



# National Transportation Safety Board Aviation Incident Final Report

<b>Location:</b>	HOUSTON, TX	<b>Incident Number:</b>	FTW971A161
<b>Date &amp; Time:</b>	04/20/1997, 1615 CDT	<b>Registration:</b>	PHBUL
<b>Aircraft:</b>	Boeing 747-300	<b>Aircraft Damage:</b>	Minor
<b>Defining Event:</b>		<b>Injuries:</b>	299 None
<b>Flight Conducted Under:</b>	Part 129: Foreign		

## Analysis

An Air France Boeing 767 was number one in sequence for takeoff at the runup area for runway 14L. The Air France flight reported that they were not ready for takeoff. KLM flight 662 was cleared by ATC to taxi into position and hold for departure on 14L. While taxiing around the standing Air France 767, the extended right outboard leading edge flap from the KLM 747 impacted the left wing tip of the Air France 767, resulting in minor damage to both airplanes. Airport operations personnel reported that no fuel was spilled from either aircraft and both airplanes taxied back to their respective gates. Air France's maintenance personnel replaced the left wing navigation light assembly from the 767 and the airplane was released and departed approximately 3 hours after the intended departure time. According to the FAA inspector at the site, the wing tip is visible from the cockpit of the 747. Additionally, he stated that the side window was crazed. The scheduled departure time for KLM flight 662 was 1540.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: The first officer's failure to maintain clearance while taxiing around a standing airplane.

## Findings

Occurrence #1: COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)  
Phase of Operation: TAXI - TO TAKEOFF

### Findings

1. OBJECT - AIRCRAFT PARKED/STANDING
2. (C) CLEARANCE - NOT MAINTAINED - COPILOT/SECOND PILOT
3. PRESSURE INDUCED BY CONDITIONS/EVENTS - FLIGHTCREW

## Factual Information

On April 20, 1997, at 1615 central daylight time, a Boeing 747-300 airplane, Dutch registration PHBUL, collided with another airplane while taxiing for takeoff at the Houston Intercontinental Airport, near Houston, Texas. The airplane was being operated by the Royal Dutch Airlines as KLM Flight 662 under Title 14 CFR Part 129, at the time of the incident. None of the 284 passengers, 10 flight attendants, or the 5 flight crewmembers were injured. Visual meteorological conditions prevailed for the scheduled international flight for which an IFR flight plan was filed. KLM Flight 662 was originating at the time of the incident, with Amsterdam, The Netherlands, at its intended destination.

According to Air Traffic Control (ATC) personnel at the airport, an Air France Boeing 767 was number one in sequence for takeoff at the runup area for runway 14L. The Air France flight reported to ATC that they were not ready for takeoff; however, they did not state the reason for their delay. ATC asked KLM flight 662, which was number two for departure, if they were able to taxi around the Air France Boeing 767 which was standing on the right side of the KLM Boeing 747. The KLM crew answered that they were able to taxi around and they were subsequently cleared by ATC to taxi into position and hold for departure on 14L.

The first officer of the KLM 747 stated that the flight crew was aware of the close clearance between the two wing tips and they "taxied slowly and cautiously" slightly to the left of the yellow taxi line. The first officer stated that he remarked "we were clear" as he watched out his window on the right side of the cockpit. A couple seconds after the "all clear" the crew reported that a "slight bump" was felt which they attributed to a bump on the taxiway.

While taxiing around the standing Air France Boeing 767, the extended right outboard leading edge flap from the KLM 747 impacted the left wing tip of the Air France 767, resulting in minor damage to both airplanes. The flight crew of the Air France's 767 reported the collision to ATC by radio.

Airport operations personnel reported that no fuel was spilled from either aircraft and both airplanes taxied back to their respective gates in the international ramp where all passengers were deplaned without further incident. Air France's maintenance personnel replaced the left wing navigation light assembly from the Boeing 767 and the airplane was released, departing Houston approximately 3 hours after their scheduled departure time.

Damage to the KLM Boeing 747 was limited to the leading edge of the outboard leading edge flap and the flap actuator. According to the FAA inspector at the site, the wing tip is visible from the first officer's station in the cockpit of the 747. Additionally, the FAA inspector reported that the side window was crazed.

The scheduled departure time for KLM Flight 662 was 1540. The visibility at the time of the incident was reported in excess of 10 nautical miles without restrictions.

## Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	40, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	01/03/1997
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	8050 hours (Total, all aircraft), 1800 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	PHBUL
<b>Model/Series:</b>	747-300 747-300	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	Continuous Airworthiness	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	4 Turbo Jet
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	JT9D-7A
<b>Registered Owner:</b>	J.H. MEURER	<b>Rated Power:</b>	45000 lbs
<b>Operator:</b>	J.H. MEURER	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	ROYAL DUTCH AIRLINES	<b>Operator Designator Code:</b>	KLM

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	IAH, 98 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1553 CDT	Direction from Accident Site:	320°
Lowest Cloud Condition:	Scattered / 3500 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 7500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	27° C / 17° C
Precipitation and Obscuration:			
Departure Point:	(IAH)	Type of Flight Plan Filed:	IFR
Destination:	AMSTERDAM, OF (EHAM)	Type of Clearance:	IFR
Departure Time:	1615 CDT	Type of Airspace:	Class B

## Airport Information

Airport:	HOUSTON INTERCONTINENTAL (IAH)	Runway Surface Type:	Asphalt
Airport Elevation:	98 ft	Runway Surface Condition:	Dry
Runway Used:	14R	IFR Approach:	
Runway Length/Width:	6038 ft / 100 ft	VFR Approach/Landing:	

## Wreckage and Impact Information

Crew Injuries:	15 None	Aircraft Damage:	Minor
Passenger Injuries:	284 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	299 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	HECTOR R CASANOVA	Adopted Date:	04/24/1998
Additional Participating Persons:	SIDNEY P ALEXANDER; HOUSTON, TX JAVIER CAMBA; HOUSTON, TX		
Publish Date:			
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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