

# **Aviation Investigation Factual Report**

Location:	Salt Lake City, Utah	Accident Number:	WPR14LA346
Date & Time:	August 14, 2014, 09:41 Local	Registration:	N758SW
Aircraft:	Boeing 737 7H4	Aircraft Damage:	Substantial
Defining Event:	Ground handling event	Injuries:	5 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

### **Factual Information**

On August 14, 2014, about 0941 mountain daylight time, a Boeing 737-700 airplane, N758SW, was struck by a runaway baggage cart while sitting at the boarding gate, at the Salt Lake City International Airport (KSLC), Salt Lake City, Utah. The two airline transport pilots and three cabin crewmembers were not injured. The fuselage was substantially damaged. The airplane was registered to, and operated by, the Southwest Airlines Company, Dallas, Texas, as Southwest Flight 579, as a Title 14 Code of Federal Regulations Part 121 domestic passenger flight. An instrument flight rules flight plan was filed. The airplane was being prepared to board passengers when the event occurred.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-incharge (IIC) on August 14, a representative of the Southwest Airlines Company said that he had been advised of the event in Salt Lake City, and received photographs showing structural damage to the airplane. He said the baggage cart had been on the end of a string of carts being pulled by a tug belonging to Delta Airlines. The cart came loose while being towed and rolled into the airplane, penetrating the side of the fuselage.

During a subsequent telephone conversation, a representative of Delta Airlines reported that a tug, belonging to Delta Airlines, had been pulling several baggage carts in the non-movement area adjacent to the airplane boarding gates. She said an airport surveillance video showed the second cart in the string hit a pothole and detached from the preceding cart. The loose baggage carts rolled across the ramp and into the side of the airplane.

Prior to the accident, there were no reported mechanical anomalies with the airplane.

According to a Salt Lake City Airport Police report, the Delta Employee who drove the event tug stated he was pulling a string of four baggage carts behind his tug, northbound on the airfield road on the east side of the Bravo Concourse. He said he was coming from Gate B-3 heading north to the baggage cart boneyard. He further reported that when he arrived at the boneyard, there was only 1 baggage cart attached to the tug. He did not know when or where the 3 missing carts had detached from the string.

A Southwest employee reported to the police that he was pulled up to the rear-belt loader on gate B-17. He detached 2 baggage carts from his tug and got back in his tug. He looked up and saw 3 Delta baggage carts rolling towards the belt-loader. He yelled to his fellow-employee to watch out, and the baggage carts swerved at the last second and collided with the airplane.

The second Southwest employee reported that he was standing by the belt-loader with his back to the airplane when he heard someone scream, "Lookout!!" He turned around just as the carts impacted the airplane. He reported that the carts impacted the airplane so hard the rear carts spun around.

The police report went on to report that security video recordings were obtained and showed that in the areas of Gates B-13 and B-15, the Delta Employee could be seen driving the tug out of his traffic lane

veering to his left into the south bound traffic lane. The Employee reported that, that was done to avoid an airplane taxiing away from Gate B-15.

The report continued that, while traveling north in the southbound lane, the Delta Employee drove over a drain cover east of Gate B-15. When the baggage carts passed over the drain cover, the second baggage cart disconnected from the first baggage cart.

According to a Delta representative, after being notified of the event, Delta inspected the tug and baggage carts involved. They reported that all connection parts (tongues and springs) were found to be in good condition. Delta also reported that an additional video showed the tug maneuvering in a gate area for an extended period of time with the same carts attached. Delta reported that the tug driver stated he was confident the carts were properly connected.

#### Previous Events

During the airlines' investigations, employees at both Southwest and Delta reported knowing about the dip in the driving lane at the drain cover near Gate B15. Employees stated other similar disconnection events had occurred, but since the events did not result in damage or injury, documentation could not be located or did not exist.

The Southwest station manager reported that in November of 2013 an event occurred at the same spot in which a baggage cart disconnected from a tug. He stated the event was brought to the attention of airport authorities who stated the surface could not be leveled at that time because of the winter weather. The Station Manager further stated no action has been taken by the airport since that time.

Thethethethethethethethethethethethetheth			
Certificate:	Airline transport	Age:	44,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	August 15, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	15500 hours (Total, all aircraft), 950	0 hours (Total, this make and model)	

#### **Pilot Information**

## Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N758SW
Model/Series:	737 7H4 7H4	Aircraft Category:	Airplane
Year of Manufacture:	1999	Amateur Built:	
Airworthiness Certificate:	Normal; Transport	Serial Number:	27873
Landing Gear Type:	Tricycle	Seats:	151
Date/Type of Last Inspection:	August 6, 2014 Condition	Certified Max Gross Wt.:	154500 lbs
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:	53349 Hrs	Engine Manufacturer:	CFM INTL.
ELT:	C126 installed, not activated	Engine Model/Series:	CFM56 SERIES
Registered Owner:	SOUTHWEST AIRLINES CO	Rated Power:	24200 Lbs thrust
Operator:	SOUTHWEST AIRLINES CO	Operating Certificate(s) Held:	Flag carrier (121)

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Few / 6000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	22°C / 15°C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:		Type of Airspace:	

#### **Airport Information**

Airport:	SALT LAKE CITY INTL SLC	Runway Surface Type:	
Airport Elevation:	4227 ft msl	<b>Runway Surface Condition:</b>	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	5 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 None	Latitude, Longitude:	40.786388,-111.973052

#### **Administrative Information**

Investigator In Charge (IIC):	Lewis, Lawrence
Additional Participating Persons:	
Report Date:	April 4, 2018
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=89880

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 <u>here</u>.