



Aviation Investigation Preliminary Report

Location:	Queens, NY	Incident Number:	DCA24FA164
Date & Time:	April 17, 2024, 20:46 UTC	Registration:	HB-JHD
Aircraft:	Airbus A330	Injuries:	
Flight Conducted Under:	Part 129: Foreign		

On April 17, 2024, about 1645 eastern daylight time (EDT), Swiss Air flight 17K, an Airbus A330-343, was involved in a runway incursion on runway 4L at John F. Kennedy International Airport (JFK), Jamaica, New York, due to four other aircraft crossing runway 4L. The four crossing aircraft were Delta Airlines flight 29, a Boeing 767-432(ER), Delta Airlines flight 420, an Airbus A220-100, Repulic Airlines flight 5752, an Embraer E175LR and America Airlines flight 2246, a Boeing 737-MAX 8 resulting in Swiss Air flight 17K rejecting their take-off. There was no damage to the involved aircraft nor injuries to crew or passengers. Swiss Air flight 17K was a Title 14 *Code of Federal Regulations (CFR)* Part 129 schedule international passenger flight from JFK to Zurich Airport (ZRH), Zurich, Switzerland.

History of Flight

The following timeline was constructed from certified audio re-recordings and automatic dependent surveillance- broadcast (ADS-B) data provided by the Federal Aviation Administration (FAA). All times are in EDT and all speeds are in knots. A graphical depiction of the event with time and position of the involved aircraft is shown in figure 1. A graphical depiction of Swiss Air flight 17K speed and time is shown in figure 2.

Time	Sequence of Events
1644:58	Local Controller Two instructed the flight crew of SWR17K to line up and wait on runway 4L with a good read back.
1645:57	Local Controller Two cleared the flight crew of SWR17K for takeoff on runway 4L with a good read back.
1645:58	Local Controller One instructed the flight crew of DAL29 to cross runway 4L at H with a good read back.
1646:07	Local Controller One instructed the flight crew of AAL2246 to cross runway 4L at VA with a good read back.

1646:12	Local Controller One instructed the flight crew of RPA5752 to cross runway 4L at F with a good read back.
1646:18	Local Controller One instructed the flight crew of DAL420 to cross runway 4L at G with a good read back.
1646:26	The flight crew of SWR17K reported to Local Controller Two that they were rejecting their take-off for traffic on the runway. Local Controller Two instructed the flight crew of SWR17K to exit runway 4L on runway 31L with a good read back.

Table 1. Timeline of events.



Figure 1. A graphic depicting the event with time and position of involved aircraft.



Figure 2. A graphic depicting Swiss Air flight 17K speed and time.

Airport Surveillance Detection Equipment – Model X

JFK was equipped with surface detection equipment, called airport surveillance detection equipment – model X (ASDE-X). The ASDE-X alerts air traffic controllers of potential runway conflicts by providing detailed coverage of movement on runways and taxiways. Controllers are presented this information on a color display depicting aircraft and vehicle positions as icons overlaid on a map of the airport's runways/taxiways and airport approach corridors. The system continuously updates the map of the airport movement area that controllers can use to enhance their situational awareness. It's particularly beneficial at night or during inclement weather when visibility is poor.

The ASDE-X system is also equipped with visual and aural alarms that will alert controllers of possible runway incursions or incidents. The safety logic system is an integral part of the software system for ASDE-X. This software predicts the path of aircraft landing and/or departing, and/or vehicular movements on runways.

The ASDE-X system did not alarm during the event because SWR17K never transitioned into the departure state. An aircraft transitions to the departure state when the aircraft exceeds the departure states' acceleration (1.3 m/s*s) AND velocity (24.384 m/s) thresholds.

Investigation

The NTSB was notified of the event and operations, air traffic control (ATC) and human factors specialist were assigned. ATC group convened at JFK ATCT the week of April 30th to conduct interviews, review documentation and data. Parties to the investigation are FAA, National Air Traffic Controller Association (NATCA), American Airlines, Delta Air Lines, Republic Airlines, Air Line Pilots Association (ALPA), Allied Pilots Association (APA), and the International Brotherhood of Teamsters (IBT). The Swiss Transportation Safety Board (STSB) provided an Accredited Representative, and Swiss International Air Lines are technical advisors to the STSIB.

The investigation continues.

Aircraft and Owner/Operator Information

Aircraft Make:	Airbus	Registration:	HB-JHD
Model/Series:	A330 343	Aircraft Category:	Airplane
Amateur Built:			
Operator:	Swiss International Air Lines	Operating Certificate(s) Held:	Foreign air carrier (129)
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:		Condition of Light:	
Observation Facility, Elevation:		Observation Time:	
Distance from Accident Site:		Temperature/Dew Point:	
Lowest Cloud Condition:		Wind Speed/Gusts, Direction:	/ ,
Lowest Ceiling:		Visibility:	
Altimeter Setting:		Type of Flight Plan Filed:	
Departure Point:	New York, NY (KJFK)	Destination:	Zurich, Switzerland (LSZH)

Wreckage and Impact Information

Crew Injuries:	N/A	Aircraft Damage:	None
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	N/A	Latitude, Longitude:	40.629344,-73.779868

Administrative Information

Investigator In Charge (IIC): Bower, Daniel

Additional Participating Persons: Patrick Lusch; FAA
John Deeleeuw; American Airlines
Joshua Migdal; Delta Air Lines
Lee Hayes ; Republic Airlines
Roger White; ALPA
Craig Stroup; Allied Pilots Association
Allison Mattioli; NATCA
Patrick Holyfield; IBT
Florian Reitz; STSIB

Investigation Class: [Class 3](#)

Note: