

National Transportation Safety Board  
Washington, DC 20594

Brief of Accident

Adopted 03/31/2000

LAX98LA298  
File No. 1734                      09/18/1998                      MESA, AZ                      Aircraft Reg No. N44529                      Time (Local): 18:00 MST

Make/Model:	Aero Vodochody Aero. Works / L-39	Fatal	0	Serious	0	Minor/None	2
Engine Make/Model:	Ivchenko / AI-25TL	Crew	0				
Aircraft Damage:	Substantial	Pass	0				0
Number of Engines:	1						
Operating Certificate(s):	None						
Type of Flight Operation:	Instructional						
Reg. Flight Conducted Under:	Part 91: General Aviation						

Last Depart. Point:	Same as Accident/Incident Location	Condition of Light:	Day
Destination:	Local Flight	Weather Info Src:	Weather Observation Facility
Airport Proximity:	On Airport	Basic Weather:	Visual Conditions
Airport Name:	WILLIAMS GATEWAY	Lowest Ceiling:	0 Ft. AGL, Unknown
Runway Identification:	30C	Visibility:	30.00 SM
Runway Length/Width (Ft):	10201 / 150	Wind Dir/Speed:	290 / 004 Kts
Runway Surface:	Asphalt	Temperature (°C):	39
Runway Surface Condition:	Dry	Precip/Obscuration:	None / None

Pilot-in-Command	Age: 55	Flight Time (Hours)
Certificate(s)/Rating(s)		Total All Aircraft: 7400
Flight Instructor; Commercial; Multi-engine Land; Single-engine Land		Last 90 Days: 32
Instrument Ratings		Total Make/Model: 20
Airplane		Total Instrument Time: 2190

While attempting a simulated flame out (SFO) approach, the pilots initiated a go-around at 300 feet agl. They applied full throttle but the engine did not spool up right away and they were not able to arrest their sink rate. About 10 to 12 seconds later the aircraft landed hard 700 feet short of the runway then veered off to the right. The second pilot got the airplane airborne again then touched down in the dirt. At that point the PIC took the controls and attempted 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. About 150 yards before the airplane came to a stop, the second pilot ejected from the aircraft without warning. The aircraft came to rest upright in the desert brush. The aircraft pilot's operating handbook directs the pilot to decide whether the landing or eject at a decision height of 800 feet agl. The handbook also indicates that the spool-up time for the aircraft engine is 9 to 12 seconds. The PIC stated that he had expected the engine to spool up in '4 to 5 seconds.' Postaccident examination revealed that the flaps were at the takeoff position, 25 degrees down. The PIC reported that he thought the flaps were still full down at the time of impact. He had also reported that during the descent, it felt like 'the bottom fell out.' Bringing the flaps up before establishing a positive rate of climb can cause a sink rate of 500 to 700 feet per minute. The PIC further stated that he hadn't experienced any problems with the engine prior to the accident.

Brief of Accident (Continued)

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Occurrence #1:     HARD LANDING  
Phase of Operation: DESCENT - UNCONTROLLED

Findings

1. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
  2. EMERGENCY PROCEDURE - SIMULATED - PILOT IN COMMAND
  3. GO-AROUND - ATTEMPTED - PILOT IN COMMAND
  4. CLIMB - NOT ATTAINED - PILOT IN COMMAND
  5. (C) FLARE - IMPROPER - PILOT IN COMMAND
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Occurrence #2:     ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: LANDING - ROLL

Findings

6. OBJECT - ANTENNA
  7. BAIL-OUT/EMERGENCY EJECTION - PERFORMED - COPILOT/SECOND PILOT
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Occurrence #3:     ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: LANDING - ROLL

Findings

8. TERRAIN CONDITION - HIGH VEGETATION

Findings Legend: (C) = Cause, (F) = Factor

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The National Transportation Safety Board determines the probable cause(s) of this accident as follows.  
The pilot's improper flare and his failure to follow the proper procedures for the aircraft and to maintain control of the aircraft.