



# Aviation Investigation Final Report

<b>Location:</b>	Tucson, Arizona	<b>Accident Number:</b>	LAX05LA115
<b>Date &amp; Time:</b>	March 14, 2005, 13:35 Local	<b>Registration:</b>	N226PS
<b>Aircraft:</b>	Sukhoi SU-26	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The airplane nosed over during a forced landing in a field following a loss of engine power. The airplane was equipped with one fuel tank, which held approximately 15.8 gallons of fuel, or about 30 minutes duration. While the pilot was performing aerobatic maneuvers, the engine lost power and he force landed the airplane in a field. Emergency response personnel did not see or smell fuel at the accident scene. Approximately 1 quart of fuel was drained from the fuel tank. The engine was successfully test-run with no operational anomalies noted.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadequate in-flight planning and fuel consumption calculations, which resulted in fuel exhaustion.

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: MANEUVERING

#### Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
3. (C) FUEL CONSUMPTION CALCULATIONS - INADEQUATE - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING  
Phase of Operation: EMERGENCY DESCENT/LANDING  
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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: LANDING - ROLL

Findings

4. TERRAIN CONDITION - GROUND  
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Occurrence #4: NOSE OVER  
Phase of Operation: LANDING - ROLL

## Factual Information

On March 14, 2005, about 1335 mountain standard time, a Sukhoi SU-26 experimental aerobatic airplane, N226PS, nosed over during a forced landing following a loss of engine power near Marana Regional Airport, Tucson, Arizona. The private pilot, who was also the registered owner of the airplane, was operating it under the provisions of 14 CFR Part 91. The pilot was the sole occupant and was not injured. The airplane sustained substantial damage. Visual meteorological conditions prevailed for the flight, and no flight plan had been filed. The pilot reported departing the Marana Regional Airport about 1315 for the local, personal, aerobatic flight.

According to the pilot, he was performing aerobatic maneuvers when the loss of engine power occurred. The engine did not sputter or make any unusual noises. He turned towards the airport, but ended up landing the airplane short of the runway in a field; the airplane came to rest inverted. The pilot departed with a full fuel quantity of 15.8 gallons.

Emergency responders stated that there was no fuel spill at the accident site and that the odor of fuel was not present. Recovery personnel drained about 1 quart of fuel from the fuel tank.

According to the airport manager, the airplane was topped off with 10.1 gallons of fuel at 1012, the morning of the accident. Airport personnel did not witness the airplane depart.

The engine was test-run on April 8 in the presence of the Federal Aviation Administration accident coordinator. The installed propeller sustained damage during the accident sequence so a new propeller was installed. Using the airplane's fuel system, the engine was run to 1,200 rpm successfully. No operational anomalies were noted that would have precluded the engine from operating normally.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	64, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 1, 2004
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	September 1, 2003
<b>Flight Time:</b>	3000 hours (Total, all aircraft), 100 hours (Total, this make and model), 3000 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Sukhoi	<b>Registration:</b>	N226PS
<b>Model/Series:</b>	SU-26	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	06-10
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	June 7, 2004 Annual	<b>Certified Max Gross Wt.:</b>	1900 lbs
<b>Time Since Last Inspection:</b>	56 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	443.3 Hrs	<b>Engine Manufacturer:</b>	Vedeneyez
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	M-14
<b>Registered Owner:</b>	Shelby Futch	<b>Rated Power:</b>	360 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KTUS,2643 ft msl	<b>Distance from Accident Site:</b>	23 Nautical Miles
<b>Observation Time:</b>	12:55 Local	<b>Direction from Accident Site:</b>	140°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	18 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	260°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.77 inches Hg	<b>Temperature/Dew Point:</b>	24°C / -3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Tucson, AZ (AVQ )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	13:00 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	32.409442,-111.21833

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Dunks, Kristi
<b>Additional Participating Persons:</b>	Richard Rowland; Federal Aviation Administration; Scottsdale, AZ
<b>Original Publish Date:</b>	January 31, 2006
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=61154">https://data.ntsb.gov/Docket?ProjectID=61154</a>

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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](#).