Aviation Investigation Final Report

Location:	Watertown, Wisconsin	**Accident Number:**	CHI05CA219
Date & Time:	August 5, 2005, 17:00 Local	**Registration:**	N515KG
Aircraft:	American Champion (ACAC) 7GCBC	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The tailwheel airplane veered off the runway during landing roll and impacted a muddy ditch. The pilot reported that after touchdown the airplane veered to the left and he used right rudder input in an attempt to realign with the runway centerline. The pilot stated that "next we were heading extreme right, I had a feeling the tailwheel was off the ground." The flight instructor stated that she was "talking [the pilot] through the landing, and also helping out with [control] stick movement." The flight instructor reported that after touchdown, as she began to bring the control stick aft the pilot pushed the control stick forward which elevated the tailwheel off the runway. The flight instructor stated that the pilot also "pushed right rudder" which turned the airplane "sideways." The flight instructor reported that she "immediately brought the [control] stick back and tried to correct the rudder." The flight instructor stated that the tailwheel came back down to the runway, but she was unable to "correct the rudder" because of "resistance." The flight instructor reported that she felt the pilot had "frozen on the controls." The flight instructor stated that the only thing she could do was "slam on the brakes" in an attempt to stop the airplane before it entered a ditch alongside the runway. The flight instructor reported that the "mud was so deep that the brakes were not effective and [airplane] kept sliding" into the ditch where it nosed over. The pilot had no experience in the accident airplane make/model prior to the accident flight. The flight instructor had approximately 20 hours in conventional (tailwheel) airplanes, of which 16.6 hours were in the accident airplane make/model.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings
1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - FLIGHTCREW
2. RELINQUISHING OF CONTROL - NOT PERFORMED

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

Findings
3. TERRAIN CONDITION - DITCH

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Factual Information

On August 5, 2005, at 1700 central daylight time (cdt), an American Champion 7GCBC (Citabria), N515KG, was substantially damaged when it nosed over while landing on runway 23 (4,430 feet by 75 feet, asphalt) at the Watertown Municipal Airport (RYV), Watertown, Wisconsin. Visual meteorological conditions prevailed at the time of the accident. The instructional flight was operating under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91 without a flight plan. The pilot and his flight instructor were not injured. The local area flight departed RYV around 1630.

The pilot reported that he was obtaining instruction toward a tailwheel endorsement. The pilot stated that he had no experience in the accident airplane make/model prior to the accident flight. The pilot reported that after touchdown the airplane veered to the left and he used right rudder input in an attempt to realign with the runway centerline. The pilot stated that "next we were heading extreme right, I had a feeling the tailwheel was off the ground." The pilot reported that the airplane departed the runway and entered a muddy ditch where it nosed over.

The flight instructor reported that after departure they practiced slow flight, power on/off stalls, and steep turns before returning to the airport to practice landings. The flight instructor stated that she "briefed" the student on "how the approach to landing would go." The flight instructor reported that because the reported winds were "calm" they decided to use runway 23 because of its longer length.

The flight instructor stated that she was "talking [the pilot] through the landing, and also helping out with [control] stick movement." The flight instructor reported that the pilot landed the airplane on the runway centerline. The flight instructor stated that after touchdown she told the pilot to "put the [control] stick in your lap and pin the tail." The flight instructor reported that as she began to bring the control stick aft, the pilot pushed the control stick forward which elevated the tailwheel off the runway. The flight instructor stated that the pilot also "pushed right rudder" which turned the airplane "sideways."

The flight instructor reported that she "immediately brought the [control] stick back and tried to correct the rudder." The flight instructor stated that the tailwheel came back down to the runway, but she was unable to "correct the rudder" because of "resistance." The flight instructor reported that she felt the pilot had "frozen on the controls" and she told the pilot "my plane, my plane." The flight instructor stated that the only thing she could do was "slam on the brakes" in an attempt to stop the airplane before it entered a ditch alongside the runway. The flight instructor reported that the "mud was so deep that the brakes were not effective and [airplane] kept sliding" into the ditch where it nosed over.

The operator of the aircraft reported that the flight instructor had approximately 20 hours of

experience in conventional gear (tailwheel) airplanes. The flight instructor reported having 16.6 hours in the accident airplane make/model. Subsequent to the accident, the operator raised their minimum experience requirements for flight instructors in tailwheel aircraft. Additionally, the operator requires that tailwheel flight instructors demonstrate proficiency in tailwheel instruction via a checkride with the chief pilot or manager.

Flight instructor Information

Certificate:	Commercial; Flight instructor	**Age:**	24,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Rear
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	March 1, 2005
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	September 1, 2004
Flight Time:	829 hours (Total, all aircraft), 17 hours (Total, this make and model), 170 hours (Last 90 days, all aircraft), 58 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Private	**Age:**	41,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	September 1, 2003
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	September 1, 2004
Flight Time:	141 hours (Total, all aircraft), 0 hours (Total, this make and model), 75 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	American Champion (ACAC)	**Registration:**	N515KG
Model/Series:	7GCBC	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Aerobatic; Normal	**Serial Number:**	1249-98
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	1650 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:		**Engine Model/Series:**	O-320-A2D
Registered Owner:	George M Batsche	**Rated Power:**	150 Horsepower
Operator:	Wisconsin Aviation	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	RYV,833 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	17:15 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	250°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.2 inches Hg	**Temperature/Dew Point:**	26°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Watertown, WI (RYV)	**Type of Flight Plan Filed:**	None
Destination:	Watertown, WI (RYV)	**Type of Clearance:**	None
Departure Time:	16:30 Local	**Type of Airspace:**	

Airport Information

Airport:	Watertown Municipal Airport RYV	**Runway Surface Type:**	Asphalt
Airport Elevation:	833 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	23	**IFR Approach:**	None
Runway Length/Width:	4430 ft / 75 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	43.169723,-88.723335

Administrative Information

Investigator In Charge (IIC):	Fox, Andrew
Additional Participating Persons:	Raymond Yank; Federal Aviation Administration - Milwaukee FSDO; Milwaukee, WI
Original Publish Date:	October 27, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=62367