



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

1930

Date: July 22, 1987

In reply refer to: A-87-94 and -95

Mr. Robert E. Whittington
Acting Administrator
Federal Aviation Administration
Washington, D.C. 20591

On February 15, 1986, a Lockheed L-1011 operated by Eastern Air Lines as flight 27, ^{1/} a scheduled flight from New York's John F. Kennedy International Airport to Miami, Florida, with 242 passengers and 11 crewmembers on board, was parked on taxiway "J" waiting to take off on runway 31L. When the No. 3 engine was started, a tailpipe fire occurred and the flames were visible to some of the airplane's occupants. Some passengers, primarily those in the aft cabin, panicked and rushed to various exits. The flight attendant who was assigned the L3 exit was away from her duty station getting a blanket for a passenger. Passengers opened the unattended L3 exit and initiated an evacuation. The L4 exit was opened by the L4 flight attendant after she observed an evacuation in progress at the L3 exit. Approximately 30 to 50 people evacuated the airplane; 1 passenger was seriously injured and 14 passengers received minor injuries.

Flight attendants at other exits were able to prevent passengers from opening exits. The R3 flight attendant "physically prevented a man from opening the R3 door," and the R1 and L2 flight attendants "physically blocked" their exits to prevent the doors from being opened.

The evacuation of flight 27 was unnecessary and may have been prevented if the L3 flight attendant had been at her duty station as required by 14 CFR 121.391(d). As one of the flight attendants required by 14 CFR 121.391, the L3 flight attendant should have remained at her duty station with her safety belt and shoulder harness fastened during taxi unless she was performing a safety-related duty. In 1982, the Federal Aviation Administration (FAA) issued Air Carrier Operations Bulletin (ACOB) No. 1-76-11 - Distribution and Duty Assignment of Required and Non-Required Flight Attendants. This ACOB clarified which of the flight attendants were required crewmembers as well as what duties were safety related. Examples of safety-related duties were conducting passenger briefings; ensuring passenger compliance with food and beverage tray requirements; ensuring passenger compliance with seatbelt/no smoking requirements; and checking for proper storage of carry-on baggage. Examples of nonsafety-related duties were serving food and beverages; distributing magazines and newspapers; selling tickets; and returning carry-on baggage after landing.

^{1/} For more detailed information, see Brief of Accident, File No. 1179, February 15, 1986.

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A review of other Safety Board investigations revealed other incidents in which required flight attendants were away from their duty stations for nonsafety-related duties.

The investigation of a B-727 evacuation incident in Boston, Massachusetts, on March 26, 1986, ^{2/} revealed that two of the three required flight attendants were distributing coats during taxi to the gate after landing. During taxi to the gate, smoke from an overheated air conditioning pack filled the cabin. The two flight attendants did return to their duty stations before the airplane reached the gate. When the airplane reached the gate, 90 passengers evacuated the airplane using a jetway, overwing exits, and the aft airstairs. Two passengers received minor injuries. However, if the airplane had stopped before the flight attendants had reached their duty stations, they would not have been able to direct an evacuation effectively.

As a result of a blown tire on the right main landing gear, the captain of a B-747 aborted a takeoff in Honolulu, Hawaii, on November 16, 1984. ^{3/} After the airplane stopped, the second officer announced that everything was all right and that passengers should remain seated. However, a short time later the captain ordered an evacuation when he learned that there was a fuel spill on the right side of the airplane. Of the 395 passengers who evacuated, 2 were seriously injured and 38 suffered minor injuries as a result of the evacuation. When the evacuation was initiated, one flight attendant was not at her assigned exit because she had taken a small child to the lavatory. Once the evacuation began, she was unable to reach her assigned exit.

Finally, a report of the National Air Transportation Inspection Program (NATI) conducted by the FAA in 1984 also identified problems concerning compliance with the requirement that flight attendants be seated with their seatbelts fastened during taxi.

The NATI report indicated that on every en route inspection conducted with prior notice, no violations were observed. However, the report also notes: "On most no-notice en route flights, flight attendants ignored the requirements of [14 CFR] FAR 121.391(d) to remain in their seats during taxi except for safety related duties. Flight attendants were observed talking with one another, talking with other passengers, taking drink orders, and passing out magazines."

The Safety Board believes that flight attendants should remain at their duty stations during taxi (or after an unusual occurrence such as an aborted takeoff) so that they are available to perform their safety-related duties properly and quickly. The Board believes that air carriers should emphasize the importance of compliance with the regulation that requires flight attendants to be at their duty stations during taxi. In addition, the FAA should more aggressively enforce compliance with the regulation.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

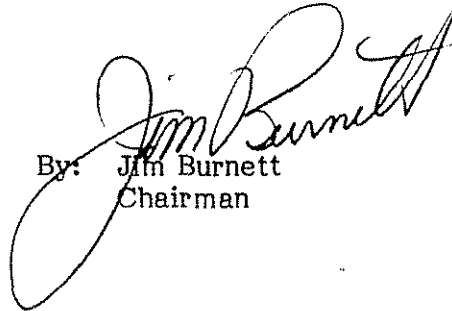
^{2/} For more detailed information, see Brief of Accident, File No. 5043, March 26, 1986.

^{3/} For more detailed information, see Brief of Accident, File No. 3322, November 16, 1984.

Require Air Carrier principal operations inspectors to review Air Carrier Operations Bulletin No. 1-76-11 with their respective carriers and verify that the air carrier emphasizes to its flight attendants the requirement during airplane taxi for flight attendants to remain at their duty stations with safety belts and shoulder harnesses fastened except when required to perform safety-related duties. (Class II, Priority Action) (A-87-94)

Direct all principal operations inspectors to emphasize surveillance for flight attendant compliance with the provisions of 14 CFR 121.391(d), which requires them to remain at their duty stations, during airplane taxi, with safety belts and shoulder harnesses fastened except when performing duties related to the safety of the airplane and its occupants. (Class II, Priority Action) (A-87-95)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and LAUBER, NALL, and KOLSTAD, Members, concurred in these recommendations.


By: Jim Burnett
Chairman

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1179

2/15/86

JAMAICA,NY

A/C Reg. No. N309EA

Time (Lcl) - 1830 EST

-----Basic Information-----
Type Operating Certificate - AIR CARRIER - FLAG/DOMESTIC
Name of Carrier - EASTERN AIR LINES
Type of Operation - SCHEDULED, DOMESTIC, PASSENGER
Flight Conducted Under - 14 CFR 121
Accident Occurred During - STANDING
Aircraft Damage - NONE
Fire - ON GROUND
Fatal - 0
Serious - 0
Minor - 0
Injuries - 1
None - 14
Crew - 0
Pass - 1
None - 11
227

-----Aircraft Information-----
Make/Model - LOCKHEED L-1011-385-1
Landing Gear - TRICYCLE-RETRACTABLE
Max Gross Wt - 496000
No. of Seats - 293
Eng Make/Model - ROLLS-ROYCE RR-211-2B
Number Engines - 3
Engine Type - TURBOJET
Rated Power - 42000 LBS THRUST
ELT Installed/Activated - UNK/NR
Stall Warning System - YES

-----Environment/Operations Information-----

Weather Data
WX Briefing - UNK/RR
Method - UNK/RR
Completeness - WEATHER NOT PERTINENT
Basic Weather - VMC
Wind Dir/Speed - 320/008 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 5000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision - NONE
Precipitation - NONE
Condition of Light - NIGHT (BRIGHT)
Itinerary
Last Departure Point - JAMAICA,NY
Destination - MIAMI,FL
ATC/Airspace
Type of Flight Plan - IFR
Type of Clearance - IFR
Type Appch/Lnds - NONE
Airport Proximity
ON AIRPORT
Airport Data
JFK INTERNATL
Runway Ident - UNK/RR
Runway Lth/Wid - UNK/RR
Runway Surface - UNK/RR
Runway Status - UNK/RR

-----Personnel Information-----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP
ME LAND
Age - 59
Biennial Flight Review - YES
Current - YES
Months Since - 2
Aircraft Type - L-1011
Medical Certificate - UNK/NR
Flight Time (Hours)
Total - 14468
Last 24 Hrs - UNK/NR
Make/Model - 3509
Instrument - UNK/NR
Multi-Eng - UNK/RR
Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE

-----Narrative-----

THE NO. 3 ENG TORCHED DURING A START ATTEMPT AND RESULTED IN A INTERNAL ENG TAILCONE FIRE. SEVERAL PAXS PANICKED UPON SEEING THE TORCH FLAME/TAILCONE FIRE AND BETWEEN 30 TO 30 PAXS MADE AN UNAUTHORIZED EVACUATION OF THE ACFT VIA THE L3 AND L4 EXITS. PAXS INITIATED THE EVACUATION AT THE UNATTENDED L3 EXIT. A F/A MISTAKENLY ASSUMED THAT AN AUTHORIZED EVACUATION WAS IN EFFECT AND THEREFORE OPENED L4 AND ALLOWED FURTHER PAXS TO EVACUATE. THE EVACUATION OF THE ACFT WAS LATER STOPPED AND BROUGHT UNDER CONTROL. THE PIT CREW WAS AT FIRST NEITHER AWARE OF THE ENG TONCH AND SUBSEQUENT TAILCONE FIRE NOR THE EVACUATION. WHEN THEY LEARNED OF THE TAILCONE FIRE THEY MOTORED THE ENG IN ORDER TO EXTINGUISH THE FIRE WHICH THEY BELIEVED WAS UNDER CONTROL AND THEREFORE REQUESTED NO EMERGENCY ASSISTANCE. HOWEVER, ATC WAS ALERTED BY PILOTS IN NEARBY ACFT ABOUT THE OCCURRENCE AND ATC NOTIFIED CFR WHO RESPONDED TO THE SITE. THE NOS. 1 & 2 ENGS REMAINED RUNNING DURING THE INCIDENT AND CREATED A HAZARDOUS CONDITION FOR CFR/EVACUEES. PAXS WERE LATER STOPPED.

Brief of Accident (Continued)

File No. - 1179 2/15/86 JAMAICA,NY A/C Reg. No. N309EA Time (Lcl) - 1830 EST

Occurrence MISCELLANEOUS/OTHER
Phase of Operation TAXI

Finding(s)

1. JUDGEMENT - MISJUDGED - PASSENGER
2. IMPROPER DECISION, PANIC - OTHER PERSONNEL
3. SUPERVISION - INADEQUATE - FLIGHT ATTENDANT
4. CREW/GROUP COORDINATION - DELAYED - PILOT IN COMMAND
5. JUDGEMENT - MISJUDGED - PILOT IN COMMAND

-----Probable Cause-----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Incident

File No. - 5043 3/26/86 BOSTON, MA A/C Reg. No. N52311 Time (Lcl) - 2341 EST

---Basic Information---

Type Operating Certificate-AIR CARRIER - FLAG/DOMESTIC Aircraft Damase Injuries None
 Name of Carrier -TRANS WORLD AIRLINES NONE Fatal Serious Minor 6
 Type of Operation -SCHEDULED/DOMESTIC/PASSENGER Fire Crew 0 0 0
 Flight Conducted Under -14 CFR 121 NONE Pass 0 0 2 88
 Incident Occurred During -TAXI

---Aircraft Information---

Make/Model - BOEING 727-231 Eng Make/Model - P&W JT8D-9A ELT Installed/Activated - YES/NO
 Landing Gear - TRICYCLE-RETRACTABLE Number Engines - 3 Stall Warning System - YES
 Max Gross Wt - 142000 Engine Type - TURBOFAN
 No. of Seats - 134 Rated Power - UNK/NR

---Environment/Operations Information---

Weather Data Itinerary Airport Proximity
 W: Briefing - COMPANY Last Departure Point ON AIRPORT
 Method - IN PERSON ST LOUIS,MO
 Completeness - FULL Destination LOGAN INTL
 Basic Weather - VMC SAME AS ACC/INC Runway Ident - 22L
 Wind Dir/Speed- 220/015 KTS ATC/Airspace Runway Lth/Wid - 10005/ 150
 Visibility - 15.0 SM Type of Flight Plan - IFR Runway Surface - ASPHALT
 Lowest Sky/Clouds - 25000 FT SCATTERED Type of Clearance - IFR Runway Status - DRY
 - NONE Type Apch/Lndg - ILS-COMLETE
 Obstructions to Vision- NONE
 Precipitation - NONE
 Condition of Light - NIGHT(BRIGHT)

---Personnel Information---

Pilot-In-Command Age - 48 Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT
 Certificate(s)/Rating(s) Biennial Flight Review Flight Time (Hours) Last 24 Hrs - 4
 ATP Current - YES Total 7792 Last 30 Days- UNK/NR
 ME LAND Months Since - UNK/NR Make/Model- 702 Last 90 Days- UNK/NR
 Aircraft Type - 727 Instrument- UNK/NR Multi-Eng - 7792 Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE

---Narrative---

TWO OF 3 RECD FLT ATTENDANTS (F/A'S) WERE DISTRIBUTING PASSENGER (PAX) COATS AS THE ACFT WAS BEING TAXIED AFTER LNDG. SMOKE FM AN OVERHEATED AIR COND-(A/C) PACK BGN ENTERING THE CABIN & THE F/A'S RETURNED TO THEIR DUTY STATIONS. THE FLT CREW STOPPED THE ACFT AT THE GATE & SHUT DOWN THE ENGS, BUT LEFT THE AFU RUNNING TO PROVIDE ELECTRICITY FOR LIGHTING. THE F/A'S OPENED THE L FWD DOOR & BND PSNL OPENED THE REAR STAIR DOOR TO DEFLATE THE PAX. THE CAPT MADE AN ANNOUNCEMENT TO KEEP THE PAX CALM, BUT SMOKE BCM DENSE & PAX OPENED THE EMERG EXITS OVR THE WINGS & BRN EXITING FM THEM. TWO PAX RCVD MINOR INJURIES WHILE EXITING OVR THE WINGS. AN INVESTIGATION REVEALED THE ACFT HAD BEEN DISPATCHED WITH THE R PACK COOLING FAN INOP AS AUTHORIZED BY THE MIN EQUIP LIST (MEL). DRG FLT, A RADIO INTERFERENCE FILTER IN THE A/C SYS FAILED WHICH ALLOWED THE FWD PACK SHUT-OFF VALVE TO OPEN, BUT NOT CLOSE. THIS PERMITTED AFU AIR TO RUN THE AFFECTED PACK EVEN THO THE SWITCH WAS OFF & A CIRCUIT BRKR WAS PULLED. WITH THE ENGS SHUT DOWN & THE R COOLING FAN INOP, THE SYS OVERHEATED.

Brief of Incident (Continued)

File No. - 5043 3/26/86 BOSTON, MA A/C Reg. No. N52311 Time (Lcl) - 2341 EST

Occurrence AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAXI - FROM LANDING

Findings(s)

1. AIR COND/HEATING/PRESSURIZATION, CABIN TEMP CONTROL - FAILURE, PARTIAL
2. AIR COND/HEATING/PRESSURIZATION - OVERTEMPERATURE
3. FUSELAGE, CABIN - SMOKE

-----Probable Cause-----

The National Transportation Safety Board determines that the Probable Cause(s) of this incident is/are finding(s) 1,2

Brief of Accident

File No. - 3322 11/16/84 HONOLULU, HI A/C Reg. No. N4714U Time (Lcl) - 1333 HST

---Basic Information---
Type Operating Certificate-AIR CARRIER - FLAG/DOMESTIC
Name of Carrier -UNITED AIRLINES Aircraft Damage
Type of Operation -SCHEDULED,INTL,PASSENGER Fire SUBSTANTIAL
Flight Conducted Under -14 CFR 121 NONE
Accident Occurred During -TAKEOFF

---Aircraft Information---
Make/Model - BOEING 747-122 Eng Make/Model - UNK UNK
Landing Gear - TRICYCLE-RETRACTABLE Number Engines - 4
Max Gross Wt - 710000 Engine Type - TURBOFAN
No. of Seats - 495 Rated Power - UNK/NR

---Environment/Operations Information---
Weather Data

WX Briefing - UNK/NR
Method - UNK/NR
Completeness - UNK/NR
Basic Weather - VMC
Wind Dir/Speed- 006/011 KTS
Visibility - 25.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

---Personnel Information---
Pilot-In-Command
Certificate(s)/Rating(s)
ATP
ME LAND

Instrument Rating(s) - AIRPLANE

---Narrative---
AFTER ACCELERATING TO ABOUT 153 KTS DURING THE TAKEOFF ROLL, THE #7 TIRE FAILED & THE FLT CREW ABORTED THE TAKEOFF. THE ACFT WAS STOPPED WITH APPROX 3000 FT OF RWY REMAINING. DUE TO A FUEL LEAK FROM THE RIGHT WING, THE CAPT ORDERED AN EVACUATION FROM THE LEFT SIDE OF THE ACFT ONLY. HOWEVER, THE 2ND OFFICER DID NOT RELAY THE CAPT'S INSTRUCTIONS OVER THE PA, & WHEN THE CAPT ACTIVATED THE EVACUATION SIGNAL, THE SLIDES/RAFTS WERE DEPLOYED ON BOTH SIDES OF THE ACFT. AFTER APPROX 20 OCCUPANTS HAD EVACUATED THRU EXIT 1L, THE STITCHING IN THE GRID BAR LOOPS FAILED AT THAT LOCATION. SUBSEQUENTLY, THE SLIDE/RAFT SEPARATED & 2 FAX WERE SERIOUSLY INJURED. ALSO, 1 FLT ATTENDANT HAD TAKEN A SMALL GIRL TO THE LAVATORY & WAS NOT IN A PSN TO OPEN HER ASSIGNED EXIT (DOOR 4L); HOWEVER, A FAX WHO TRAVELED OFTEN BY AIR, OPENED THE DOOR. AN INVESTIGATION REVEALED THE #7 TIRE HAD FAILED AFTER THE INNER BEARING OF THAT WHEEL HAD FAILED, THIS CAUSED THE WHEEL & TIRE TO OVERHEAT, WHICH ALLOWED THE FUSES TO MELT & BLOW OUT. THE REASON FOR THE BEARING FAILURE WAS NOT VERIFIED.

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOS ANGELES, CA

ATC/Airspace
Type of Flight Plan - IFR
Type of Clearance - IFR
Type Appch/Lnds - NONE

Age - 54 Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Biennial Flight Review
Current - YES
Months Since - UNK/NR
Aircraft Type - 747

Total - 20733 Flight Time (Hours)
Make/Model - 1548 Last 24 Hrs - 4
Instrument- UNK/NR Last 30 Days- UNK/NR
Multi-Eng - UNK/NR Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Airport Proximity
UN AIRPORT
Airport Data
HONOLULU INT'L
Runway Ident - OBR
Runway Lth/Wid - 12000/ 200
Runway Surface - ASPHALT
Runway Status - DRY

ELT Installer/Activated - NO -N/A
Stall Warning System - YES

Fatal Serious Minor Injuries
0 0 0 None
0 2 38 16
Crew
Pass 355

Brief of Accident (Continued)

File No. - 3322 11/16/84 HONOLULU, HI A/C Reg. No. N4714U Time (LCL) - 1333 HST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - GROUND RUN

Findings(s)

1. LANDING GEAR, WHEEL - FAILURE, PARTIAL
2. LANDING GEAR, WHEEL - OVERTEMPERATURE
3. LANDING GEAR, TIRE - FAILURE, TOTAL

Occurrence #2 MISCELLANEOUS/OTHER
Phase of Operation STANDING

Findings(s)

4. EMERGENCY PROCEDURE - INITIATED - PILOT IN COMMAND
5. COMM/NAV EQUIPMENT, INTERCOM - ERRATIC
6. MISC EQPT/FURNISHINGS, SLIDES - DISCONNECTED
7. PROCEDURES/DIRECTIVES - NOT FOLLOWED - FLIGHT ATTENDANT

-----Probable Cause-----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1, 2, 6

Factor(s) relating to this accident is/are finding(s) 5