



Aviation Investigation Final Report

Location:	BOSTON, Massachusetts	Incident Number:	NYC891A028
Date & Time:	November 13, 1988, 20:12 Local	Registration:	N555PE
Aircraft:	BOEING 727-227	Aircraft Damage:	Minor
Defining Event:		Injuries:	136 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

THE TOWER CONTROLLER CLEARED PAN AM FLT 543 (BOEING 727, N555PE) INTO POSITION & HOLD ON RWY 22R, THEN HE CLEARED THE 727 FOR TAKEOFF. THE CONTROLLER THEN CLEARED PRECISION FLT 649 (DORNIER DO-228, N238RP) INTO POSITION & HOLD ON RUNWAY 22R. THE CONTROLLER DID NOT REALIZE THE DORNIER WAS AT AN INTERSECTION, 4200 FT DOWN THE RUNWAY, RATHER THAN AT THE APPROACH END. HE HAD FAILED TO NOTICE THAT THE TAKEOFF STRIP WAS MARKED WITH A RED 'T' INDICATING AN INTERSECTION TAKEOFF. ALSO, THE GROUND CONTROLLER DID NOT ADEQUATELY COORDINATE WITH THE LOCAL CONTROLLER, WHEN HE CLEARED THE DORNIER TO TAXI TO THE INTERSECTION FOR AN INTERSECTION DEPARTURE. THE 727 FLIGHT CREW SAW THE DORNIER ON THE RUNWAY & MADE AN EARLY ROTATION, MISSING THE DORNIER. THERE WAS NO CONTACT BETWEEN AIRCRAFT OR INJURIES. THE 727 FLT CREW RETURNED FOR A LANDING TO CHECK THE ENGINES, WHICH HAD BEEN OVERBOOSTED AFTER MAXIMUM POWER WAS APPLIED TO CLEAR THE DORNIER. THE DORNIER WAS TAXIED CLEAR OF THE RUNWAY & BACK TO THE RAMP TO ASSURE THERE WAS NO DAMAGE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: FAILURE OF THE LOCAL CONTROLLER TO DETECT THE RED T ON THE DEPARTURE STRIP ON PRE659 WHEN HE CLEARED HIM INTO POSITION AND HOLD. FACTORS RELATED TO THE ACCIDENT WERE: DARKNESS AND THE LACK OF POSITIVE COORDINATION BETWEEN THE GROUND CONTROLLER AND LOCAL CONTROLLER.

Findings

Occurrence #1: NEAR COLLISION BETWEEN AIRCRAFT

Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (F) CREW/GROUP COORDINATION - INADEQUATE - ATC PERSONNEL(LCL/GND/CLNC)
2. (F) LIGHT CONDITION - NIGHT
3. (C) CONTROL TOWER SERVICE - INADEQUATE - ATC PERSONNEL(LCL/GND/CLNC)
4. (F) VISUAL/AURAL PERCEPTION

Factual Information

Pilot Information

Certificate:	Airline transport	Age:	47, Male
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Unknown	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	3425 hours (Total, all aircraft), 1605 hours (Pilot In Command, all aircraft), 167 hours (Last 90 days, all aircraft), 47 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BOEING	Registration:	N555PE
Model/Series:	727-227 727-227	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	
Landing Gear Type:	Retractable - Tricycle	Seats:	163
Date/Type of Last Inspection:	Continuous airworthiness	Certified Max Gross Wt.:	172600 lbs
Time Since Last Inspection:		Engines:	3 Turbo fan
Airframe Total Time:	36075 Hrs	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	JT8D-7A
Registered Owner:	PAN AMERICAN WORLD AIRWAYS	Rated Power:	14500 Lbs thrust
Operator:		Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:	PAN AM SHUTTLE, INC.	Operator Designator Code:	PAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	BOS ,20 ft msl	Distance from Accident Site:	
Observation Time:	19:50 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 900 ft AGL	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	9°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(BOS)	Type of Flight Plan Filed:	IFR
Destination:	FLUSHING , NY (LGA)	Type of Clearance:	IFR
Departure Time:	20:11 Local	Type of Airspace:	Class E

Airport Information

Airport:	BOSTON BOS	Runway Surface Type:	Asphalt
Airport Elevation:	20 ft msl	Runway Surface Condition:	Wet
Runway Used:	222	IFR Approach:	
Runway Length/Width:	7860 ft / 150 ft	VFR Approach/Landing:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	7 None	Aircraft Damage:	Minor
Passenger Injuries:	129 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	136 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): Hancock, Robert

Additional Participating Persons:

Original Publish Date: October 20, 1992

Last Revision Date:

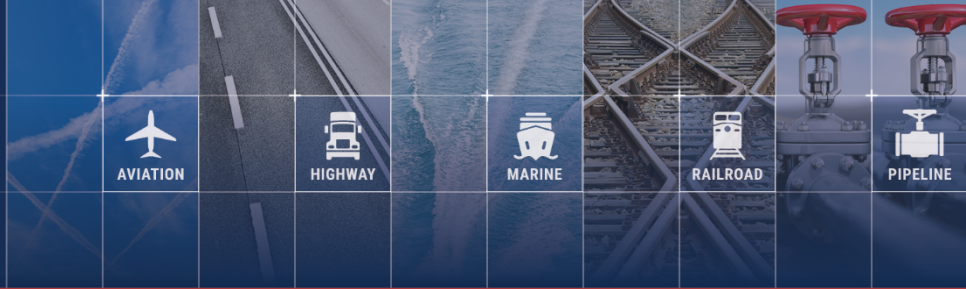
Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=36303>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).



Aviation Investigation Final Report

Location:	BOSTON, Massachusetts	Incident Number:	NYC891A028
Date & Time:	November 13, 1988, 20:12 Local	Registration:	N238RP
Aircraft:	DORNIER DO-228-202	Aircraft Damage:	None
Defining Event:		Injuries:	8 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Scheduled		

Analysis

THE TOWER CONTROLLER CLEARED PAN AM FLT 543 (BOEING 727, N555PE) INTO POSITION & HOLD ON RWY 22R, THEN HE CLEARED THE 727 FOR TAKEOFF. THE CONTROLLER THEN CLEARED PRECISION FLT 649 (DORNIER DO-228, N238RP) INTO POSITION & HOLD ON RUNWAY 22R. THE CONTROLLER DID NOT REALIZE THE DORNIER WAS AT AN INTERSECTION, 4200 FT DOWN THE RUNWAY, RATHER THAN AT THE APPROACH END. HE HAD FAILED TO NOTICE THAT THE TAKEOFF STRIP WAS MARKED WITH A RED 'T' INDICATING AN INTERSECTION TAKEOFF. ALSO, THE GROUND CONTROLLER DID NOT ADEQUATELY COORDINATE WITH THE LOCAL CONTROLLER, WHEN HE CLEARED THE DORNIER TO TAXI TO THE INTERSECTION FOR AN INTERSECTION DEPARTURE. THE 727 FLIGHT CREW SAW THE DORNIER ON THE RUNWAY & MADE AN EARLY ROTATION, MISSING THE DORNIER. THERE WAS NO CONTACT BETWEEN AIRCRAFT OR INJURIES. THE 727 FLT CREW RETURNED FOR A LANDING TO CHECK THE ENGINES, WHICH HAD BEEN OVERBOOSTED AFTER MAXIMUM POWER WAS APPLIED TO CLEAR THE DORNIER. THE DORNIER WAS TAXIED CLEAR OF THE RUNWAY & BACK TO THE RAMP TO ASSURE THERE WAS NO DAMAGE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: FAILURE OF THE LOCAL CONTROLLER TO DETECT THE RED T ON THE DEPARTURE STRIP ON PRE659 WHEN HE CLEARED HIM INTO POSITION AND HOLD. FACTORS RELATED TO THE ACCIDENT WERE: DARKNESS AND THE LACK OF POSITIVE COORDINATION BETWEEN THE GROUND CONTROLLER AND LOCAL CONTROLLER.

Findings

Occurrence #1: NEAR COLLISION BETWEEN AIRCRAFT

Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (F) CREW/GROUP COORDINATION - INADEQUATE - ATC PERSONNEL(LCL/GND/CLNC)
2. (F) LIGHT CONDITION - NIGHT
3. (C) CONTROL TOWER SERVICE - INADEQUATE - ATC PERSONNEL(LCL/GND/CLNC)
4. (F) VISUAL/AURAL PERCEPTION

Factual Information

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	28,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	October 25, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	5562 hours (Total, all aircraft), 1500 hours (Total, this make and model), 4112 hours (Pilot In Command, all aircraft), 241 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	DORNIER	Registration:	N238RP
Model/Series:	DO-228-202 DO-228-202	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	8138
Landing Gear Type:	Retractable - Tricycle	Seats:	19
Date/Type of Last Inspection:	November 12, 1988 Continuous airworthiness	Certified Max Gross Wt.:	13669 lbs
Time Since Last Inspection:	5 Hrs	Engines:	2 Turbo prop
Airframe Total Time:	1800 Hrs	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TPE-331
Registered Owner:	STATE STREET BANK & TRUST	Rated Power:	715 Horsepower
Operator:	PRECISION VALLEY AVIATION, INC	Operating Certificate(s) Held:	Commuter air carrier (135)
Operator Does Business As:	PRECISION AIRLINES	Operator Designator Code:	PREA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	BOS ,20 ft msl	Distance from Accident Site:	
Observation Time:	19:50 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 900 ft AGL	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	9°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BOSTON , MA (BOS)	Type of Flight Plan Filed:	IFR
Destination:	ISLIP , NY (ISP)	Type of Clearance:	IFR
Departure Time:	00:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	BOSTON BOS	Runway Surface Type:	Asphalt
Airport Elevation:	20 ft msl	Runway Surface Condition:	Wet
Runway Used:	222	IFR Approach:	
Runway Length/Width:	7860 ft / 150 ft	VFR Approach/Landing:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	None
Passenger Injuries:	6 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	8 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): Hancock, Robert

Additional Participating Persons:

Original Publish Date: October 20, 1992

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=36303>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).