



# National Transportation Safety Board Aviation Incident Final Report

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<b>Location:</b>	HOUSTON, TX	<b>Incident Number:</b>	FTW891A064A
<b>Date &amp; Time:</b>	03/01/1989, 1037 CST	<b>Registration:</b>	N820NY
<b>Aircraft:</b>	MCDONNELL DOUGLAS DC-9-82	<b>Aircraft Damage:</b>	None
<b>Defining Event:</b>		<b>Injuries:</b>	123 None

**Flight Conducted Under:** Part 121: Air Carrier - Scheduled

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## Analysis

TWA FLT 806 (DC-9) WAS NW OF ARPT (FOR ILS RWY 9 APCH) AS CONTINENTAL FLT 122 (DC-9) WAS SW OF ARPT FOR SAME APCH. BOTH WERE IN IMC, BEING VCTRD BY FINAL TRACON CTLR (WORKING 2 SECTORS & CTLG 23 ACFT). AS FLT 122 WAS APCHG LOCALIZER (LOC) & HDG 060 DEG AT 3000' MSL, FLT 806 WAS ABT 8 MI NW OF FLT 122 & WAS CLRD TO INTERCEPT LOC. CTLR TMTD TO FLT 122 'FOUR FM THE MARKER, MAINT 2000 UNTIL ESTABLISHED ON THE LOC, CLRD ILS RWY 9 APCH, AND ARE YOU GOING THRU THE LOC TOO?' FLT 122 REPLIED 'YES SIR, YOU NEVER TOLD US TO INTERCEPT.' CTLR THEN TOLD FLT 122 'MAINT 3500 & TURN LEFT 360,' MEANING TO TURN TO A HDG OF 360 DEG. FLT 122 THOUGHT CTLR WANTED A 360 DEG CIRCLING TURN & BGN A RGT TURN. WHILE CIRCLING, FLT 122 ASKED FOR A HDG TO ROLL OUT ON. CTLR SAID TO FLY HDG 230. CTLR THEN REALIZED THE 2 ACFT WERE CONVERGING. HE TOLD FLT 122 TO DCND TO 2000' & TMTD FOR 'CONTINENTAL 806' TO MAINT 3500'. SINCE CTLR USED WRONG COMPANY DESIGNATOR, TWA FLT 806 DID NOT RESPOND. RADAR SHOWED THE 2 ACFT PASSED AT ABT 3100' WITH .079 MI SEPN.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: FAILURE OF THE TRACON FINAL APPROACH CONTROLLER TO ASSURE RADAR SEPARATION BETWEEN THE AIRCRAFT. FACTORS RELATED TO THE ACCIDENT WERE: INADEQUATE SUPERVISION BY THE ATC SUPERVISOR, EXCESSIVE WORKLOAD FOR THE CONTROLLER, UNCLEAR INSTRUCTIONS BY THE CONTROLLER, AND A MISUNDERSTANDING OF THE ATC CLEARANCE BY THE FLIGHT CREW OF CONTINENTAL FLIGHT 122.

## Findings

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Occurrence #1: NEAR COLLISION BETWEEN AIRCRAFT

Phase of Operation: APPROACH - IAF TO FAF/OUTER MARKER (IFR)

### Findings

1. (F) SUPERVISION - INADEQUATE - ATC PERSONNEL(SUPERVISOR)
2. (F) EXCESSIVE WORKLOAD (TASK OVERLOAD) - ATC PERSONNEL(DEP/APCH)
3. (F) INFORMATION UNCLEAR - ATC PERSONNEL(DEP/APCH)
4. (F) ATC CLEARANCE - NOT UNDERSTOOD - PILOT IN COMMAND
5. (C) RADAR SEPARATION - NOT MAINTAINED - ATC PERSONNEL(DEP/APCH)

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Unknown
<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>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	02/28/1989
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	10000 hours (Total, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MCDONNELL DOUGLAS	<b>Registration:</b>	N820NY
<b>Model/Series:</b>	DC-9-82 DC-9-82	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	49480
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	149
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	140000 lbs
<b>Time Since Last Inspection:</b>	0 Hours	<b>Engines:</b>	2 Turbo Fan
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	JT8D-217A
<b>Registered Owner:</b>	TAC 820 CORP	<b>Rated Power:</b>	14000 lbs
<b>Operator:</b>	CONTINENTAL AIRLINES	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)
<b>Operator Does Business As:</b>	CONTINENTAL AIRLINES	<b>Operator Designator Code:</b>	CALA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	IAH, 98 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	0951 CST	Direction from Accident Site:	90°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	12 Miles
Lowest Ceiling:	Overcast / 1600 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	12° C / 8° C
Precipitation and Obscuration:			
Departure Point:	SAN ANTONIO, TX (SAT)	Type of Flight Plan Filed:	IFR
Destination:	HOUSTON, TX (IAH)	Type of Clearance:	IFR
Departure Time:	1000 CST	Type of Airspace:	

## Airport Information

Airport:	HOUSTON INTERCONTINENTAL (IAH)	Runway Surface Type:	Asphalt
Airport Elevation:	98 ft	Runway Surface Condition:	Dry
Runway Used:	9	IFR Approach:	ILS
Runway Length/Width:	9999 ft / 150 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	6 None	Aircraft Damage:	None
Passenger Injuries:	117 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	123 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	RAY O WALL	Report Date:	06/30/1992
Additional Participating Persons:	TOMMY MCFALL MONTY MONTGOMERY; WASHINGTON, DC RICHARD WENTWORTH; WASHINGTON, DC EUGENE CARROLL; 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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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).