | | | | | | | | | |
| Instructor | | | | | | | | | | |
| Last 90 Days | | | | | | | | | | |
| Last 30 Days | | | | | | | | | | |
| Last 24 Hours | | | | | | | | | | |

| | | | |
|--------------------|----------------------------|--------------------------|-------------------|
| Seatbelt Used? Yes | Shoulder Harness Used? Yes | Toxicology Performed? No | Second Pilot? Yes |
|--------------------|----------------------------|--------------------------|-------------------|

Flight Plan/Itinerary

| | |
|--------------------------------|--|
| Type of Flight Plan Filed: IFR | |
|--------------------------------|--|

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|---|-------|---------------------------|------------------------|------------------|
| Departure Point Same as Accident/Incident Location | State | Airport Identifier HNL | Departure Time 1720 | Time Zone HST |
|---|-------|---------------------------|------------------------|------------------|

| | | | |
|--------------------------|-------------|---------------------------|--|
| Destination PAGO PAGO | State PO | Airport Identifier PPG | |
|--------------------------|-------------|---------------------------|--|


Type of Clearance: IFR

Type of Airspace: Class A

Weather Information

Source of Briefing:
Company

Method of Briefing: Telephone

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| | Occurrence Type: Incident |

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|-----------------------------------|---------------------|--|--------------------------|---------------------------------------|---|
| Weather Information | | | | | |
| WOF ID | Observation Time | Time Zone | WOF Elevation Ft. MSL | WOF Distance From Accident Site NM | Direction From Accident Site Deg. Mag. |
| Sky/Lowest Cloud Condition: Clear | | | Ft. AGL | Condition of Light: Night | |
| Lowest Ceiling: | | Ft. AGL | Visibility: SM | | Altimeter: "Hg |
| Temperature: °C | Dew Point: °C | Wind Direction: | | Density Altitude: Ft. | |
| Wind Speed: | Gusts: | Weather Conditions at Accident Site: Visual Conditions | | | |
| Visibility (RVR): Ft. | Visibility (RVV) SM | Intensity of Precipitation: | | | |
| Restrictions to Visibility: None | | | | | |
| Type of Precipitation: None | | | | | |

| | | |
|-----------------------------|--------------------------|--------------------------|
| Accident Information | | |
| Aircraft Damage: None | Aircraft Fire: In-flight | Aircraft Explosion: None |

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|---|-------|---------|-------|------|-------|
| Classification: U.S. Registered/U.S. Soil | | | | | |
| - Injury Summary Matrix | Fatal | Serious | Minor | None | TOTAL |
| First Pilot | | | | 1 | 1 |
| Second Pilot | | | | 1 | 1 |
| Student Pilot | | | | | |
| Flight Instructor | | | | | |
| Check Pilot | | | | | |
| Flight Engineer | | | | 1 | 1 |
| Cabin Attendants | | | | | |
| Other Crew | | | | | |
| Passengers | | | | | |
| - TOTAL ABOARD - | | | | 3 | 3 |
| Other Ground | | | | | |
| - GRAND TOTAL - | | | | 3 | 3 |

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National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: LAX011A073

Occurrence Date: 01/05/2001

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

George E. Petterson

Additional Persons Participating in This Accident/Incident Investigation:

Al Bauman
Aviation Safety Inspector
Federal Aviation Administration
Honolulu, HI 96818