National Transportation Safety Board
Aviation Accident Final Report

Location:	Anchorage, AK	**Accident Number:**	ANC02FA023A
Date & Time:	03/17/2002, 0200 AST	**Registration:**	N935AS
Aircraft:	McDonnell Douglas MD-82	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	145 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

A McDonnell Douglas MD-82 airplane sustained substantial damage during an on-ground collision with a McDonnell Douglas MD-11, as the MD-82 was being pushed back from the gate area, and while the MD-11 was taxiing to parking. The MD-11 was not damaged. There was heavy snowfall with reduced visibility at the time of the accident, and the airport ramp around the gate area had an estimated 8 inches of loose snow. The captain of the MD-82 reported that prior to pushback from the gate, he was advised by the ATCT ground controller to "remain clear of taxiway Kilo during pushback from the gate." The captain informed the tug driver of the ground controller's instructions, and the tug driver acknowledged receipt of the instructions. Taxiway Kilo is adjacent to, and south of, the airport ramp area utilized by the MD-82 operator. As the pushback proceeded, the tug driver noticed the MD-11 moving westbound on Taxiway Kilo, behind the tail of the MD-82, and he stopped the pushback. A ground-marshaling attendant stationed on the east side of the MD-82's wing (right wing), proceeded to the rear of the airplane to ensure adequate clearance between the tail of the MD-82, and the right wing of the MD-11. The tug driver said that he observed the ground-marshaling attendant on his left, closest to the tail of the MD-82, using his (red) flashlight wand, to signal him to move the parked MD-82 away from Taxiway Kilo, towards the gate. The tug driver said that just after observing the ground-marshaling attendant's visual instructions, the taxiing MD-11's right wing struck the tail of the parked MD-82. The captain of the MD-11 stated that while taxiing slowly westbound on Taxiway Kilo, with the recessed green taxiway centerline lights easily visible through the accumulation of snow, he kept the nose wheel over the centerline of the taxiway. As his airplane approached the tail of the stopped MD-82, the relief captain, seated in the right seat, along with an additional (non-flying) first officer, stood up from their seats to attempt to visually assess the clearance between the MD-11's right wingtip and the MD-82's tail. The MD-11 captain added that there was a heavy accumulation of snow covering the right side window, which limited the relief captain's and first officer's views. He said at that point, the MD-11 crew turned their attention to the MD-82's ground handling staff who were outfitted with lighted (red) flashlight wands. The captain reported that he did not see a stop or emergency signal from any of the ground-marshaling attendants. Subsequently, the right winglet of the taxiing MD-11 collided with the upper portion of the MD-82's rudder assembly. At the time of the accident, there was a Douglas DC-8 following the

accident MD-11 to parking. The DC-8's flight crew reported reduced visibility due to heavy snowfall, and blowing snow from the MD-11's jet blast. They reported that the recessed green taxiway centerline lights were visible through the 3 to 4 inches of loose snow on the taxiway, immediately in front of their airplane, but became obscured after several hundred feet in front of their airplane. The DC-8 first officer wrote, in part: "As we approached the [MD-82], I was concerned about their proximity to our taxiway, although I feel they had not entered it. Or, if they had, they had already been tugged back." During an interview with NTSB IIC, the ground-marshaling attendant for the MD-82 was asked if he attempted to provide the flight crew of the taxiing MD-11, prior to the collision, the signal for an emergency stop (the crisscrossed lighted (red) flashlight wands). His response was "no."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the flight crew of the other airplane (MD-11) to maintain clearance while taxiing and the MD-82 ground-marshaling personnel's failure to follow procedures/directives when they did not display an emergency stop signal to the flight crew of the other airplane. Factors contributing to the accident were heavy snow showers and snow-covered terrain.

Findings

Occurrence #1: COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)
Phase of Operation: TAXI - PUSHBACK/TOW

Findings
1. (F) WEATHER CONDITION - SNOW
2. (F) TERRAIN CONDITION - SNOW COVERED
3. (F) PROCEDURES/DIRECTIVES - NOT FOLLOWED - GROUND PERSONNEL
4. (C) CLEARANCE - NOT MAINTAINED - FLIGHTCREW OF OTHER AIRCRAFT

Factual Information

HISTORY OF FLIGHT

On March 17, 2002, about 0200 Alaska standard time, a McDonnell Douglas MD-82 airplane, N935AS, sustained substantial damage during an on-ground collision with a McDonnell Douglas MD-11, Taiwanese registration B16106, at the Ted Stevens Anchorage International Airport, Anchorage, Alaska. The MD-11 was not damaged. The two airplanes collided after the MD-82 had been pushed back from the gate area, and while the MD-11 was taxiing to parking. The MD-82's flight was being conducted as a Title 14, CFR Part 121, scheduled domestic passenger flight, operated by Alaska Airlines, Inc., as Flight 196, en route to Seattle, Washington. There were no injuries to the two pilots, three flight attendants, or the 140 passengers. The MD-11's flight was being conducted as a Title 14, CFR Part 129 cargo flight, operated as Flight 632, by Eva Air, Taipei, Taiwan. The MD-11's flight originated at the Chiang Kai-shek International Airport, Taipei, Taiwan. There were no injuries to the three cockpit crew members. Instrument meteorological conditions prevailed, and heavy snow showers with reduced visibility were reported at the time of the accident. Both airplanes had instrument flight plans filed.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) about 0245 on March 17, the captain of the Alaska Airlines MD-82 reported that prior to pushback from gate B-7, he was advised by the Anchorage Air Traffic Control Tower (ATCT) ground controller to "remain clear of taxiway Kilo during pushback from gate B-7." Taxiway Kilo is adjacent to and south of the airport ramp area utilized by Alaska Airlines. The captain said that he then informed the tug driver via the airplane's interphone of the ground controller's instructions, and the tug driver acknowledged receipt of the instructions. The captain added that the airport ramp around the gate area had an estimated 8 inches of loose snow. As the tug driver started the pushback from the gate, he attempted to maneuver the tail of the MD-82 to the east, which would ultimately position the airplane parallel to, and north of, Kilo Taxiway. The captain said that as the airplane proceeded away from the gate and as the tug driver attempted to make the easterly turn, he was unable to maintain directional control of the airplane's nose wheel, and the nose wheel of the airplane began to slide to the left.

The captain said that the tug driver then pulled the airplane back to the gate, and attempted another pushback. During the second pushback attempt, the tug driver positioned the tug so he was pushing the airplane straight back, which helped keep the nose wheel from sliding. The captain said as the pushback proceeded away from the gate, the tug driver stopped the airplane for about 20 seconds, followed by the tug driver reporting to the captain that a taxiing MD-11, proceeding westbound on Taxiway Kilo, had just struck the tail of his airplane. The captain commented that he was unaware of the collision. He said that about 30 seconds later, one of the flight attendants, seated in the rear of the airplane, reported hearing a "loud bang" after the airplane stopped moving. After the captain reported the collision to the ATCT ground controller, he instructed the tug driver to tow the airplane to gate B-7.

During a telephone conversation with the NTSB IIC on March 17, about 0350, the captain of the Eva Air MD-11 reported that after landing on runway 6R, he informed the Anchorage ATCT ground controller that he would be parking at "Bay R8." He reported that after waiting for about 10 minutes, while holding on taxiway Delta, between runways 6L and 6R, he was

instructed to proceed to parking at R8, via taxiways Kilo, Romeo, and Mike. The MD-11 captain stated that while taxiing westbound, and slowly on Taxiway Kilo, with the recessed green taxiway centerline lights easily visible through the accumulation of snow, he kept the nose wheel over the centerline of the taxiway. He added that as his airplane approached the tail of the Alaska Airlines MD-82, the relief captain, seated in the right seat, along with an additional (non-flying) first officer, stood up from their seats to attempt to visually assess the clearance between the MD-11's right wingtip and the MD-82's tail. The MD-11 captain added that there was a heavy accumulation of snow covering the right side window, which limited the relief captain's and first officer's views. He said at that point, the MD-11 crew turned their attention to the MD-82's ground handling staff who were outfitted with lighted (red) flashlight wands. The captain reported that he did not see a stop or emergency signal from any of the ground-marshaling attendants, so he elected to proceed. Subsequently, the right winglet of the MD-11 collided with the upper portion of the MD-82's rudder assembly. The MD-11 captain said that he was unaware that a collision had occurred until after parking at R8. The winglet of the MD-11 sustained no damage, but the rudder of the MD-82 sustained substantial damage.

Continuous snow removal operations for the runways were in effect at the airport, and heavy snow was falling. At the time of the collision, various witnesses reported that between 8 and 12 inches of dry snow had accumulated on the apron and taxiways.

PERSONNEL INFORMATION

McDonnell Douglas MD-82 Crew

The flight crew of the MD-82 consisted of a captain, seated in the left seat, and first officer, seated in the right seat.

The MD-82 captain held an airline transport pilot certificate with an airplane multiengine land rating, with type ratings for Douglas DC-9, and Boeing 727 aircraft. He also held commerical pilot privileges with a single-engine land airplane rating. The most recent first-class medical certificate was issued to the captain on October 16, 2001, and contained the limitation that the pilot must wear corrective lenses. According to the NTSB Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) submitted by the operator, the captain's total aeronautical experience consisted of about 18,553 hours, of which 5,069 were accrued in the accident airplane make and model. In the 90 and 30 days prior to the accident, the captain had flown a total of 77 and 31 hours, respectively.

The MD-82 first officer held an airline transport pilot certificate with a multiengine land rating, and a type rating for Lockheed L-188 aircraft. He also held commerical pilot privileges with a single-engine land airplane rating. The most recent first-class medical certificate was issued to the first officer on August 1, 2001, and contained no limitations. According to the NTSB Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) submitted by the operator, the first officer's total aeronautical experience consisted of about 4,267 hours, of which 567 were accrued in the accident airplane make and model. In the 90 and 30 days prior to the accident, the first officer had flown a total of 31 and 25 hours, respectively.

McDonnell Douglas MD-11 Crew

At the time of the accident, the MD-11 flight crew consisted of a captain, seated in the left seat, a relief captain, seated in the right seat, and a non-flying first officer, seated in the jump seat.

The MD-11 captain held a Taiwanese airline transport pilot certificate with an airplane multiengine land rating. The most recent first-class medical certificate was issued to the pilot on January 4, 2002, and contained no limitations. According to the NTSB Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) submitted by the operator, the pilot's total aeronautical experience consisted of about 8,100 hours, of which 2,900 were accrued in the accident airplane make and model. In the 90 and 30 days prior to the accident, the captain had flown a total of 210 and 70 hours, respectively.

The MD-11 relief captain held a Taiwanese airline transport pilot certificate with an airplane multiengine land rating. The most recent first-class medical certificate was issued to the pilot on December 13, 2001, and contained the limitation that the pilot must have wear corrective lenses. According to the NTSB Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) submitted by the operator, the pilot's total aeronautical experience consisted of about 18,300 hours, of which 862 were accrued in the accident airplane make and model. In the 90 and 30 days prior to the accident, the relief captain had flown a total of 90 and 68 hours, respectively.

METEOROLGICAL INFORMATION

At 0209, an Aviation Routine Weather Report (METAR) at Anchorage was reporting in part: Wind, 050 degrees (true) at 4 knots; visibility, 1/4 statute mile in heavy snow; clouds and sky condition, 600 feet overcast; temperature, 37 degrees F; dew point, 39 degrees F; altimeter, 30.22 inHg. A notice to airmen (NOTAM), was issued for the Ted Stevens Anchorage International Airport, and broadcast via the Anchorage tower Automated Transcribed Information System (ATIS) "Tango" stating, in part: "...notice to airmen, continuous snow removal in progress, icy conditions all ramps, heavy snow accumulation on all ramps, taxiways Yankee, November, Papa, Bravo closed between the parallel runways. Taxiway Victor closed between taxiway Echo and Romeo, advise you have Tango."

COMMUNICATIONS

Review of the air to ground radio communications tapes maintained by the FAA at the Ted Stevens Anchorage International Airport ATCT facility, revealed that both of the airplane crews successfully communicated with clearance delivery, ground control, and local control.

A complete transcript of the air to ground, ground to ground, and clearance delivery communications between both flight crews and the Anchorage ATCT is included in the public docket for this accident.

AERODROME AND GROUND FACILITIES

The Ted Stevens Anchorage International Airport is owned and operated by the State of Alaska, Department of Transportation. The published elevation of the airport is 152 feet mean sea level.

The south airline terminal, from which the MD-82 airplane was pushed back, is situated north of Taxiway Kilo.

Taxiway Kilo is 75 feet wide, and parallels runway 6L/24R, about 480 feet north of the runway. It is partially equipped with blue taxiway edge lights, and fully equipped with green centerline lights. It has yellow edge stripes on the south side of the taxiway, and a yellow centerline stripe. Currently, there are no recessed blue taxiway edge lights or yellow edge stripes marking the northern edge of Taxiway Kilo, south of gate B-7. Taxiway Kilo's taxiway safety area (TSA)

is 214 feet wide, and extends 107 feet from the taxiway centerline. FAA Advisory Circular (AC) 150/5300-13, change number 4, Chapter 4, Taxiway and Taxilane Design, states, in part: "The taxiway safety area shall be capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

The McDonnell Douglas MD-11 total wingspan (wingtip-to-wingtip) is 170 feet, 6 inches, or 85 feet, 3 inches from the wingtip to the airplane's centerline.

The illumination of Taxiway Kilo edge lights is either on or off, and does not vary in intensity.

The intensity of illumination of Taxiway Kilo centerline lights is variable through three settings as part of the airport's low visibility taxi routes when the runway visual range (RVR) is less than 1,200 feet. The only color of the centerline lighting is green.

ATCT personnel reported that there were no difficulties with the runway and taxiway lighting systems prior to, or at the time of the accident. ATCT personnel indicated the taxiway centerline lights for Taxiway Kilo were set on the high intensity level at the time of the accident.

A Terminal Radar Service Area serves the airport and the tower cab is equipped with a BRITE radar repeater display and airport surface detection equipment (ASDE). This display of the airplane's position on the airport surface is installed in the ATCT cab, and the Anchorage TRACON facility. Both are located in the ATCT building. Currently, this information is not being recorded.

Snow removal operations at the airport are generally the responsibility of the State of Alaska, Department of Transportation, Ted Stevens Anchorage International Airport, Airport Maintenance Department. In addition to the Airport Maintenance Department, air carriers are responsible for clearing the ramp areas in the immediate vicinity of their gates. Snow removal operations at the time of the accident were being conducted as outlined in the airport's "Snow Removal Plan" dated October 5, 2001.

ADDITIONAL INFORMATION

At the time of the accident, there was a Douglas DC-8 following the accident MD-11 to parking. During a telephone conversation with the NTSB IIC on March 28, the captain of the DC-8 reported that as his airplane followed the accident MD-11 westbound along Taxiway Kilo, he encountered reduced forward visibility due to heavy snow showers, in conjunction with blowing snow from the MD-11's jet blast. He said that the recessed green taxiway centerline lights along Taxiway Kilo were visible through the snow. The captain noted that after the MD-11's right wing passed the tail of the parked MD-82, he was unaware that a collision between the two airplanes had occurred. He provided the NTSB with a follow-up written statement concerning the circumstances surrounding the accident. The captain wrote, in part: "As we passed the terminal area, we noticed an Alaska MD-82 had pushed back, or had at least attempted to push back, and was fairly close to the taxiway. Although it appeared we had adequate clearance, I did move left of the taxiway centerline to insure positive clearance."

During a telephone conversation with the NTSB IIC on March 28, the first officer of the DC-8 that was following the accident MD-11 westbound along Taxiway Kilo, reported that visibility at the time of the accident was reduced due to heavy snowfall, as well as blowing snow from the MD-11. He added that the recessed green taxiway centerline lights were visible through the 3 to 4 inches of loose snow on the taxiway, immediately in front of their airplane, but became

obscured after several hundred feet in front of their airplane. He said that he was unaware that there had been a collision between the taxiing MD-11 and the parked MD-82. The first officer reported that as the right wing of the DC-8 passed the tail of the parked MD-82, he was concerned about adequate wingtip clearance with the tail of the parked MD-82. He said that at that point, he directed his attention to a ground handler who was standing at the back of the MD-82, underneath the tail. He said that the individual had two lighted (red) flashlight wands in his hands. The first officer said that the captain of the DC-8 exercised extreme caution as the wingtip passed by the tail of the parked MD-82. The first officer said: "I was just waiting for the ground handler to give us the stop motion, but he never did." The DC-8 first officer provided the NTSB with a follow-up, written statement concerning the circumstances surrounding the accident. The first officer wrote, in part: "As we approached the Alaska aircraft in question, I was concerned about their proximity to our taxiway, although I feel they had not entered it. Or, if they had, they had already been tugged back. There was someone standing at the tail of the Alaska aircraft. This person appeared to be assessing the damage or watching our right wing to assure our clearance."

On March 20, 2002, the NTSB IIC, accompanied by an additional NTSB investigator, conducted interviews with the three Alaska Airlines employees who were present at the time of the collision. According to Alaska Airlines, there were four company employees directly involved with the pushback of the Alaska Airline MD-82 airplane from gate B-7. The ground crew was comprised of one tug driver, and two ground-marshaling attendants, one stationed at the outboard end of each wing of the MD-82. Both of the ground-marshaling attendants were outfitted with lighted (red) flashlight wands. In addition, at the time of the accident, an additional maintenance person was assisting the tug driver. All four employees provided written, signed statements to the NTSB IIC.

During the interview, the tug driver reported that before any attempt was made to push the airplane back from gate B-7, the captain instructed him that the airplane was to remain clear of Taxiway Kilo during the pushback. He said that due to the heavy accumulation of snow on the ramp area, as he started to push the airplane back from the gate area, and maneuver it to the left, the airplane's nose wheel "jackknifed," and the nose of the airplane slid to his right. The tug driver then informed the captain that he was going to return the airplane to the gate, get the nose wheel straight, and go straight back. The tug driver said that the captain then requested that additional maintenance personnel be called to help in the pushback. The tug driver said that he requested additional help to be sent to gate B-7. The tug driver said that just before he started to push the airplane back for a second attempt, a more experienced maintenance person arrived and "instructed me on what to do." He said that the additional maintenance person stood outside of the tug's cab during the second pushback attempt. The tug driver said that he started to pushback from the gate very slowly, and straight back. As the pushback proceeded, he noticed the MD-11 moving westbound on Taxiway Kilo, behind the tail of the MD-82, so he elected to stop the pushback. He added that in his opinion the MD-11 was taxiing faster than normal. After the MD-82 was stopped, the ground-marshaling attendant who was stationed on the east side of the MD-82's wing (right wing), proceeded to the rear of the airplane to ensure adequate clearance between the tail of the MD-82, and the right wing of the MD-11. The tug driver said that he observed the ground-marshaling attendant on his left, closest to the tail of the MD-82, using his (red) flashlight wand, to signal him to move the parked MD-82 away from Taxiway Kilo, back towards the gate. The tug driver said that just after observing the ground-marshaling attendant's visual instructions, the taxiing MD-11's

right wing struck the tail of the parked MD-82. After the collision, the captain instructed him to return to gate B-7. During the interview process, the NTSB IIC asked the tug driver how he was able to judge the position of the MD-82 during pushback when the edge stripes which define the roadway bordering the ramp area were covered with snow. The tug driver said that when this condition exists, he is forced to use adjacent gates (B-8 and B-5) as a visual reference.

During the March 20, 2002, interview the ground-marshaling attendant who was stationed on the east side of the Alaska Airlines MD-82 (right wing) reported to the NTSB investigators that during the second attempted pushback from gate B-7, he noticed a taxiing MD-11 approaching from the east, headed westbound along Taxiway Kilo. He said that the Alaska Airlines MD-82 then stopped short of Taxiway Kilo. As the MD-11 continued, he quickly positioned himself at the rear of the MD-82 in order to ensure adequate clearance between the two airplanes. The ground-marshaling attendant said that, fearing the wingtip of the taxiing MD-11 was going to contact the tail of the parked MD-82, he signaled the tug driver, using his lighted (red) flashlight wands, to move towards the terminal, and away from Taxiway Kilo. He said that before the tug driver could respond, the right wing of the westbound MD-11 struck the tail of the parked MD-82. He said that after the collision, the westbound MD-11 continued to taxi along Taxiway Kilo, and continued to the cargo parking area. In the ground-marshaling attendant's written statement he wrote, in part: "It appeared to me that the first aircraft (MD-11) was moving very fast and began to turn the corner around B-8 early. As the aircraft (MD-11) came past the rear of our aircraft, it was well to the right of the centerline of Taxiway Kilo, and it's wingtip sliced through the rudder of the Alaska Airlines MD-82." At the conclusion of the interview, the NTSB IIC asked the ground-marshaling attendant if he provided the flight crew of the taxiing MD-11, prior to the collision, the signal for an emergency stop (crisscrossed lighted (red) flashlight wands). The ground-marshaling attendant's response was "no."

Pilot Information

Certificate:	Airline Transport	**Age:**	54, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	10/16/2001
Occupational Pilot:		**Last Flight Review or Equivalent:**	06/07/2001
Flight Time:	18553 hours (Total, all aircraft), 5069 hours (Total, this make and model), 13422 hours (Pilot In Command, all aircraft), 78 hours (Last 90 days, all aircraft), 31 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Co-Pilot Information

Certificate:	Airline Transport	**Age:**	40, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	08/01/2001
Occupational Pilot:		**Last Flight Review or Equivalent:**	07/17/2001
Flight Time:	4267 hours (Total, all aircraft), 567 hours (Total, this make and model), 1700 hours (Pilot In Command, all aircraft), 31 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	McDonnell Douglas	**Registration:**	N935AS
Model/Series:	MD-82	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Transport	**Serial Number:**	49236
Landing Gear Type:	Retractable - Tricycle	**Seats:**	148
Date/Type of Last Inspection:	03/16/2002, Continuous Airworthiness	**Certified Max Gross Wt.:**	150500 lbs
Time Since Last Inspection:	11.02 Hours	**Engines:**	2 Turbo Fan
Airframe Total Time:	50553.4 Hours at time of accident	**Engine Manufacturer:**	Pratt & Whitney
ELT:	Not installed	**Engine Model/Series:**	JT8D-217A
Registered Owner:	Bank of America Leasing & Capital Corp	**Rated Power:**	20850 lbs
Operator:	ALASKA AIRLINES, INC.	**Operating Certificate(s) Held:**	Flag carrier (121)
Operator Does Business As:		**Operator Designator Code:**	ASAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Night
Observation Facility, Elevation:	ANC, 144 ft msl	**Observation Time:**	0209 AST
Distance from Accident Site:		**Direction from Accident Site:**	
Lowest Cloud Condition:		**Temperature/Dew Point:**	-3°C / -4°C
Lowest Ceiling:	Overcast / 600 ft agl	**Visibility**	0.25 Miles
Wind Speed/Gusts, Direction:	4 knots, 50°	**Visibility (RVR):**	
Altimeter Setting:	30.22 inches Hg	**Visibility (RVV):**	
Precipitation and Obscuration:			
Departure Point:	Anchorage, AK (ANC)	**Type of Flight Plan Filed:**	IFR
Destination:	Seattle, WA (SEA)	**Type of Clearance:**	IFR
Departure Time:	0200	**Type of Airspace:**	Class D

Airport Information

Airport:	Ted Steven Intl Airport (PANC)	**Runway Surface Type:**	
Airport Elevation:	144 ft	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Unknown

Wreckage and Impact Information

Crew Injuries:	5 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	140 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	145 None	**Latitude, Longitude:**	61.174444, -149.996389

Administrative Information

Investigator In Charge (IIC):	Clinton O Johnson	**Adopted Date:**	06/15/2004
Additional Participating Persons:	Mark Fang; Eva Air; Anchorage, AK Richard Huffman; Eva Air; Luchu, Taoyuan HSIEN, Lawrence Lewis; National Transportation Safety Board; Anchorage, AK Chris Nutter; Alaska Airlines; Seattle, WA David E Squire; Alaska Airlines; Anchorage, AK Tron T Clark; Federal Aviation Administration, Anchorage FSDO; Anchorage, AK George R McCament; Federal Aviation Administration, Anchorage FSDO; Anchorage, AK		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		