

6/10/2022

FOR YOUR INFORMATION

2022-57/3-7

1869557

To: Textron Aviation (Cessna), FAA (AFS-100)

Info: FAA (AVP-1, AVP-200, AFS-260, AFS-800, AFS-200, MKC-AEG, AIR-360, ANM-100), AMFA, AOPA, ASAP, ATSG, GAMA, IAM, IBT, ICASS, NBAA, NTSB, PAMA, TWU

From: Becky L. Hooey, Director
NASA Aviation Safety Reporting System

Re: Cessna C550 Aileron Anomaly

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at becky.l.hooey@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN 1869557**DATE / TIME**

Date of Occurrence 202201
Local Time Of Day 0601 to 1200

PLACE

Locale ZZZ.Airport
State US
Altitude - MSL 4500

ENVIRONMENT

Flight Conditions VMC
Weather Haze / Smoke

AIRCRAFT / EQUIPMENT X

ATC / Advisory - TRACON ZZZ
Make Model Name Citation II S2/Bravo (C550)
Operating Under FAR Part 91

COMPONENT 1

Aircraft Component Aileron Control System

PERSON 1

Function - Flight Crew First Officer
Function - Flight Crew Pilot Not Flying
ASRS Report Number 1869557

PERSON 2

Function - Flight Crew Captain
Function - Flight Crew Pilot Flying
ASRS Report Number 1869580

EVENTS

Anomaly Aircraft Equipment Problem - Critical
Anomaly Deviation / Discrepancy - Procedural - Clearance
Anomaly Deviation / Discrepancy - Procedural - Published
Material / Policy
Detector - Person Flight Crew
Result - General Flight Cancelled / Delayed
Result - General Maintenance Action
Result - Flight Crew Overcame Equipment Problem
Result - Flight Crew Requested ATC Assistance / Clarification
Result - Flight Crew Returned To Departure Airport
Result - Air Traffic Control Provided Assistance

NARRATIVE 1

We departed from Runway XXR. During climbout after flaps up, I noticed my Captain reach for the aileron trim and didn't think much of it. It wasn't until my Captain said that the aileron trim was stuck that I looked over and noticed he had a good input on the aileron to the right to fight the trim input that was on the left wing. Maintaining altitude and everything else wasn't an issue but it required excessive force from keeping the plane from turning.

On the heading 213 off of the ZZZZZ3 departure we initially got 4,500 feet for traffic that was going to be above us. At that point we said that we would need to go back to ZZZ. We got asked if we needed assistance and I replied stand by. We took time to assess the situation and we said none as of now. We got transferred to a different Controller and then somewhere along the downwind (on a heading at that point) we decided to advise ATC since it was related to a flight control. I stated that we had 3.5 hours of fuel, 2 souls on board, and that it was due to a flight control issue. We got vectored for the ILS Z XXR and asked for delayed vectors several times so we could get ready and take our time. My Captain flew the whole time manually. We pulled up the no flap landing checklist to determine runway and speed. The concern we had was seeing how full flaps would effect stability. We decided to keep it at 7 degrees and plan for a REF of 120 and runway distance for Part 135 of 8,000 feet which was calculated from the checklist. We finished the appropriate checks and then came for a landing with a planned longer landing. No further assistance was required.

In conclusion I'm glad we took our time and asked for delayed vectors. I definitely got reminded of the importance of flying the plane first and communicating second.

NARRATIVE 2

Started takeoff roll and rotated. After 400 feet, we raised the flaps and I noticed the airplane rolling to the left flying away from runway center line. I started to put right aileron to make the plane fly straight and noticed it was a considerable amount. We were on the ZZZZZ3 departure and started to turn right to our initial heading. The amount of force to turn was not normal and I tried to trim the ailerons and the aileron trim wheel was stuck. I told my copilot to tell ATC we need to head back to ZZZ. During the vectors for ILS XXR the yoke was turned to right with a good amount of force to fly straight. I decided to use flaps 7 and do a long landing. Throughout the whole approach, the yoke was about 30-45 degrees to the right to fly straight. We did not need any assistance.

SYNOPSIS

C550 flight crew reported excessive control wheel input was required to stop the aircraft from rolling off course. Aileron trim was ineffective. The flight crew elected to return to the departure airport.