



Aviation Investigation Final Report

Location:	FOUNTAIN, Colorado	Accident Number:	DEN93LA058
Date & Time:	May 14, 1993, 12:45 Local	Registration:	N29RP
Aircraft:	SUKHOI SU-29	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT ROLLED THE AIRPLANE INVERTED, THEN UPRIGHT. THE AIRPLANE PITCHED DOWN AND THE PILOT PULLED THE POWER BACK, HALF ROLLED THE AIRPLANE, AND PUSHED THE CONTROL STICK FORWARD. WHEN THIS FAILED, THE PILOT HALF ROLLED THE AIRPLANE AGAIN AND PULLED THE TRIM TAB IN AN ATTEMPT TO CONTROL THE AIRPLANE'S RATE OF DESCENT. WHEN THIS HAD NO EFFECT, THE PILOT JETTISONED THE CANOPY AND HE AND THE SAFETY PILOT BAILED OUT. A SIMILAR INCIDENT HAD OCCURRED SEVERAL DAYS BEFORE THE ACCIDENT. THE INSTRUCTOR WHO HAD GIVEN THE PILOT INSTRUCTION IN THE AIRPLANE SURMISED THAT UNBEKNOWNST TO THE TWO PILOTS, THEY HAD PROBABLY OPERATED THE CONTROLS AGAINST EACH OTHER'S INPUT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF BOTH THE PILOT IN COMMAND AND THE SAFETY PILOT TO RELINQUISH CONTROL OF THE AIRPLANE. A FACTOR WAS THE PILOT IN COMMAND'S FAILURE TO COMMUNICATE WITH THE SAFETY PILOT.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

1. (C) RELINQUISHING OF CONTROL - NOT PERFORMED - PILOT IN COMMAND
2. (C) RELINQUISHING OF CONTROL - NOT PERFORMED - COPILOT/SECOND PILOT
3. (F) COMMUNICATIONS - NOT ISSUED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On May 14, 1993 at approximately 1245 mountain daylight time, N29RP, a Sukhoi SU-29, impacted terrain while performing aerobatic maneuvers 10 miles east of Fountain, Colorado. Both pilots parachuted to safety. The pilot in command received serious injuries and the safety pilot received minor injuries. The airplane was destroyed. Visual meteorological conditions prevailed for the personal flight, and no flight plan was filed.

According to the pilot in command, they had been performing aerobatic maneuvers, including aileron rolls, slow rolls, Cuban 8's, and Immelmans. The pilot then rolled the airplane inverted.

After maintaining that attitude for about 10 or 15 seconds, he rolled the airplane upright. In his accident report, the pilot wrote, "At (that) point, the aircraft pitched straight down. I pulled the power back and half rolled to see if I could push the stick to initiate a climb. This failed so I half rolled again and pulled the trim tab in (an) attempt to control the aircraft's rate of descent. This had no effect." The pilot then jettisoned the canopy and both pilots bailed out. The safety pilot was unable to recall any details of the accident.

A Russian-built flight data recorder was recovered from the wreckage and sent to NTSB's Engineering Services Division for readout and analysis. After consulting with Soviet technicians, it was determined that the only data on the recorder was from previous flights and not from the accident flight.

The Federal Aviation Administration received a letter and report from the vice president of Pompano Air Center, worldwide distributor of Sukhoi sport aircraft, located in Pompano Beach, Florida. According to the report, Pompano Air Center's chief flight instructor had given the pilot approximately 20 hours of dual instruction in the airplane. The report also stated that these two pilots had experienced a similar situation in the airplane several days before the accident, but had managed to land safely. Post-incident inspection disclosed no evidence of flight control failure or malfunction. It was the company's opinion that unbeknownst to the two pilots, they had probably operated the controls against each other's inputs. Their report is enclosed.

Pilot Information

Certificate:	Private	Age:	37, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	October 20, 1992
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	1450 hours (Total, all aircraft), 70 hours (Total, this make and model), 1400 hours (Pilot In Command, all aircraft), 99 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SUKHOI	Registration:	N29RP
Model/Series:	SU-29 SU-29	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	72-02
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	2229 lbs
Time Since Last Inspection:	45 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	214 Hrs	Engine Manufacturer:	Vendenev
ELT:		Engine Model/Series:	M-14
Registered Owner:	SAVAGE, JOHN P.	Rated Power:	360 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	COS ,6172 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	12:56 Local	Direction from Accident Site:	316°
Lowest Cloud Condition:	Unknown / 9000 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 9000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	23 knots / 35 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	19°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	COLO. SPRINGS , CO (COS)	Type of Flight Plan Filed:	None
Destination:	(COS)	Type of Clearance:	None
Departure Time:	11:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	38.660964,-104.68927(est)

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	JEFFREY H GRAVES; DENVER , CO JANNA L GOWTHROP; DENVER , CO
Original Publish Date:	June 30, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=11088

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).