



Aviation Investigation Final Report

Location:	BERLIN, Wisconsin	Accident Number:	CHI93LA179
Date & Time:	May 21, 1993, 17:50 Local	Registration:	N8458E
Aircraft:	BELL 47	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

APPROACHING AN IRRIGATION PUMP, THE PILOT SHUT OFF THE SPRAY AND INITIATED A CLIMB OVER THE PUMP. THE HELICOPTER CLEARED THE PUMP BUT STRUCK A 2-IN SQUARE STEEL CHANNEL THAT EXTENDED ABOVE THE PUMP. THE PILOT REPORTED THAT HE DID NOT SEE THE CHANNEL.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT-IN-COMMAND'S FAILURE TO SEE THE OBSTRUCTION.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

- 1. (C) CLEARANCE - INADEQUATE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Factual Information

Pilot Information

Certificate:	Commercial	Age:	52, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	October 19, 1992
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	6380 hours (Total, all aircraft), 3575 hours (Total, this make and model), 6235 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N8458E
Model/Series:	47 47	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	2662
Landing Gear Type:	Skid	Seats:	1
Date/Type of Last Inspection:	December 1, 1992 Annual	Certified Max Gross Wt.:	2850 lbs
Time Since Last Inspection:	10 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	11441 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-435
Registered Owner:	ROY W. REABE	Rated Power:	260 Horsepower
Operator:	ROY W. REABE	Operating Certificate(s) Held:	None
Operator Does Business As:	REABE SPRAYING SERVICE, INC.	Operator Designator Code:	GL13

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	OSH ,808 ft msl	Distance from Accident Site:	18 Nautical Miles
Observation Time:	17:46 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:	Scattered / 7500 ft AGL	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	19°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(45C)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	17:45 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	43.970493,-88.949684(est)

Administrative Information

Investigator In Charge (IIC):	Dinwiddie, Carl
Additional Participating Persons:	EFRAIN ARROYO; MILWAUKEE , WI
Original Publish Date:	February 18, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=15722

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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](#).