



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Toksook Bay, AK	<b>Accident Number:</b>	ANC09LA009
<b>Date &amp; Time:</b>	11/01/2008, 1902 AKD	<b>Registration:</b>	N437RA
<b>Aircraft:</b>	CONSTRUCCIONES AERONAUTICAS SA CASA-212	<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 135: Air Taxi & Commuter - Non-scheduled		

## Analysis

According to the captain, as the first officer turned the twin-engine turboprop airplane from base leg to final, she advanced the engine power levers to increase engine power, but the right engine did not respond and the airplane yawed to the right. About 500 feet above the ground, the captain said that he took control and initiated a go-around by adding full engine power. As power was increased, the yaw intensified, and the captain said he was unable to maintain altitude. As he called for the first officer to feather the right engine, the stall warning horn sounded and he had to use both hands to maintain control of the airplane. The airplane continued to descend, struck the tundra-covered terrain, and sustained substantial damage to the fuselage, wings, and empennage. The right engine propeller was not feathered at impact. A postaccident inspection revealed that the linkage connecting the cockpit-mounted engine power lever to the right engine propeller pitch control (PPC) was disconnected, and the bolt connecting the linkage to the PPC was missing. Company management reported that the right engine had been changed 237.2 flight hours before the accident, which required the removal and reinstallation of the PPC linkage. Additionally, the airplane had undergone a scheduled maintenance inspection event following the engine change, 114.3 hours before the accident, requiring a functional test of the torque on the bolt that attaches the linkage. The inspection is part of the operator's approved airworthiness inspection program. Once the PPC linkage disconnected, the flight crew was unable to control the right engine's thrust, making it difficult for them to maintain control of the airplane during the approach. Since the bolt that connects the PPC linkage to the splined shaft was not found, it is unknown if the bolt failed or if maintenance personnel failed to properly tighten/torque the bolt at installation.

## Flight Events

Approach-VFR pattern final - Powerplant sys/comp malf/fail  
Approach-VFR go-around - Loss of control in flight  
Approach-VFR go-around - Collision with terr/obj (non-CFIT)

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight crew's inability to adjust/increase power to the right engine during the landing approach due to an in-flight disconnect of the engine power control linkage, resulting in a loss of control of the airplane. Contributing to the accident was the flight crew's delayed response in feathering the right engine propeller.

## Findings

Aircraft-Aircraft power plant-Engine controls-Power lever-Failure - C  
Aircraft-Aircraft oper/perf/capability-Performance/control parameters-(general)-Attain/maintain

not possible - C

Aircraft-Aircraft propeller/rotor-Propeller system-Propeller feather/reversing-Not specified - F  
Personnel issues-Action/decision-Action-Delayed action-Flight crew - F

## Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	27
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	Airplane Single-engine; Instrument Airplane
<b>Flight Time:</b>	7849 hours (Total, all aircraft), 3455 hours (Total, this make and model), 5891 hours (Pilot In Command, all aircraft), 320 hours (Last 90 days, all aircraft), 46 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

## Co-Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	24
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	970 hours (Total, all aircraft), 667 hours (Total, this make and model), 114 hours (Last 90 days, all aircraft), 37 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	CONSTRUCCIONES AERONAUTICAS SA	<b>Registration:</b>	N437RA
<b>Model/Series:</b>	CASA-212	<b>Engines:</b>	2 Turbo Prop
<b>Operator:</b>	ARCTIC TRANSPORTATION SERVICES INC	<b>Engine Manufacturer:</b>	Honeywell
<b>Air Carrier Operating Certificate:</b>	On-demand Air Taxi (135)	<b>Engine Model/Series:</b>	TPE331
<b>Flight Conducted Under:</b>	Part 135: Air Taxi & Commuter - Non-scheduled		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	OOK, 59 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	Broken / 5500 ft agl
<b>Condition of Light:</b>	Dusk	<b>Wind Speed/Gusts, Direction:</b>	6 knots, 230°
<b>Temperature:</b>	1°C / -1°C	<b>Visibility</b>	6 Miles
<b>Precipitation and Obscuration:</b>	Light - Mist		
<b>Departure Point:</b>	Bethel, AK (BET)	<b>Destination:</b>	Toksook Bay, AK (OOK)

## Airport Information

<b>Airport:</b>	Toksook Bay Airport (OOK)	<b>Runway Surface Type:</b>	Gravel
<b>Runway Used:</b>	16	<b>Runway Surface Condition:</b>	Snow
<b>Runway Length/Width:</b>	3218 ft / 60 ft		

## Wreckage and Impact Information

Crew Injuries:	2 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

## Administrative Information

Investigator In Charge (IIC):	Clinton O Johnson	Adopted Date:	03/03/2010
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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