



Aviation Investigation Final Report

Location:	SAN DIEGO, California	Accident Number:	LAX96LA322
Date & Time:	August 31, 1996, 14:28 Local	Registration:	N5277G
Aircraft:	Cessna 305A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The pilot reported that while towing a banner he experienced a total loss of engine power. At the time, he had operated the airplane for about 3:08 hours since being refueled. The pilot made a forced landing on a hillside's rough terrain. The airplane held about 37.8 gallons of usable fuel, and its burn off rate was approximately 10.5 gallons per hour. No fuel was found in the airplane's tanks during the postaccident examination.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Fuel exhaustion due to the pilot's improper preflight planning, and an inadequate fuel supply.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND
3. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

- 4. TERRAIN CONDITION - MOUNTAINOUS/HILLY
- 5. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On August 31, 1996, at 1428 hours Pacific daylight time, a Cessna 305A, N5277G, experienced a total loss of engine power while towing a banner about 3 miles northwest San Diego, California. The pilot made a forced landing on a hillside's rough terrain. The airplane was substantially damaged, and the airline transport pilot received minor injuries. Visual meteorological conditions prevailed at the time, and no flight plan was filed. The flight originated from San Diego at 1108.

According to the pilot, he had operated the airplane's 225 HP engine for about 3:08 hours since beginning the first of two flights. The first flight lasted about 1 hour. No fuel was added after the first flight. The pilot reported anticipating that the engine would burn approximately 10 or 10.5 gallons per hour, and the fuel tanks held about 37.8 gallons of usable fuel. When the engine first sputtered, the left (main) fuel tank indicator was still indicating that the fuel level was in the takeoff range. The pilot further stated that he switched to the right (auxiliary) tank, the engine instantly regained full power, and then after a few seconds all power was again lost.

Other than the erroneous indication presented by the fuel gauge, the pilot did not report experiencing any malfunction in the airplane. The pilot stated that, in general, the airplane's fuel gauges were neither accurate nor reliable.

The owner of Southern Cal Aircraft, a repair station located in El Cajon, California, verbally reported that during the postaccident examination of the airplane no evidence was found of any rupture to the airplane's fuel tanks, and no fuel was found in them. The fuel tank caps were found secured to the airplane. No fuel was found in the main fuel line to the carburetor. The carburetor's finger screen was removed, and it was found clean.

The airplane's owner verbally reported that his airplane generally burned fuel at a rate of between 10 and 10.5 gallons per hour. The owner stated that in his opinion, no mechanical malfunctions occurred during the accident flight.

The pilot reported that his total flying experience in the accident airplane was about 1,212 hours. His total piloting time was about 19,157 hours. Most of his flight time was accrued flying turbojets.

Pilot Information

Certificate:	Airline transport; Flight engineer	Age:	55, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	March 8, 1996
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	19157 hours (Total, all aircraft), 1212 hours (Total, this make and model), 16290 hours (Pilot In Command, all aircraft), 154 hours (Last 90 days, all aircraft), 56 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N5277G
Model/Series:	305A 305A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	22134
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	May 23, 1996 Annual	Certified Max Gross Wt.:	2100 lbs
Time Since Last Inspection:	163 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6460 Hrs	Engine Manufacturer:	Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-470-A
Registered Owner:	JOE C. HESTER	Rated Power:	225 Horsepower
Operator:	AIR ADS, INC.	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	25 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	34°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, CA (SEE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	11:08 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	32.789886,-116.960983(est)

Administrative Information

Investigator In Charge (IIC):	Pollack, Wayne
Additional Participating Persons:	ROBERT PALMER; SAN DIEGO , CA
Original Publish Date:	September 5, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=29549

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).