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## Tail strike on takeoff, Boeing 747-128, December 28, 2001

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**Micro-summary:** This Boeing 747-128 experienced a tail strike on takeoff.

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**Event Date:** 2001-12-28 at 0727 AST


**Investigative Body:** National Transportation Safety Board (NTSB), USA


**Investigative Body's Web Site:** <http://www.nts.gov/>


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1. Accident reports can be and sometimes are revised. Be sure to consult the investigative agency for the latest version before basing anything significant on content (e.g., thesis, research, etc).
  2. Readers are advised that each report is a glimpse of events at specific points in time. While broad themes permeate the causal events leading up to crashes, and we can learn from those, the specific regulatory and technological environments can and do change. ***Your company's flight operations manual is the final authority as to the safe operation of your aircraft!***
  3. Reports may or may not represent reality. Many many non-scientific factors go into an investigation, including the magnitude of the event, the experience of the investigator, the political climate, relationship with the regulatory authority, technological and recovery capabilities, etc. It is recommended that the reader review all reports analytically. Even a "bad" report can be a very useful launching point for learning.
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		NTSB ID: ANC02LA008		Aircraft Registration Number: N3203Y	
		Occurrence Date: 12/28/2001		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Anchorage	State AK	Zip Code 99502	Local Time 0727	Time Zone AST	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 747-128		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On December 28, 2001, about 0727 Alaska standard time, a Boeing 747-128 airplane, N3203Y, sustained substantial damage as a result of a tail strike during takeoff from the Ted Stevens International Airport, Anchorage, Alaska. The flight was being conducted as an instrument (IFR) cross-country cargo flight under Title 14, CFR Part 121, operated by Evergreen International Airlines, Inc., as Flight 203. There were no injuries to the two pilots, or the one flight engineer aboard. Visual meteorological conditions prevailed, and an instrument flight plan had been filed. The flight originated about 0712, from the Ted Stevens International Airport, and was en route to Travis Air Force Base (AFB), California.</p> <p>During a telephone conversation with the National Transportation Safety Board investigator-in-charge on January 31, the operator's chief pilot reported that after the accident airplane arrived in Anchorage, the airplane was refueled with about 100,000 lbs. of fuel in preparation for the final leg of the flight to Travis AFB. He said that prior to departure, the crew failed to account for the weight of the additional fuel, and inadvertently used the same performance cards that were used for the previous landing. He added that the crew was unaware that the tail had struck the runway until after arrival at Travis AFB.</p> <p>The airplane's tail sustained substantial damage as a result of the tail strike. The airplane was flown to Marana, Arizona, for repairs.</p>					
FACTUAL REPORT - AVIATION					
Page 1					

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: ANC02LA008			
		Occurrence Date: 12/28/2001			
		Occurrence Type: Accident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
Ted Stevens Int'l Airport	PANC	152 Ft. MSL	32	10696	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Wet					
Type Instrument Approach: NONE					
VFR Approach/Landing: Unknown					
<b>Aircraft Information</b>					
Aircraft Manufacturer		Model/Series		Serial Number	
Boeing		747-128		19751	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 8	Certified Max Gross Wt.	734000 LBS	Number of Engines: 4	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	Pratt & Whitney	JT9D-7F	46750 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	12/2001	157.8 Hours	87407.8 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated? No	ELT Aided in Locating Accident Site? No			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner		Street Address			
		Rodney Square N.			
Wilmington Trust Co.		City	State	Zip Code	
		Wilmington	DE	19890	
Operator of Aircraft		Street Address			
		3850 Three Mile Lane			
EVERGREEN INTERNATIONAL AIRLINES INC		City	State	Zip Code	
		McMinnville	OR	97128	
Operator Does Business As:			Operator Designator Code: EIAA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Flag Carrier/Domestic; Supplemental					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 121: Air Carrier					
Type of Flight Operation Conducted: Non-scheduled; Domestic; Cargo					
FACTUAL REPORT - AVIATION					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: ANC02LA008
	Occurrence Date: 12/28/2001
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 46
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land; Single-engine Land; Single-engine Sea

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 10/2001
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 09/2001
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	14000	3990								
Pilot In Command(PIC)	11600	2911								
Instructor	777									
Last 90 Days	101	101								
Last 30 Days	43	43								
Last 24 Hours										

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: IFR				
Departure Point	State	Airport Identifier	Departure Time	Time Zone
Same as Accident/Incident Location		ANC	0712	AST
Destination	State	Airport Identifier		
TRAVIS AFB	CA	KSUU		


Type of Clearance: IFR

Type of Airspace: Class C

**Weather Information**

Source of Briefing: Company; Commercial Weather Service; Flight Service Station

Method of Briefing: Aircraft Radio

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<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation Ft. MSL	WOF Distance From Accident Site NM	Direction From Accident Site Deg. Mag.
Sky/Lowest Cloud Condition:				Ft. AGL	Condition of Light: Night
Lowest Ceiling: Obscured			Ft. AGL	Visibility: SM	Altimeter: "Hg
Temperature: -1 °C	Dew Point:	°C	Wind Direction: 360	Density Altitude: Ft.	
Wind Speed: 3	Gusts:	Weather Conditions at Accident Site: Instrument Conditions			
Visibility (RVR): 1400 Ft.	Visibility (RVV)	SM	Intensity of Precipitation: Light		
Restrictions to Visibility: Fog					
Type of Precipitation: Rain					

<b>Accident Information</b>		
Aircraft Damage: Substantial	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer				1	1
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -				3	3
Other Ground					
- GRAND TOTAL -				3	3

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: ANC02LA008

Occurrence Date: 12/28/2001

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Clinton O. Johnson

Additional Persons Participating in This Accident/Incident Investigation:

George R McCament  
Aviation Inspector  
Federal Aviation Administration  
4510 West International Airport Road  
Anchorage, AK 99502