

# ALERT BULLETIN

AB 2022:12/3-10  
6/3/2022  
1886900, 1877088

TO: Airbus Industries

INFO: FAA (AVP-1, AVP-200, AFS-200, AFS-100, AFS-260, AIR-720, AIR-360, SEA-AEG), A4A, ALPA, AOPA, APA, ASAP, ATSAP, ATSG, CAPA, IAM, AMFA, IBT, IATA, ICAO, ICASS, IFALPA, IPA, NATCA, NBAA, NTSB, RAA

FROM: Becky L. Hooley, Director  
NASA Aviation Safety Reporting System

SUBJ: A319 Inflight Failure of ELAC1 and ELAC2

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 received reports from Airbus A319 flight crews describing the inflight failures of both ELAC1 and ELAC2.

(ACN 1886900) A319 First Officer reported the failure of ELAC 1 and ELAC 2 during cruise resulting in a diversion.

First Officer stated the failures occurred about two hours into the flight, which resulted in reversion to alternate law. Reporter stated that "hand flying the aircraft required constant adjustments and was significantly touchier than hand flying a fully functional aircraft."

(ACN 1877088) A319 flight crew reported the loss of both ELAC's during cruise approximately an hour from their destination airport.

Captain stated they had "INOP systems - Autopilot 1 and 2, Alternate law - loss of protections - Cat 2 - ELAC Pitch. Ran all ECAMS, checklists, QRH, supplemental QRH. No reset option."

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 Hooley at (408) 541-2854 or email at [becky.l.hooley@nasa.gov](mailto:becky.l.hooley@nasa.gov).



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



## ACN 1886900

### DATE / TIME

Date of Occurrence	202203
Local Time Of Day	0001 to 0600

### ENVIRONMENT

Flight Conditions	VMC
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### AIRCRAFT / EQUIPMENT X

ATC / Advisory - Center	ZZZZ
Make Model Name	A319
Operating Under FAR Part	121

### COMPONENT 1

Aircraft Component	FCC (Flight Control Computer)
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### PERSON 1

Function - Flight Crew	First Officer
Function - Flight Crew	Pilot Flying
ASRS Report Number	1886900

### EVENTS

Anomaly	Aircraft Equipment Problem - Critical
Anomaly	Deviation / Discrepancy - Procedural - Clearance
Anomaly	Deviation / Discrepancy - Procedural - Published Material / Policy
Detector - Automation	Aircraft Other Automation
Detector - Person	Flight Crew
Result - General	Flight Cancelled / Delayed
Result - General	Maintenance Action
Result - Flight Crew	Diverted
Result - Flight Crew	Landed in Emergency Condition
Result - Flight Crew	Overcame Equipment Problem
Result - Flight Crew	Requested ATC Assistance / Clarification
Result - Air Traffic Control	Provided Assistance

### NARRATIVE 1

This event took place during a flight from ZZZZ destined for ZZZ1. The inbound crew had experienced an ELAC1 fault in cruise late in the flight which resolved to normal operations somewhere in the descent. I was deadheading in the cabin on the inbound flight and was advised of the ELAC issue at the gate where I took the place of the FO (First Officer) who operated the inbound flight. He was illegal for the leg back to ZZZ1 and took a seat in the cabin to deadhead back to ZZZ1. Maintenance was advised of the issue on the inbound flight and Mechanics came onboard to evaluate. No remaining problems were found and the aircraft was deemed safe for flight.

Departure, climb and initial cruise at FL380 were normal until about two hours into the flight. First we got an ELAC1 pitch trim fault and automatic autopilot disconnect. There were no ECAM actions to perform and we reengaged the autopilot. While analyzing the effect of the failure we got an ELAC2 pitch trim fault and the autopilot disconnected once again. The Captain requested a descent from ZZZZ Center as we were no longer RVSM compliant and then he called the 1st FA (Flight Attendant) and requested the deadheading FO be sent

to the cockpit. Having the extra crew member in the cockpit was very helpful as he assisted with the radios, systems research and a variety of other tasks. I was hand flying the descent to FL260 and then FL240 due to turbulence while the three of us discussed our options. Although the display said to use manual trim, the trim wheel was frozen in place and could not be adjusted. Control pressure in pitch was light and even though we had no pitch trim available, hand flying the aircraft was not difficult. At this point we were in alternate law and even though control was not difficult, hand flying the aircraft required constant adjustments and was significantly touchier than hand flying a fully functional aircraft. The Captain attempted to contact Maintenance but was unsuccessful. We decided the situation warranted [an alert] and since ZZZZ appeared significantly closer we decided to divert. After further discussion of our frozen pitch trim we decided advising ATC was appropriate. Enroute to ZZZZ we were given lengthy vectors around military airspace which was unexpected since we had requested priority handling. In the descent to ZZZZ the pitch trim became usable again and the approach and landing were uneventful.

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#### **CALLBACK 1**

Reporter stated they were not aware of the cause of the ELAC failures.

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#### **SYNOPSIS**

A319 F/O reported failure of ELAC 1 and ELAC 2 during cruise so the flight crew elected to divert and make a precautionary landing.

**ACN 1877088****DATE / TIME**

Date of Occurrence 202203  
Local Time Of Day 1801 to 2400

**PLACE**

Locale ZZZ.ARTCC  
State US

**AIRCRAFT / EQUIPMENT X**

ATC / Advisory - Center ZZZ  
Make Model Name A319  
Operating Under FAR Part 121

**COMPONENT 1**

Aircraft Component FCC (Flight Control Computer)

**COMPONENT 2**

Aircraft Component FCC (Flight Control Computer)

**PERSON 1**

Function - Flight Crew Captain  
Function - Flight Crew Pilot Flying  
ASRS Report Number 1877088

**PERSON 2**

Function - Flight Crew First Officer  
Function - Flight Crew Pilot Not Flying  
ASRS Report Number 1877090

**EVENTS**

Anomaly Aircraft Equipment Problem - Critical  
Anomaly Deviation / Discrepancy - Procedural - Clearance  
Anomaly Deviation / Discrepancy - Procedural - FAR  
Anomaly Deviation / Discrepancy - Procedural - Published  
Material / Policy  
Anomaly Inflight Event / Encounter - Weather / Turbulence  
Result - General Flight Cancelled / Delayed  
Result - General Maintenance Action  
Result - Flight Crew Landed in Emergency Condition  
Result - Flight Crew Overcame Equipment Problem  
Result - Flight Crew Requested ATC Assistance / Clarification  
Result - Air Traffic Control Provided Assistance

**NARRATIVE 1**

At cruise, (approx 1 hour from landing) ECAM (Electronic Centralized Aircraft Monitor) F/CTL ELAC (Elevator and Aileron Computer) PITCH FAULT 2. Shortly followed by F/CTL ELAC PITCH FAULT 1. INOP systems - Autopilot 1 and 2, Alternate law - loss of protections - Cat 2 - ELAC Pitch. Ran all ECAMS, checklists, QRH, supplemental QRH. No reset option. [Requested priority handling] out of abundance of caution. Requested priority from ATC for descent and approach - long final on long runway. Advised Dispatch, flight attendants, and passengers. Landed on long runway per procedures (direct law - flaps 3) Landing uneventful - taxied to gate. ATC was very cooperative. Notified Dispatch in the air and after gate arrival.

Aircraft had previous write ups for same/similar issue. Aircraft had been in ZZZ for 48 hours prior to this flight for same write up. (ECAM F/CTL ELAC PITCH FAULT 1 and 2) and there was a previous write up for ECAM F/CTL ELAC PITCH TRIM FAULT 2.

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## **NARRATIVE 2**

About an hour from destination, aircraft had an ELAC 1 fail followed by an ELAC 2 failure about 20 minutes later. Followed all ECAM (Electronic Centralized Aircraft Monitor) procedures and QRH procedures. [Requested priority handling]; received excellent handling by ATC. Flight attendants and passengers were notified. Coordinated with Dispatch. Similar events happened during two previous flights based on maintenance logbook entries.

Maintenance failed to fix recurring issue.

Just need to get aircraft fixed so it does not reoccur. Could be a significant impact to safety if reoccurs in an area with poor visibility, rain/snow, etc.

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## **SYNOPSIS**

A319 flight crew reported loss of both ELAC's (Elevator and Aileron Computer) at cruise. Flight Crew requested priority handling and continued to destination airport.