

AB 2024:2/3-1 1/18/2024 2032428, 1904871

TO: Airbus Industries

INFO: FAA (AVP-1, AVP-200, AFS-200, AFS-100, AFS-260, AIR-720, SEA-AEG, AQS

-230), A4A, ALPA, AOPA, APA, ASAP, ATSAP, ATSG, CAPA, IAM, AMFA, IBT,

IATA, ICAO, ICASS, IFALPA, IPA, NATCA, NBAA, NTSB, RAA

FROM: Becky L. Hooey, Director

NASA Aviation Safety Reporting System

SUBJ: A320 Uncommanded Pitch-Up Control Issue

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 following:

ASRS recently received a report from an Airbus A320 Captain describing an inflight pitch-up control issue. Reporter stated he noticed upon level-off that the aircraft required constant forward pressure to maintain level flight. Reporter further stated the pitch-up pressure was constant throughout the flight, and that the autopilot was able to operate normally when it was engaged.

ACN 1904871 describes a similar event involving an A321, which is also enclosed.

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.





ACN 2032428	
DATE / TIME	
Date of Occurrence Local Time Of Day	202309 0601 to 1200
PLACE	
Locale State	ZZZ.Airport US
AIRCRAFT / EQUIPMENT X	
ATC / Advisory - TRACON Make Model Name Operating Under FAR Part	ZZZ A320 121
COMPONENT 1	
Aircraft Component	Elevator ControlSystem
PERSON 1	
Function - Flight Crew Function - Flight Crew ASRS Report Number EVENTS	Captain Pilot Flying 2032428
Anomaly	Aircraft Equipment Problem - Critical
Detector - Person Result - General Result - Flight Crew Result - Flight Crew	Flight Crew Maintenance Action Overcame Equipment Problem Returned To Departure Airport

I was the pilot flying and departed ZZZ Runway XXL. As I began climbing out, I noticed the aircraft required forward pressure on the side stick. Once I leveled off, and was level on the flight directors, the aircraft still required forward pressure to maintain level flight. The aircraft would constantly pitch up. We were given a higher altitude and I climbed to it. All the while having to push slightly forward on the side stick in the climb. I engaged the autopilot and it maintained the climb and then cruise.

Once our workload was reduced I contacted dispatch and maintenance on the satellite phone. I told them that when the autopilot was off, the aircraft required forward pressure on the side stick. Both Flight Directors were indicating the same. Also, when the FO flew, he noticed and felt the same problem. Maintenance had me disconnect the autopilot while in level flight and I noticed the airplane again pitch up. We all agreed the safest course of action was a return to ZZZ. Maintenance also noted that as we burned fuel and the CG changed, the aircraft could be harder to fly manually.

We notified ATC that we would be returning to ZZZ. We also [requested priority handling] as we had some sort of issue with pitch trim in manual flight. I used the emergency call button and gave the flight attendants a heads up. I told them to expect a normal approach and landing. I let them know they would also see emergency vehicles on our landing roll out.

We had a long final for XXL at ZZZ and configured early. As I turned the autopilot off, the aircraft still wanted to pitch up. We landed uneventfully back and ZZZ and taxied to our gate.

I entered the issue in the logbook and also spoke with the two mechanics that met our aircraft at the gate.

SYNOPSIS

A320 Captain reported experiencing constant uncommanded pitch up movement while on manual flight during climbout requiring forward pressure. The flight crew contacted Dispatch and Maintenance and decided to return to the departure airport.

ACN 1904871	
DATE / TIME	
Date of Occurrence	202205
Local Time Of Day	1801 to 2400
PLACE	
Locale	ZZZ.TRACON
State	US
Altitude - MSL	7000
ENVIRONMENT	
Flight Conditions	VMC
AIRCRAFT / EQUIPMENT X	
ATC / Advisory - TRACON	ZZZ
Make Model Name	A321
Operating Under FAR Part	121
COMPONENT 1	
Aircraft Component	Elevator ControlSystem
PERSON 1	
Function - Flight Crew	Captain
Function - Flight Crew	Pilot Flying
ASRS Report Number	1904871
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	Landed As Precaution
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	

While operating Aircraft X, on Day 0 at approximately XA20Z, we experienced an uncommanded continuous pitch up of approximately 1 degree per second from the aircraft.

The takeoff roll, rotation and all segments of the initial climb were normal. I was the Pilot Flying (Captain) and was hand flying the aircraft from takeoff. We were using "Open Climb" with a constant climb thrust. At approximately 7,000 feet after setting the pitch to 10 degrees nose up for a 250 knot climb, I returned the side stick to neutral. I was expecting the aircraft to maintain the pitch, however, the pitch continued to nose up at 1 degree per second. Applying forward side stick stopped the uncommanded nose up, however whenever the

side stick was returned to neutral, the same uncommanded nose up rate occurred. Initially, I attributed it to a change in air mass or relative wind, but it continued to occur.

I discussed the issue with First Officer. I then engaged Autopilot #1 to observe the aircraft operation using the Autopilot. The Autopilot performed normally and followed flight director commands as well as changes to vertical modes on the FCP. There were no ECAMs (Electronic Centralized Aircraft Monitor), Advisories or abnormalities present from the FWCs. The Pitch Trim Wheel appeared to be operating and trimming the aircraft normally. I called for the QRH to see if First Officer could find any QRH procedure related to our issue. None was found. We continued with ATC instructions for our normal climb out, but the First Officer and I discussed the possibility of performing an air return between ourselves.

We discussed the possibility of a bad side stick transducer. The possibility that one of our side sticks was commanding a pitch up while in the neutral position. To diagnose this possible issue, we discussed turning off the autopilot and if the issue was still present, transferring control and flying the aircraft with the sidestick Push button depressed to verify each side stick independently. We agreed.

I disconnected the autopilot. The pitch up anomaly continued. I depressed the sidestick Push button and the anomaly continued. I then transferred control to First Officer. He performed the same actions and the anomaly continued. Control was transferred back to me.

I placed the aircraft back on autopilot and the aircraft performed normally. I then turned off the autopilot again, and the aircraft appeared to hand fly normally, i.e. pitch was maintained in the neutral position. We continued our climb then we were approaching FL290. I discussed with First Officer that would hand fly the aircraft during the initial RVSM entry in our climb to FL350 to see if there were further issues.

Not long after that, I had indications that the pitch anomaly was happening again. I then placed the aircraft on autopilot again and decided that we would perform an Air Return to ZZZ. ATC was advised. Dispatch was advised via ACARS.

ATC started a return on the ZZZZZ2 Arrival to ZZZ. They asked if we were requesting priority handling. We replied yes. ATC asked if we required any assistance and we replied, "No". While at this point I wasn't concerned about aircraft control as it was manageable, there was weather approaching ZZZ and I non-verbally was concerned that we might have undue delay with all of the aircraft being vectored for landing at ZZZ. During the debrief between the First Officer and I, he expressed he had this concern also.

Control was transferred to the First Officer while on Autopilot #1. I contacted the flight attendants and spoke with F1 (Flight Attendant 1) and briefed that we had a flight control anomaly that required us to return to ZZZ. I briefed the crew with 20 minutes to landing. I also briefed that we would make a PA to the customers shortly.

I then ran the Overweight QRH procedure. During that time F1 called by interphone to express his concern that the customers had noticed we had "turned around" and for us to make the PA. I finished the QRH procedure and made a PA regarding our situation that we would be returning to ZZZ for a normal landing and would return to the gate.

I briefed the approach for our return to [Runway] XXR. We were asked if we needed any assistance on the ground. We replied no. I was not concerned about controllability of the aircraft. I was more concerned with alarming the customers and causing an uncommanded evacuation/injuries with the presence of CFR (Crash Fire Rescue) meeting the aircraft. I called F1 to state that after landing we would make a PA to calm any nerves as well as assure the customers that we were taxiing to the gate to deplane and have assistance for them.

After an approach brief, First Officer transferred controls back to me. I elected to hand fly the aircraft. There were no pitch anomalies present at any time during the descent phase, approach or landing.

We had a normal (overweight 174K (MLDW was 171.5K)) landing on XXR at ZZZ. ZZZ had called CFR to congregate off Runway XXR at [Taxiway] 1 and they did not move from that position during our landing or landing roll.

We taxied to the gate and First Officer advised the customers to remain seated and that we would be taxiing to the gate. A Captain from ZZZ CFR, entered the aircraft after opening the main cabin door as he wanted information about our issue for his report. We shared that we had a pitch anomaly during climb out, but that the aircraft was fully controllable.

The aircraft was deplaned, the aircraft was taken out of service, First Officer and I debriefed, and I then debriefed with the flight attendants. An aircraft logbook entry was made.

SYNOPSIS

Captain reported an uncontrollable 1 degree per second pitch up. The flight crew overcame the equipment problem and diverted to make a precautionary landing.