



National Transportation Safety Board Aviation Accident Final Report

Location:	Oxford, CT	Accident Number:	NYC01LA198
Date & Time:	08/01/2001, 1130 EDT	Registration:	N44EU
Aircraft:	Moran Europa Monowheel	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane touched down about 6 feet left of centerline, then bounced. The pilot added power to abort the landing. The airplane veered to the left, then touched down in the grass. The airplane continued to the left, the monowheel collapsed, the airframe buckled, and the airplane came to rest 200 feet left of the runway. Winds, 25 minutes after the accident, were 40 degrees from the right, at 6 knots. There was no evidence of flight control malfunction. The pilot subsequently stated that he did not get full engine power when he aborted the landing, and felt the problem resulted from throttle cable kinking due to rapid movement of the throttle.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain directional control during an aborted landing.

Findings

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

Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

On August 1, 2001, at 1130 eastern daylight time, a homebuilt Europa Monowheel, N44EU, was substantially damaged when it veered off a runway during an aborted landing at Waterbury-Oxford Airport (OXC), Oxford, Connecticut. The certificated private pilot received minor injuries, and visual meteorological conditions prevailed at the time of the accident. No flight plan was on file for the local flight, which originated at Oxford. The personal flight was conducted under 14 CFR Part 91.

According to the pilot, he and his wife towed the airplane to the airport on its trailer, attached the wings, unloaded it, and attached the tailplanes. The preflight inspection was normal and fuel samples were "clean."

The pilot started the engine, taxied to runway 36, completed an engine runup, and made a normal departure. The pilot then flew the traffic pattern, and during an approach to a practice landing on runway 36, noted a "very slight" crosswind from the right.

The pilot continued a "normal" approach, and the airplane touched down 5 to 6 feet left of centerline. "The landing had a moderate bounce, so I added slight throttle to cushion the expected second touchdown (the engine responded normally to this), judged how large the bounce was, and decided to add full power to go around instead of allowing it to bounce again."

The pilot rapidly moved the throttle forward, to the full power position, added right rudder and lowered the nose of the airplane to a near-level attitude. He noted that the right rudder resulted in a "very slight right turn." The pilot felt, in hindsight, that the engine was not producing full power, since he was "familiar with the amount of rudder needed to maintain straight ahead when full power is applied," as well as "the sort of howling sound from induction air that it makes at full power."

The pilot noted that the airplane leveled, but did not accelerate as it usually did when full power was applied. "The Europa normally flies straight ahead instantly from a bounce when full power is applied." The airplane turned slowly to the left but still did not gain altitude or accelerate.

The pilot remembered seeing a parking lot ahead, so he knew the airplane was still level or "slightly up." Then, either the mainwheel or the left outrigger contacted the ground, the airplane began to slide, and it veered further to the left before coming to a stop. The pilot then shut off the engine, which was still operating at low power.

The pilot also noted that the airplane was fitted with electronic engine monitor with an optional fuel pressure sensor. There were no annunciator alarms during the flight, so the pilot felt that all engine readings had been normal.

According to a Federal Aviation Administration (FAA) inspector, the pilot reported that when the airplane touched down approximately 6 feet to the left of centerline it bounced. The pilot added a small amount of power to cushion the next touchdown, but as he did so, the airplane began to veer to the left. The pilot corrected with right rudder and coordinated stick inputs, and leveled the airplane's nose. The pilot then decided that he did not like what he saw, and initiated a go-around. He opened the throttle fully; however, the airplane continued to veer to the left, and touched down in the grass to the left of the runway.

The airplane came to rest about 1,700 feet from the approach end of the runway and 200 feet

to left of it. All three composite propeller blades were broken off at the hub. The airframe was buckled at the instrument console, and the monowheel was collapsed aft. The rudder was functional but the ailerons could not be checked due to the position of the airplane on the ground. Once the wings were removed, the ailerons moved freely.

Subsequent to submitting his original accident statement, the pilot felt that he may have had a problem with the throttle block in that he advanced the throttle so quickly that it caused the throttle cables to go slack and kink within the block. The kink then locked the throttle at a low power setting. The FAA inspector had the pilot operate the throttle lever through part of its range (the throttle slot was distorted during the accident and prevented full range) and the throttles were actuated. The throttle block itself was inaccessible following the accident, so the pilot could not verify conclusively that kinking occurred.

The Europa kit was manufactured in England. The United Kingdom Air Accidents Investigation Branch (AAIB) was contacted, and the throttle kinking information forwarded for further investigation. Inquiries should be made to:

AAIB

Berkshire Copse Road

Aldershot

Hampshire

GU11 2HH

<http://www.aaib.dtlr.gov.uk>

Winds, reported at the airport 25 minutes after the accident, were from 040 degrees true, at 6 knots.

Pilot Information

Certificate:	Private	Age:	61, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	08/23/1999
Occupational Pilot:		Last Flight Review or Equivalent:	08/11/2000
Flight Time:	190 hours (Total, all aircraft), 46 hours (Total, this make and model), 108 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Moran	Registration:	N44EU
Model/Series:	Europa Monowheel	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	A044
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	07/02/2001, Condition	Certified Max Gross Wt.:	1300 lbs
Time Since Last Inspection:	4 Hours	Engines:	1 Reciprocating
Airframe Total Time:	47 Hours at time of accident	Engine Manufacturer:	Rotax
ELT:	Installed, not activated	Engine Model/Series:	912
Registered Owner:	John J. Moran	Rated Power:	95 hp
Operator:	John J. Moran	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	OXC	Distance from Accident Site:	
Observation Time:	1155 EDT	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.35 inches Hg	Temperature/Dew Point:	28° C / 13° C
Precipitation and Obscuration:			
Departure Point:	Oxford, CT (OXC)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1115 EDT	Type of Airspace:	Class G

Airport Information

Airport:	Waterbury-Oxford Airport (OXC)	Runway Surface Type:	Asphalt
Airport Elevation:	727 ft	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Paul R Cox	Report Date:	11/14/2001
Additional Participating Persons:	Steven Levine; FAA/FSDO; Windsor Locks, CT		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsbt.gov/pubdms/ .		

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