

NATIONAL TRANSPORTATION SAFETY BOARD PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

This form to be used for reporting civil and public aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location

Nearest City/Place: Miami State: FL

ZIP: 33142 Country: USA

Latitude: N25°47.72' Longitude: W80°17.41'

(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 11/10/2022 Local Time: 1900
mm/dd/yyyy

Time Zone: Eastern

Collision with Other Aircraft: ☐ Midair ☐ On-ground ☒ None

AIRCRAFT INFORMATION

Registration Number: N316SE

Manufacturer: Boeing

Model: 737-MAX8

Serial Number: 44472

Year of Manufacture: 2020

Amateur-Built: ☐ Yes ☒ No If Yes: ☐ Kit/Plans ☐ Original Design Make: _____

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 177,000 lbs

Weight at Time of Accident/Incident: 142,800 lbs

Number of Seats: 180 Flight Crew Seats: 2

Cabin Crew Seats: 6 Passenger Seats: 172

Number of Engines: 2

Category of Aircraft

- ☒ Airplane
- ☐ Balloon
- ☐ Blimp/Dirigible
- ☐ Glider
- ☐ Gyroplane
- ☐ Helicopter
- ☐ Powered Lift
- ☐ Rocket
- ☐ Ultralight
- ☐ Unknown

Type of Airworthiness Certificate

(Check all that apply)

Standard

- ☐ Normal
- ☐ Aerobatic
- ☐ Balloon
- ☐ Commuter
- ☒ Transport
- ☐ Utility

Special

- ☐ Restricted
- ☐ Limited
- ☐ Provisional
- ☐ Special Flight
- ☐ Experimental
- ☐ Special Light-Sport
- ☐ Experimental Light-Sport

☐ Certificate of Authorization or Waiver (COA)
☐ None ☐ Unknown

Landing Gear

(Check all that apply)

☒ Retractable

- ☒ Tricycle ☐ Tailwheel
- ☐ Amphibian ☐ High Skid
- ☐ Emergency Float ☐ Skid
- ☐ Float ☐ Ski
- ☐ Hull ☐ Ski/Wheel
- ☐ Other Launch/Recovery System
- ☐ None ☐ Unknown

Engine Type (Select one)

- ☐ Reciprocating ☐ Liquid Rocket
- ☐ Turbo Shaft ☐ Solid Rocket
- ☐ Turbo Prop ☐ Hybrid Rocket
- ☐ Turbo Jet ☐ None
- ☒ Turbo Fan ☐ Unknown
- ☐ Electric

Fuel System Type (Reciprocating)

- ☐ Carburetor ☐ Fuel-Injected

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. mm/dd/yyyy	Rated Power ☐ Horsepower or ☒ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	CFM	LEAP-1B	602168	12/02/2017	28,000	5925		4443
Eng. 2	CFM	LEAP-1B	602224	10/29/2017	28,000	8201		5929
Eng. 3								
Eng. 4								

Last Inspection Type

- ☐ 100-Hour ☒ Continuous Airworthiness
- ☐ AAIP ☐ Conditional Inspection
- ☐ Annual ☐ Unknown

Date Last Inspection: 11/09/2022
mm/dd/yyyy

Airframe Total Time: 5475 hrs

hours measured at (Select one)

☐ Last Inspection ☒ Time of Accident/Incident

Type of Maintenance Program (Select one)

- ☐ Annual
- ☐ Conditional (Amateur-built only)
- ☐ Manufacturer's Inspection Program
- ☐ Other Approved Inspection Program (AAIP)
- ☒ Continuous Airworthiness
- ☐ Other, specify: _____

Description of Fire Extinguishing System

- ☐ None
- ☒ Specify: The engine fire extinguisher system consists of two engine +

Propeller 1

- ☐ Fixed Pitch
- ☐ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: N/A

Model: N/A

Propeller 2

- ☐ Fixed Pitch
- ☐ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: N/A

Model: N/A

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: ECA AEROSPACE

Model or Part No.: 01N65900

TSO No.: ☒ C91 (121.5 MHz) ☐ C91a (121.5 MHz)
☐ C126 (406 MHz)

Was ELT still mounted in aircraft? ☒ Yes ☐ No

Was ELT still connected to antenna? ☒ Yes ☐ No

Did ELT Activate? ☐ Yes ☒ No

If activated:

Did ELT Aid in Locating Aircraft? ☐ Yes ☐ No

If not activated:

- Indicate Reason:
- ☐ Impact Damage
 - ☐ Fire Damage
 - ☐ Battery Expired/Damaged
 - ☐ Unknown

Additional Equipment (Check all that apply)

- ☒ ADS-B
- ☐ Airframe Parachute
- ☒ Angle of Attack Indicator
- ☒ Autopilot
- ☒ Data Recorder
- ☒ Electronic Flight Bag or Handheld Device
- ☒ Electronic Multifunction Display
- ☒ Electronic Primary Flight Display
- ☐ Handheld GPS
- ☒ Heads Up Display
- ☒ Onboard Weather
- ☐ Satellite Tracking Device
- ☒ Stall Warning System
- ☐ Video Recording Device
- ☐ Other, Specify: _____

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: WILMINGTON TRUST CO TRUSTEECity: NEW CASTLEState: DEZIP: 19890Fractional Ownership Aircraft: ☐ Yes ☒ NoCountry: USA**Operator of Aircraft**☐ Same As Registered Owner☐ Same Address as Registered OwnerName: AMERICAN AIRLINES INCCity: FORT WORTHDoing Business As: AMERICAN AIRLINESState: TXZIP: 76155Air Carrier/Operator Designator (4 Character Code): AALACountry: USA**Operating Certificates Held**

(Check all that apply)

- ☐ None
☒ Flag Carrier Operating Certificate (FAR 121)
☐ Supplemental
☐ Air Cargo
☐ Foreign Air Carriers (FAR 129)
☐ Rotorcraft External Load (FAR 133)
☐ Commuter Air Carrier (FAR 135)
☐ On-Demand Air Taxi (FAR 135)
☐ Commercial Air Tour (FAR 136)
☐ Agricultural Aircraft (FAR 137)
☐ Pilot School (FAR 141)
☐ Certificate of Authorization or Waiver (COA)
☐ Commercial Space Transportation
Experimental Permit
☐ Commercial Space Transportation License
☐ Other Operator of Large Aircraft

Regulation Flight Conducted Under

- ☐ FAR 91 ☐ FAR 129 ☐ FAR 415
☐ FAR 103 ☐ FAR 133 ☐ FAR 431
☒ FAR 121 ☐ FAR 135 ☐ FAR 435
☐ FAR 125 ☐ FAR 137 ☐ FAR 437
- ☐ FAR 91 Special Flight
☐ Non-US, Commercial
☐ Non-US, Non-commercial
- ☐ Public Aircraft (Select one)
☐ Armed Forces
☐ Federal
☐ State
☐ Local
☐ Unknown

Revenue Operation for FAR 121, 125, 129, 135

(Select one for each group)

- ☒ Scheduled or Commuter ☒ Domestic
☐ Non-Scheduled or Air Taxi ☐ International
- ☒ Passenger
☐ Cargo
☐ Mail Contract Only

Purpose of Flight for FAR 91, 103, 133, 137

(Select one)

- ☐ Aerial Application ☐ Firefighting ☐ Unknown
☐ Aerial Observation ☐ Flight Test
☐ Air Drop ☐ Glider Tow
☐ Air Race/Show ☐ Instructional
☐ Banner Tow ☐ Other Work Use
☐ Business ☐ Personal
☐ Executive/Corporate ☐ Positioning
☐ External Load ☐ Skydiving
☐ Ferry

Revenue Sightseeing Flight☐ Yes ☒ No**Air Medical Flight**☐ Yes ☒ No**AIRPORT INFORMATION (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)**Airport Name: MIAMI INTERNATIONAL AIRPORTDistance From Airport Center: N/A smAirport Identifier: MIA/KMIADirection From Airport: N/A degrees trueProximity to Airport: ☐ Off Airport/Airstrip ☐ On Airport/Airstrip ☒ N/AAirport Elevation: 9 ft. msl**Runway Information**Runway ID: N/A (L/R/C) Length: N/A ft Width: N/A ft**Runway/Landing Surface (Check all that apply)**

- ☐ Asphalt ☐ Grass/Turf ☐ Macadam ☐ Water
☐ Concrete ☐ Gravel ☐ Metal/Wood
☐ Dirt ☐ Ice ☐ Snow ☐ Unknown

Condition of Runway/Landing Surface (Check all that apply)

- ☐ Dry ☐ Snow-Compacted ☐ Water-Calm
☐ Holes ☐ Snow-Crusted ☐ Water-Choppy
☐ Ice Covered ☐ Snow-Dry ☐ Water-Glassy
☐ Rough ☐ Snow-Wet ☐ Wet
☐ Rubber Deposits ☐ Soft
☐ Slush-Covered ☐ Vegetation ☐ Unknown

Approach/Departure Segment (Select one)

- ☐ Taxi ☐ VFR Departure ☐ On Instrument Approach ☐ Downwind ☐ Low Approach
☐ Takeoff ☐ IFR Departure Procedure/Clearance ☐ Landing ☐ Base ☐ Go Around
☐ Initial Climb ☐ Aborted Landing (after touchdown)
☐ Crosswind ☐ Unknown

IFR Approach (Check all that apply)

- ☒ None
- ☐ ADF/NDB ☐ PAR ☐ MLS ☐ Practice
☐ SDF ☐ Sidestep ☐ LDA ☐ GPS
☐ VOR/TVOR ☐ ILS ☐ ASR
☐ VOR/DME ☐ Localizer Only ☐ Visual
☐ TACAN ☐ LOC-back course ☐ Contact
☐ RNAV ☐ Circling
☐ Unknown

VFR Approach (Check all that apply)

- ☒ None
- ☐ Traffic Pattern ☐ Stop and Go
☐ Straight-In ☐ Touch and Go
☐ Valley/Terrain Following ☐ Simulated Forced Landing
☐ Go Around ☐ Forced Landing
☐ Full Stop ☐ Precautionary Landing
☐ Unknown

"FLIGHT CREWMEMBER 1" INFORMATION

"Flight Crewmember 1" Responsibilities at the Time of Accident/Incident

☒ Pilot
 ☐ Co-Pilot
 ☐ Student Pilot
 ☐ Flight Instructor
 ☐ Check Pilot
 ☐ Flight Engineer
 ☐ Other Flight Crew

"Flight Crewmember 1" was pilot flying ☐ Yes ☐ No

"Flight Crewmember 1" Identification

First Name: MATTHEW City of Residence:
 Middle Initial: State: MO ZIP:
 Last Name: BOYD Country: USA
 Age at time of Accident/Incident: 55 Date of Birth: 1967 mm/dd/yyyy
 Certificate Number:

Degree of Injury ☒ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious	Seat Occupied ☒ Left ☐ Front ☐ Unknown ☐ Right ☐ Rear ☐ Center ☐ Single	Restraint Type <table style="width: 100%;"> <tr> <th style="text-align: left;">Available</th> <th style="text-align: left;">Used</th> </tr> <tr> <td>☐ None</td> <td>☐ None</td> </tr> <tr> <td>☐ Lap only</td> <td>☐ Lap only</td> </tr> <tr> <td>☐ 3-point</td> <td>☐ 3-point</td> </tr> <tr> <td>☐ 4-point</td> <td>☐ 4-point</td> </tr> <tr> <td>☒ 5-point</td> <td>☒ 5-point</td> </tr> <tr> <td>☐ Unknown</td> <td>☐ Unknown</td> </tr> </table>	Available	Used	☐ None	☐ None	☐ Lap only	☐ Lap only	☐ 3-point	☐ 3-point	☐ 4-point	☐ 4-point	☒ 5-point	☒ 5-point	☐ Unknown	☐ Unknown	Inflatable Restraints ☐ Not Installed ☐ Installed ☒ Not Deployed ☐ Deployed ☐ Unknown
Available	Used																
☐ None	☐ None																
☐ Lap only	☐ Lap only																
☐ 3-point	☐ 3-point																
☐ 4-point	☐ 4-point																
☒ 5-point	☒ 5-point																
☐ Unknown	☐ Unknown																
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☒ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer		Medical Certificate Validity ☐ Without limitations/waivers ☐ Unknown ☐ With limitations/waivers ☒ N/A ☐ Special Issuance															
Principal Occupation ☒ Pilot ☐ Other ☐ Unknown	Medical Certificate ☐ None ☐ Class 3 ☒ Class 1 ☐ Driver's License (Sport Pilot only) ☐ Class 2 ☐ Unknown	Date of Last Medical <u>10/17/2022</u> mm/dd/yyyy															

Medical Certificate Limitations

NONE

Medical Certificate Special Issuance

NONE

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks:

11/25/2021
mm/dd/yyyy

Flight Review Aircraft

Make: BOEING
 Model: 737

Airplane Rating(s) (Check all that apply) ☐ None ☒ Single-Engine Land ☐ Single-Engine Sea ☒ Multiengine Land ☐ Multiengine Sea	Other Aircraft Rating(s) (Check all that apply) ☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift	Instrument Rating(s) (Check all that apply) ☐ None ☒ Airplane ☐ Helicopter ☐ Powered Lift	Instructor Rating(s) (Check all that apply) ☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift ☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport
Type Ratings <u>B737</u>			Student Endorsements (Include dates) <u>N/A</u>

Flight Time (Enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time		7,516								
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

“Flight Crewmember 2” Responsibilities at the Time of Accident/Incident

“Flight Crewmember 2” was pilot flying ☐ Yes ☐ No

First Name: ANTONIO

City of Residence: [REDACTED]

Middle Initial:

State: **FL** ZIP: **33134**

Last Name: **MUIA**

Country: **USA**

Age at time of Accident/Incident: 27 Date of Birth: [REDACTED] 1995 mm/dd/yyyy

Certificate Number: [REDACTED]

Degree of Injury ☒ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious		Seat Occupied ☐ Left ☐ Front ☐ Unknown ☒ Right ☐ Rear ☐ Center ☐ Single		Restraint Type Available ☐ None ☐ Lap only ☐ 3-point ☐ 4-point ☒ 5-point ☐ Unknown Used ☐ None ☐ Lap only ☐ 3-point ☐ 4-point ☒ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☒ Not Deployed ☐ Deployed ☐ Unknown
Pilot Certificate(s) <i>(Check all that apply)</i> ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☒ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer						
Principal Occupation ☒ Pilot ☐ Other ☐ Unknown	Medical Certificate ☐ None ☐ Class 3 ☒ Class 1 ☐ Driver's License (Sport Pilot only) ☐ Class 2 ☐ Unknown		Medical Certificate Validity ☐ Without limitations/waivers ☐ Unknown ☐ With limitations/waivers ☒ N/A ☐ Special Issuance		Date of Last Medical <u>08/20/2022</u> <i>mm/dd/yyyy</i>	

NONE

NONE

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: <u>06/06/2022</u> <i>mm/dd/yyyy</i>	Flight Review Aircraft Make: <u>BOEING</u> Model: <u>737</u>
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Airplane Rating(s) <i>(Check all that apply)</i> ☐ None ☒ Single-Engine Land ☐ Single-Engine Sea ☒ Multiengine Land ☐ Multiengine Sea	Other Aircraft Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift	Instrument Rating(s) <i>(Check all that apply)</i> ☐ None ☒ Airplane ☐ Helicopter ☐ Powered Lift	Instructor Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift	☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport
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Type Ratings	Student Endorsements <i>(Include dates)</i>
B737	N/A

[illegible]

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)						
Crew Name and Address				Seat Occupied		Injury
First Name: <u>N/A</u> City of Residence: <u>N/A</u> Middle Initial: <u>N/A</u> State: <u>N/A</u> ZIP: <u>N/A</u> Last Name: <u>N/A</u> Country: <u>N/A</u>				☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer				Restraint Type: Available Used ☐ None ☐ None ☐ Lap Only ☐ Lap Only ☐ 3-point ☐ 3-point ☐ 4-point ☐ 4-point ☐ 5-point ☐ 5-point ☐ Unknown ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		Total Flight Time at the Time of this Accident/Incident: _____ hrs				
Crew Name and Address				Seat Occupied		Injury
First Name: <u>N/A</u> City of Residence: <u>N/A</u> Middle Initial: <u>N/A</u> State: <u>N/A</u> ZIP: <u>N/A</u> Last Name: <u>N/A</u> Country: <u>N/A</u>				☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer				Restraint Type: Available Used ☐ None ☐ None ☐ Lap Only ☐ Lap Only ☐ 3-point ☐ 3-point ☐ 4-point ☐ 4-point ☐ 5-point ☐ 5-point ☐ Unknown ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		Total Flight Time at the Time of this Accident/Incident: _____ hrs				
PASSENGER(S) / OTHER PERSONNEL (Include cabin crew; continue on separate sheet if necessary)						
Name and Address		Seat	Injury	Restraint Type		Inflatable Restraints
First Name: <u>YANET</u> City: <u> </u> Middle Initial: <u> </u> State: <u>FL</u> ZIP: <u> </u> Last Name: <u>CASTILLO</u> Country: <u>USA</u> ☒ Crew ☐ Passenger ☐ Other		☐ Left ☐ Center ☐ Right ☒ Unknown Row: <u> </u>	☐ None ☐ Minor ☒ Serious ☐ Fatal ☐ Unknown	Available Used ☐ None ☐ None ☐ Lap Only ☐ Lap Only ☒ 3-point ☒ 3-point ☐ 4-point ☐ 4-point ☐ 5-point ☐ 5-point ☐ Unknown ☐ Unknown	☐ Not Installed ☐ Installed ☒ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: <u>N/A</u> City: <u>N/A</u> Middle Initial: <u>N/A</u> State: <u>N/A</u> ZIP: <u>N/A</u> Last Name: <u>N/A</u> Country: <u>N/A</u> ☐ Crew ☐ Passenger ☐ Other		☐ Left ☐ Center ☐ Right ☐ Unknown Row: <u> </u>	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available Used ☐ None ☐ None ☐ Lap Only ☐ Lap Only ☐ 3-point ☐ 3-point ☐ 4-point ☐ 4-point ☐ 5-point ☐ 5-point ☐ Unknown ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: <u>N/A</u> City: <u>N/A</u> Middle Initial: <u>N/A</u> State: <u>N/A</u> ZIP: <u>N/A</u> Last Name: <u>N/A</u> Country: <u>N/A</u> ☐ Crew ☐ Passenger ☐ Other		☐ Left ☐ Center ☐ Right ☐ Unknown Row: <u> </u>	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available Used ☐ None ☐ None ☐ Lap Only ☐ Lap Only ☐ 3-point ☐ 3-point ☐ 4-point ☐ 4-point ☐ 5-point ☐ 5-point ☐ Unknown ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: <u>N/A</u> City: <u>N/A</u> Middle Initial: <u>N/A</u> State: <u>N/A</u> ZIP: <u>N/A</u> Last Name: <u>N/A</u> Country: <u>N/A</u> ☐ Crew ☐ Passenger ☐ Other		☐ Left ☐ Center ☐ Right ☐ Unknown Row: <u> </u>	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available Used ☐ None ☐ None ☐ Lap Only ☐ Lap Only ☐ 3-point ☐ 3-point ☐ 4-point ☐ 4-point ☐ 5-point ☐ 5-point ☐ Unknown ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>STX/TISX</u> City: <u>ST. CROIX</u> State: <u>US VIRGIN ISLD</u> Country: <u>USA</u>	Time of Departure Time: <u>2140</u> Time Zone: <u>ZULU</u>	Destination Airport ID: <u>MIA/KMIA</u> City: <u>MIAMI</u> State: <u>FL</u> Country: <u>USA</u>	Type Flight Plan Filed ☐ None ☐ VFR/IFR ☐ Company VFR ☒ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☒ Yes ☐ No ☐ Unknown
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Type of ATC Clearance/Service (Check all that apply)				
☐ None	☐ Special VFR	☐ Special IFR	☐ VFR Flight Following	☐ Cruise
☐ VFR	☒ IFR	☐ VFR On Top	☐ Traffic Advisory	☐ Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)				Altitude of In-Flight Occurrence: <u>28,000</u> ft msl
☒ Class A	☐ Class G	☐ Military Operations Area (MOA)	☐ Special	
☐ Class B	☐ Demo Area	☐ Airport Advisory Area	☐ Air Traffic Control Area	
☐ Class C	☐ Warning Area	☐ Jet Training Area	☐ Unknown	
☐ Class D	☐ Prohibited Area	☐ TRSA		
☐ Class E	☐ Restricted Area	☐ FAR 93		

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply)	Weather Observation Facility
☒ National Weather Service ☐ Flight Service Station ☐ TV/Radio ☐ Automated Report ☐ Commercial Weather Service (DUATS) ☐ On-Board Weather	Facility ID: <u>KMIA</u> Observation Time: <u>2353</u> Time Zone: <u>ZULU</u> Distance from Accident Site: <u>N/A</u> nm Direction from Accident Site: <u>N/A</u> degrees true
☐ Company ☐ Military ☐ Internet ☐ None ☐ Unknown	

Basic Conditions ☒ VMC ☐ IMC ☐ Unknown	Light Condition ☐ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown ☐ Day ☒ Night ☐ Bright Night
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Sky/Lowest Cloud Condition ☐ Clear ☐ Thin Broken ☒ Few ☐ Thin Overcast ☐ Partial Obscuration ☐ Unknown ☐ Scattered Lowest Cloud Condition Height <u>2700</u> ft agl	Ceiling ☒ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown Ceiling Height _____ ft agl	Temperature: <u>26</u> (C) or _____ (F) Dew Point: <u>21</u> (C) or _____ (F) Altimeter Setting: <u>29.80</u> in. Hg or _____ MB
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Wind Direction ☐ Variable -or- Direction: <u>170</u> degrees true	Wind Speed ☐ Calm ☐ Light and Variable -or- Speed: <u>5</u> kts	Wind Gusts ☒ Not Gusting -or- Speed: _____ kts	Visibility <u>10</u> miles RVR: <u>N/A</u> feet RVV: <u>N/A</u> miles Density Altitude: <u>N/A</u> ft
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Intensity of Precipitation ☐ Light ☐ Moderate ☐ Heavy ☒ N/A ☐ Unknown	Type of Precipitation (Check all that apply)	Restriction to Visibility (Check all that apply)
	☒ None ☐ Drizzle ☐ Freezing Rain ☐ Rain ☐ Ice Pellets ☐ Snow Shower ☐ Snow ☐ Snow Pellets ☐ Ice Pellets Shower ☐ Hail ☐ Snow Grains ☐ Freezing Drizzle ☐ Rain Showers ☐ Ice Crystals	☒ None ☐ Fog ☐ Blowing Dust ☐ Ground Fog ☐ Blowing Sand ☐ Haze ☐ Blowing Snow ☐ Ice Fog ☐ Blowing Spray ☐ Smoke ☐ Dust ☐ Unknown

Icing Forecast Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown Type ☒ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown	Icing Actual Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown Type ☒ N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown	Turbulence Type (Check all that apply) ☐ None ☒ Clear Air ☐ Terrain-Induced ☐ Convective Turbulence Severity ☐ Light ☐ Moderate ☒ Severe ☐ Extreme
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NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:

- KMIA/MIA - MIAMI INTL
 ----- AIRPORT -----

-AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN,
 ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING



DAMAGE TO AIRCRAFT AND OTHER PROPERTY**Aircraft Damage**

- ☒ None ☐ Substantial
☐ Minor ☐ Destroyed
 ☐ Unknown

Aircraft Fire

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Fire at Unknown Time
☐ On-Ground ☐ Unknown

Aircraft Explosion

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Explosion at Unknown Time
☐ On-Ground ☐ Unknown

Description of Damage to Aircraft and Other Property *(Use additional sheet if necessary)*

N/A

NARRATIVE HISTORY OF FLIGHT *(Please type or print in ink)*

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State departure time and location, services obtained, and intended destination. Provide as much detail as possible.

1. At approximately 1900L on November 10, 2022, Flight Attendant #4 was injured due to turbulence on American Airlines flight #2548, operating from STX to MIA.
2. The injury occurred approximately 20 minutes from landing when the aircraft hit a pocket of turbulence causing Flight Attendant #4 to go up and come down on the corner of the jumpseat causing the immediate back pain.
3. Convective weather was a factor. (see additional information for weather analysis)
4. The aircraft altitude at the time of encounter was FL280 as the aircraft was descending via the VIICE2 Arrival into MIA.
5. Flight Attendants were out of their jumpseats at the time of time of the turbulence encounter.
6. Medical personnel met Flight Attendant #4 upon arrival in MIA.
7. Flight Attendant #4 was transported to the hospital where she was diagnosed with a fracture in her spine.

RECOMMENDATION (How could this accident/incident have been prevented?)

Operator/Owner Safety Recommendation

NONE

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)

Was there Mechanical Malfunction/Failure? ☐ Yes ☒ No
(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)

N/A

**Total Time/Cycles
On Part**

N/A _____ Hours

N/A _____ Cycles

**Time Since This Part
Inspected/Overhauled**

N/A _____ Hours

FUEL & SERVICES INFORMATION

Fuel on Board at Last Takeoff
(Convert from pounds, as necessary)

3185 _____ Gallons

Fuel Type☐ 80/87☐ 115/145☐ Jet B☐ Other, specify _____☐ 100 Low Lead☒ Jet A☐ JP8☐ 100/130☐ Jet A-1☐ Automotive**Other Services, if Any, Prior to Departure**

N/A

EVACUATION OF AIRCRAFT

Was an emergency evacuation of the aircraft performed? ☐ Yes ☒ No

Method of Exit – Describe how the occupants exited and how many occupants evacuated each location

N/A

OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for *other* aircraft)**Aircraft Registration Number**

N/A

Manufacturer: N/A**Model:** N/A**Damage to Other Aircraft**☐ Destroyed☐ Minor☐ Substantial☒ None**Registered Owner of Other Aircraft**

Name: N/A

City: N/A

State: N/A ZIP: N/A

Country: N/A

Pilot of Other Aircraft

Name: N/A

City: N/A

State: N/A ZIP: N/A

Country: N/A

ADDITIONAL INFORMATION (Please type or print in ink)

Use this space if additional space is needed for any answers.

Pre-departure Weather Packet:
See Attached (2548 Weather Packet)

Captain Statement:

"I was Pilot Flying. In clear air and nighttime conditions, we were descending through 18,000 feet between two rain showers. MIA Approach had cleared us direct to a fix on the ILS 30 approach. The seatbelt sign was on, and PA to the cabin to "prepare for landing was complete". ATC-directed vector took us into a thin layer about 200 ft thick. When we broke out, there was a cumulus build-up right in front of us that wasn't depicted on the weather radar. We clipped the tops because our position would not allow deviating around the cell. We encountered a few moments of moderate turbulence. The number one flight attendant immediately called and said one of the flight attendants in the back had fallen and was having trouble breathing. I asked FO to notify ATC to request that paramedics meet the aircraft at the gate."

First Officer Statement:

"I was Pilot Monitoring. Navigating to waypoint on final for runway 30 and descending below FL200, we encountered a thin cloud layer 100-200 feet thick. Once we broke through, we could see the Miami city lights. We then noticed a towering cumulous cloud obstructing the view of the city lights right in front of us. There was so little light with the overcast layer that when we saw it, it was too late to deviate. We encountered moderate turbulence for no more than 3 seconds. After this, we got a call from the cabin informing us that a flight attendant had fallen and hurt herself. I requested through ATC to have paramedics meet us at the gate. We continued straight into runway 30 and landed."

Flight Attendant #4 Statement:

"I lost control during turbulence and was thrown into a seat, fracturing my spine."

Other Flight Attendant Statements:**FA #2**

"FA #4 came off her feet during severe turbulence and landed with her back on the corner of my jumpseat in the aft galley. She had a hard time breathing and was in severe pain. At this point she was sitting on the galley floor next to my jumpseat (where I was buckled in). I put my hand on her shoulders to help her during the turbulence. I called the Purser and told her to send the #3 FA to the back because the #4 FA was injured. When the #3 came back, I got up and retrieved the oxygen and put it on the #4 FA as the #3 helped her get into her jumpseat and strapped her in. She could not lift her arms without severe pain. We told the Captain we needed ambulance to meet flight. All this happened just moments after the Captain made the announcement that we were 20 minutes before landing. The #4 FA was using 2 bottles of oxygen and said she was losing feeling in her fingers in both hands. After we landed she was shivering and sweating a bit. I collected all her belongings and got them ready when she was taken off the plane. After the injured FA and passengers were off the plane, the Captain came to the back to ask what happened. I told him and he said that they were going between 2 cells, it was dark, and the turbulence was not expected."

Post Event Weather Analysis:

At the approximate time of the event, EDR data indicated that there was some light turbulence at this time:

At 0000Z EDR indicated 0.156 (Light) and at 0001Z EDR indicated 0.175 (Light). Five minutes later (00005Z), the flight is was in a convective cell. The EDR report indicated 0.367 which is moderate turbulence.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**Date of this Report**12/07/2022

mm/dd/yyyy

Name of Pilot/Operator: _____**Signature:** _____-- or -- ☐ Check here to electronically sign this document**If a Person Other than Pilot/Operator is Filing Report****Name:** ALEC KUZUKIAN**Title:** SR. AIR SAFETY INVESTIGATOR**Signature:** _____-- or -- ☒ Check here to electronically sign this document**FOR NTSB USE ONLY****NTSB Accident/Incident No.**
DCA23LA050**Reviewed by NTSB Regional Office**
AS-10**Name of Investigator**
Banning**Date Report Received**
12/7/2022