



Iktatószám: 1444 / 2004

ZÁRÓ ÖSSZESÍTŐ

Tárgy: bejelentett, és üzemeltető hatáskörébe utalt eset lezárása

Bejelentés nyilvántartási száma: 2003-112

Eset ideje: 2003. 06. 10.

Eset helye: Budapest légtere

Eset kategóriája: Repülőesemény

Légijármű üzemeltetője: Transavia airlines

Légijármű lajstrom jele: PH-HZS

Illetékes hatóság esemény száma: HZS100603



Illetékes hatóság a vizsgálatot lezárta: 2003. 09. 08.

A PolÉBiSz a fenti eset kivizsgálásáról készített zárójelentést elfogadta, és ezennel az esetet lezártnak tekinti.

Biztonsági ajánlás: Az esettel kapcsolatban intézkedés kiadása nem indokolt.

Megjegyzés: nincs

Budapest, 2004. június 28.


Mészáros László
igazgató




Incident Report

Boeing 737-800 PH-HZS

10-06-2003

Report Nr. : HZS100603
 Version : 0.1
 Date : 8 september 2003

Note: this is an abridged version containing only Event details / Synopsis / Conclusions

EVENT DETAILS:

Holder of A/C	Transavia airlines	Push-back	<input type="checkbox"/>	Landing	<input type="checkbox"/>
A/C Type	B 737- 8BG	Taxi out	<input type="checkbox"/>	Taxi in	<input type="checkbox"/>
A/C registration	PH- HZS	Take-Off	<input type="checkbox"/>	Parking	<input type="checkbox"/>
Date of event	10-06-2003	Climb	<input type="checkbox"/>	Ground handling	<input type="checkbox"/>
Time of event (utc)	05:50	Cruise	<input checked="" type="checkbox"/>	Preflight Inspection	<input type="checkbox"/>
Flight number	TRA 4541	Descent	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>
Departure station	AMS	Approach	<input type="checkbox"/>	Other	<input type="checkbox"/>
Destination station	AYT	<i>event classification:</i>			
Diversion station	BUD	Incident	<input checked="" type="checkbox"/>		
Appendices		Accident	<input type="checkbox"/>		
Version	September 8, 2003				

General information:

Operator:	Transavia airlines
Aircraft Type:	B 737-8BG
Aircraft Serial Number:	32357
Registration:	PH-HZS
Flight:	TRA 4541
Type of Flight:	Commercial Air transport, Passenger
Place of the incident:	Close to Budapest airport, Hungary
Time and Date:	05:50 z 10-06-2003

Synopsis:

During the Transavia airlines passenger flight from Amsterdam in the Netherlands to Antalya in Turkey, the flight crew experienced a pop-up of the lower DU, showing a "LO" oil quantity on the RH engine and a corresponding oil quantity of 3 litres. Approximately 15 minutes later the oil quantity indication had decreased to zero and the oil pressure indication showed some fluctuation. The flight crew then decided to divert to Budapest for a precautionary landing. A Pan-pan call was made and acknowledged by ATC. The flight-crew initiated a continuous descent approach to Budapest airport. During this decent the oil temperature of the RH engine started to increase and the flight crew decided to shut down the RH using the non-normal checklist engine shutdown. The aircraft landed at Budapest airport without further incident. At the airport all emergency precautions had been taken before arrival of the aircraft. After arrival at the platform, the passengers disembarked the aircraft by stairs via the normal passenger exits. There were no reported injuries to passengers or crew. No damage to the aircraft or engines was reported.

Investigation team composition:

Frits W. van Willegen	Investigator In Charge
Jan Kerkhoff	Investigator MEDA
Jan Willem Bouquet	Investigator FSO

Conclusions

Findings

- Both flight crewmembers were medically fit, fully rested and licensed to undertake the flight.
- The aircraft had a valid C of A, released to service by a licensed engineer for the type of aircraft.
- During the Tire & Oil check before departure both engines oil tanks were full as indicated on the oil tank sight gage.
- Pre-flight inspection of flight crew does not require oil quantity check in cockpit.
- The related pre-flight inspection instructions does not address the procedures to determine where the necessary uplift results from an abnormal consumption and possibly requires additional maintenance action by the JAR 145 approved/accepted Maintenance Organisation as required by AMC OPS 1.890(a)(1)
- Engine oil consumption monitoring program is not described.
- Departmental responsibility for oil consumption monitoring is not determined.
- Engineering did not request permission from VP Flight Operations for readout and analysis of the Flight Recorder.
- Down load of Flight Recorder data was not mentioned during Daily Meeting and not registered in Daily Meeting report issued by MC.
- Transavia has not distributed the Boeing Flight Operations Review bulletin 737-33 "Flight Crew Considerations for engine in-flight shutdown".

Contributing factors

- Troubleshooting and repair carried out for High Oil Consumption at Amsterdam (prior to the event) happened during a long holiday weekend. SNECMA mechanic appeared to be in a hurry to get back to Paris.
- Replacement of o-ring was not incorporated in maintenance manual at the time of above repair, thereby necessitating contracting external expertise.
- No Maintenance Instruction (MI) or Repair Instruction (RI) was issued by engineering for repair of engine in Amsterdam.
- Excessive amounts of coke were present, which may have covered cracks and/or loose couplings or could have caused blockage of tubes.
- No Tech Rep was appointed for monitoring contracted work performed by SNECMA at Amsterdam.

Probable cause

The investigation team could not establish a clear probable cause for the High Oil Consumption, as the replaced engine parts were not available for investigation. However, as the work carried out by the SNECMA specialist at Budapest solved the leakage, it may be assumed that replacing the tubes and installing them correctly, indicates that one or more tubes were either blocked or have leaked. Cleaning or replacing them in Amsterdam during the previous repair might have prevented the HOC on this flight.

Recommendations

- Standardise oil quantity units used for indication and uplifts of oil. (Liters/Quarts/Pints/Gallons/Cans, etc)
- Prepare an oil specification for Transavia's fleet of aircraft with details on types/brands to be used with, as appropriate limitations for mixing and/or requirements for flushing after mixing (ref. CFMI SB 79-001).
- Specify instructions for engine oil monitoring in case of HOC and the method to be used to calculate the average oil consumption versus the Boeing limitation of 0.76 litres per hour.
- Establish and implement departmental responsibility for oil consumption monitoring.
- Pre-flight inspections carried out by flightcrew should be the same as specified in the OMP of Transavia.
- Establish acceptable quantity of oil for dispatch in accordance with Boeing AMM 12-13-11 Page 302.
- Engineering must provide Maintenance Instructions for tasks to be carried out not published in the Boeing AMM.
- Provide clear instructions to Operations Department in order to ensure that all relevant departments are informed in case of an incident/accident.
- Improve process/procedures for use of flight recorder data.
- Organise better monitoring of contracted maintenance carried out at Transavia maintenance facility or line station.
- Ensure that parts involved in incidents/accidents are retained, properly labelled and forwarded for further investigation to Transavia engineering and/or investigation team.
- Improve process of contracting or sub-contracting maintenance during out-of-office hours.
- Improve assistance to passengers after an incident. Transavia to improve assistance to crew after an incident.
- Review and/or distribute internally Boeing Flight Operations review 737-33 of February 28, 2003 Flight crew considerations for engine in-flight shutdown.