Aviation Investigation Final Report

Location:	TILLAMOOK, Oregon	**Accident Number:**	SEA97LA011
Date & Time:	October 11, 1996, 16:17 Local	**Registration:**	N7150A
Aircraft:	Aero Vodochody Aero. Works L-29	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation		

Analysis

The Checkoslovakian manufactured Aero Vodochody L-29 jet trainer collided with terrain following a loss of control while maneuvering at low altitude. Before the accident, the aircraft was maneuvering into position to photograph an F4F Wildcat aircraft. Witnesses reported that the aircraft took off and maneuvered to overtake the Wildcat. They stated that as the L-29 crossed behind the F4F's flight path, it rolled to the right, approximately 1-1/4 turns. Reportedly, the L-29's nose pitched up during the occurrence, then dropped to an extremely nose-low position. The aircraft subsequently impacted the ground in a near level attitude with a steep flight path angle. The witnesses reported that the sequence took place at an estimated airspeed between 120 and 150 knots and about 500 feet above ground level. The witnesses also reported that the two aircraft did not collide. A guide to world military aircraft gives the airplane's flaps-down stall speed as 81 MPH (70 knots) at 7165 pounds gross weight. One witness stated the pilot had performed a 'barrel' roll type of maneuver; the witness believed this was an intentional maneuver to slow down, as he was overtaking the F4f. The investigation did not determine whether the aircraft had encountered wake turbulence, or whether it had stalled and/or dished out during the maneuver.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the pilot to maintain control of the aircraft, while maneuvering behind an F4F aircraft. The lack of altitude for a recovery was a related factor.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
2. (F) ALTITUDE/CLEARANCE - INADEQUATE - PILOT IN COMMAND

Factual Information

On October 11, 1996, approximately 1617 Pacific daylight time, an Aero Vodochody L-29 Delfin, N7150A, registered to the Erickson Group Ltd. of Beaverton, Oregon, collided with terrain following a loss of control while maneuvering at low altitude in the vicinity of Tillamook Airport, Tillamook, Oregon. The commercial pilot and a passenger were fatally injured, and the experimental-category airplane, a Czechoslovakian-manufactured two-seat military jet trainer retrofitted with a Pratt & Whitney J60-5 engine, was destroyed. The 14 CFR 91 flight was planned as a local flight out of Tillamook. Visual meteorological conditions prevailed and no flight plan had been filed.

A representative of the operator stated that the passenger was a photojournalist for an aviation publication and that the flight was being conducted as a photographic mission for the passenger. At the time of the accident, the aircraft was maneuvering into position to photograph an F4F Wildcat aircraft. Witnesses reported that the aircraft took off and maneuvered to overtake the Wildcat. They stated that as the L-29 crossed behind the F4F's flight path, it initiated a roll to the right, rolling approximately 1 1/4 turns, and that the L-29's nose then pitched up, then dropped to an extremely nose-low position, and that the aircraft subsequently impacted the ground in a near level attitude with a steep flight path angle. The witnesses reported that the sequence took place at an estimated airspeed between 120 and 150 knots and about 500 feet above ground level. The witnesses also reported that the two aircraft did not collide. A guide to world military trainers published in the magazine of the Air Force Association (John W.R. Taylor & Kenneth Munson, "World Gallery of Trainers", Air Force Magazine, December 1995) gives the L-29's flaps-down stall speed as 81 MPH (70 knots) at 7,165 pounds gross weight.

FAA investigators conducted an on-site examination of the aircraft wreckage on the day after the crash. They reported that they did not find any evidence of malfunction in either the airframe or the engine.

The operator, Erickson Group Ltd., failed to return a completed NTSB Form 6120.1/2, Pilot/Operator Aircraft Accident Report.

Pilot Information

Certificate:	Commercial	**Age:**	45,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):	Airplane single-engine; Instrument airplane	**Toxicology Performed:**	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	March 1, 1996
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	10840 hours (Total, all aircraft), 8195 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aero Vodochody Aero. Works	**Registration:**	N7150A
Model/Series:	L-29 L-29	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	591318
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	April 10, 1996 Annual	**Certified Max Gross Wt.:**	7165 lbs
Time Since Last Inspection:		**Engines:**	1 Turbo jet
Airframe Total Time:		**Engine Manufacturer:**	P&W
ELT:		**Engine Model/Series:**	J60-5A
Registered Owner:	ERICKSON GROUP LTD.	**Rated Power:**	3200 Lbs thrust
Operator:		**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:	AST ,11 ft msl	**Distance from Accident Site:**	44 Nautical Miles
Observation Time:	15:56 Local	**Direction from Accident Site:**	339°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	230°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	15°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(S47)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	16:00 Local	**Type of Airspace:**	Class G

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:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	45.459579,-123.710609(est)

Administrative Information

Investigator In Charge (IIC):	Nesemeier, Gregg
Additional Participating Persons:	TOM WEISGERBER; HILLSBORO , OR
Original Publish Date:	August 21, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=42526