



Aviation Investigation Final Report

Location:	INDEX, Washington	Accident Number:	SEA91FA143
Date & Time:	June 27, 1991, 14:05 Local	Registration:	N6959R
Aircraft:	SIKORSKY S-64E	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Serious, 2 Minor
Flight Conducted Under:	Part 133: Rotorcraft ext. load		

Analysis

THE ACFT WAS ON AN EXTERNAL LOAD LOGGING OPN AND THE PIC HAD LANDED AT A FIELD SITE TO REFUEL. THE PIC EXITED, WITH THE ACFT RUNNING AT FULL RPM WHILE IT WAS BEING REFUELED, AND THE COPILOT REMAINED IN THE RIGHT SEAT COMPLETING LOAD REPORTS. THE ACFT CONTROLS WERE UNATTENDED. THE CREW CHIEF WAS SEATED IN THE AFT FACING HOIST OPR STATION, WHICH HAD THE COLLECTIVE PITCH STICK INSTALLED BESIDE THE SEAT. HE HAD BECOME AIR SICK DURING THE FLT, AND REMAINED SEATED AFTER THE PIC EXITED. WHEN HE ATTEMPTED TO EXIT, WHICH REQUIRED THAT HE STAND, TURN AROUND AND STEP UP OUT OF THE SEAT WELL, THE ACFT TOOK OFF TO A HOVER AND ROTATED TO THE LEFT. THE TAIL ROTOR STRUCK A ROTOR BLADE BOX ON TOP OF A SUPPORT TRAILER PARKED BY THE REFUELING SITE, FRACTURING THE AFT TAIL BOOM, PYLON AND TAIL ROTOR FROM THE ACFT. THE ACFT PITCHED NOSE DOWN, ROLLED OVER AND IMPACTED THE GROUND.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE CONTROL INTERFERENCE BY THE MECHANIC WHEN HE INADVERTENTLY RAISED THE COLLECTIVE PITCH AND THE COPILOT'S FAILURE TO ATTEND THE FLIGHT CONTROLS. FACTORS RELATING TO THE ACCIDENT WERE THE MOTION SICKNESS OF THE MECHANIC, INADEQUATE COLLECTIVE PITCH CONTROL LOCKING MECHANISM UTILIZED BY THE COMPANY, AND ADMINISTRATIVE TASKS THAT DIVERTED THE CO-PILOT'S ATTENTION FROM ATTENDING THE FLIGHT CONTROLS.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: STANDING - ENGINE(S) OPERATING

Findings

1. (C) CONTROL INTERFERENCE - INADVERTENT - OTHER CREWMEMBER
2. (F) INCAPACITATION(MOTION SICKNESS) - OTHER CREWMEMBER
3. (C) COLLECTIVE - INADVERTENT ACTIVATION - OTHER CREWMEMBER
4. (F) ACFT/EQUIP,INADEQUATE AIRCRAFT COMPONENT - COMPANY/OPERATOR MANAGEMENT
5. (C) AIRCRAFT UNATTENDED/ENGINE(S) RUNNING - IMPROPER - COPILOT/SECOND PILOT
6. (F) DIVERTED ATTENTION - COPILOT/SECOND PILOT
7. (C) LIFT-OFF - UNCONTROLLED - COPILOT/SECOND PILOT

Factual Information

Pilot Information

Certificate:	Commercial	Age:	40, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	August 30, 1990
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	17000 hours (Total, all aircraft), 9000 hours (Total, this make and model), 15000 hours (Pilot In Command, all aircraft), 110 hours (Last 90 days, all aircraft), 48 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SIKORSKY	Registration:	N6959R
Model/Series:	S-64E S-64E	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	64002
Landing Gear Type:	Tricycle	Seats:	3
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	42000 lbs
Time Since Last Inspection:	0 Hrs	Engines:	2 Turbo shaft
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	JFTD12A4A
Registered Owner:	ERICKSON AIR CRANE CO.	Rated Power:	4500 Horsepower
Operator:	ERICKSON AIR CRANE CO.	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	JYDL

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PAE ,606 ft msl	Distance from Accident Site:	38 Nautical Miles
Observation Time:	13:52 Local	Direction from Accident Site:	250°
Lowest Cloud Condition:	Scattered / 2500 ft AGL	Visibility	35 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	21°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	INDEX , WA (NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	13:15 Local	Type of Airspace:	

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	2 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	1 Serious, 2 Minor	Aircraft Explosion:	On-ground
Total Injuries:	3 Serious, 2 Minor	Latitude, Longitude:	47.840507,-121.429901(est)

Administrative Information

Investigator In Charge (IIC):	Mangum, Prentiss
Additional Participating Persons:	RON KARR; RENTON , WA GUY E MARTIN; CENTRAL POINT , OR CHRIS ERICKSON; CENTRAL POINT , OR RICHARD E FOY; CENTRAL POINT , OR
Original Publish Date:	January 25, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=41323

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](#).