 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: LAX98LA298		Aircraft Registration Number: N44529	
		Occurrence Date: 09/18/1998		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place MESA		State AZ	Zip Code 85201	Local Time 1800	Time Zone MST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport: 120	
Aircraft Information Summary					
Aircraft Manufacturer Aero Vodochody Aero. Works		Model/Series L-39		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>On September 18, 1998, about 1800 hours mountain standard time, an experimental Aero Vodochody L-39 (single engine imported jet trainer), N44529, landed short of the runway and struck a localizer antenna at the Williams Gateway Airport, Mesa, Arizona. The aircraft sustained substantial damage and there was damage to the antenna. Neither pilot was injured. The aircraft was being operated under the provisions of 14 CFR Part 91 by Advanced Training Systems International, Inc., Higley, Arizona, in preparation for work on a U.S. government contract. The local flight had begun about 1700 and was terminating at the time of the accident. Visual meteorological conditions prevailed and no flight plan was filed.</p> <p>The first pilot was a commercial airplane rated pilot and the second pilot was an airline transport rated pilot. The first pilot reported that he had 20 hours in the L-39 and was flying as pilot-in-command (PIC) and safety pilot in the rear seat of the aircraft. He held a Letter of Operational Authority (LOA) issued by the Federal Aviation Administration (FAA), which authorized him to act as PIC in the L-39. The second pilot was in the front seat, flying his first flight in the L-39.</p> <p>The PIC reported that after practicing standard maneuvers, they returned to the airport to conduct pattern work. After the first touch-and-go landing, they climbed to 3,000 feet to prepare for a simulated flame out (SFO) approach to runway 30C. He reported that the second pilot configured the aircraft with the landing gear down, full flaps at 44 degrees, speed brakes out, and power set at 70 percent. He stated that about 300 feet agl, the second pilot realized he was a little slow so he decided to go around. The second pilot moved the throttle full forward and retracted the speed brakes. The PIC stated that "the engine did not seem to respond properly and we were not arresting our sink rate." He further stated that the engine "didn't quit, but didn't seem to produce any additional thrust." About "10 to 12 seconds" later the aircraft landed hard 700 feet short of the runway in the asphalt over-run area. After touchdown, the aircraft veered about 15 degrees to the right and off the runway. The second pilot got the airplane airborne again, but only for a few hundred yards. The PIC stated that they touched down again in the dirt and at that point he took the controls. He reported that he intended to return to the runway, but the aircraft struck the localizer antenna with the right wing tip, which he had not been able to see from the back seat. The PIC reported that he attempted to maintain a level attitude and stop the aircraft. About 150 yards before the airplane came to a stop, the second pilot ejected from the aircraft without warning. The aircraft came to a rest in an upright attitude in the desert brush. The PIC stated that he hadn't experienced any problems with the engine prior to the accident.</p> <p>The pilot's operating handbook for the accident aircraft was reviewed and relevant portions are appended to this file. The handbook indicated that the pilot should decide whether to continue the landing or eject while at a decision height of 800 feet agl. The handbook further indicated that the spool-up time for the aircraft engine was 9 to 12 seconds. In two interviews with the Safety Board, the PIC stated that he expected the engine to spool up in "4 to 5 seconds."</p>					
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FACTUAL REPORT

AVIATION

SAFETY BOARD

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Narrative (Continued)

The aircraft owner reported that he saw the accident aircraft immediately following the accident and noted the flaps to be in the takeoff position of 25 degrees. He further stated that the PIC reported that during the descent, it felt as if "the bottom fell out." Post-crash examination of the aircraft by the Safety Board revealed that the flaps were at 25 degrees down. In an interview with the Safety Board investigator, the pilot reported that he thought the flaps were still full down at the time of impact.

Following the accident, an L-39 flight instructor simulated the circumstances of the accident. He climbed to about 5,000 feet, added full power from an idle position, and brought the flaps up from the full down position to the takeoff position. He reported that the aircraft immediately sank about 600 feet. The flight instructor reported that it has always been his experience that raising the flaps before establishing a positive rate of climb will cause the aircraft to sink between 500 to 700 feet per minute.

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		Occurrence Date: 09/18/1998			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
WILLIAMS GATEWAY	IWA	1380 Ft. MSL	30C	10201	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach:					
VFR Approach/Landing: Simulated Forced Landing					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Aero Vodochody Aero. Works		L-39		432938	
Airworthiness Certificate(s): Experimental (Special)					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 2	Certified Max Gross Wt.	11220 LBS	Number of Engines: 1	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	Ivchenko	AI-25TL	3784 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
AAIP	08/1998	12 Hours	1222 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
		2367 CHASING STAR AVENUE			
AIR USA INC.		City	State	Zip Code	
		LAS VEGAS	NV	89123	
Operator of Aircraft		Street Address			
		P.O. BOX 1900			
ADVANCED TRAINING SYSTEMS INT		City	State	Zip Code	
		HIGLEY	AZ	85236	
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: Instructional					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: LAX98LA298
	Occurrence Date: 09/18/1998
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 55
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Sex: M	Seat Occupied: Rear	Principal Profession: Unknown	Certificate Number: On File
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Certificate(s): Flight Instructor; Commercial

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 2	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 01/1998
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- 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	7400	20	3800	3600	2100	1850	340	65	10	3
Pilot In Command(PIC)	7100	14	3600	3500	2100	1850		25	2	
Instructor	1500		700	800	400	350				
Last 90 Days	32	14	32		2	3				
Last 30 Days	19	13	19							
Last 24 Hours	3	3	3							

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: None

Departure Point Same as Accident/Incident Location	State	Airport Identifier IWA	Departure Time 1700	Time Zone MST
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Destination Local Flight	State	Airport Identifier	
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Type of Clearance:

Type of Airspace: Class D

Weather Information

Source of Briefing:

Method of Briefing:

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: LAX98LA298
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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
IWA	1745	MST	1380 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			2000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Unknown			0 Ft. AGL	Visibility: 30 SM	Altimeter: 29.00 "Hg
Temperature: 39 °C	Dew Point: 10 °C	Wind Direction: 290		Density Altitude: Ft.	
Wind Speed: 4	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: Substantial	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -				2	2
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	2	2

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: LAX98LA298

Occurrence Date: 09/18/1998

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

JEFF RICH

Additional Persons Participating in This Accident/Incident Investigation:

EDDIE OCHOA
WP-SDL-FSDO
SCOTTSDALE, AZ 85260