ACN: 1698068

Time / Day

Date : 201911
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 25000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : A321
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Flight Phase : Climb
Airspace.Class A : ZZZ

Component

Aircraft Component : Turbine Engine
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1698068
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Time Pressure

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1698069
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Time Pressure

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Inflight Shutdown
Result.Flight Crew : Landed in Emergency Condition
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

Departed gate, preflight indicated oil 19/19, FO (First Officer) was Pilot Flying. Jumpseating off-duty [pilot] was riding in the back. Departed on Runway XXL, normal operations with no indications of any engine abnormalities. Passing through 27,000 ft., [there was a] loud bang, [the] aircraft shuddered, and yawed slowly to the left. After the bang, ENG 1 N1 rolled back - [the] trend arrow for N1 on engine indications decreased to near idle. Due to our high deck angle, being heavy, and at an altitude where we normally lose a lot of available climb thrust, there was an immediate loss of airspeed. Although FO was flying, CA (Captain) reached over and selected 20,000 ft. to start and pulled open descent to prevent any further climb and lowered the nose. We then called ATC to [request priority handling] and initiated a 180 degree turn back to the airport.

ECAM actions were started for the ECAM "ENG high engine vibrations." ECAM directed us to apply High ENG Vibrations QRH. While in the middle of QRH, FA (Flight Attendant) had called to ask us questions. I quickly told her that we were having some engine issues, plane was under control, but I would need to call her back with a TEST since we were still taking care of the situation. ATC then gave us direct to ZZZ and descend to 10,000 ft. Descent rate was normal and did not exceed approximately 2,500 fpm.

At this point, about 2-3 minutes had elapsed since the initial bang. N1 on engine #1 never got above approximately 40-50% N1... thrust seemed minimal. ENG #1 then failed and auto shut-downed for about 10 seconds, then auto-restarted as we noticed the AVAIL light appear. I resumed the high vibration QRH and were about to coordinate reducing engine

#1 thrust to control the vibrations when ENG #1 failed again. FA called again and quickly told her I'd call her back. We decided to switch gears and do ECAM actions for ENG #1 Fail. We secured ENG #1 per ECAM and completed ECAM actions. Due to the loud bang and initial high vibrations, we elected to blow the fire protection squib as well. Yaw of aircraft was affected with thrust changes from engine #1 failing and restarting.

Weather and numbers were pulled up to confirm that we could land safely in ZZZ on XYL and weather was still ok. I then called the FA to brief her on the situation and gave her a TEST briefing. She then informed me that there was smoke in the cabin and passengers reported fire coming from engine #1. I told her that was probably residual smoke from the engine failure but if the smoke persisted then to call me back and we would reassess the situation from there. There were no fire indications in the cockpit so I proceeded as planned. [The Jumpseater off-duty pilot] at this time had made FA's aware that he could be of help and we let him in with the door keypad. CA briefed him on the situation and asked him to call Dispatch and specifically watch our ENG #2 for any abnormalities. Made a PA to passengers sometime during this time advising them we had an engine failure, aircraft was flying fine and that we would be returning to ZZZ in 25 minutes.

We needed more time to finish last QRH's for overweight landing and SE (Single Engine) straight in approach. I requested a PPOS (Present Position) hold for 5 minutes. We then continued and finished the overweight landing QRH and single-engine straight in approach QRH's. We then held in the vicinity of ZZZ and expressed to crew that if there was anything that happened to our #2 Engine that we had ZZZ1 MCAS at our disposal. At this point, Engine #2 displayed no abnormal indications.

CA set up the approach, briefed approach, then switched controls so CA was now PF (Pilot Flying) for remainder of flight. Approach checklist was completed and we advised ATC we were ready for the approach as well as confirming that ARFF (Airport Rescue and Fire Fighting) would be standing by for us. CA also checked in with FA's to see if smoke was still an issue since crew didn't smell anything. They confirmed that the cabin was clear and everyone was ready for approach. I also made one last PA to passengers advising them our ETA and that fire trucks will be assessing us on the runway.

Turned on APU Bleed to power packs as per overweight landing checklist. LDA XYL approach in to a normal landing. Full stop, made a PA for passengers to remain seated. We had requested a discrete code for ARFF but it was not working on ground so we just talked to firemen on Tower. Firetrucks looked us over with particular attention to engine, gear, tires and cabin damage. Firemen gave us the ok and we elected to remain emergency aircraft and taxi back to gate with trucks following us in the case of any other issues. We also elected to leave flaps down in full position as I wasn't certain if there was any damage to flap fairings or flap area. Taxied to the gate, canceled emergency with ARFF reaching alley, pulled into Gate XX, and shutdown secured aircraft per SOP.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

A321 flight crew reported experiencing a compressor stall and subsequent failure of the #1 engine resulting in a return to the departure airport.