



Aviation Investigation Final Report

Location:	Spring, Texas	Accident Number:	FTW03LA179
Date & Time:	June 14, 2003, 11:00 Local	Registration:	N81268
Aircraft:	Grumman AA-5B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

While landing, the airplane encountered wake turbulence from a large helicopter that had previously landed. Prior to the pilot initiating a go-around, the left wing struck the runway. Subsequently, the pilot landed the airplane without further incident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the pilot to maintain aircraft control due to wake turbulence.

Findings

Occurrence #1: VORTEX TURBULENCE ENCOUNTERED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. WAKE TURBULENCE

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

2. (C) AIRCRAFT CONTROL - NOT POSSIBLE

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. TERRAIN CONDITION - GROUND

Factual Information

On June 14, 2003, about 1100 central daylight time, a Grumman AA-5B single-engine airplane, N81268, was substantially damaged when it impacted the runway following a loss of control while landing at David Wayne Hooks Memorial Airport (DWH), near Spring, Texas. The airplane was registered to and operated by the pilot. The flight instructor pilot and his pilot-rated student were not injured. Visual meteorological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 instructional flight. The flight originated from Houston-Southwest Airport (AXH) approximately 1030.

The 3,260-hour flight instructor recalled hearing automatic terminal information service (ATIS), "Yankee," when he contacted DWH tower, about 9 miles south of the airport. When the airplane was approximately 2 miles from the airport, the tower controller cleared the airplane for landing to runway 17R, which is 7,009 feet long and 100 feet wide. After the airplane was down-wind, the tower controller said, "Grumman 81268, cleared to land, number two," at which time the pilot saw a helicopter in front of him. As the helicopter turned base for landing, the pilot recognized the helicopter as a military CH-47 Chinook. After the Chinook landed, the tower controller instructed the helicopter to air taxi to the helipads. On final, about 1 mile out, the pilot reported that the airplane was, "cleared to land, wind from 190 degrees, at 13 knots gusting to 18, caution, wake turbulence." The pilot stated that he told his pilot-rated student that they would be touching down about 1,000 feet south of the helicopter's touchdown point to avoid rotor-wash.

Approximately 20 feet above the runway, the airplane encountered turbulence and the left wing "violently" dipped down; the left main landing gear struck the runway, and the airplane bounced. The pilot reported that he added full power and executed a go-around. A fly-by at tower altitude was made to determine visual damage by the tower controller, before an uneventful landing was performed by the pilot.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	55, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	April 9, 2003
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 2, 2002
Flight Time:	3260 hours (Total, all aircraft), 550 hours (Total, this make and model), 2805 hours (Pilot In Command, all aircraft), 62 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Private	Age:	71, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-no waivers/lim.	Last FAA Medical Exam:	September 18, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	January 2, 2002
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Grumman	Registration:	N81268
Model/Series:	AA-5B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	0480
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	May 10, 2003 Annual	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:	5 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2230 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A4K
Registered Owner:	On file	Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	DWH,152 ft msl	Distance from Accident Site:	
Observation Time:	11:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 6500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.94 inches Hg	Temperature/Dew Point:	29°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Houston, TX (AXH)	Type of Flight Plan Filed:	None
Destination:	Spring, TX (DWH)	Type of Clearance:	VFR
Departure Time:	10:30 Local	Type of Airspace:	Class D

Airport Information

Airport:	David Wayne Hooks Memorial DWH	Runway Surface Type:	Asphalt
Airport Elevation:	152 ft msl	Runway Surface Condition:	Dry
Runway Used:	17R	IFR Approach:	None
Runway Length/Width:	7009 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	30.061666,-95.550003

Administrative Information

Investigator In Charge (IIC):	McGill, C Frank
Additional Participating Persons:	Tom Munkhaugen; FAA Houston FSDO; Houston , TX
Original Publish Date:	September 30, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=57325

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](#).