



National Transportation Safety Board Aviation Accident Final Report

Location:	Culebras Island, PR	Accident Number:	ATL01LA086
Date & Time:	06/02/2001, 1400 EST	Registration:	N1278V
Aircraft:	Cessna R172-K	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

A Cessna R172-K was on approach to Flamenco Beach when the pilot reported that he encountered a downdraft approximately 15 feet over the runway. The pilot stated, that the downdraft pushed the airplane down hard onto the runway. A review of the weather data did not reveal any gust or downdrafts in the area at the time of the accident. Examination of the airplane revealed the lower part of the engine firewall was buckled, as well as the area underneath the fuselage behind the firewall.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Pilots improper flare which resulted in a hard landing.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) FLARE - IMPROPER - PILOT IN COMMAND

Factual Information

On June 2, 2001, at 1400 eastern daylight time, a Cessna R172-K, N1278V, registered to and operated by the private pilot, experienced a hard landing at Benjamin Rivera Noriega Airport, Culebras Island, Puerto Rico. The personal flight was operated under the provisions of Title 14 CFR Part 91 and visual flight rules. Visual meteorological conditions prevailed and no flight plan was filed. The airplane sustained substantial damage, and the pilot and passenger reported no injuries. The flight departed Culebras Island, Puerto Rico, at 1340.

According to the pilot, he was on approach to Flamenco Beach when he encountered a downdraft approximately 15 feet over the runway. He stated, " that the downdraft pushed the airplane down hard onto the runway." After the hard landing he inspected the airplane and found no visible damage to the landing gear, wheel pants or fairings. Weather data did not reveal any gust or downdrafts in the area at the time of the accident.

Examination of the airplane revealed that the lower part of the engine firewall was buckled, with buckling of the skin under the fuselage behind the firewall. A review of the FAA form 337 repair, showed that the lower firewall assembly, stringer assembly and the lower engine mount on the left hand side had been replaced. There were no mechanical problems reported by the pilot prior to the accident.

Pilot Information

Certificate:	Private	Age:	43, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	09/10/1999
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	159 hours (Total, all aircraft), 91 hours (Total, this make and model), 94 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N1278V
Model/Series:	R172-K	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	R1722158
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	05/15/2001, Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	68 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3768 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-360-K-1
Registered Owner:	Jose Ramos	Rated Power:	195 hp
Operator:	Jose Ramos	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SJU, 10 ft msl	Distance from Accident Site:	40 Nautical Miles
Observation Time:	1354 EST	Direction from Accident Site:	290°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.97 inches Hg	Temperature/Dew Point:	32° C / 22° C
Precipitation and Obscuration:			
Departure Point:	CULEBRAS ISLAND, PR (CPX)	Type of Flight Plan Filed:	None
Destination:	Culebras Island, PR (CPX)	Type of Clearance:	None
Departure Time:	1350 EDT	Type of Airspace:	Class G

Airport Information

Airport:	Benjamin Rivera Noriega (CPX)	Runway Surface Type:	Unknown
Airport Elevation:	49 ft	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	2600 ft / 60 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	18.313056, -65.304167

Administrative Information

Investigator In Charge (IIC):	BUTCH WILSON	Report Date:	05/21/2002
Additional Participating Persons:	RAFAEL GILESTRA; SAN JUAN FSDO-21; San Juan, PR		
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.nts.gov/pubdms/ .		

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