

TAP PORTUGAL / AIRBUS A330-200 CS-TQJ



***LOWER DECK MOBILE CREW REST SMOKE IN
CRUISE FLIGHT***

PRECAUTIONARY LANDING IN

AMILCAR CABRAL

INTERNATIONAL AIRPORT

SAL ISLAND-CAPE VERDE (GVAC)

31st August 2014, 05:17 UTC

FINAL REPORT APPROVED BY THE DIRECTOR OF GPIAA

(Álvaro Neves), in the 16 of June of 2016



SAFETY INCIDENT

FINAL REPORT

GPIAA

Safety Investigation of serious

Incident Occurrence

23/INCID/2014

(SUMMARY REPORT)

Note: the photo on this report cover was taken by Bruno Pereira, at the airport of São Paulo (taken from the electronic page "www.airliners.net")

INCIDENT SUMMARY REPORT

TAP PORTUGAL
AIRBUS A330-200

CS-TOJ

LOWER DECK MOBILE CREW REST SMOKE IN CRUISE FLIGHT

PRECAUTIONARY LANDING IN

AMILCAR CABRAL

INTERNATIONAL AIRPORT

SAL ISLAND-CAPE VERDE (GVAC)

31st August 2014, 05:17 UTC

SAFETY INCIDENT
FINAL REPORT

23/INCID/2014

FOREWORD

Safety investigation is a technical process aiming to accidents' prevention and comprises the gathering and analysis of evidences, in order to determine the causes and, when appropriate, to issue safety recommendations.

In accordance with Annex 13 to the International Civil Aviation Organization Convention (Chicago 1944), EU Regulation Nr. 996/2010 from the European Parliament and Council (20th OCT 2010) and article 11 n° 3 of Decree-Law n° 318/99 (11th AUG 1999), the sole purpose of this investigation is to prevent aviation accidents. It is not the purpose of any such investigation process and the associated investigation report to apportion blame or liability.

The only aim of this technical report is to collect lessons which may help to prevent future accidents.

This report was published in two languages, Portuguese and English.

In the event of any discrepancy between these versions, the Portuguese text shall prevail.

SYNOPSIS

Aircraft Type and Registration: Airbus A330-223 CS-TOJ

No. and Type of Engines: 2 x Pratt & Whitney PW4168A

Aircraft Serial Number: 223

Year of Manufacture: 1999

Date and Time : 31 August 2014 @ 05.17 UTC

Location: SAL ISLAND-CAPE VERDE (GVAC)

Type of Operation: Commercial Air Transport

Persons on Board: Crew - 11 Passengers - 251

Injuries: Crew - 0 Passengers - 0

Nature of Damage: LOWER DECK MOBILE CREW REST smoke in cruise flight
precautionary landing in AMILCAR CABRAL INTERNATIONAL AIRPORT

The GPIAA was notified of this occurrence by TAP Portugal operator, in compliance with the stipulations of the rules of notification of occurrences, and the investigation was started the next day.

This occurrence was classified as a serious incident at GPIAA, according to ICAO Annex 13 and the Decree Law 318/99 of the Portuguese state.

According to the established in the framework of cooperation the country's counterpart of the manufacturer, the *Bureau d'Enquêtes et d'Analyses (BEA)*, France wasn't contacted to obtain information from the manufacturer AIRBUS, having the operator provided all the necessary information for research, providing technical data according to the requested.

During the cruise phase of the flight TP16, which was the connection between the International Airport of Guararapes in Recife, and the Lisbon Airport, was triggered in the cockpit a warning in the Electronic Centralized Aircraft Monitoring (ECAM) Smoke-Cabin Rest Smoke.

The cabin crew went to the Lower Deck Mobile Crew Rest (LDMCR), checking the existence of high temperatures, smoke and electrical burning smell. The crew carried out the emergency procedures.

After analyzing the situation, the Captain of the flight in coordination with the cabin supervisor, ordered to be closed the fire door and activated the fire extinguishing system of the LDMCR.

Since the source of the smoke wasn't found, the technical crew decides to divert the flight to Amílcar Cabral International Airport, Sal Island, for thorough inspection of the LDMCR.

The landing was performed safely, and the aircraft rolled to the parking stand, with the crew in an effort to establish the extent of the fire warnings. The LDMCR was inspected by the firefighters and by the captain of the flight and it wasn't identified any visible smoke or fire outbreak.

All passengers disembarked normally to the area of the passenger terminal, and the entire operation passed without an incident.

After TAP maintenance and engineering inspection, the aircraft was dispatched to continue the journey to the final destination, Lisbon, where preventive maintenance works were carried out in a hangar.



CONCLUSIONS

Findings

In the face of established and referenced facts can be concluded that:

1. At 05:17 UTC, the aircraft was in cruise flight at flight level FL390 when in the cockpit was triggered an ECAM warning Smoke - “Cabin Rest Smoke”;
2. The E2 and EX crew, alerted by the warning of the Smoke Detection System, first checked the toilet;
3. The Captain of the flight contacted immediately, via intercom, E3 and E4 crew members who were in the Lower Deck Mobile Crew Rest (LDMCR) to take extra information;
4. The cabin supervisor moves to LDMCR, after the indication in the AIP, establishing and maintaining communication with the Captain. It is reported the existence of light smoke, out of the ventilation grille, placed under the bed No. 5 and electric burning smell. The temperature felt in the LDMCR was high;
5. The Captain of the flight initiated the checklist (SMOKE CAB REST SMOKE) and turned off the cabin fans, so that the cabin air was not contaminated
6. Ten minutes after the alarm, and it is not possible to identify the source of the fire, or the source of the smoke, the Captain of the flight in coordination with the Cabin Supervisor decides that the fire door of LDMCR should be closed and activated the Fire Extinguishing System (FES) of LDMCR;
7. In the absence of evidence as to the origin of the smoke, the flight crew chooses to diverge to the Salt Airport. The descent starts about 42 minutes after the alarm, and landing completed 69 minutes after the alarm.

Contributing Factors

1. The location of the smoke must be determined via AIP, being the warning identical in any case. The most common type of alarm is the one referring to passengers smoking in the toilets which led to two crew members reacting automatically and addressing the same, without checking the AIP, inducing a delay in responding to the alarm.
2. The preparation of the cabin for an emergency landing wasn't performed as a result of communications between the Captain and the Cabin Supervisor after taking into account the apparent control of the situation after the activation of the Fire Extinguishing System (FES).
3. The cabin crew members during the interview considered the training reduced and limited on the LDMCR, such as location and / or operation of the components, differences between models and the actions when in emergency situation.
4. The results of the investigation to the units removed by TAP maintenance and engineering, and sent to manufacturers for analysis, didn't accuse any failure leading to the generation of smoke or temperature rise.

All the maintenance and troubleshooting actions considered relevant and recommended were carried out in the investigation of the event.

It was not possible based on the information available to conclude unequivocally what the origin of the smoke was.

However given that the aircraft has continued to operate since then, without any registration of smoke alarms, it can be concluded that the occurrence will not happen again because the conditions that led to it have been corrected by the actions taken.

SAFETY RECOMENDATIONS

SR N.º 24/2016 - TAP - Operator TAP Portugal

The need to include in the courses of the SAFETY & EMERGENCY EQUIPMENT & PROCEDURES (SEP) Annual course of Recurrent training a chapter for the Lower Deck Mobile Crew Rest (LDMCR), location of all component, differences between models and emergency procedures.

(RF 23/INCID/2014)

Lisbon, 30st April 2016

The Technical Investigator

Carlos Lino