
 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: FTW01FA063		Aircraft Registration Number: N901NL	
		Occurrence Date: 02/10/2001		Most Critical Injury: Fatal	
		Occurrence Type: Accident		Investigated By: NTSB	
<b>Location/Time</b>					
Nearest City/Place Pecan Island		State LA	Zip Code 70548	Local Time 1200	Time Zone CST
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
<b>Aircraft Information Summary</b>					
Aircraft Manufacturer Aero Vodochody		Model/Series L-39C		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
<b>Narrative</b>					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p><b>HISTORY OF FLIGHT</b></p> <p>On February 10, 2001, approximately 1200 central standard time, an Aero Vodochody L-39C experimental single engine jet airplane, N901NL, registered to and operated by Northern Lights Aerobatics USA Inc., of Lafayette, Louisiana, was destroyed upon impact with terrain while maneuvering in the vicinity of Pecan Island, Louisiana. The private pilot and his passenger sustained fatal injuries. Visual meteorological conditions prevailed and a visual flight rules (VFR) flight plan was filed for the 14 Code of Federal Regulations (CFR) Part 91 personal flight. The flight originated from the Lafayette Regional Airport, Lafayette, Louisiana, at 1137.</p> <p>Several witnesses, located within 1/4 miles of the accident site, observed the tandem-seat jet aircraft maneuvering at low altitude over the pilot's hunting camp for several minutes prior to the accident. They stated that the jet was flying "inverted" prior to ground impact. A few of the witnesses remarked that they observed what they thought to be the pilot attempting to roll upright as the airplane impacted the ground at a high rate of speed.</p> <p><b>PERSONNEL INFORMATION</b></p> <p>The 40-year old pilot held a private pilot certificate with single-engine land and rotorcraft-helicopter ratings. A review of the pilot's logbook revealed that he had accumulated 2,058 hours, of which 316 were in the L-39C. All of the 316 hours in the L-39C were logged from March 1999 to the date of the accident. Documents were found that indicated that the pilot had been enrolled in a pilot training course for the L-39C during March 1999, conducted at International Jets Inc., Gadsden, Alabama. On March 30, 1999, he received a letter of authorization (LOA) from the FAA which authorized him to act as pilot-in-command in the L-39C. On November 14, 2000, the pilot received his Aerobatic Competency Evaluation (ACE) in the L-39C, with an 800 foot AGL altitude restriction. No "high performance" or "high altitude" endorsements were found in the pilot's records, as required by 14 CFR Parts 61.31(f) and 61.31(g) for the operation of high performance aircraft. The pilot held a valid second-class medical certificate, dated March 4, 1999, with no waivers or limitations. The pilot was reported to be a financial contributor to the Northern Lights Aerobatics Team.</p> <p><b>AIRCRAFT INFORMATION</b></p> <p>The 1980 model L-39C, serial number 031804, was manufactured in Czechoslovakia and was imported to the United States in 1999. It was powered by an Ivchenko AI-25TL turbo fan engine. The airplane had accumulated a total of 1,000 airframe hours at the time of the accident. Its airworthiness certificate was issued on March 10, 1999, at a total time of 899 hours. Its last inspection was completed on September 28, 2000, at a total time of 930 hours. The airplane was equipped with a functional ejection seat system. The airplane was primarily utilized by the Northern Lights</p>					
<b>FACTUAL REPORT - AVIATION</b>					

 <p>National Transportation Safety Board <b>FACTUAL REPORT</b> AVIATION</p>	NTSB ID: FTW01FA063
	Occurrence Date: 02/10/2001
	Occurrence Type: Accident

## Narrative (Continued)

Aerobatics Team.

## WRECKAGE AND IMPACT INFORMATION

The accident site was located in an open marshy field at grid coordinates, North 29 degrees 39 minutes and West 92 degrees and 26 minutes. The field was bordered by medium sized trees and was covered by about 12 inches of water. Upon arrival on-scene, the NTSB investigator-in-charge coordinated with the local sheriff and fish and wildlife representatives to drain the field for access to the main wreckage. The main wreckage was found embedded in a large crater approximately 20 feet in diameter and 15 feet deep. Some of the fuselage could be seen within the crater, however, it was apparent that most of the wreckage was buried. The engine and a portion of the tail section were found atop the forward edge of the crater and displayed severe impact damage. Some evidence of post impact fire was found adjacent to the engine and the forward part of the crater. Continuous draining revealed a linear ground impression about 26 feet long and 12 inches deep that connected to the crater and corresponded to the longitudinal axis of the airplane. The bearing of the ground impressions and wreckage was about 010 degrees magnetic.

Since the airplane was severely fragmented and mostly embedded in the soft terrain, a recent photograph of N901NL was used to match paint chip patterns found in the linear ground impression and crater. The tail position light and blue paint chips were found embedded in the southern tip of the linear impression. Progressing toward the crater, mixes of blue/yellow and blue/yellow/red paint chips were found embedded in the impression. The pattern of the paint chips in the impression correlated to the paint scheme on the top side of the airplane.

Flight control continuity could not be established due to the extent of damage, however, all sections of the airplane and flight control surfaces were found and identified with no unusual anomalies other than impact damage.

## MEDICAL AND PATHOLOGICAL INFORMATION

Toxicology tests and an autopsy were not performed due to the condition of the pilot's body.

## TESTS AND RESERCH


The Powerplants Group accompanied by the NTSB IIC, partially disassembled and examined the engine at Air Salvage of Dallas, Lancaster, Texas, on February 26, 2001. No pre-impact anomalies were discovered during the examination. Detailed findings of the examination can be found in the Powerplants Group Chairmans Factual Report.


## ADDITIONAL INFORMATION

According to radar records and a statement provided by an FAA inspector, the pilot had flown "vigorous" aerobatic flight sequences in an Extra 300L type aircraft several hours prior to his accident flight in the L-39. The pilot's logbooks indicated that he had not flown aerobatic maneuvers in the Extra 300L during the eight months prior to the date of the accident. The two types of aircraft flown on the day of the accident had dissimilar flight envelopes, configurations, sight pictures, and relative speeds.

The FAA inspector, who also had given the pilot aerobatic instruction in the past, stated that the pilot could have been impaired during the accident flight due to "acute fatigue" from his aerobatic flights earlier in the morning.

The wreckage was released to the owner's representative on June 22, 2001.

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: FTW01FA063			
		Occurrence Date: 02/10/2001			
		Occurrence Type: Accident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type:					
Runway Surface Condition:					
Type Instrument Approach: NONE					
VFR Approach/Landing: None					
<b>Aircraft Information</b>					
Aircraft Manufacturer Aero Vodochody		Model/Series L-39C		Serial Number 031804	
Airworthiness Certificate(s): Experimental (Special)					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 2	Certified Max Gross Wt.	11848 LBS	Number of Engines: 1	
Engine Type: Turbo Fan	Engine Manufacturer: Ivchenko	Model/Series: AI-25TL	Rated Power: 3792 LBS		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 09/29/2000	Time Since Last Inspection 90 Hours	Airframe Total Time 899 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site? No			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner Northern Lights Aerobatics USA Inc.		Street Address 301 Sheppard Drive			
		City Lafayette	State LA	Zip Code 70508	
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As:			Operator Designator Code:		
- Type of U.S. Certificate(s) Held: None					
Air Carrier Operating Certificate(s):					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Personal					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: FTW01FA063
	Occurrence Date: 02/10/2001
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 40
-----------------	-----------------	------------------	--------------------------	-----------

Sex: M	Seat Occupied: Front	Principal Profession: Business	Certificate Number: On File
--------	----------------------	--------------------------------	-----------------------------

Certificate(s): Private

Airplane Rating(s): Single-engine Land

Rotorcraft/Glider/LTA: Helicopter

Instrument Rating(s): None

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 09/02/1999
---	--

Medical Cert.: Class 2	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 03/04/1999
------------------------	--	---------------------------------------

- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	2038	316								
Pilot In Command(PIC)										
Instructor										
Last 90 Days	90	39								
Last 30 Days		12								
Last 24 Hours		1								

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? No
--------------------	----------------------------	--------------------------	------------------

**Flight Plan/Itinerary**

Type of Flight Plan Filed: None

Departure Point Lafayette	State LA	Airport Identifier LFT	Departure Time 1137	Time Zone CST
------------------------------	-------------	---------------------------	------------------------	------------------

Destination Local Flight	State	Airport Identifier LFT	
-----------------------------	-------	---------------------------	--


Type of Clearance: None

Type of Airspace: Class E

**Weather Information**

Source of Briefing: No record of briefing

Method of Briefing: Unknown

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: FTW01FA063
	Occurrence Date: 02/10/2001
	Occurrence Type: Accident

**Weather Information**

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
LFT	1153	CST	125 Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Clear				Ft. AGL	Condition of Light: Day
Lowest Ceiling: None			Ft. AGL	Visibility: 10 SM	Altimeter: 30.32 "Hg
Temperature: 6 °C	Dew Point: 2 °C	Wind Direction: 20		Density Altitude: Ft.	
Wind Speed: 15	Gusts: 19	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV) SM	Intensity of Precipitation:			
Restrictions to Visibility: None					
Type of Precipitation: None					

**Accident Information**

Aircraft Damage:	Aircraft Fire:	Aircraft Explosion
------------------	----------------	--------------------

**Classification:**

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot	1				1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers	1				1
- TOTAL ABOARD -	2				2
Other Ground					
- GRAND TOTAL -	2				2

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: FTW01FA063

Occurrence Date: 02/10/2001

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Alexander Lemishko

Additional Persons Participating in This Accident/Incident Investigation:

Kelly Teague  
Air Safety Inspector  
FAA  
Baton Rouge, LA 70811