

Finance and Corporate Services
Information Management

16 March 2012
FOIA reference: F0001309

Dear XXXX

I am writing in respect of your recent application of 5 March 2012, for the release of information held by the Civil Aviation Authority (CAA).

Your request:

“As part of a response to a previous Fol request (F0001215) you provided data in relation to incidents where staff used oxygen masks in the 2010 calendar year.

Could you provide me with data on similar incidents that took place in the 2011 calendar year, in a similar format?”

Our response:

In assessing your request in line with the provisions of the Freedom of Information Act 2000 (FOIA), we are pleased to be able to provide the information below.

The CAA's Mandatory Occurrence Reporting (MOR) Scheme is intended to record reportable occurrences which endangered or which, if not corrected, would have endangered an aircraft, its occupants or any other person.

In order to preserve the open reporting culture, which is a vital component of the UK's excellent safety record, some information which is provided to the CAA under the Mandatory Occurrence Reporting scheme is non-discloseable under Section 44 of the Freedom of Information Act 2000 (a copy of this exemption can be found below).

Section 44 provides that information is exempt information if its disclosure is prohibited by, or under any enactment.

Section 23 of the Civil Aviation Act is such a statutory prohibition. Accordingly, the obligations of the CAA to comply with Section 23 are unaffected by the Freedom of Information Act. In this case the names of the airlines are not therefore being provided.

We have carried out a search of the CAA database to provide summary details of reports that involve a UK registered aircraft on a revenue passenger flight where the flight crew have used oxygen due to a smoke or fume event for the period 01 Jan 2011 to 31 Dec 2011 inclusive. The report also includes the numbers of crew and passengers for each incident where it has been stated on the original report details.

If you are not satisfied with how we have dealt with your request in the first instance you should approach the CAA in writing at:-

Civil Aviation Authority

Aviation House GW Gatwick Airport South Crawley West Sussex England RH6 0YR www.caa.co.uk
Telephone 01293 768512 rick.chatfield@caa.co.uk

Mark Stevens
External Response Manager
Civil Aviation Authority
Aviation House
Gatwick Airport South
West Sussex
RH6 0YR

mark.stevens@caa.co.uk

The CAA has a formal internal review process for dealing with appeals or complaints in connection with Freedom of Information requests. The key steps in this process are set in the attachment.

Should you remain dissatisfied with the outcome you have a right under Section 50 of the Freedom of Information Act to appeal against the decision by contacting the Information Commissioner at:-

Information Commissioner's Office
FOI/EIR Complaints Resolution
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF
www.ico.gov.uk/complaints.aspx

Should you wish to make further Freedom of Information requests, please use the e-form at <http://www.caa.co.uk/foi>.

Yours sincerely

Rick Chatfield
FoIA & EIR Case Manager

CAA INTERNAL REVIEW & COMPLAINTS PROCEDURE

- The original case to which the appeal or complaint relates is identified and the case file is made available;
- The appeal or complaint is allocated to an Appeal Manager, the appeal is acknowledged and the details of the Appeal Manager are provided to the applicant;
- The Appeal Manager reviews the case to understand the nature of the appeal or complaint, reviews the actions and decisions taken in connection with the original case and takes account of any new information that may have been received. This will typically require contact with those persons involved in the original case and consultation with the CAA Legal Department;
- The Appeal Manager concludes the review and, after consultation with those involved with the case, and with the CAA Legal Department, agrees on the course of action to be taken;
- The Appeal Manager prepares the necessary response and collates any information to be provided to the applicant;
- The response and any necessary information is sent to the applicant, together with information about further rights of appeal to the Information Commissioners Office, including full contact details.

Freedom of Information Act: Section 44

(1) Information is exempt information if its disclosure (otherwise than under this Act) by the public authority holding it-

- (a) is prohibited by or under any enactment,
- (b) is incompatible with any Community obligation, or
- (c) would constitute or be punishable as a contempt of court.

(2) The duty to confirm or deny does not arise if the confirmation or denial that would have to be given to comply with section 1(1)(a) would (apart from this Act) fall within any of paragraphs (a) to (c) of subsection (1).

Section 23 of the Civil Aviation Act is such a statutory prohibition. Accordingly, the obligations of the CAA to comply with Section 23 are unaffected by the Freedom of Information Act.

Under Section 23, information supplied to the CAA in connection with its regulatory functions and which relates to a particular individual or organisation must not be disclosed by the CAA unless such disclosure is authorised by one of the exceptions contained in Section 23 itself.

Occurrence Number	Date Of Occurrence	Aircraft Type	Location Of Occurrence	Route From	Route To	Pretitle	Precis	No of crew	No of Pax
201100190	07.01.2011	DHC8	Cardiff (CDF)	Edinburgh (EDI)	Cardiff (CDF)	Smoke on flight deck and in cabin from nr1 ARCDU at 6000ft during descent. Communications difficult due to loud static noise. Pilots donned oxygen masks. Emergency/smoke drills actioned. PAN declared.	Smoke dissipated following drills and uneventful landing carried out with fire services in attendance. Attempts to contact fire chief on 121.60 unsuccessful but contact eventually established via tower frequency. Precautionary rapid passenger disembarkation carried out. Using thermal imaging equipment fire crews established that nr1 ARCDU (Automatic Radio Communications Display Unit) was still considerably warmer than nr2 although there was no sign of fire or additional smoke. Suspected that electrical fault within ARCDU unit caused it to short out and generate smoke. Unit removed for further investigation.	4	24
201100895	28.01.2011	B777	New York Newark	New York Newark	LHR	Smoke/fumes in the flight deck and cabin during the climb.	Visible smoke/haze in the flight deck and, to a lesser extent, in the cabin during the climb. Both flight crew used oxygen. QRH actioned, PAN declared and the a/c returned.	13	70
201101124	04.02.2011	B747	En Route	London-Heathrow - LHR	Johannesburg	First Officers NAV display failed accompanied by electrical burning smell.	Packs set to high flow and fumes cleared. Cause of fumes had been identified so a/c continued to destination.	17	293
201101639	17.02.2011	B777	Washington Dulles	Washington Dulles	London-Heathrow - LHR	Fumes in flight deck.	EICAS 'Pack Mode L' warning and status message 'Cond Temp Sensor L' activated after engine start. A/c returned to the stand for engineering investigation. Strong fumes in flight deck immediately after take-off. Smell cleared near to the TOC but returned after levelling out at FL350. No fumes reported from the cabin. As a precaution, both pilots alternately used oxygen during the flight. Fumes returned at 6000ft on approach and a/c landed with both pilots using oxygen. Both suffered headaches during the last stages of the flight. CAA Closure: Evidence would suggest the left engine fan shaft cover plate seal (O ring) was incorrectly installed (rolled and damaged) during cover plate assembly to the fan shaft. This caused engine oil to leak into the fan hub and spinner.	13	120
201101842	23.02.2011	B777	Abu Dhabi	London-Heathrow - LHR	Abu Dhabi	Smoke and fumes in flight deck and cabin during descent. Flight deck crew on oxygen. A/c declared full emergency. A/c landed safely and passengers disembarked normally.	Smoke/fumes cleared slightly when recirculation fans switched on. Engineering inspection traced fault to air cycle machine.	13	96
201101927	26.02.2011	DHC8	Manchester (MCT)	Manchester (MCT)	Inverness (INS)	Oily odour with a "metallic taste" noted in flight deck. A/c returned. Smoke drill actioned and flight crew donned oxygen masks. PAN declared.	One member of the cabin crew also reported fumes.	4	32
201102709	18.03.2011	DHC8	En Route	Hanover	Manchester (MCT)	Smell of fumes noticed in cabin during descent.	Cabin crew reported feeling unwell. Flight crew donned oxygen masks as a precaution. FO oxygen mask intercom was intermittent. Captain's oxygen mask, overtime, became increasingly difficult to breathe out to the point of having to lift the mask to breathe out. Passengers noticed that one panel seemed warmer than others which was confirmed by cabin crew. PAN declared. Fire services attended a/c on arrival and checked the cabin wall but did not find any temperature abnormality. CAA Closure: The Captains oxygen mask was replaced and the First Officers mask was tested in accordance with the AMM and found to be satisfactory. Engineers carried out an inspection and identified that a riser hose had detached from the tee piece. The section of hose was removed and the tee piece blanked. The a/c was returned to service and there have been no recurrences since	4	32
201103233	29.03.2011	A321	Rome Fiumicino	London-Heathrow - LHR	Rome Fiumicino	Strong oily smell on flight deck during descent. Flight crew donned oxygen masks at approx 5000ft.	No smell in passenger cabin and no PAN declared due to late stage of approach. A/c configured early and crew transferred off oxygen for landing. Both crew commented on feeling slightly light-headed post flight.	5	119
201103544	04.04.2011	DHC8	Manchester (MCT)	Manchester (MCT)	Hanover	Unknown aroma/unusual smell on flight deck and in cabin from air conditioning system. Emergency checklist actioned. Flight crew donned oxygen masks. PAN declared. A/c returned.	Uneventful landing with fire services in attendance. CAA Closure: Initial investigation found the APU overserviced. Following another similar report, engineering identified contamination of the nr2 engine P2.2 and P2.7 ducts. Since replacement of nr2 engine, no further reports have been received.	4	70
201104862	06.05.2011	B767	LIMRI	London-Heathrow - LHR	Nassau	During cruise, flight crew both smelt fumes and a light haze was noticed within flight deck. Flight crew felt light headed. Oxygen masks donned. A/c returned for an overweight landing.		10	not stated
201105892	29.05.2011	A319	Madrid	Madrid	London-Gatwick - LGW	A/c returned due to smoke in cabin and flight deck. Flight crew on oxygen. A/c landed safely with fire service in attendance.		not stated	not stated
201106911	19.06.2011	EMB 190 Series	En Route	Manchester (MCT)	Milan Malpensa	Diversion due to fume event.	A/c had pack 2 ADD, therefore was operating with only nr1 pack operating iaw with MEL due to previous fume events. During climb, a definite fume event occurred with no visible signs of smoke/vapour but a very noticeable odour matching the description given by previous crew both verbally and in the a/c Tech Log. This event was sustained for approx 10 to 15sec. Given the undefined nature of the problem, the status of available air conditioning systems (i.e. only one pack), the history on type of similar problems and the navigation of the onward route over high MSA regions, flight crew elected to divert. As a precaution against situation escalating, crew donned oxygen masks for rest of flight.	5	86
201106948	22.06.2011	DHC8	En Route	Edinburgh (EDI)	Norwich	PAN declared due to acrid smell of fumes on flight deck and within cabin.	During descent, flight crew noticed a slight acrid/burning smell on the flight deck. Both pilots donned oxygen masks and check made with cabin crew, who confirmed awareness of acrid smell. PAN declared. ECL actioned. During this process 'ENG2 ADPT HT' caution illuminated. Bleed 2 selected off. A/c continued to a normal landing with fire service in attendance.	4	55
201107173	27.06.2011	EMB 190 Series	London-Gatwick - LGW	London-Gatwick - LGW	Belfast City	Flight crew noted a strange smell in the flight deck shortly after rotation.	Flight crew noted a strange smell in the flight deck shortly after rotation. After decreasing, the smell again intensified, resulting in the flight crew using oxygen. PAN declared and the a/c returned to the departure airport.	5	69

201107174	27.06.2011	EMB 190 Series	Southampton (SAM)	Southampton (SAM)	Leeds Bradford (LBA)	AAIB Serious Incident: Strong sulphur smell on flight deck and in cabin during climb. Smoke also evident in cabin. Flight crew donned oxygen masks. PAN declared. A/c returned. AAIB AARF investigation.	CAA Closure: The a/c had departed with a single air conditioning pack operating as permitted by the Minimum Equipment List. When passing FL100, the flight crew noticed smoke and a strong sulphurous smell in the flight deck. They donned oxygen masks, declared a PAN and elected to return to the departure airport. After approximately 5mins the smoke and smell had cleared and the a/c landed without further incident. It was subsequently identified that the operable pack had failed in flight. It was returned to the manufacturer for investigation. Strip inspection of the unit revealed that the second stage turbine rotor had failed, resulting in seizure of the rotor. This is a known failure mode caused by a resonance condition in the second stage turbine. Service Bulletin SB 190-21-0029 was issued on 26 April 2010 to incorporate a modified turbine with more nozzle vanes to eliminate the damaging resonance. To date no modified packs have experienced a second stage rotor failure. This pack had not been modified. As there is already a Service Bulletin in place to prevent such failures, no additional safety action is proposed. AAIB Bulletin 12/2011, Ref: EW/G2011/06/22.	5	24
201107743	07.07.2011	B777	En Route	London-Gatwick - LGW	St Lucia	Oil smell detected from aircon on flight deck. Co-pilot donned Eros O2 mask for 2mins. Smell cleared but faint recurrent smells. No smell in cabin.	Engineering inspection carried out, nothing found.	14	207
201108229	19.07.2011	DHC8	Belfast City	Leeds Bradford (LBA)	Belfast City	Fumes in the flight deck.	Fumes noted in the flight deck during the cruise, although no fumes were noted in the cabin at any time. Flight crew donned oxygen, PAN declared and a/c squawked 7700. Flight continued to its planned destination where, following a normal landing, a precautionary evacuation was carried out on the taxiway. Flight crew unable to raise fire crew on 121.6. Crew met by paramedics with all considered fit. Engineering investigation confirmed fumes from nr1 ARCDU (automatic radio communications display unit). Unit replaced and the a/c returned to service.	4	53
201108357	21.07.2011	DHC8	Edinburgh (EDI)	Newquay - St Mawgan	Edinburgh (EDI)	UK Serious Incident: Smoke indication during the cruise. PAN declared. Radio comms briefly lost. A/c landed safely. Evacuation on taxiway. No sign of smoke or fire. Subject to AAIB Field investigation	51 POB, no injuries. Evacuation conducted via entry stairs and passengers jumping from rear entry door.	4	47
201108463	23.07.2011	EMB 190 Series	En Route	Belfast City	Verona - Villafranca	AAIB Serious Incident: Diversion due to electrical type burning smell on flight deck. Both flight crew donned oxygen masks. A/c landed safely, taxied to stand and passengers disembarked normally.	During the latter stages of climb, Captain remarked about an odd smell. Cabin crew advised no sign of same in cabin. First Officer then became aware of smell and described it as an 'electrical' smell which then gave cause for concern. Over the following 10mins both pilots aware of smell increasing/decreasing which then could best be described as similar to that of an acrid 'new car exhaust/electric fire' smell. Both pilots agreed to employ the emergency checklist for 'Fumes'. Oxygen masks used. PAN declared and diversion initiated. A/c stopped on runway, and Captain requested fire service to check a/c before vacating runway. All reported as satisfactory. No medical attention requested or required by anyone, however, due to emergency and possible subsequent high workload all crew felt not fit for further flying duties that day.		
201108912	31.07.2011	B777	En Route	Bermuda	London-Gatwick - LGW	Electrical burning smell in forward galley and around door 3R during cruise. Cabin crew reported irritation to eyes and throat. Diversion.	Source investigated and appropriate checklist actioned, although source could not be isolated. Flight crew donned oxygen masks as a precaution for approach and landing. CAA Closure: The cause could not be determined.	13	151
201109255	05.08.2011	A319	Cagliari	Milan Malpensa	Cagliari	MAYDAY declared due to smoke on flight deck and in cabin during descent/approach. QRH actioned. Emergency descent. Oxygen masks used. Air conditioning smoke suspected due to ECAM 'Pack 1 overheat'.	Light white smoke emanated from floor and vent outlet and ceased after approx 5mins. Uneventful approach and landing with fire services in attendance. A/c checked by fire services and then taxied to remote gate for normal disembarkation. Communication difficult between flight deck and cabin when oxygen masks and smoke masks were in use and smoke masks difficult to loosen from vacuum state. CAA Closure: The event was caused by a defective air cycle machine. The operator proposes to instill a soft life of the ACM at 15000hrs.	6	158
201110443	02.09.2011	DHC8	En Route	Stuttgart	Birmingham	PAN declared due to 'burning rubber' smell in cabin in vicinity of rows 15-17. Flight crew donned oxygen masks as a precaution and remained on oxygen until engine shutdown. A/c diverted.	Emergency checklist actioned with no noticeable effect on smell. Expeditious disembarkation carried out. Cabin checked by fire services and no obvious cause found. CAA Closure: Engineers could not reproduce the reported event. No further reports since.	4	46
201110709	07.09.2011	B757	Kavala	Leeds Bradford (LBA)	Larnaca	UK Serious Incident: EICAS 'LH AC Bus' warning during flight. Smell of smoke and fumes in flight deck. MAYDAY declared. Both crew used oxygen. Emergency descent. Diverted. AAIB Field investigation.		not stated	not stated
201112912	17.10.2011	DHC8	Edinburgh (EDI)	Manchester (MCT)	Aberdeen (ADN)	PAN declared due to hot electrical smell in the flight deck.	Both crew donned oxygen masks. ECL actioned out and priority landing carried out. Emergency services in attendance on landing.	4	73
201113937	05.11.2011	A319	Madrid	Milan Malpensa	Madrid	Strong fumes in flight deck and cabin.	On approach a strong oily smell was detected in the flight deck and rear of cabin. Two cabin crew suffered headache and dizziness and later on, minor throat and eye irritation. Flight crew donned oxygen masks as a precaution. A/c landed safely. Engineers found engine oil levels overfilled well above maximum on both engines (flight deck indications were normal).	6	86

							<p>Flight crew felt light headed and used oxygen to remove symptoms. CAA Closure: Operator investigations included inspections and ground runs of the engines and APU, with no reported fumes. However, due to one of the reports the APU was removed and returned to the workshop for investigation and had been removed after 1140 APU hours and cycles. The APU was returned to the manufacturer who carried out a full inspection, including a full Black Light borescope inspection of the APU intake and compressor area. No traces of oil were found, confirming that the APU was not the cause of generating the reported smells. Following the APU replacement, the a/c operated several sectors without report but then it had a several further reports over a six week period when additional fault finding was actioned, including Black Light Boroscope of the engines with any findings. The cause of the fume events have not been established and the a/c is on monitor by Powerplant Engineering via a weekly report.</p> <p>Root Cause: Not established</p>		
201114242	15.11.2011	B767	London-Heathrow - LHR	Dubai	London-Heathrow - LHR	Strong oily smell on final approach.	Remedial Action(s) Taken: Routine monitoring to continue.	9	155
201115144	10.12.2011	B767	Larnaca	London-Heathrow - LHR	Larnaca	Chemical fumes in flight deck.	During the approach a strong chemical smell was noticed in the flight deck. As a precaution P2 donned oxygen mask and flew the approach. During the debrief it was agreed that the suspected cause was de-icing fluid.	10	not stated
201115156	11.12.2011	A319	En Route	London-Heathrow - LHR	Zurich	Chemical fume smell throughout the a/c during descent. Flight crew on oxygen until after landing.	Expeditious approach requested. P2 continued approach to landing as P1 oxygen mask would not clear of condensation. Cabin crew member reported eye irritation.	4	125
201115802	28.12.2011	A320	En Route	Edinburgh (EDI)	London-Heathrow - LHR	Hazy smell in flight deck during climb. Flight crew oxygen masks donned.	Passing FL100 in the climb both flight crew noticed a hazy, faint smell described as akin to 'the dusty smell of an old fan heater'. As the smell was faint at first the FO (PF) went onto oxygen and then as the smell intensified was joined by the Captain (PNF) on oxygen. Cabin crew reported the same faint smell in the forward galley but nothing in the rear galley. After about 5mins the smell disappeared completely and normal operations were resumed and the climb continued. No ECAM indications or other abnormal indications, both packs operating. No visible smoke at any time.	6	118