Aviation Investigation Final Report

Location:	Tucson, Arizona	**Accident Number:**	LAX05LA115
Date & Time:	March 14, 2005, 13:35 Local	**Registration:**	N226PS
Aircraft:	Sukhoi SU-26	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	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

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

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

Findings
4. TERRAIN CONDITION - GROUND

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

Certificate:	Private	**Age:**	64,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Center
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	June 1, 2004
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	September 1, 2003
Flight Time:	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

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

Meteorological Information and Flight Plan

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

Wreckage and Impact Information

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

Administrative Information

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