SAFETY REGULATION GROUP

FLIGHT OPERATIONS COMMUNICATION

Civil Aviation Authority

32/2009

Applicability: All AOC Holders Operating Boeing 737 Aeroplanes

BOEING 737 CABIN ALTITUDE WARNING HORN CONFUSION

1 Introduction

1.1 The **accident report** issued by the investigation board following an accident involving a Boeing B737-31S aeroplane highlighted that the cabin had failed to pressurise, and that the flight crew did not react correctly to the cabin altitude warning horn. As a result, the flight crew became incapacitated due to hypoxia (lack of oxygen in the body) and consequently lost control of the aeroplane. It was discovered that the flight crew misinterpreted the intermittent cabin altitude warning horn as a false take-off warning horn. On the B737 the same intermittent horn is used for both conditions. Subsequent data gathering revealed that this misinterpretation had occurred in other instances involving several operators.

1.2 The purpose of this FODCOM is to bring to the attention of crews of B737 aeroplanes the importance of donning oxygen masks immediately any time the intermittent warning horn sounds during flight.

2 Description

2.1 The Federal Aviation Administration (FAA) issued Airworthiness Directive (AD) 2006-13-13 making certain emergency procedures in the Aircraft Flight Manual immediate action items (also known as recall or memory items). Since the publication of the AD there have been several more incidents in which B737 flight crews have failed to recognise and respond appropriately to a valid cabin altitude warning horn. In one case the crew reported they first believed it to be a mobile phone. In all cases the crews were unaware of the meaning of the intermittent warning horn until looking at the cabin altimeter and rate of climb indicator on the overhead panel. There are further indications that some crews have delayed responding to the horn because of air/ground sensing system failures, or because of conditioning during training to react only to a rapid decompression, without considering the possibility of a slow loss of cabin pressure. In some cases, illumination of the EQUIP COOLING light has added further confusion, resulting in further delay in donning oxygen masks.

2.2 A crew's awareness of the possibility for confusion is essential to their quick response in donning an oxygen mask and avoiding hypoxia. It is also essential to establish communications between the flight deck and the cabin since people become partially hypoxic even at 10,000 feet cabin altitude.

2.3 The FAA issued a **Safety Alert For Operators (SAFO)** No. 08016 to emphasise the importance of donning oxygen masks immediately any time the intermittent warning horn sounds during flight. The European Aviation Safety Agency (EASA) in response to this SAFO issued EASA **Safety Information Bulletin (SIB) 2009-34** dated 30 September 2009.

3 Recommendation

3.1 Operators and training organisations should ensure that flight and cabin crews of B737 aeroplanes understand the necessity of donning an oxygen mask; flight crews immediately an intermittent warning horn sounds during flight and cabin crew whenever the passenger oxygen masks deploy automatically. This action should be included in manuals reflecting the checklist system referred to in paragraph OPS 1.210(b) of the EU-OPS Regulation, and in all phases of training and checking.

4 Queries

4.1 Any queries as a result of this Flight Operations Communication should be addressed to the operator's Flight Operations Inspector (FOI), or for those who do not have an assigned FOI to the Head of Flight Operations Policy at the following e-mail address: **FOP.Admin@caa.co.uk**.

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