

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: John Wayne Airport Orange County State: CA

ZIP: 92707 Country: US

Latitude: 33 40 32 N Longitude: 117 52 06 W

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

Accident/Incident Date/Time

Date: 8/20/2023 Local Time: 2315
mm/dd/yyyy

Time Zone: Pacific

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

AIRCRAFT INFORMATION

Registration Number: N516AS

Manufacturer: Boeing

Model: 737-890

Serial Number: 39044

Year of Manufacture: 2008

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

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 174700 lbs

Weight at Time of Accident/Incident: _____ lbs

Number of Seats: 159 Flight Crew Seats: 2

Cabin Crew Seats: 6 Passenger Seats: 159

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

☐ Amphibian

☐ Emergency Float

☐ Float

☐ Hull

☐ Other Launch/Recovery System

☐ None

☐ Tailwheel

☐ High Skid

☐ Skid

☐ Ski

☐ Ski/Wheel

☐ Unknown

Engine Type (Select one)

☐ Reciprocating

☐ Turbo Shaft

☐ Turbo Prop

☐ Turbo Jet

☒ Turbo Fan

☐ Electric

☐ Liquid Rocket

☐ Solid Rocket

☐ Hybrid Rocket

☐ None

☐ Unknown

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 56	7B27/3	896275			51572.56	1449	
Eng. 2	CFM 56	7B27/3	897310			48388.10	1090	
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: _____
mm/dd/yyyy

Airframe Total Time: 53207.34 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: Cabin-portables bottle, engines, cargo, and APU - fire bottles

Propeller 1

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

Manufacturer: _____

Model: _____

Propeller 2

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

Manufacturer: _____

Model: _____

ELT Installed: ☐ Yes ☐ No

If Yes:

ELT Manufacturer: ELTAE LT ADT406 S

Model or Part No.: 01N65920

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: WilmingtonState: DEZIP: 19890Fractional Ownership Aircraft: ☐ Yes ☒ NoCountry: US**Operator of Aircraft**☐ Same As Registered Owner☐ Same Address as Registered OwnerName: Alaska AirlinesCity: Seattle

Doing Business As: _____

State: WAZIP: 98198Air Carrier/Operator Designator (4 Character Code): ASAACountry: US**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: John Wayne Airport Orange CountyAirport Identifier: SNAProximity to Airport: ☐ Off Airport/Airstrip ☒ On Airport/Airstrip ☐ N/ADistance From Airport Center: .5 smDirection From Airport: Runway 20R degrees trueAirport Elevation: 56' ft. msl**Runway Information**Runway ID: 20 R (L/R/C) Length: 5700 ft Width: 150 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 ☐ Crosswind ☐ Aborted Landing (after touchdown)
☐ 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: Steven

City of Residence: [REDACTED]

Middle Initial: H.

State: [REDACTED] ZIP: [REDACTED]

Last Name: Hackworth

Country: US

Age at time of Accident/Incident: 57 Date of Birth: [REDACTED] 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) (Check all that apply)

☐ 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

4/10/2023
mm/dd/yyyy

Medical Certificate Limitations

must use corrective lense(s) to meet vision standards at all required distances

Medical Certificate Special Issuance**Date of Last Flight Review
or Equivalent, Including
FAR 121/135 Checks:**

11/26/2022
mm/dd/yyyy

Flight Review Aircraft

Make: B-737

Model: 737-800

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

B-737, BE-1900, DC-9

Student Endorsements (Include dates)**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	20,403	10,837		14,937						
Pilot in Command (PIC)	10,858	9,819								
Time as Instructor										
This Make/Model										
Last 90 Days	77	77		77						
Last 30 Days	47	47		47						
Last 24 Hours	5	5		5						

"FLIGHT CREWMEMBER 2" INFORMATION**"Flight Crewmember 2" Responsibilities at the Time of Accident/Incident**

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

"Flight Crewmember 2" was pilot flying ☐ Yes ☒ No

"Flight Crewmember 2" Identification

First Name: Jack

City of Residence: [REDACTED]

Middle Initial: M.

State: [REDACTED] ZIP: [REDACTED]

Last Name: Huang

Country: US

Age at time of Accident/Incident: 52 Date of Birth: [REDACTED] 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) (Check all that apply) ☐ 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>12/02/2022</u> mm/dd/yyyy

Medical Certificate Limitations

Holder shall possess glasses for near/intermediate vision

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: <u>3/22/2023</u> mm/dd/yyyy	Flight Review Aircraft Make: <u>B-737</u> Model: <u>737-900</u>
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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 A-320, B-737, CL-65, EMB-120, ERJ-170, ERJ-190			Student Endorsements (Include dates)

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	10,705	483		5,578						
Pilot in Command (PIC)	1,200			1,200						
Time as Instructor										
This Make/Model										
Last 90 Days	254	254		254						
Last 30 Days	63	63		63						
Last 24 Hours	5	5		5						

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)

Crew Name and Address		Seat Occupied	Injury
First Name: _____	City of Residence: _____	☐ Left ☐ Center ☐ Right	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown
Middle Initial: _____	State: _____ ZIP: _____	☐ Front ☐ Rear ☐ Single ☐ Unknown	
Last Name: _____	Country: _____		
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 ☐ 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
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: _____	City of Residence: _____	☐ Left ☐ Center ☐ Right	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown
Middle Initial: _____	State: _____ ZIP: _____	☐ Front ☐ Rear ☐ Single ☐ Unknown	
Last Name: _____	Country: _____		
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 ☐ 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
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	Age
First Name: <u>Jennifer</u> City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: <u>Johnson</u> Country: _____ ☒ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: <u>A</u>	☒ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☒ 4-point ☐ 5-point ☐ Unknown ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: <u>Katherine</u> City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: <u>Morales-Ramirez</u> Country: _____ ☒ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: <u>B</u>	☒ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☒ 4-point ☐ 5-point ☐ Unknown ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: <u>Myra</u> City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: <u>Bernal-Freyermut</u> Country: _____ ☒ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: <u>C</u>	☒ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☒ 4-point ☐ 5-point ☐ Unknown ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: <u>Ashley</u> City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: <u>Sellingsloh</u> Country: _____ ☒ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: <u>D</u>	☒ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☒ 4-point ☐ 5-point ☐ Unknown ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown

FLIGHT ITINERARY INFORMATION

Last Departure Point

Airport ID: SEA
 City: Seattle
 State: WA
 Country: US

Time of Departure

Time: 2036
 Time Zone: Pacific

Destination

Airport ID: SNA
 City: Santa Ana
 State: CA
 Country: US

Type Flight Plan Filed

☐ None ☐ VFR/IFR
☐ Company VFR ☒ IFR
☐ Military VFR ☐ Unknown
☐ VFR
 Activated? ☒ Yes ☐ No ☐ Unknown

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)

☐ 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

Altitude of In-Flight Occurrence:

_____ ft msl

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information

(Check all that apply)

☒ National Weather Service ☒ Company
☐ Flight Service Station ☐ Military
☐ TV/Radio ☒ Internet
☒ Automated Report ☐ None
☒ Commercial Weather Service (DUATS) ☐ Unknown
☒ On-Board Weather

Weather Observation Facility

Facility ID: KSNA
 Observation Time: 0605Z
 Time Zone: 1105 Pacific
 Distance from Accident Site: 0 nm
 Direction from Accident Site: 0 degrees true

Basic Conditions

☐ VMC
☒ IMC
☐ Unknown

Light Condition

☐ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown
☐ Day ☒ Night ☐ Bright Night

Sky/Lowest Cloud Condition

☐ Clear ☐ Thin Broken
☐ Few ☒ Thin Overcast
☐ Partial Obscuration ☐ Unknown
☐ Scattered

Ceiling

☐ None (Clear) ☐ Obscured
☐ Broken ☐ Indefinite
☒ Overcast ☐ Unknown

Temperature: 21 (C) or _____ (F)

Dew Point: 19 (C) or _____ (F)

Altimeter Setting: 29.81 in. Hg
 or _____ MB

Lowest Cloud Condition Height

1100 ft agl

Ceiling Height

1100 ft agl

Wind Direction

☒ Variable

-or-

Direction: _____ degrees true

Wind Speed

☐ Calm
☒ Light and Variable

-or-

Speed: 3 kts

Wind Gusts

☐ Not Gusting

-or-

Speed: _____ kts

Visibility 2 miles

RVR: _____ feet

RVV: _____ miles

Density Altitude: -2377 ft

Intensity of Precipitation

☐ Light
☒ Moderate
☐ Heavy
☐ N/A
☐ Unknown

Type of Precipitation (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

Restriction to Visibility (Check all that apply)

☒ None ☐ Fog
☐ Blowing Dust ☐ Ground Fog
☐ Blowing Sand ☐ Haze
☐ Blowing Snow ☐ Ice Fog
☐ Blowing Spray ☐ Smoke
☐ Dust ☐ Unknown

Icing Forecast

Amount Type
☒ None ☐ N/A
☐ Trace ☐ Rime
☐ Light ☐ Clear
☐ Moderate ☐ Mixed
☐ Severe ☐ Unknown
☐ Unknown

Icing Actual

Amount Type
☒ None ☐ N/A
☐ Trace ☐ Rime
☐ Light ☐ Clear
☐ Moderate ☐ Mixed
☐ Severe ☐ Unknown
☐ Unknown

Turbulence

Type (Check all that apply) Severity
☐ None ☒ Light
☐ Clear Air ☐ Moderate
☐ Terrain-Induced ☐ Severe
☐ Convective Turbulence ☐ Extreme

NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:

SNA 08/040 Rwy 20R FICON 5/5/5 100 PCT Wet OBS

SNA 08/039 Ramp Markings

SNA 08/032 Taxiway D centerline markings

SNA 08/028 ILS Rwy 20R unmonitored between 0600-1315

SNA 08/029 Rwy 20R LOC

SNA 08/041 Rwy 20R AI S SNA 08/036 Airport Closed Daily SNA Piren Rwy 02L braking action good

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)*

LH MLG aft trunnion attach point to MLG Beam failed. This allowed MLG strut to move aft at the wheels and up at the aft attach point through upper wing panels. Sheared LH Flap Actuator motor located in aft LH wheel well area departed aircraft and was found on RH side of runway. Enigne #1 Fan cowl inboard lower side ground into core along with both sides of the T/R cowls from the aircraft running out on the engine cowl during rollout and final stopping on taxiway E. Numerous linkages on MLG strut broken and bent from the strut movement along with the fixed door and upper and lower doors showing damage. Boeing AOG assessment team will issue a final report to Alaska Airlines on 8/28 on their survey of all damages to this area of the aircraft.

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 and location, services obtained, and intended destination. Provide as much detail as possible.

Aircraft N516AS departed SEA - SNA as Flt 1288 at 2022 local. The CA requested dispatch to contact SNA for a time extension for a late arrival due to a late push out of SEA. Dispatch made sure to include fuel for weather deviations or arrival delays. SNA landing performance was well within limits and was able to take a comfortable amount of delay fuel in addition to an alternate of ONT, allowing not only deviations around convective activity if needed, but also the opportunity to make at least a couple approaches to SNA or to hold while the airport changed runway configurations to/from 20R and 2L (as the wind had been backing and veering all day and within short time frames, leading to alternating arrival flows). The flight operated normally into SNA.

Upon landing in SNA @ 2315 on Rwy 20R at about the 1000' markers, the flight crew believed they had a flat tire on the LH gear and continued onto taxiway E after exiting the runway. After stopping the aircraft on taxiway E, the FO brought the APU on-line while the CA looked out the CA windows to assess the listing of the aircraft to the LH side. CA shutdown both engines, fuel pumps, and hydraulics. FO announced intentions to CTAF to stay on taxiway E and and SNA crash & rescue responded and came out to the aircraft. After crash and rescue determined there were no fuel leaks and the flight crew determined there were no injuries on board the aircraft, they elected to deplane the passengers via stairs on the taxiway. Initially, the stairs were set up for the L1 door but after the recommendations from MX, the pax were deplaned via the R1 door.

Airport Operations inspected Rwy 20R finding a Flap Actuator Motor on the RH side of the runway, along with various pieces of material from the upper wing surface. Airport Ops closed taxiway E off of Runway 20R where the aircraft remained being moved by a contractor in the early morning hours of 8/22/2023. Aircraft was taken to South Remote spot 0 near the terminal for parking and repairs.

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

Operator/Owner Safety Recommendation

Awaiting Boeing analysis of fractured aft trunnion part for proper actioning. Initial FOQA data did not reveal a hard landing per G-load thresholds.

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.)

Pin Assbly - Aft trunnion bearing P/N 161A1192-13, that contains Life Limited component 161A1192-4, S/N E5514. The chrome plated pin fractured, allowing the upper rear LH MLG strut assembly to detach from the MLG Beam.

**Total Time/Cycles
On Part**53558.53 Hours15826 Cycles**Time Since This Part
Inspected/Overhauled**16515.48 Hours**FUEL & SERVICES INFORMATION****Fuel on Board at Last Takeoff**

(Convert from pounds, as necessary)

3264.7 Gallons**Fuel Type**☐ 80/87☐ 100 Low Lead☐ 100/130☐ 115/145☒ Jet A☐ Jet A-1☐ Jet B☐ JP8☐ Automotive☐ Other, specify _____

Other Services, if Any, Prior to Departure

EVACUATION OF AIRCRAFTWas an emergency evacuation of the aircraft performed? ☐ Yes ☒ No**Method of Exit** – Describe how the occupants exited and how many occupants evacuated each location

PAX were deplaned via air stairs out of R1 door after Crash and Rescue determined no dangers from fluid leaking/fires present

OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)**Aircraft Registration Number****Manufacturer:** _____**Model:** _____**Damage to Other Aircraft**☐ Destroyed☐ Substantial☐ Minor☐ None**Registered Owner of Other Aircraft**

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

Pilot of Other Aircraft

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

ADDITIONAL INFORMATION (Please type or print in ink)

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

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report

08/27/2023
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: Ricardo DomingoTitle: MD, Safety Assurance
ALASKA AIRLINES

Signature: _____

-- or -- ☐ Check here to electronically sign this document**FOR NTSB USE ONLY**

NTSB Accident/Incident No.

DCA23FA417

Reviewed by NTSB Regional Office

AS-10

Name of Investigator

Mike Hauf

Date Report Received

8/27/2023