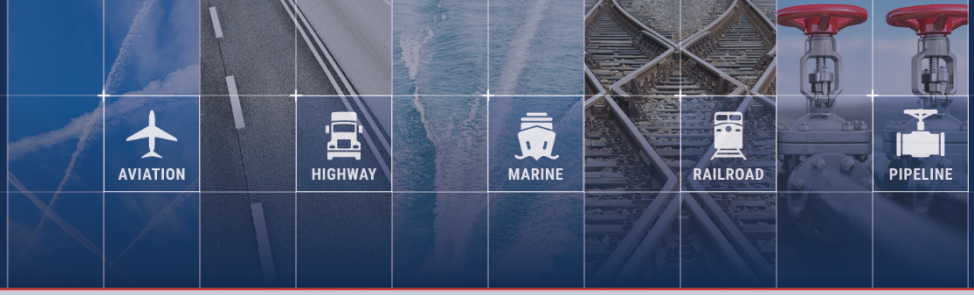


# Aviation Investigation Final Report

| | | | |
|---|---|---|---|
| **Location:** | Tucson, Arizona | **Accident Number:** | LAX05CA260 |
| **Date & Time:** | August 4, 2005, 08:30 Local | **Registration:** | N2020U |
| **Aircraft:** | Maule M-4-220C | **Aircraft Damage:** | Substantial |
| **Defining Event:** | | **Injuries:** | 2 None |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Analysis

The airplane ground looped during the landing ground roll. After performing a normal approach, the pilot configured the airplane for a three-point landing. The airplane touched down over the runway centerline and transitioned to a landing roll. As the pilot was about to apply brake pressure, the airplane suddenly veered right of the runway centerline, and he experienced a loss of directional control. The right main landing gear collapsed and the right wing contacted the runway surface. The pilot reported no pre-impact mechanical malfunctions or failures with the airplane.

## 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.

### Findings

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

Findings
1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND
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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings
3. TERRAIN CONDITION - RUNWAY

## Factual Information

On August 4, 2005, about 0830 mountain standard time, a Maule M-4-220C, N2020U, ground looped during the landing roll at the Ryan Filed Airport, Tucson, Arizona. The pilot/owner was operating the airplane under the provisions of 14 CFR Part 91. The private pilot and one passenger were not injured; the airplane sustained substantial damage. The personal cross country flight departed Blythe Airport, Blythe, California, about 0630 Pacific daylight time, with a planned destination of Tucson. Visual meteorological conditions prevailed, and a flight plan had not been filed.

In a written statement, the pilot reported that as he entered the proximity of Ryan Field Airport, about 20 nautical miles (nm) to the northwest, he received weather information from the airport's automated weather observing system (AWOS). It indicated weather conditions at the airport were calm wind with a density altitude greater than 4,000 feet mean sea level (msl). After executing a normal approach, the pilot configured the tail-wheel equipped airplane for a three-point landing. The airplane touched down over the runway centerline, and the pilot noticed light winds from the west. After a faster-than-normal landing roll, about 300 feet from the initial touchdown point, the airplane's ground speed began to dissipate. As the pilot was about to apply brake pressure, the airplane suddenly veered right of the runway centerline. The airplane then veered to the left, and the pilot experienced a loss of directional control. The right main landing gear collapsed, and the right wing contacted the runway surface.

The pilot reported no pre-impact mechanical malfunctions or failures with the airplane. In addition, the pilot stated that Maule airplanes are difficult to land in tailwind conditions, and a pilot with greater experience may have been able to better control the airplane; he had a reported 60 to 70 hours of flight experience in the same make and model airplane.

## Pilot Information

| | | | |
|---|---|---|---|
| **Certificate:** | Private | **Age:** | 51,Male |
| **Airplane Rating(s):** | Single-engine land | **Seat Occupied:** | |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | |
| **Instrument Rating(s):** | None | **Second Pilot Present:** | |
| **Instructor Rating(s):** | | **Toxicology Performed:** | No |
| **Medical Certification:** | Class 3 | **Last FAA Medical Exam:** | September 1, 2004 |
| **Occupational Pilot:** | | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 210 hours (Total, all aircraft), 65 hours (Total, this make and model), 50 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft) | | |

## Aircraft and Owner/Operator Information

| | | | |
|---|---|---|---|
| **Aircraft Make:** | Maule | **Registration:** | N2020U |
| **Model/Series:** | M-4-220C | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | 2014C |
| **Landing Gear Type:** | Tailwheel | **Seats:** | |
| **Date/Type of Last Inspection:** | | **Certified Max Gross Wt.:** | |
| **Time Since Last Inspection:** | | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | | **Engine Manufacturer:** | Franklin |
| **ELT:** | | **Engine Model/Series:** | 6A-350-C2 |
| **Registered Owner:** | On file | **Rated Power:** | |
| **Operator:** | On file | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

| | | | |
|---|---|---|---|
| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | KTUS,2578 ft msl | **Distance from Accident Site:** | 11 Nautical Miles |
| **Observation Time:** | 08:55 Local | **Direction from Accident Site:** | 90° |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 3 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 30.06 inches Hg | **Temperature/Dew Point:** | 27°C / 17°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | Blythe, CA (BLH ) | **Type of Flight Plan Filed:** | None |
| **Destination:** | Tucson, AZ (RYN ) | **Type of Clearance:** | VFR |
| **Departure Time:** | 06:30 Local | **Type of Airspace:** | |

## Airport Information

| | | | |
|---|---|---|---|
| **Airport:** | Ryan Field Airport RYN | **Runway Surface Type:** | Asphalt |
| **Airport Elevation:** | | **Runway Surface Condition:** | Dry |
| **Runway Used:** | 06L | **IFR Approach:** | None |
| **Runway Length/Width:** | 4900 ft / 75 ft | **VFR Approach/Landing:** | Full stop |

## Wreckage and Impact Information

| | | | |
|---|---|---|---|
| **Crew Injuries:** | 1 None | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | 1 None | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | |
| **Total Injuries:** | 2 None | **Latitude, Longitude:** | 32.090167,-111.079711(est) |

## Administrative Information

| | |
|---|---|
| **Investigator In Charge (IIC):** | Keliher, Zoe |
| **Additional Participating Persons:** | Steve Hanes; Federal Aviation Administration; Scottsdale, AZ |
| **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=62183 |