



# National Transportation Safety Board Aviation Incident Final Report

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<b>Location:</b>	Chicago, IL	<b>Incident Number:</b>	OPS12IA167B
<b>Date &amp; Time:</b>	12/01/2011, 0907 CDT	<b>Registration:</b>	
<b>Aircraft:</b>	BOEING 737-7H4	<b>Aircraft Damage:</b>	None
<b>Defining Event:</b>	Runway incursion veh/AC/person	<b>Injuries:</b>	79 None
<b>Flight Conducted Under:</b>			

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## Analysis

A runway incursion occurred when a Boeing 737-700 (B737) was cleared by a tower local controller to cross a runway immediately after a Learjet 45 was cleared for takeoff on the same runway. The first officer of the B737 saw the departing Learjet and warned the captain, who stopped the B737 short of the runway edge. Air traffic control personnel did not take any actions to resolve the conflict between the two airplanes. Recorded data indicated that the Learjet passed within 287 feet laterally and 62 feet vertically of the B737.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: The tower local controller did not ensure that the runway was clear of conflict before directing the B737 to cross the runway, and other air traffic control personnel did not effectively intervene when the separation between the two airplanes became questionable.

## Findings

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<b>Personnel issues</b>	Identification/recognition - ATC personnel (Cause) Decision making/judgment - ATC personnel (Cause) Lack of communication - ATC personnel (Cause)
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## Factual Information

At 0907 on December 1, 2011, a runway incursion and operational error occurred at MDW when Southwest Airlines flight 844 (SWA844), a Boeing 737-700, was cleared to cross runway 31R immediately after Gama Charters flight 17 (GAJ17), a Learjet 45, was cleared for takeoff on the same runway. After landing on runway 31C, the crew of SWA844 was instructed to cross runway 31R and contact ground control. GAJ17 was departing from runway 31R at the time, and conflicted with SWA844 as the B737 crossed the hold-short line for runway 31R at taxiway N. The first officer of SWA844 saw the Learjet departing runway 31R and warned the captain, who was at the controls, to stop. The captain stopped the B737 short of the runway edge. Air traffic control did not take any actions to resolve the conflict between the two aircraft. After the incident, the captain of SWA844 said that the departing Learjet had overflown his aircraft. Recorded FAA data indicated that the closest proximity as the Learjet passed the B737 was 287 feet laterally and 62 feet vertically. Although MDW is equipped with an Airport Surface Detection Equipment – X (ASDE-X) ground movement safety system that included conflict detection and warning capability, the system did not sound an alarm during the incident.

The 0851 weather observation for MDW was wind 180 degrees at 4 knots, visibility 10 statute miles, few clouds at 15,000 feet above ground level (AGL), broken clouds at 20,000 feet AGL, broken clouds at 25,000 feet AGL, temperature 1 degree Celsius, dew point minus 4 degrees Celsius, altimeter 30.26 inches of mercury.

For further information, see the Air Traffic Control Group Chairman's Factual Report included in the docket for this incident.

## History of Flight

Taxi

Runway incursion veh/AC/person

## Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BOEING	Registration:	
Model/Series:	737-7H4	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	33715
Landing Gear Type:	Retractable - Tricycle	Seats:	140
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Turbo Fan
Airframe Total Time:		Engine Manufacturer:	CFM INTL.
ELT:	Not installed	Engine Model/Series:	CFM56 SERIES
Registered Owner:		Rated Power:	2200 hp
Operator:		Air Carrier Operating Certificate:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	SWAA

## Meteorological Information and Flight Plan

Observation Facility, Elevation:	MDW, 620 ft msl	Observation Time:	0851 CST
Distance from Accident Site:		Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Few / 15000 ft agl	Temperature/Dew Point:	1°C / -4°C
Lowest Ceiling:	Broken / 20000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	4 knots, 180°	Visibility (RVR):	
Altimeter Setting:	30.26 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	Minneapolis-St, MN (MSP)	Type of Flight Plan Filed:	IFR
Destination:	Chicago, IL	Type of Clearance:	IFR
Departure Time:	0802 CST	Type of Airspace:	Class D

## Airport Information

Airport:	Chicago Midway (MDW)	Runway Surface Type:	Unknown
Airport Elevation:	620 ft	Runway Surface Condition:	Dry
Runway Used:	31C	IFR Approach:	ILS
Runway Length/Width:	6522 ft / 150 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	5 None	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>	74 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	79 None		

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Daniel J Bartlett	<b>Adopted Date:</b>	11/07/2012
<b>Additional Participating Persons:</b>	Herbert King; Federal Aviation Administration; Washington, DC Michelle Wroblewski; Federal Aviation Administration; Green Bay, WI Curt Fischer; Federal Aviation Administration; Boston, MA		
<b>Publish Date:</b>	11/07/2012		
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82486">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82486</a>		

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