

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: Minneapolis State: MN

ZIP: 55111 Country: USA

Latitude: 44.885075 Longitude: 93.223089

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

Accident/Incident Date/Time

Date: 07/19/2017 Local Time: 2245

mm/dd/yyyy

Time Zone: CST

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

AIRCRAFT INFORMATION

Registration Number: N427YX

Manufacturer: EMBRAER

Model: 175

Serial Number: 1700402

Year of Manufacture: 2014

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

- ☐ IFR-Equipped and Certified
☐ Commercial Space Flight
☐ Unmanned Aircraft

Maximum Gross Weight: 89000 lbs

Weight at Time of Accident/Incident: 74957 lbs

Number of Seats: 76 Flight Crew Seats: 2

Cabin Crew Seats: 2 Passenger Seats: 76

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. <i>mm/dd/yyyy</i>	Rated Power ☐ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	GE	CF34-8E						
Eng. 2	GE	CF34-8E						
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: mm/dd/yyyy

Airframe Total Time: _____ 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: _____

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: _____

Model or Part No.: _____

TSO No.: ☐ OC91 (121.5 MHz) ☐ OC91a (121.5 MHz)
☐ OC126 (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: <u>REPUBLIC AIRLINE INC.</u> Fractional Ownership Aircraft: ☐ Yes ☒ No		City: <u>INDIANAPOLIS</u> State: <u>IN</u> ZIP: <u>46268</u> Country: <u>USA</u>	
Operator of Aircraft ☒ Same As Registered Owner Name: _____ Doing Business As: _____ Air Carrier/Operator Designator (4 Character Code): _____		☒ Same Address as Registered Owner City: _____ State: _____ ZIP: _____ Country: _____	
Operating Certificates Held <i>(Check all that apply)</i> ☐ 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 103 ☒ FAR 121 ☐ FAR 125 ☐ FAR 129 ☐ FAR 133 ☐ FAR 135 ☐ FAR 137 ☐ FAR 415 ☐ FAR 431 ☐ FAR 435 ☐ FAR 437 ☐ FAR 91 Special Flight ☐ Non-US, Commercial ☐ Non-US, Non-commercial ☐ Public Aircraft <i>(Select one)</i> ☐ Armed Forces ☐ Federal ☐ State ☐ Local ☐ Unknown	Revenue Operation for FAR 121, 125, 129, 135 <i>(Select one for each group)</i> ☒ Scheduled or Commuter ☐ Non-Scheduled or Air Taxi ☒ Domestic ☐ International ☒ Passenger ☐ Cargo ☐ Mail Contract Only	
Revenue Sightseeing Flight ☐ Yes ☐ No		Air Medical Flight ☐ Yes ☐ No	
AIRPORT INFORMATION <i>(Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)</i>			
Airport Name: <u>MINNEAPOLIS</u> Airport Identifier: <u>MSP</u> Proximity to Airport: ☐ Off Airport/Airstrip ☐ On Airport/Airstrip ☐ N/A		Distance From Airport Center: <u>30</u> sm Direction From Airport: _____ degrees true Airport Elevation: _____ ft. msl	
Runway Information Runway ID: _____ (L/R/C) Length: _____ ft Width: _____ ft		Condition of Runway/Landing Surface <i>(Check all that apply)</i> ☐ Dry ☐ Holes ☐ Ice Covered ☐ Rough ☐ Rubber Deposits ☐ Slush-Covered ☐ Snow-Compacted ☐ Snow-Crusted ☐ Snow-Dry ☐ Snow-Wet ☐ Soft ☐ Vegetation ☐ Water-Calm ☐ Water-Choppy ☐ Water-Glassy ☐ Wet ☐ Unknown	
Runway/Landing Surface <i>(Check all that apply)</i> ☐ Asphalt ☐ Concrete ☐ Dirt ☐ Grass/Turf ☐ Gravel ☐ Ice ☐ Macadam ☐ Metal/Wood ☐ Snow ☐ Water ☐ Unknown		Approach/Departure Segment <i>(Select one)</i> ☐ Taxi ☐ Takeoff ☐ Initial Climb ☐ VFR Departure ☐ IFR Departure Procedure/Clearance ☒ On Instrument Approach ☐ Landing ☐ Downwind ☐ Base ☐ Final ☐ Crosswind ☐ Low Approach ☐ Go Around ☐ Aborted Landing (after touchdown) ☐ Unknown	
IFR Approach <i>(Check all that apply)</i> ☐ None ☐ ADF/NDB ☐ SDF ☐ VOR/TVOR ☐ VOR/DME ☐ TACAN ☐ PAR ☐ Sidestep ☐ ILS ☐ Localizer Only ☐ LOC-back course ☐ RNAV ☐ MLS ☐ LDA ☐ ASR ☐ Visual ☐ Contact ☐ Circling ☐ Practice ☐ GPS ☐ Unknown		VFR Approach <i>(Check all that apply)</i> ☐ None ☐ Traffic Pattern ☐ Straight-In ☐ Valley/Terrain Following ☐ Go Around ☐ Full Stop ☐ Stop and Go ☐ Touch and Go ☐ Simulated Forced Landing ☐ Forced Landing ☐ Precautionary Landing ☐ Unknown	

"FLIGHT CREWMEMBER 1" INFORMATION																																																																																																				
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"Flight Crewmember 1" was pilot flying ☒ Yes ☐ No																																																																																																				
"Flight Crewmember 1" Identification First Name: <u>Jeffrey</u> Middle Initial: <u>D.</u> Last Name: <u>Petty</u> City of Residence: <u>[REDACTED]</u> State: <u>FL</u> ZIP: <u>[REDACTED]</u> Country: <u>USA</u> Age at time of Accident/Incident: <u>38</u> Date of Birth: <u>[REDACTED]</u> mm/dd/yyyy Certificate Number: <u>[REDACTED]</u>																																																																																																				
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																																																																																													
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"Flight Crewmember 2" was pilot flying ☐ Yes ☒ No																																																																																																				
"Flight Crewmember 2" Identification First Name: <u>Miles</u> City of Residence: <u>[REDACTED]</u> Middle Initial: <u>E.</u> State: <u>VA</u> ZIP: <u>[REDACTED]</u> Last Name: <u>Morrison</u> Country: <u>USA</u> Age at time of Accident/Incident: <u>28</u> Date of Birth: <u>[REDACTED]</u> mm/dd/yyyy Certificate Number: <u>[REDACTED]</u>																																																																																																				
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																																																																															
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ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)

Crew Name and Address	Seat Occupied	Injury
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☒ 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: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____	☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☒ 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	Age
First Name: <u>ALISHA</u> City: <u> </u> Middle Initial: _____ State: <u>MI</u> ZIP: <u> </u> Last Name: <u>THOMPSON</u> Country: <u>USA</u> ☒ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ 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 If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: <u>STACY</u> City: <u> </u> Middle Initial: _____ State: <u>FL</u> ZIP: <u> </u> Last Name: <u>HALPRIN</u> Country: <u>USA</u> ☒ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☒ 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 If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ 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 If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other	☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ 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 If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown

FLIGHT ITINERARY INFORMATION						
Last Departure Point Airport ID: <u>MIA</u> City: <u>MIAMI</u> State: <u>FL</u> Country: <u>USA</u>		Time of Departure Time: _____ Time Zone: _____		Destination Airport ID: <u>MSP</u> City: <u>MINNEAPOLIS</u> State: <u>MN</u> Country: <u>USA</u>		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: <u>13000</u> 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: _____ Observation Time: _____ Time Zone: _____ Distance from Accident Site: _____ nm Direction from Accident Site: _____ 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 Lowest Cloud Condition Height _____ ft agl		Ceiling ☐ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☒ Overcast ☐ Unknown Ceiling Height _____ ft agl		Temperature: _____ (C) or _____ (F) Dew Point: _____ (C) or _____ (F) Altimeter Setting: _____ in. Hg or _____ MB		
Wind Direction ☐ Variable -or- Direction: _____ degrees true	Wind Speed ☐ Calm ☐ Light and Variable -or- Speed: _____ kts	Wind Gusts ☐ Not Gusting -or- Speed: _____ kts	Visibility _____ miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ 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 ☐ 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		
NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident: DISPATCH WEATHER ATTACHED TO THE BACK OF THIS REPORT						

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)*

NONE

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.

SEE ATTACHED WRITTEN STATEMENTS FROM CREW

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

Operator/Owner Safety Recommendation

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.)

Total Time/Cycles
On Part

_____ Hours

_____ Cycles

Time Since This Part
Inspected/Overhauled

_____ Hours

FUEL & SERVICES INFORMATION

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

2900 _____ 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

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 <u>07/28/2017</u> 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: <u>LEE HAYES</u>	Title: <u>DIRECTOR OF SAFETY</u>
Signature: _____ -- or -- ☒ Check here to electronically sign this document	

FOR NTSB USE ONLY

NTSB Accident/Incident No. DCA17CA155	Reviewed by NTSB Regional Office Washington DC	Name of Investigator J. Lovell	Date Report Received 7/31/17
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Flight Crew Analyst Incident Report 14607

Overview:

Employee: [REDACTED]
User Name: [REDACTED]
Salutation: M
First Name: Jeffrey
Last Name: Pettey
Middle Initial: D [REDACTED]
Employee Number: [REDACTED]
Job Title: Captain
Organization: RAI
Employee Base: MIAFLT
FAA Certification Type: Airline Transport Pilot
Address: [REDACTED]
City: [REDACTED]
State: [REDACTED]
Province: [REDACTED]
Zip Code: [REDACTED]
Country: U [REDACTED]
Email Address: [REDACTED]
[REDACTED] 
[REDACTED]
[REDACTED] /Pilot Not Flying
First Name: Miles
Middle Initial: E
Last Name: Morrison
Other Employees:
Employee Duty: Flight Attendant
Employee Number: [REDACTED]
First Name: Alisha
Middle Initial: J
Last Name: Thompson
Other Employees:
Employee Duty: Flight Attendant in Charge

Employee Number: [REDACTED]
First Name: Stacy
Middle Initial: F
Last Name: Halperin
Processing:
Status: [REDACTED] EW
ID: 1 [REDACTED]
Date When Event Occurred: Wed, 19 Jul 2017 03:49 Z
Viewer Accessible: No
Initial Notification Date/Time: Thu, 20 Jul 2017 22:16 Z
Submission Date/Time: Thu, 20 Jul 2017 22:16 Z
Source: Web Submission
Form Name: submission-form
Exclude this report from Scoreboard: No

Event: 1**Baseline Risk Assessment****Likelihood:****Severity:****Risk Factor:****Description****Aircraft Configuration:****Nickname:** N427YX**Tail Number:** N427YX**Aircraft Type:** ERJ-175**Event Information:****Air Carrier Code:** American**Flight Crew Employee Information:****Primary Duties During Time of Event:** Pilot Flying**Flight Information:****Departure Airport, Runway and Gate:** MIA/KMIA**Flight Number:** 4678**Scheduled Arrival Airport, Runway and Gate:** MSP/KMSP**Landing Airport, Runway and Gate:** MSP/KMSP**Illness/Injury Event:****Cabin Crew:** Injury**Passenger:** Injury**Narrative:**

We operated 4678 from MIA to MSP on July 19 and had an encounter with severe turbulence during the arrival to MSP. Starting out the flight in MIA I reported the weather conditions to the flight attendants including the possibility of turbulence leaving MIA and again when arriving in MSP do to weather forecast. I also made a PA to the passengers pre departure in MIA of the possibility of turbulence and weather around the departure and arrival airports. I also stated the importance of following the seat belt sign during the flight in case we encounter any turbulence. We departed the MIA area with out any issues with turbulence. After we were north of the weather along the route the flight continued to be smooth so we turned off the fasten seat belt sign. As we neared the MSP area we coordinated with ATC to change from our east arrival to a west arrival to stay away from the weather in the area around MSP. A little before the top of decent we turned the seat belt sign back on for the arrival into MSP. I contacted the flight attendants and briefed them on the weather around MSP and told them they could prepare the cabin and be seated within 10-13 min for the weather. The first officer then did the cabin descent announcement including instructing passengers to be seated with their seat belts fastened do to the possibility of turbulence. The flight had been in smooth air almost the entire flight. Our arrival path was clear of the weather that was located North West of the field and some south and south east of the field. As we were about 25-30 miles South West of the field during the decent we entered a cloud that did not have any radar returns and we could not see because of the darkness. After entering the cloud we encountered one swift jolt of severe turbulence followed by strong moderate for a few seconds. Shortly there after we were clear of the cloud and back into smooth air. The FA's then called us and reported passenger injuries and the aft FA Alisha Thompson was injured. We reported the severe turbulence to ATC and reported injuries and that we were requesting medical assistance on the ground in MSP. We coordinated with ATC and Operations and had emergency medical personal waiting for us. At the gate we had everyone remain seated and the medical personal checked everyone and took 2 passengers that were injured and the aft FA Alisha to the hospital. We contacted dispatch, management, and maintenance and everyone was very helpful. We were all working together to make sure everything was taken care of. After we had made sure everything was done at the airport I preceded to the hospital where they had taken FA Alisha. I stayed with her while they checked her. After they discharged her from the

hospital I escorted her back to the hotel. I have always tried my best to keep everyone safe from turbulence on all my flights. I am thankful that there were not more people hurt as I think almost everyone was using their seat belt. FA Alisha told me she was just sitting down to strap in as the turbulence hit. Only one passenger and a lap child were the others that required medical care that I am aware of.

Phase of Flight:**Flight Phase at Start of Event:** Descent**Weather:****Turbulence:** Severe**Cause****Narrative:**

Encountered unknown severe turbulence with no warning.

Detection**Reaction****Flight Crew:****Declared Emergency with ATC:** Yes**Requested Emergency Equipment:** Yes**Suggestions**

WARNING: The information in this document may be protected from disclosure under 49 U.S.C., section 40123 and 14 CFR part 193.

Report generated Fri, 28 Jul 2017 18:16 Z

Flight Crew Analyst Incident Report 14605

Overview:

Employee: [REDACTED]
User Name: [REDACTED]
Salutation: M
First Name: Miles
Last Name: Morrison
Middle Initial: E
Employee Number: [REDACTED]
Job Title: First Office
Organization: RAI
Employee Base: MIAFLT
FAA Certificate or Qualification Number: [REDACTED]
FAA Certificate or Qualification Type: Air [REDACTED] port Pilot
Address: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] com
Mobile: [REDACTED]
Other Email: [REDACTED]
Employee Duty: Pilot [REDACTED]
Employee Number: [REDACTED]
First Name: Jeffrey
Last Name: Pettey
Other Employees:
Employee Duty: Flight [REDACTED] dant
[REDACTED]
[REDACTED]
o
Employee Duty: Flight [REDACTED] dant
Employee Number: [REDACTED]
First Name: Stacy
Last Name: Halperin

Processing:**Status:** New**ID:** 14605**Date/Time When Event Occurred:** Wed, 19 Jul 2017 03:49 Z**Viewer Accessible:** No**Initial Notification Date/Time:** Thu, 20 Jul 2017 21:46 Z**Submission Date/Time:** Thu, 20 Jul 2017 22:01 Z**Source:** Web Submission**Form Name:** submission-form**Exclude this report from Scoreboard:** No**Event: 1****Baseline Risk Assessment****Likelihood:****Severity:****Risk Factor:****Description****Aircraft Configuration:****Nickname:** N427YX**Tail Number:** N427YX**Aircraft Type:** ERJ-175**Event Information:****Air Carrier Code:** American**Flight Crew Employee Information:****Primary Duties During Time of Event:** Pilot Monitoring/Pilot Not Flying**Flight Information:****Departure Airport, Runway and Gate:** MIA/KMIA**Flight Number:** 4678**Scheduled Arrival Airport, Runway and Gate:** MSP/KMSP**Landing Airport, Runway and Gate:** MSP/KMSP**Illness/Injury Event:****Cabin Crew:** Injury**Passenger:** Injury**Narrative:**

We were on the arrival into MSP coming from MIA, beginning our initial descent, when we briefly encountered severe turbulence. Before the turbulence began, I had made a PA announcement several minutes before about remaining seated

at all times due to showers and thunderstorms within the vicinity of the airport. I also included to the passengers to wear safety belts "fastened and secured" at all times for the remainder of the flight. I told them we expected some turbulence on the way down. On the way down we encountered some clouds. Despite this we depicted zero returns on our radar. It was dark and it was impossible to see the cloud coming. When we entered the cloud we encountered a sharp jolt that shook the cabin in a catapult like motion. The PF and I were pressed against our seat restraints and some items were thrown out of my personal stowage bin. The PF disconnected the autopilot and proceeded to maintain positive control of the aircraft during the descent until we were clear of the severe turbulence. When we broke out of the turbulence we were called by the forward FA and informed that some people were thrown out of their seats during the turbulence and requested emergency medical assistance for when we landed in MSP. We requested emergency medical equipment from ATC and informed them to meet us at the planned gate. We were then able to receive radar vectors to the ILS 12 R into MSP without further incident. We radio'd American Operations on the way down to insure we had a gate assignment and verify that emergency equipment was on the way. When we reached the gate we were greeted by medical staff and law enforcement who helped aid the passengers as soon as the door opened. Great care was then taken on the evacuation of the injured passengers. The PF called dispatch and maintenance control to inform them of the severe turbulence in order to have the aircraft inspected for possible overstress. We were later informed that 2 passengers and one flight attendant were taken to the hospital. After this we performed all post flight procedures and informed personnel about the maintenance write up before powering down the aircraft.

Phase of Flight:**Flight Phase at Start of Event:** Descent**Weather:****Turbulence:** Severe**Cause****Illness/Injury Event:****Illness/Injury Event:** Yes**Narrative:**

Severe turbulence in the MSP airspace upon the arrival and on descent.

Detection**Reaction****Flight Crew:****Declared Emergency with ATC:** Yes**Requested Emergency Equipment:** Yes**Suggestions**

WARNING: The information in this document may be protected from disclosure under 49 U.S.C., section 40123 and 14 CFR part 193.

Report generated Fri, 28 Jul 2017 18:15 Z

Hayes, Lee C

Subject: FW: Turbulence 4678, 19th IR's

From: Morley, Kristi

Sent: Monday, July 24, 2017 12:02 PM

To: [REDACTED] Hamilton, Ronald A

Subject: RE: Turbulence 4678, 19th IR's

- Alisha Thompson, [REDACTED] injured)
- Stacy Halperin, [REDACTED] (report below)

A-FA Stacey Halperin's report:

July 19, 2017 . Flight 427 from Miami to Minneapolis . Crew : Captain - Jeffery Pettey [REDACTED] FO - Miles Morrison [REDACTED] FA - Alisha Thompson [REDACTED] FA - Stacy Halperin [REDACTED] Approximately 20 minutes before landing into MSP Captain Pettey called back to tell us to clean up the galleys and prepare the cabin for arrival. Next FO Morrison makes the standard PA arrival announcement thanking everyone for joining us and making sure everyone was buckled up for landing. After I secured my galley I sat down in my jumpseat and stripped in. All of a sudden the plane started shaking violently out of control. People screaming. Babies crying. When the plane finally leveled off all I could see was utter confusion and panic. People were trying to pass a baby back to its mother who was thrown during the turbulence . One lady had busted the PSU unit above her seat with her head. My co-worker Alisha Thompson was thrown in the air and landed on her face in the back galley . Immediately I made an announcement to see if anyone needed medical attention and several call lights rang. Then I call the cockpit explaining we had injuries and needed medical personnel to meet the aircraft. Then I made an announcement for everyone to stay buckled in and hang on . Medical assistance would be meeting the aircraft . The cockpit had the plane on the ground in less than 10 minutes. Paramedics met the flight and escorted the wounded off while the rest of the passengers remained seated. The injured consisted of the Mother with the 2 small children. (The infant was thrown in the air landing several rows away from the mother) Another lady who busted the PSU system with her head at her seat . Alisha Thompson was severely injured when she was thrown in the air . They were all transported to the hospital . Alisha and the lady that hit her head on the PSU system were taken to Avid Northwestern Hospital and the mother of the 2 small children were taken to another hospital. Captain Pettey followed Alisha to the emergency room and stayed with her until she was released the next morning .MSP Airport Police Officer Luinstra Badge #81 was in charge of the operation inside the airport in the gate room where they were treating the wounded. Case # 17-5555. I hope this has answered any questions that you may have. If I can be of further assistance please don't hesitate to call.

Alisha has a broken right wrist and left arm so we took information from her over the phone.

Alisha stated that approximately 20 minutes before landing into MSP Captain Pettey called back to tell us to clean up the galleys and prepare the cabin for arrival. FO Morrison made a PA arrival announcement letting the passengers know they should fasten their seatbelts for landing. She said the FAs made their announcement and walked through the cabin. Alisha Thompson, B-FA, said she put her EFB in her bag and went immediately to her jumpseat. All of the sudden, there was severe turbulence. She hit the ceiling and fell to the floor of the back galley. Her arm and wrist hurt afterwards and she hit her face on impact with the floor. One passenger and one lap child also were thrown during the severe turbulence. Stacy made an announcement to see if any passengers were injured and notified the FD they would need medical personnel to meet the aircraft. Alisha said her wrist and arm hurt but she didn't know if anything was broken at the time. She strapped in her jumpseat for landing. She briefed a passenger to help her disarm the door after blocking in. She was taken to the hospital but released from the ER after x-rays, etc.

-MIA MSP FAR

				RELEASE NO. 00					
DEP	DEST	BURN	RESV	ALT	HOLD	MIN	EXTRA	TAXI	RAMP
----	----	-----	-----	----	-----	-----	-----	-----	-----
KMIA	KMSP	12476	2255	2637	1000	18368	1032	200	19600

KFAR				PLANNED	-	PYLD	PAX	
						10760	48	
TAIL	A/C TYPE	BOW	INDEX	EST MAX	-	PYLD	PAX	BAGS
N427YX	EMB-175	50612	-			15505	70	73
				--ABV PYLD NUMBERS FOR--				
				-----PLANNING ONLY-----				

-PBN/B1C1D1S2 NAV/RNVD1E2A1 REG/N427YX.

MTXW	8587			MRTW	8908/F02/C P34/0000/30.03/27
MTOW	8552/TS PTOW	8077		METW	8598 METHOD 1
MLDW	7496/S PLDW	6830		MRLW	7496/F05/S P22/0000/29.88/12R

MEL/CDL/NEF	ITEMS	
ATA	DESCRIPTION	EXPIRATION
NONE		

THIS AIRCRAFT IS EQUIPPED FOR EOW.

CA JEFFREY	PETTEY
FO MILES	MORRISON
FA ALISHA	THOMPSON
FA STACY	HALPERIN

I CERTIFY I AM FIT FOR DUTY PRIOR TO COMMENCING THIS FLIGHT.

AIRCRAFT TAIL N.....

2224Z DISPATCHER BRIAN WILLIAMS X5200 317-471-2020 DESK 13

FLIGHT 4678 mia - KMSP 07/19/2017

ACARS T/O RWY DATA 1/5
FLT NO RLS NO TIME
4678 0 2352Z
WIND OAT °C QNH
090/03 31 30.10

SEC A F BAG/WT GTOW/ CG
13/ 0 32 /75 79.4/23.4
SEC B A BAG/WT 19.4 FUEL
10/ 0 0 /0 ZFW/ CG
SEC C TTL PAX 60.0/28.5
21/ 0 44

ACARS T/O RWY DATA 2/5
REMARKS
0 LBS IN CLOSET

ACARS T/O RWY DATA 3/5
KMIA 27 13016
<DT H274 -0.01
FLEX - T/O-1 - ECS ON

FLEX MRTW/LIM V1 137
43 79.4/C VR 142
FLAP MTOW V2 144
2 79.4 VFS 198
STAB GTOW/CG ACCEL
3.5 79.4/23.4 1009

ACARS T/O RWY DATA 4/5
KMIA 26L 10506
<DT H274 0.00
FLEX - T/O-1 - ECS ON

FLEX MRTW/LIM V1 142
43 79.4/C VR 142
FLAP MTOW V2 144
2 79.4 VFS 198
STAB GTOW/CG ACCEL
3.5 79.4/23.4 1009

ACARS T/O RWY DATA 5/5
KMIA 30 9355
<DT H306 0.00
FLEX - T/O-1 - ECS ON

FLEX MRTW/LIM V1 141
42 79.6/0 VR 142
FLAP MTOW V2 144
2 79.6 VFS 198
STAB GTOW/CG ACCEL
3.5 79.4/23.4 1009

BRIEFING GENERATED 19JUL172301 UTC
REPUBLIC AIRLINE- WEATHER BRIEF FLT 4678 MIA-MSP
KMIA 192253Z 13004KT 10SM SCT024CB SCT070 SCT110 BKN250 30/24
A3007 RMK A02 LTG DSNT N RAB17E29 TSE11 SLP184 CB N AND W MOV
STNRY P0000 T03000244
KMIA 192153Z 21005KT 10SM SCT024 SCT110 BKN250 32/24 A3005 RMK
A02 LTG DSNT N SLP175 CB DSNT N AND SW AND W T03170244
KMIA 192053Z 00000KT 10SM FEW024 FEW110 BKN250 31/24 A3007 RMK
A02 RAE08 SLP182 P0001 60006 T03110244 58017

TAF AMD KMIA 192214Z 1922/2018 VRB06KT P6SM VCTS SCT025CB
BKN080 FM200100 VRB05KT P6SM SCT035 SCT050
FM201600 14005KT P6SM VCTS SCT035CB
KMIA 192214Z 1922/2018 VRB06KT P6SM VCTS SCT025CB BKN080
FM200100 VRB05KT P6SM SCT035 SCT050
FM201600 14005KT P6SM VCTS SCT035CB
TAF AMD KMIA 192133Z 1922/2018 VRB06KT P6SM SCT025 BKN080
FM201600 14005KT P6SM VCTS SCT035CB
KMIA 192133Z 1922/2018 VRB06KT P6SM SCT025 BKN080
FM201600 14005KT P6SM VCTS SCT035CB

KMIA UA /OV DHP270008/TM 1637/FL025/TP BE58/SK BASES 025

MIA 12/142 MIA COM REMOTE COM OUTLET 127.9 OUT OF SERVICE
1612131329-PERM
MIA 07/265 MIA RWY 09/27 CLSD 1707200300-1707201100
MIA 07/264 MIA NAV ILS RWY 26L LOC OUT OF SERVICE
1707191722-1708282200
MIA 07/223 MIA TWY T5 SFC PAINTED HLDG PSN SIGNS FOR RWY 09/27
WEST SIDE NOT STD 1707171457-1707201600
MIA 07/182 MIA OBST TOWER LGT ASR 1030083
254623.30N0802512.90W 7.3NM W MIA 271.0FT 266.1FT AGL OUT
OF SERVICE 1707132017-1707272017
MIA 07/181 MIA OBST TOWER LGT ASR 1030082
254622.40N0802516.70W 7.3NM W MIA 271.0FT 266.1FT AGL OUT
OF SERVICE 1707132016-1707272016
MIA 07/180 MIA OBST TOWER LGT ASR 1030080
254623.30N0802520.30W 7.4NM W MIA 251.0FT 246.1FT AGL OUT
OF SERVICE 1707132015-1707272015
MIA 07/179 MIA OBST TOWER LGT ASR 1030077
254625.50N0802512.10W 7.3NM W MIA 251.0FT 246.1FT AGL OUT
OF SERVICE 1707132013-1707272013
MIA 07/116 MIA OBST CRANE ASN UNKNOWN 254807N0801831W .49NM
W APCH END RWY 08R 68FT 60FT AGL FLAGGED DLY 1100-2030
1707121100-1708112030
MIA 07/115 MIA OBST CRANE ASN UNKNOWN 254817N0801832W .49NM
WNW APCH END RWY 08L 68FT 60FT AGL FLAGGED DLY 1100-2030
1707121100-1708112030
MIA 06/442 MIA NAV ILS RWY 26L GP NOT MNT 1706301538-
1707282000EST
MIA 06/348 MIA OBST CRANE ASN 2015-AS0-11957-OE
254702N0801625W 1.1NM SE MIA 118FT 114FT AGL FLAGGED
1706231100-1707232100
MIA 06/347 MIA OBST CRANE ASN 2015-AS0-11955-OE
254703N0801628W 1.1NM SE MIA 109FT 105FT AGL FLAGGED
1706231100-1707232100
MIA 05/030 MIA NAV ILS RWY 09 OM DECOMMISSIONED 1705041400-
PERM
MIA 04/252 MIA TWY AA CLSD 1704241446-1712312000
MIA 04/216 MIA COM REMOTE TRANS/REC 350.2 CHANGED TO 350.225
1704211131-PERM
MIA 04/215 MIA COM REMOTE TRANS/REC 118.1 CHANGED TO 118.65
1704211129-PERM
MIA 01/233 MIA OBST CRANE ASN UNKNOWN 254546N0801124W
4.82NM SE APCH END RWY 27 1049FT 1044FT AGL FLAGGED AND
LGTD 1701191928-1803151600
MIA 01/232 MIA OBST CRANE ASN UNKNOWN 254548N0801125W
4.82NM SE APCH END RWY 27 1049FT 1044FT AGL FLAGGED AND
LGTD 1701191838-1803151600

FDC FDC 7/8273 MIA IAP MIAMI INTL MIAMI FL.
RNAV RNP Y RWY 26L AMDT 1...
RNP 0.20 DA 455/HAT 447 VIS RVR 6000 ALL CATS. RNP 0.30 DA
468/HAT 460 ALL CATS. TEMP CRANE 137 MSL 5713 FT E OF RWY
26L 2017-AS0-5387-OE .
1706081308-1801181307EST
FDC FDC 7/7487 MIA IAP MIAMI INTL MIAMI FL.
ILS OR LOC RWY 9 AMDT 10A...
S-LOC 9 MDA 500/HAT 493 ALL CATS. VIS CATS A/B RVR 4000 CAT C
RVR 5000.
TEMP CRANES 191 MSL 1.32 NM W OF RWY 9
2016-AS0-11728/11729/11730/11731-OE .
1707101314-1802191314EST
FDC FDC 7/7486 MIA IAP MIAMI INTL MIAMI FL.
RNAV GPS RWY 9 AMDT 1A...
LNAV MDA 500/HAT 493 ALL CATS. VIS CATS C/D RVR 5000.
TEMP CRANES 191 MSL 1.32 NM W OF RWY 9
2016-AS0-11728/11729/11730/11731-OE .
1707101314-1802191314EST
FDC FDC 7/3642 MIA SID MIAMI INTL MIAMI FL.
EONNS TWO DEPARTURE RNAV ...
DEPARTURE PROCEDURE RWY 08L 08R 09 12 GPS REQUIRED
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3641 MIA IAP MIAMI INTL MIAMI FL.
ILS OR LOC RWY 12 AMDT 5A...
RADAR REQUIRED FOR PROCEDURE ENTRY EXCEPT FOR AIRCRAFT
EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3639 MIA SID MIAMI INTL MIAMI FL.
MNATE TWO DEPARTURE RNAV ...
DEPARTURE PROCEDURE RWY 8L 8R 9 12 26L 26R 27 30 GPS
REQUIRED DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3637 MIA IAP MIAMI INTL MIAMI FL.
ILS OR LOC RWY 27 AMDT 26...
MISSED APPROACH CLIMB TO 800 THEN CLIMBING LEFT TURN TO 2000
ON HEADING 250 AND VKZ R-278 TO CICIV INT/VKZ 19.02 DME AND
HOLD. ADF OR DME REQUIRED
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3636 MIA IAP MIAMI INTL MIAMI FL.
LOC/DME RWY 26R ORIG-B...
LOC/DME RWY 8L ORIG-B...
PROCEDURE NA EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV
SYSTEM WITH GPS
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3632 MIA SID MIAMI INTL MIAMI FL.
SOUBY FIVE DEPARTURE...
DEPARTURE PROCEDURE NA EXCEPT FOR AIRCRAFT EQUIPPED WITH
SUITABLE RNAV SYSTEM WITH GPS
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3626 MIA SID MIAMI INTL MIAMI FL.
MIAMI FIVE DEPARTURE...
EONNS TRANSITION MNATE TRANSITION WINCO TRANSITION NA EXCEPT
FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3625 MIA SID MIAMI INTL MIAMI FL.
POTTR SIX DEPARTURE...
TAKEOFF RWY 8R 9 12 AND WINCO TRANSITION NA EXCEPT FOR
AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS DHP
VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3614 MIA IAP MIAMI INTL MIAMI FL.
ILS OR LOC RWY 8R AMDT 30D...
MISSED APPROACH CLIMB TO 700 THEN CLIMBING RIGHT TURN TO
3000 DIRECT VKZ VOR/DME AND HOLD CONTINUE CLIMB-IN-HOLD TO
3000. DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3613 MIA IAP MIAMI INTL MIAMI FL.
ILS OR LOC RWY 30 AMDT 1A...
MISSED APPROACH CLIMB TO 800 THEN CLIMBING LEFT TURN TO 2000
VIA HEADING 250 AND VKZ R-278 TO CICIV INT/VKZ 19.02 DME AND
HOLD E RT 278.00 INBOUND. DME OR ADF REQUIRED
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3597 MIA IAP MIAMI INTL MIAMI FL.

ILS OR LOC RWY 16L AMDT 16...
MISSED APPROACH CLIMB TO 800 THEN CLIMBING LEFT TURN TO 2000
ON HEADING 250 AND VKZ VOR/DME R-278 TO CICIV INT/VKZ 19.02
DME AND HOLD
DHP VORTAC OUT OF SERVICE. 1707192000-1707261740EST
FDC FDC 7/3233 MIA IAP MIAMI INTL MIAMI FL.
RNAV GPS Z RWY 8R AMDT 1A...
LPV DA VISIBILITY RVR 2000 ALL CATS.
THIS IS RNAV GPS Z RWY 8R AMDT 1B. 1707191228-PERM
FDC FDC 7/3046 MIA IAP MIAMI INTL MIAMI FL.
RNAV GPS Z RWY 27 AMDT 3...
CHART NOTE ASTERISK ASTERISK RVR 1800 AUTHORIZED WITH USE OF
FD OR AP OR HUD TO DA. CHANGE LPV DA TO LPV DA ASTRISK
ASTERISK. THIS IS RNAV GPS Z RWY 27 AMDT 3A. 1706151758-
PERM
FDC FDC 7/3045 MIA IAP MIAMI INTL MIAMI FL.
RNAV GPS RWY 9 AMDT 1A...
CHART NOTE ASTERISK ASTERISK RVR 1800 AUTHORIZED WITH USE OF
FD OR AP OR HUD TO DA. CHANGE LPV DA TO LPV DA ASTRISK
ASTERISK. THIS IS RNAV GPS RWY 9 AMDT 1B. 1706151758-PERM
FDC FDC 7/2582 MIA IAP MIAMI INTL MIAMI FL.
ILS OR LOC RWY 30 AMDT 1A...
PECOT FIX MINIMUMS S-LOC 30 MDA 540/ HAT 532 ALL CATS
VISIBILITY CATS A/B RVR 5000. VDP NA. TEMPORARY CRANE 222 MSL
1.42 NM SOUTHEAST OF RWY 30 2017-AS0-2736-OE .
1707181314-1802271314EST
FDC FDC 7/2578 MIA ODP MIAMI INTL MIAMI FL.
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES AMDT
17A... TAKEOFF MINIMUMS RWY 9 STANDARD WITH MINIMUM CLIMB OF
286 FT PER NM TO 1400. RWY 27 300-1 1/2 OR STANDARD WITH
MINIMUM CLIMB OF 280 FT PER NM TO 400. DEPARTURE PROCEDURE
RWY 8R CLIMB HEADING 092 TO 1200 BEFORE TURNING RIGHT. RWY 8L
CLIMB HEADING 092 TO 1100 BEFORE TURNING RIGHT. NOTE RWY 27
TEMP CRANES BEGINNING 1.14 NM FROM DER 873 FT LEFT OF
CENTERLINE UP TO 180 FT AGL/191 FT MSL 2016-AS0-
11728/11729/11730/11731-OE . RWY 8R TEMP CRANE 4381 FT FROM
DER 1165 FT RIGHT OF CENTERLINE 151 FT AGL/158 FT MSL 2016-
AS0-24569-OE . RWY 9 TEMP CRANE 3551 FT FROM DER 1304 FT
RIGHT OF CENTERLINE 136 FT AGL/142 FT MSL 2015-AS0-11963-
OE . RWY 12 TEMP CRANE 3010 FT FROM DER 136 FT LEFT OF
CENTERLINE 114 FT AGL/118 FT MSL 2015-AS0-11960-OE . TEMP
CRANES 3985 FT FROM DER 1263 FT LEFT OF CENTERLINE UP TO 137
FT AGL/144 FT MSL 2015-AS0-11962/63-OE .
ALL OTHER DATA REMAINS AS PUBLISHED. 1707181312-1802271312EST
FDC FDC 7/2574 MIA SID MIAMI INTL MIAMI FL.
EONNS TWO DEPARTURE RNAV ...
HEDLY TWO DEPARTURE RNAV ...
HITAG TWO DEPARTURE RNAV ...
JONZI TWO DEPARTURE RNAV ...
MNATE TWO DEPARTURE RNAV ...
PADUS TWO DEPARTURE RNAV ...
SKIPS TWO DEPARTURE RNAV ...
VALLY TWO DEPARTURE RNAV ...
WINCO TWO DEPARTURE RNAV ...
TAKEOFF OBSTACLE NOTES RWY 27 TEMP CRANES BEGINNING 1.14 NM
FROM DER 873 FT LEFT OF CENTERLINE UP TO 180 FT AGL/191 FT
MSL 2016-AS0-11728/11729/11730/11731-OE . RWY 8R TEMP CRANE
4381 FT FROM DER 1165 FT RIGHT OF CENTERLINE 151 FT AGL/158
FT MSL 2016-AS0-24569-OE . RWY 9 TEMP CRANE 3551 FT FROM
DER 1304 FT RIGHT OF CENTERLINE 136 FT AGL/142 FT MSL 2015-
AS0-11963-OE . RWY 12 TEMP CRANE 3010 FT FROM DER 136 FT
LEFT OF CENTERLINE 114 FT AGL/118 FT MSL 2015-AS0-11960-OE .
TEMP CRANES 3985 FT FROM DER 1263 FT LEFT OF CENTERLINE UP
TO 137 FT AGL/144 FT MSL 2015-AS0-11962/63-OE .
ALL OTHER DATA REMAINS AS PUBLISHED. 1707181312-1802271312EST
FDC FDC 7/2572 MIA SID MIAMI INTL MIAMI FL.
MIAMI FIVE DEPARTURE...
TAKEOFF MINIMUMS RWY 27 300-1 1/2 OR STANDARD WITH MINIMUM
CLIMB OF 280 FT PER NM TO 400. TAKEOFF OBSTACLE NOTES RWY 27
TEMP CRANES BEGINNING 1.14 NM FROM DER 873 FT LEFT OF
CENTERLINE UP TO 180 FT AGL/191 FT MSL 2016-AS0-

11728/11729/11730/11731-OE. RWY 8R TEMP CRANE 4381 FT FROM
DER 1165 FT RIGHT OF CENTERLINE 151 FT AGL/158 FT MSL 2016-
AS0-24569-OE . RWY 9 TEMP CRANE 3551 FT FROM DER 1304 FT
RIGHT OF CENTERLINE 136 FT AGL/142 FT MSL 2015-AS0-11963-
OE . RWY 12 TEMP CRANE 3010 FT FROM DER 136 FT LEFT OF
CENTERLINE 114 FT AGL/118 FT MSL 2015-AS0-11960-OE . TEMP
CRANES 3985 FT FROM DER 1263 FT LEFT OF CENTERLINE UP TO 137
FT AGL/144 FT MSL 2015-AS0-11962/63-OE .
ALL OTHER DATA REMAINS AS PUBLISHED. 1707181312-1802271312EST
FDC FDC 7/2570 MIA SID MIAMI INTL MIAMI FL.
POTTR SIX DEPARTURE...
SOUBY FIVE DEPARTURE...

TAKEOFF OBSTACLE NOTES RWY 8R TEMP CRANE 4381 FT FROM DER
1165 FT RIGHT OF CENTERLINE 151 FT AGL/158 FT MSL 2016-AS0-
24569-OE . RWY 9 TEMP CRANE 3551 FT FROM DER 1304 FT RIGHT
OF CENTERLINE 136 FT AGL/142 FT MSL 2015-AS0-11963-OE . RWY
12 TEMP CRANE 3010 FT FROM DER 136 FT LEFT OF CENTERLINE
114 FT AGL/118 FT MSL 2015-AS0-11960-OE . TEMP CRANES 3985 FT
FROM DER 1263 FT LEFT OF CENTERLINE UP TO 137 FT AGL/144 FT
MSL 2015-AS0-11962/63-OE . ALL OTHER DATA REMAINS AS
PUBLISHED. 1707181312-1802271312EST
FDC FDC 7/0703 MIA IAP MIAMI INTL MIAMI FL.
RNAV GPS Z RWY 26L AMDT 2...
LPV DA NA.

LNAV/VNAV DA 506/HAT 498 VIS 1 3/4 ALL CATS.
1706121828-1707311828EST
FDC FDC 6/5825 MIA STAR MIAMI INTL MIAMI FLORIDA
BLUFI THREE ARRIVAL...
MLB TRANSITION UNUSBL
MLB VORTAC U/S
1601221600-PERM
FDC FDC 6/5792 MIA STAR MIAMI INTL AIRPORT MIAMI FLORIDA
ANNEY THREE ARRIVAL...
MLB TRANSITION UNUSABLE
MLB VORTAC U/S
1601221600-PERM

KMSP 192253Z 12005KT 10SM FEW170 SCT250 OVC300 20/18 A2988 RMK
A02 SLP117 CBMAM DSNT SE MOV SE T02000178
KMSP 192153Z 12011KT 10SM FEW180 BKN200 OVC300 20/18 A2990 RMK
A02 WSHFT 2053 LTG DSNT SE AND S RAE35 TSE2054B18E33 SLP123
CBMAM OHD AND E-SE MOV SE P0013 T02000178
KMSP 192053Z 14012KT 2 1/2SM R30L/3500VP6000FT TSRA BKN030
OVC045CB 21/17 A3009 RMK A02 LTG DSNT ALQDS RAB26 TSB22 SLP185
FRQ LTGICCG E-S TS E-S MOV SE P0030 60030 T02060167 53007

TAF AMD KMSP 192054Z 1921/2024 12010KT 6SM -TSRA SCT030
OVC050CB FM192130 12010KT P6SM BKN090
FM200300 13009KT P6SM VCTS SCT060CB BKN250
TEMPO 2004/2007 2SM TSRA BR BKN025CB OVC100
FM200800 30006KT P6SM BKN015
FM201400 35008KT P6SM SKC
KMSP 192054Z 1921/2024 12010KT 6SM -TSRA SCT030 OVC050CB
FM192130 12010KT P6SM BKN090
FM200300 13009KT P6SM VCTS SCT060CB BKN250
TEMPO 2004/2007 2SM TSRA BR BKN025CB OVC100
FM200800 30006KT P6SM BKN015
FM201400 35008KT P6SM SKC

KMSP UA /OV MSP180010/TM 0308/FLDURC/TP DC10/TB MDT TURB SFC -
1110

MSP 12/255 MSP OBST CRANE ASN UNKNOWN 445245N0931204W .81NM
ESE MSP UNKNOWN 221FT AGL LGTD 1612141947-1712132100
MSP MSP 07/193 MSP APRON ALL FICON WET OBSERVED AT
1707192035. 1707192035-1707202035
MSP MSP 07/192 MSP TWY ALL FICON WET OBS AT 1707192034.
1707192034-1707202034
MSP MSP 07/191 MSP RWY 04 FICON 5/5/5 100 PCT WET OBS AT
1707192032. 1707192032-1707202032

MSP 07/190 MSP RPY 12RFICON 5/5/5 100 PCT WET OBS AT
1707192031. 1707192031-1707202031
MSP 07/189 MSP RPY 12L FICON 5/5/5 100 PRCT WET OBSERVED AT
1707192030. 1707192030-1707202030
MSP 07/188 MSP RPY 17 FICON 5/5/5 100 PRCT WET OBSERVED AT
1707192029. 1707192029-1707202029
MSP 07/187 MSP RPY 04/22 CLSD EXC XNG 5 MIN PPR
1707200330-1707201000
MSP 07/186 MSP RPY 12R/30L CLSD EXC XNG 5 MIN PPR
1707200330-1707201000
MSP 07/180 MSP OBST TOWER LGT ASR 1047451
4445809.00N0931228.00W 5.3NM NE MSP 1494.1FT 594.2FT AGL
OUT OF SERVICE 1707182149-1708182200
MSP 07/116 MSP OBST TOWER LGT ASR 1025246
4445728.00N0931223.00W 4.6NM NE MSP 1289.4FT 444.9FT AGL
OUT OF SERVICE 1707132007-1708122007
MSP 06/258 MSP RPY 04 RAI LGT OUT OF SERVICE
1706221223-1712131800EST
MSP 06/039 MSP SVC AUTOMATED WX BCST CHANGED TO 612-713-4174
1706061100-PERM

FDC FDC 7/7548 MSP IAP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
RNAV GPS RPY 4 AMDT 2B...
LNAV/VNAV DA 1277/HATH 445 ALL CATS. VIS RVR 5000 ALL CATS.
FOR INOPERATIVE MALSR INCREASE LPV CAT E VISIBILITY TO RVR
4000 LNAV/VNAV CAT E VISIBILITY TO 1 1/2 MILE AND LNAV CAT E
VISIBILITY TO 1 1/4 MILE.
BUILDING 991 MSL 1.15 NM SOUTH OF APPROACH END RPY 4.
1702232230-1710052230EST
FDC FDC 7/6114 MSP IAP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
RNAV GPS Z RPY 12R AMDT 4...
LPV DA VISIBILITY RVR 1800 ALL CATS.
THIS IS RNAV GPS Z RPY 12R AMDT 4A. 1707061908-PERM
FDC FDC 7/4646 MSP SID MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
ORSKY NINE DEPARTURE...
ROCHESTER EIGHT DEPARTURE...
SCHEP EIGHT DEPARTURE...
ZMBRO SIX DEPARTURE...
DME REQUIRED EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV
SYSTEM WITH GPS. 1702151431-1708191431EST
FDC FDC 7/4604 MSP STAR MINNEAPOLIS-ST PAUL INTL/WOLD-
CHAMBERLAIN MINNEAPOLIS MN.
BLUEM RNAV ARRIVAL...HELLO TRANSITION ATC ASSIGNED
ONLY.
1702151350-PERM
FDC FDC 7/4021 MSP SID MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
COULT SIX DEPARTURE...
DARWIN SIX DEPARTURE...
HESTIN THREE DEPARTURE RNAV ...
KBREW EIGHT DEPARTURE...
LEINY FIVE DEPARTURE RNAV ...
MEADOW LAKE THREE DEPARTURE...
MINNEAPOLIS SEVEN DEPARTURE...
ORSKY NINE DEPARTURE...
ROCHESTER EIGHT DEPARTURE...
SCHEP EIGHT DEPARTURE...
SLAYER THREE DEPARTURE RNAV ...
SMERF SIX DEPARTURE RNAV ...
WLSTN SIX DEPARTURE...
ZMBRO SIX DEPARTURE...
TAKE-OFF MINIMUMS RPY 17 200-1 OR STANDARD WITH MINIMUM CLIMB
OF 301 FT PER NM TO 1100. NOTE RPY 17 CRANE 3853 FT FROM
DEPARTURE END OF RPY 1023 FT LEFT OF CENTERLINE UP TO 170
AGL/986 MSL. 2016-AGL-13582-13585-OE .
ALL OTHER DATA REMAINS AS PUBLISHED. 1702141339-1712201339EST
FDC FDC 7/4020 MSP ODP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.

TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES AMDT
12... TAKE-OFF MINIMUMS RWY 17 200-1 OR STANDARD WITH MINIMUM
CLIMB OF 301 FT PER NM TO 1100. NOTE RWY 17 CRANE 3853 FT
FROM DEPARTURE END OF RWY 1023 FT LEFT OF CENTERLINE UP TO
170 AGL/986 MSL. 2016-AGL-13582-13585-OE.
ALL OTHER DATA REMAINS AS PUBLISHED. 1702141339-1712201339EST
FDC FDC 7/3790 MSP IAP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
LOC RWY 22 AMDT 1B...
ALTERNATE MINIMUMS NA
FCM VOR/DME UNMONITORED. 1707192130-1708192130EST
FDC FDC 7/1590 MSP IAP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
RNAV GPS Z RWY 12L AMDT 5...
LPV DA VISIBILITY RVR 1800 ALL CATS.
THIS IS RNAV GPS Z RWY 12L AMDT 5A. 1706132120-PERM
FDC FDC 7/1589 MSP IAP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
RNAV GPS Z RWY 35 AMDT 4...
LPV DA VISIBILITY RVR 1800 ALL CATS.
THIS IS RNAV GPS Z RWY 35 AMDT 4A. 1706132118-PERM
FDC FDC 7/1588 MSP IAP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
RNAV GPS Z RWY 30L AMDT 5...
LPV DA VISIBILITY RVR 1800 ALL CATS.
THIS IS RNAV GPS Z RWY 30L AMDT 5A. 1706132116-PERM
FDC FDC 7/0413 MSP SID MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
COULT SIX DEPARTURE...
DARWIN SIX DEPARTURE...
KBREW EIGHT DEPARTURE...
LEINY FIVE DEPARTURE RNAV ...
MINNEAPOLIS SEVEN DEPARTURE...
ORSKY NINE DEPARTURE...
ROCHESTER EIGHT DEPARTURE...
SCHEP EIGHT DEPARTURE...
SMERF SIX DEPARTURE RNAV ...
WLSTN SIX DEPARTURE...
ZMBRO SIX DEPARTURE...
NOTE RWY 30L ANTENNA TOWER 3550 FT FROM DEPARTURE END OF
RWY 1333 FT LEFT OF CENTERLINE 111 FT AGL/937 FT MSL
2016-AGL-6359-OE.
ALL OTHER DATA REMAINS AS PUBLISHED. 1706271538-1802061538EST
FDC FDC 7/0406 MSP ODP MINNEAPOLIS-ST PAUL
INTL/WOLD-CHAMBERLAIN MINNEAPOLIS MN.
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES AMDT
12... NOTE RWY 30L ANTENNA TOWER 3550 FT FROM DEPARTURE END
OF RWY 1333 FT LEFT OF CENTERLINE 111 FT AGL/937 FT MSL
2016-AGL-6359-OE.
ALL OTHER DATA REMAINS AS PUBLISHED. 1706271534-1802061534EST
FDC FDC 5/4673 MSP STAR MINNEAPOLIS-ST PAUL INTL/WOLD-
CHAMBERLAIN MINNEAPOLIS MN. WILDD THREE ARRIVAL...
PROCEDURE NOT AUTHORIZED N/A. 1503240600-PERM

KFAR 192253Z 00000KT 10SM CLR 28/19 A2990 RMK A02 SLP122
T02780189
KFAR 192153Z 20010KT 10SM CLR 27/19 A2990 RMK A02 SLP124
T02720189
KKFAR 192053Z 19013G19KT 10SM CLR 27/19 A2990 RMK A02 SLP125
T02720189 55025

TAF AMD KFAR 192209Z 1922/2018 20012KT P6SM SCT100
FM200200 VRB06KT P6SM FEW090
FM201500 09004KT P6SM SCT150
KFAR 192209Z 1922/2018 20012KT P6SM SCT100
FM200200 VRB06KT P6SM FEW090
FM201500 09004KT P6SM SCT150
TAF AMD KFAR 192020Z 1920/2018 18015KT P6SM SCT100
FM200000 13007KT P6SM BKN090
FM200100 13006KT P6SM SCT090
FM201200 01004KT P6SM SCT060

FM201500 09004KT P6SM SCT150
KFAR 192020Z 1920/2018 18015KT P6SM SCT100
FM200000 13007KT P6SM BKN090
FM200100 13006KT P6SM SCT090
FM201200 01004KT P6SM SCT060
FM201500 09004KT P6SM SCT150

FAR UA /OV FAR/TM 1211/FL370/TP B737/TB CONT LGT OCNL MOD

FAR FAR 07/060 FAR RWY 36 ALS OUT OF SERVICE 1707200400-
1707201000
FAR FAR 07/058 FAR RWY 36 PAPI OUT OF SERVICE 1707200400-
1707201000
FAR FAR 07/056 FAR NAV ILS RWY 36 OUT OF SERVICE 1707200400-
1707201000
FAR FAR 07/054 FAR RWY 18 ALS OUT OF SERVICE 1707200400-
1707201000
FAR FAR 07/052 FAR RWY 18 PAPI OUT OF SERVICE 1707200400-
1707201000
FAR FAR 07/050 FAR NAV ILS RWY 18 OUT OF SERVICE 1707200400-
1707201000
FAR 07/033 FAR RWY 18/36 CLSD EXC SCHEDULED AIR CARRIER
1707200415-1707201000
FAR 06/157 FAR TWY C BTN RWY 18/36 AND TWY C4 CLSD TO ACFT
WINGSPAN MORE THAN 115FT 1706301200-1708021200
FAR 06/156 FAR TWY A BTN TWY C AND TWY A1 CLSD 1706301200-
1710311200
FAR 06/155 FAR TWY A1 CLSD 1706301200-1710311200
FAR 06/154 FAR RWY 18 N 1700FT CLSD TO ACFT MORE THAN 160000LB
EXC LDG 1706301200-1710311200EST
FAR 06/153 FAR RWY 36 N 1700FT CLSD TO ACFT MORE THAN
160000LB 1706301200-1710311200EST
FAR 06/045 FAR NAV TACAN AZM DECOMMISSIONED 1606241700-PERM

FDC FDC 7/0712 FAR IAP HECTOR INTL FARGO ND.
RNAV GPS RWY 18 AMDT 1A...
CHART NOTE ASTERISK ASTERISK RVR 1800 AUTHORIZED WITH USE OF
FD OR AP OR HUD TO DA. CHANGE LPV DA TO LPV DA ASTERISK
ASTERISK. THIS IS RNAV GPS RWY 18 AMDT 1B. 1706271709-PERM

SIGE
MKCE WST 192255
CONVECTIVE SIGMET 64E
VALID UNTIL 0055Z
NC SC
FROM 30W CLT-10SE CLT-20NNE CAE-40NW CAE-30W CLT
AREA SEV TS MOV FROM 36010KT. TOPS TO FL400.
HAIL TO 1 IN...WIND GUSTS TO 50KT POSS.
CONVECTIVE SIGMET 65E
VALID UNTIL 0055Z
SC GA AND CSTL WTRS
FROM 40ESE FLO-80SSW ILM-20SSE SAV-40N SAV-40ESE FLO
AREA SEV TS MOV LTL. TOPS ABV FL450.
HAIL TO 1 IN...WIND GUSTS TO 50KT POSS.
CONVECTIVE SIGMET 66E
VALID UNTIL 0055Z
FL GA
FROM 40SE AMG-20W OMN-40NNE PIE-20N CTY-40SE AMG
AREA TS MOV LTL. TOPS TO FL420.
CONVECTIVE SIGMET 67E
VALID UNTIL 0055Z
FL AND CSTL WTRS
FROM 70NNE TRV-20E PBI-20NW RSW-10NW SRQ-30W ORL-70NNE TRV
AREA TS MOV LTL. TOPS ABV FL450.
CONVECTIVE SIGMET 68E
VALID UNTIL 0055Z
FL CSTL WTRS
FROM 230ENE OMN-200ENE PBI-70ESE PBI-170ENE OMN-230ENE OMN
AREA TS MOV LTL. TOPS ABV FL450.
REF INTL SIGMET FOXTROT SERIES.

OUTLOOK VALID 200055-200455
AREA 1...FROM 150ESE SBY-180ESE ECG-140SSE ILM-200ENE PBI-80WSW
EYW-150S CEW-40WSW MGM-150ESE SBY
WST ISSUANCES EXPD. REFER TO MOST RECENT ACUS01 KWNS FROM STORM
PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.
AREA 2...FROM 60ENE GRB-30SW ECK-40SE DX0-50WNW SYR-60SE
HTO-50NEORF-TTH-60ENE GRB
WST ISSUANCES POSS. REFER TO MOST RECENT ACUS01 KWNS FROM STORM
PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.

SIGC

MKCC WST 192255

CONVECTIVE SIGMET 22C

VALID UNTIL 0055Z

NE SD

FROM 50S PIR-20W FSD-40ESE ONL-80NE BFF-50S PIR

AREA SEV TS MOV FROM 30015KT. TOPS ABV FL450.

HAIL TO 2 IN POSS.

CONVECTIVE SIGMET 23C

VALID UNTIL 0055Z

WI MN IA

FROM 50NE EAU-60W GRB-40NNW DBQ-30SE FOD-50NNW MCW-50NE EAU

AREA SEV TS MOV FROM 27040KT. TOPS ABV FL450.

TORNADOES...HAIL TO 2 IN...WIND GUSTS TO 70KT POSS.

CONVECTIVE SIGMET 24C

VALID UNTIL 0055Z

CO

FROM 20WNW DEN-40SW AKO-40NW ALS-30SW HBU-20WNW DEN

AREA TS MOV LTL. TOPS ABV FL450.

CONVECTIVE SIGMET 25C

VALID UNTIL 0055Z

TX NM

FROM 70ENE TCS-40SE FST-100SSE MRF-20ESE DMN-70ENE TCS

AREA TS MOV FROM 16015KT. TOPS ABV FL450.

CONVECTIVE SIGMET 26C

VALID UNTIL 0055Z

TX NM

FROM 40ESE CME-60WSW LBB-30NNW MAF-20NNW INK-40ESE CME

AREA TS MOV FROM 15015KT. TOPS TO FL450.

CONVECTIVE SIGMET 27C

VALID UNTIL 0055Z

TX

FROM 40NNW CRP-60NNW BRO-50ESE LRD-70S SAT-40NNW CRP

AREA TS MOV FROM 15020KT. TOPS TO FL400.

CONVECTIVE SIGMET 28C

VALID UNTIL 0055Z

LA AND CSTL WTRS

FROM 30WSW AEX-10NE HRV-40W LEV-50ESE LCH-30N LCH-30WSW AEX

AREA TS MOV FROM 30010KT. TOPS ABV FL450.

OUTLOOK VALID 200055-200455

AREA 1...FROM 40SW MGM-150S CEW-120ESE LEV-100WSW LEV-AEX-40SW

MGM

WST ISSUANCES POSS. REFER TO MOST RECENT ACUS01 KWNS FROM STORM

PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.

AREA 2...FROM PIR-40SSE ANW-30WSW CIM-50E RSK-40SW CZI-PIR

REF WW 422

WST ISSUANCES EXPD. REFER TO MOST RECENT ACUS01 KWNS FROM STORM

PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.

AREA 3...FROM 60WNW INL-40NNE SAW-TTH-50WNW OBH-PIR-60WNW INL

REF WW 421 422 423

WST ISSUANCES POSS. REFER TO MOST RECENT ACUS01 KWNS FROM STORM

PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.

AREA 4...FROM ABQ-50ESE FST-90SE MRF-50SSW MRF-40WSW ELP-ABQ

WST ISSUANCES POSS. REFER TO MOST RECENT ACUS01 KWNS FROM STORM

PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.

WA2T

MIAT WA 192045

AIRMET TANGO UPDT 3 FOR TURB VALID UNTIL 200300

AIRMET TURB...NC SC GA MA RI NY NJ MD DE VA AND CSTL WTRS

FROM 110ENE ACK TO 160SE ACK TO 100E ORF TO 100SE CHS TO 50S
CAETO 30N RIC TO 110ENE ACK
MOD TURB BTN FL280 AND FL380. CONDS CONTG BYD 03Z THRU 09Z.

OTLK VALID 0300-0900Z...TURB NC SC GA FL MA RI NY NJ MD DE VA
AND CSTL WTRS
BOUNDED BY 30S ACK-120ESE ACK-130SE ACK-80E ORF-40E OMN-40ESE
CTY-30SW AMG-20ENE IRQ-50SSE LYH-30WNW RIC-30E CYN-30S ACK
MOD TURB BTN FL280 AND FL380. CONDS CONTG THRU 09Z.

WA2Z
MIAZ WA 192045
AIRMET ZULU UPDT 3 FOR ICE AND FRZLVL VALID UNTIL 200300

NO SGFNT ICE EXP OUTSIDE OF CNVTV ACT.

FRZLVL...RANGING FROM 140-170 ACRS AREA
160 ALG 30S EYW-40WSW MIA-90SE MIA-130SE MIA
160 ALG HNV-30ENE ODF-CTY-50WNW PIE-90WSW PIE
160 ALG 210S CEW-150ESE LEV-120SSE SJI

WA2S
MIAS WA 192045
AIRMET SIERRA UPDT 4 FOR IFR VALID UNTIL 200300

NO SGFNT IFR EXP OUTSIDE OF CNVTV ACT.

MIA G NIL

WA4T
DFWT WA 192045
AIRMET TANGO UPDT 3 FOR TURB VALID UNTIL 200300

NO SGFNT TURB EXP OUTSIDE OF CNVTV ACT.

WA4Z
DFWZ WA 192045
AIRMET ZULU UPDT 3 FOR ICE AND FRZLVL VALID UNTIL 200300

NO SGFNT ICE EXP OUTSIDE OF CNVTV ACT.

FRZLVL...RANGING FROM 155-185 ACRS AREA
160 ALG 120SSE SJI-40ESE HRV-50WNW LEV-80SE LCH-110S LCH
160 ALG 120SE PSX-90SE PSX-20NE CRP-30W CRP-60S LRD

WA4S
DFWS WA 192045
AIRMET SIERRA UPDT 4 FOR IFR AND MTN OBSCN VALID UNTIL 200300

NO SGFNT IFR EXP OUTSIDE OF CNVTV ACT.

AIRMET MTN OBSCN...TX
FROM 70W INK TO 70SSE FST TO 90SSE MRF TO 60WSW MRF TO ELP TO
70W INK
MTNS OBSC BY CLDS/PCPN. CONDS ENDG 00-03Z.

DFW G NIL

CHI A NIL

CHI G NIL

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END BRIEFING

ORG	DEST	ALT1	ALT2	TALT	A/C TYPE	TAIL	BOW	INDEX
MIA	MSP	FAR			EMB-175	N427YX	50612	-00000

SPEED SCHEDULES

CLIMB 270/M74	CRUISE CI016	DESCENT 280/M74
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	FUEL	TIME		PLAN	STRUC	FLT SKD
BURN	12476	03.17	BOW	50612.....		DEP MIA 0004Z
RESERVE	2255	00.45	PYLD	10760.....		ARV MSP 0359Z
ALT/FAR	2637	00.37	ZFW	61372.....	69886	
HOLD	1000	00.23	FOB	19400.....	20734	
MIN	18368	05.02	TOW	80772.....	085517	
EXTRA	1032	00.21	BURN	12476		
TAXI	200		LGW	68296.....	74957	
RAMP	19600	05.23	FOD	6924		

ROUTE 001 P0004Z FL340 AVG WIND 335019 AVG TD P11 ETE 03.17
MIA.WINCO2.WINCO..LAL..CTY.J151.VUZ..JKS..FAM.J151.STL..MNOSO.
BLUEM3.MSP

CONTINGENCY SUMMARIES

FL	AVG/WIND	ETE	BURN	MIN	RAMP	PYLD	LGW
320	331020	03.22	12619	18518	19600	10760	68153
300	330019	03.28	12676	18574	19600	10760	68096
280	328018	03.32	12826	18720	19600	10760	67946

	TIME	DIST						FUEL	
	LEG	LEG	IAS	MCH	MC	ALT	WIND	LEG	SCORE
WAYP	TOTAL	REM	TAS	G/S	HDG	IOAT	ISA	REM	TIME/FUEL/FOD
KMIA	-----	-----	---	---	---	---	TAXI	200	
	03.17	1337	---	---	---	---	---	19400	
BORLE	00.07	26	---	---	---	---	189005	841	
	00.07	1311	---	---	317	---	P14	18559	
MEAGN	00.02	12	---	---	---	---	221008	215	
	00.09	1299	---	---	321	---	P14	18344	
WINCO	00.03	15	---	---	---	---	229010	237	
	00.12	1285	---	---	321	---	P14	18107	
TOC	00.14	103	245	---	---	340	315004	1488	/..../...
	00.26	1182	425	421	336	-41	P14	16619	
LAL	00.01	6	258	.75	335	340	287009	52	/..../...
116.0	00.27	1175	443	436	335	-41	P11	16567	
CTY	00.15	111	258	.75	329	340	281016	932	/..../...
112.0	00.42	1065	443	432	328	-42	P11	15635	
CAPPS	00.10	72	258	.75	324	340	020021	603	/..../...
	00.52	993	443	431	326	-42	P11	15032	
NEDDY	00.06	40	258	.75	326	340	026027	332	/..../...
	00.58	953	443	431	329	-41	P11	14700	
WYATT	00.03	20	258	.75	325	340	027029	165	/..../...
	01.01	933	443	431	329	-41	P11	14535	
VUZ	00.25	182	257	.75	325	340	037029	1524	/..../...
114.4	01.26	751	443	435	329	-41	P11	13010	
JKS	00.19	136	244	.74	326	360	044022	1067	/..../...
109.4	01.45	615	435	429	329	-46	P10	11943	
FAM	00.21	154	245	.74	322	360	031016	1195	/..../...
115.7	02.06	461	437	430	324	-46	P10	10749	

SLVER	00.03	20	246	.74	349	360	345013	157	/..../...
	02.09	441	437	424	350	-46	P10	10592	
STL	00.07	52	246	.74	350	360	320018	409	/..../...
117.4	02.16	389	437	422	349	-46	P10	10183	
MNOSO	00.35	231	246	.75	335	360	299044	1892	/..../...
	02.51	158	438	402	332	-45	P10	8291	
KICKR	00.04	26	247	.75	334	360	294067	222	/..../...
	02.55	131	440	387	329	-45	P11	8069	
TOD	00.07	46	247	---	---	360	286065	384	/..../...
	03.02	85	441	395	328	-44	P12	7685	
OOPEE	00.00	2	---	---	---	---	291066	6	
	03.02	83	---	---	326	---	P12	7679	
LAZYY	00.05	28	---	---	---	---	284054	75	
	03.07	55	---	---	355	---	P15	7604	
BLUEM	00.03	13	---	---	---	---	295034	35	
	03.10	42	---	---	358	---	P14	7569	
HHAMR	00.01	6	---	---	---	---	288032	16	
	03.11	36	---	---	358	---	P14	7553	
FARBO	00.01	5	---	---	---	---	277030	14	
	03.12	30	---	---	359	---	P14	7539	
	00.05	----	---	---	---	---	----	615	
KMSP	03.17	----	---	---	---	---	----	6924	/..../...

	10000	30000	32000	34000	36000
KMIA	205006P09	302003M31	010005M36	014008M41	015008M47
BORL	211006P09	310003M31	014006M36	016008M41	016008M47
MEAG	217006P09	316004M31	004006M36	009007M41	007006M47
WINC	325002P09	298019M31	284020M36	268019M41	254018M47
LAL	358003P08	346018M32	353017M37	357015M42	359013M47
CTY	032007P09	010019M32	022024M37	026025M42	023025M46
CAPP	032009P09	006020M32	021025M37	027028M41	025027M46
NEDD	032010P09	006020M32	022025M37	028029M41	026028M46
WYAT	025010P10	043026M31	041027M36	042026M41	042025M46
VUZ	018006P10	045014M36	044018M41	044020M46	042019M50
JKS	024005P11	019012M36	011013M41	355013M46	339014M51
FAM	011004P12	359013M36	352015M41	337014M46	325016M51
SLVE	331004P12	331022M36	324023M41	310022M46	304024M51
STL	244024P14	295055M34	295065M39	296066M45	300061M50
MNOS	246026P13	290060M34	290067M39	291067M45	295061M50
KICK	260029P11	284058M34	282062M39	281064M44	281063M49
FARB	264021P10	277079M34	272080M39	270083M44	268082M49