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TRANSCRIPT OF “FILE ON 4” – “SOMETHING IN THE AIR?”

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“FILE ON 4”

Transmission: Tuesday 25th February 2020

Repeat: Sunday 1st March 2020

Producer: Paul Waters

Reporter: Mike Powell

Editor: Andrew Smith

ACTUALITY IN AIRCRAFT CABIN

POWELL: January 2nd, 2020, 8.36pm. British Airways flight BA633 from Athens is minutes from landing at Heathrow Airport.

PILOT: Aircraft was on final approach to London Heathrow. Established on the glide slope for two seven right. We entered to tops of a layer of cloud. At the same time I, as pilot not flying, pilot one, smelt a mild increasing to moderate smell of sweaty socks or ozone smell.

POWELL: A serious problem is developing, which is why a confidential internal Air Safety Report, or ASR, was completed by the Captain after the incident. We're not supposed to see it. And you're not supposed to be hearing it. It's been leaked to File on 4.

PILOT: Pilot flying didn't respond and had started breathing rapidly over the intercom. I asked if he was okay, with no response, and asked again and he replied, 'No.' By this time his head was dropping forward and was not really usefully conscious.

POWELL: With the pilot who is flying the plane – the First Officer - out of action, the Captain takes over.

PILOT: Approximately seven miles to touchdown, immediately donned my oxygen mask and stated that I had control. Pilot 2 now fully unresponsive. Mayday call made to London Heathrow tower stating pilot incapacitation and intention to land.

POWELL: The Mayday call is used only in times of life-threatening immediate danger.

PILOT: At some point during this time, pilot 2 had recovered enough to put on their own oxygen mask but was still unresponsive to the question, ‘Are you okay?’ and still head down, not really moving.

POWELL: The Captain lands the plane safely and the passengers disembark normally – probably unaware of the emergency in the cockpit. This is what’s known in the airline industry as a fume event. Not all are as serious as this one, but they’ve become bitterly contested between the airline industry and the people who work for it. Whilst some staff maintain their health is being damaged by exposure to poisonous fumes, including organophosphates, airlines say there is no proof that’s the case. Legal action is underway in Germany, Holland, France and the United States, and the dispute will reach a climax in the High Court here later this year, when the union Unite brings forward ten test cases, which reflect the claims of more than a hundred crew.

ACTUALITY OF CAPTAIN ANNOUNCEMENT ON FLIGHT

CAPTAIN: ... again on the way into London, give you an update on the weather and a more accurate arrival time.

POWELL: For ten years, in the nineties, I flew the world as an air steward. I was trained to respond to all types of emergencies – and I had my fair share. Looking back, we did experience chemical smells, but we didn’t register them as fume events, because they weren't recognised then as they are now.

ACTUALITY OF PEOPLE TALKING

POWELL: But staff are becoming increasingly concerned about fume events. They've been recording incidents themselves. They've also been keeping a list, called Angel Fleet, of colleagues who have died prematurely. One ex-Concorde pilot, Tristan Loraine, a leading campaigner to get greater recognition of fume events, has even made a film documentary about it. It's called Everybody Flies.

LORAINÉ: Thanks very much, and also a big thank you to Raindance for having this ...

POWELL: It's just gone on general release and I went to the premiere in October.

MUSIC AND EXTRACT FROM 'EVERYBODY FLIES'

WOMAN: Right now we've got British Airways and Airbus technicians who are working on a plane right now, trying to find out the source of a foul smell that passengers ...

MAN: Four flight attendants have filed a lawsuit against Boeing, which supplies planes to many of the world's airlines, accusing the manufacturer of knowing about a defect that allows toxic fumes to leak through the engines and into the cabin.

MAN 2: Boeing declined to comment on the suit, but has always insisted cabin air is safe to breathe.

LORAINÉ: So, when you're a passenger on an aeroplane, where does the air you breathe come from?

WOMAN 2: Hmm, that's a good point, I don't know.

LORAINE: It didn't surprise me that the passengers I spoke to didn't know much about the air on planes. Even many crews have no idea where it comes from.

POWELL: We'll come to that question, of where cabin air does come from, in a minute. It's an important part of this story.

WHITTINGHAM: Okay, so I joined the Air Force from, the Royal Air Force from school as a pilot. I started out on the flying game with the Phantom, fast jet air defence. I was a co-pilot squadron commander, NATO AWACS, which was a guinea a minute ...

POWELL: That's Dai Whittingham. As you can hear, he loves aeroplanes. They've been his life. He's now CEO of the UK Flight Safety Committee, which represents ...

WHITTINGHAM: BA and Virgin, Tui, easyJet, Ryanair, Aer Lingus right the way through to some of the heavy cargo operators, the rotary side onshore and offshore helicopters with the military, with the Civil Aviation Authority – the full gamut of aviation activity in the UK.

POWELL: According to Dai Whittingham, the most likely source of organophosphates and other chemicals is the engine.

WHITTINGHAM: The original thinking behind the potential for organophosphate poisoning, aerotoxicity in cabins, was that this was pyrolised oil products coming through the labyrinth seals within the engines and leaking into the air conditioning system, because the air conditioning for most aircraft is drawn off the engine compressors, obviously dropped in temperature and pressure, but then goes into the cabin.

POWELL: And that's called the bleed air system.

WHITTINGHAM: That is called the bleed air system. You bleed air off the engine. It will be well nigh impossible to stop all forms of contaminants getting into an

WHITTINGHAM cont: aircraft cabin in just the same way as you cannot reduce all the things like volatile organic compounds in your own living room with flame retardant furniture and so on. The question, I think, becomes how much is too much, and is there a level of exposure at which people are being made ill? And that's the sort of research that now needs to be done.

ACTUALITY OF WAVES

POWELL: I've come to Teignmouth to meet Fiona and Charlie Bass. Their son Matt died at the age of 34.

CHARLIE: Well, Matthew had been suffering from an unknown illness and his health had been declining for probably six months or so, and it was difficult to find out what was the cause of it. He'd been to his GP, he'd been to specialists and he'd just come back from an overnight trip to Ghana and was with some friends, they had some pizza and some wine, and he went to sleep and didn't wake up.

FIONA: When that phone call came, I knew – being a mum, you just know, you know, that something's not right, and your whole world is just shattered. I had to go through the motions of burying my youngest son and he was 34, he was my baby. Since he was eight years old, that's all he ever wanted to do, and he loved his uniform, he was proud of doing his job and it killed him, it took him away.

POWELL: Do you feel you have received answers as to why Matt died?

FIONA: No, no, not really, not at all.

CHARLIE: The first post mortem stated that they couldn't understand why he died or they didn't see a reason why he'd died.

POWELL: Not satisfied with the first post mortem, Matt's mum and dad paid for a second examination and further separate tests, which indicated that he had

CHARLIE: No, he didn't, you're absolutely right, because the science and the evidence was not there at that point in time, and remembering that Matt's death was five years ago and this was the very, very first case that had been brought to court relating to this

POWELL: Unite, the union wouldn't carry on with the case.

CHARLIE: Well, they couldn't carry on with the case, because the coroner had found that that was not, in his view, and his expert witnesses, that that was the actual cause, the primary cause of death. So what it did do was raise the question that said, we can't definitely say that Matthew died because of that, but what we can say is that we need to keep an eye on this and make sure that any other crew that do die have the tests that are necessary to show whether they've been exposed to this.

POWELL: So what are these organophosphate chemicals that can end up in aircraft cabins - and what harm can they do? I turned to one of the UK's leading experts.

BERRY: I'm Professor Sir Colin Berry. I was formerly Chairman of the Advisory Committee on Pesticides. I'm a pathologist by training but did a great deal of regulatory work in drugs, materials and pesticides.

POWELL: What are organophosphates?

BERRY: They're esters of phosphoric acid, a lot of compounds, different kinds. They're used as pesticides, they're powerful killers of insects and have been used for a very long time – probably since about the 1950s.

POWELL: So they've been around for a long time. We've been exposed to them for quite a while.

BERRY: Yes, indeed. Their uses have been progressively restricted over the last three or four decades.

POWELL: If they get into a human body, what effect would they have?

BERRY: The big data we have is from studies of farmers using these as sheep dips. The symptoms are very clear – you get paralysis, you get peripheral neuropathy. Fortunately it recovers very quickly in the majority of people, though it may last for seven to ten days, but in a small subset of people, you get some permanent changes with peripheral neuropathy, damage to the nerves, and in the survivors of those who've had really toxic doses, quite likely to get some permanent neurological effects.

POWELL: In the worst cases, he says, these could involve poisoning, confusion, convulsions and coma.

EXTRACT FROM MERIDIAN

REPORTER: Two British Airways pilots from the south have died within weeks of each other after blaming exposure to aircraft fumes in the cockpit.

POWELL: BA pilots Karen Lysakowska and Richard Westgate were both in their early forties. His post mortem examination showed damage to his heart and nervous system, attributed by a coroner to an unintentional sleeping pill overdose. But his family says toxic cabin air could have been the cause of his death. The senior coroner of Dorset, Sheriff Payne, issued what's called a Regulation 28 report about the case to the Civil Aviation Authority and British Airways. In the legal document he stated:

READER IN STUDIO: In my opinion there is a risk that future deaths will occur unless action is taken. The matters of concern are as follows.

- (1) That organo-phosphate compounds are present in aircraft cabin air.
- (2) That the occupants of aircraft cabins are exposed to organo-phosphate compounds with consequential damage to their health.
- (3) That impairment to the health of those controlling aircraft may lead to the death of occupants.
- (4) There is no real time monitoring to detect such compounds in cabin air.

READER IN STUDIO cont: (5) That no account is taken of genetic variation in the human species, such as would render individuals tolerant or intolerant of the exposure.

POWELL: He concluded that action should be taken. Three years after that guidance, the senior coroner of Berkshire, Heidi Connor, sent a confidential letter of guidance, prompted by the inquest into the death of Matt Bass, to all coroners in England and Wales. File on 4 has seen that confidential letter. It says that should coroners be faced with a death involving a relatively young person who's a frequent flier, who dies in unexplained or complex circumstances, they may wish to consider the need for further post mortem tests and the retention of samples.

ACTUALITY IN PARLIAMENT

POWELL: I'm walking into the House of Commons in London, to meet Matt Bass's MP, Henry Smith. He also represents a number of air crew who fly out of Gatwick Airport.

SMITH: I'm concerned that there have been too many incidents of suspected fume events and I've heard all too many stories from those constituents of where people have become sick because of this Aerotoxic Syndrome. I've been concerned at the way the airline industry has been responding to fume events. I'm a big supporter generally of the industry, but that doesn't mean the airlines, I think, should be ducking the issue. I've had enough constituents come to me, one a suspected death as a result of Aerotoxic Syndrome, and therefore I think it is incumbent on the airlines to ensure that they're not putting this aside as a minor issue, but are properly investigating the health and safety of their staff and passengers.

POWELL: Fume events vary in type. Sometimes there's smoke. Sometimes just an unpleasant smell. Sometimes only the crew are affected. Sometimes it's passengers too. No one really knows how frequently fume events occur. Estimates vary. A veteran of the Air Accidents Investigation Branch told us they happen at least twice a day. A US study found that there were at least five a day in that country alone. And the European Aviation Safety Agency – or EASA – has reported more than a hundred serious fume

POWELL cont: incidents within its remit in both 2017 and 2018. I put it to Dai Whittingham of the UK Flight Safety Committee, that the industry has played down incidents of fume events.

WHITTINGHAM: The study that the European Regulator, EASA, did in 2015 made the differentiation between odours and fumes. That's not to say that fumes don't exist – they clearly do, and you're quite right about the global incidents. But again, when you come down to the number of flights, it's comparatively rare, if you start to talk about the serious events with, for example, visible fumes.

POWELL: Amongst the people I've met are an ex cabin crew leader who's counting the deaths of her colleagues, coroners who say that more needs to be done – these are after post mortem examinations of a captain, Richard Westgate.

WHITTINGHAM: Indeed.

POWELL: He was 42. And Matt Bass, the steward who was 34 when he died. The dad of a steward who says his fit and athletic son shouldn't have died. How has it actually come to this?

WHITTINGHAM: I don't believe any of the operators are ignoring what's going on, but it is very difficult as an operator, when you're faced with something that you cannot detect after the event, you know, no fault found. It's very typical as a diagnosis.

POWELL: But I think this is the worry, isn't it, that fume events occur and there's no way of actually registering it at the moment, because there are no monitors to actually pick up whether there's been a fume event. We're told that air filters are being developed, but they've been going on for years. There are scientists who say they are developing a blood test – if there's been a fume event, get everybody tested as soon as they get off the aircraft to see whether they've got organophosphates in their system. But nothing's happening.

WHITTINGHAM: I know that testing is difficult, I'm aware that some of the tests in response to fume events have not picked up metabolites of organophosphates in the urine samples that were taken, which is not to say that these individuals haven't been affected or have felt affected. I think there also needs to be some work to look at the exposure rates of people and clearly as cabin crew or as flight crew you are exposed to the internal environment much more frequently than a passenger would be. So there may be differences in susceptibility, there may be differences in tolerance, but at the moment that's an area of medicine that is not being explored.

POWELL: Why not? Are the airlines not investing in that side of things?

WHITTINGHAM: I think the airlines will probably be looking at the repeated studies that have gone on over the last 20 years that have not definitively made a link between the presence of organophosphates and this so-called Aerotoxic Syndrome. That is not to deny the potential existence of it, but they will be looking at the fact that they have a, I suppose at some stage there'll be a significant investment, but they also have a workforce to protect.

POWELL: The alarm is being raised by pilots and cabin crew, and as we've heard, from passengers now as well. These are the very people who the industry expects us to trust on board the aircraft, for the safety, to get us through the skies. When they flag up concerns about fume events and aerotoxicity, should we listen to them?

WHITTINGHAM: I think you should always listen to people. The fume events are being tracked by the Air Accident Investigation Branch and other safety investigating bodies. What I am less clear about is just how many people are allegedly affected by this – and I use that word deliberately. There is no denying that they have been affected – the question is, by what?

POWELL: Interesting you say about the fume events being registered by the Air Accident Investigations Branch, and I presume the CAA, because there is no official fume event register, is there?

WHITTINGHAM: Not in those terms. There are means of getting the data if you have cause to do so. All that data is now going into the European Central Repository, which means the Civil Aviation Authority, the national aviation authorities can get hold of it, as can the operators, as can pilots if they go through their national gatekeeper, because the information is protected under the European law to avoid it being misused for non-safety purposes.

POWELL: Quite recently in the US, the Cabin Air Safety Act of 2019 was introduced by a Californian Democratic congressman, John Garamendi and the Connecticut senator, Richard Blumenthal. The law would require the FAA – the authority in America – to create an online, searchable fume event database. Do you see the benefit of having something like that here in the UK?

WHITTINGHAM: I suppose you could do it. Whether the FAA is mandated to do that remains to be seen. There is a big programme going on in Europe called Data For Safety, where all these safety events will be searchable and categorised.

POWELL: And will the public be able to have access to that, to see how many fume events there have been registered?

WHITTINGHAM: I don't know personally. The public can get access to some data. The specifics, obviously not, so you will not know, for example, that it was a 737-800 on the 26th March 2019 and it was operated by whichever operator. You won't get ...

POWELL: You won't know that?

WHITTINGHAM: You will not know that.

POWELL: Because?

WHITTINGHAM: Because that information is always protected.

POWELL: Let's listen in now to another air emergency unfolding. This time it's the conversation between Canadian air traffic control and the pilot of a BA flight from San Francisco to London, which is being forced to divert to Vancouver.

EXTRACT FROM CONVERSATION VIA RADIO

POWELL: You're hearing the pilot make a PAN PAN emergency call – that's one step down from the Mayday you heard earlier. He's saying they have a fume event - toxic gas-type fumes onboard.

EXTRACT FROM NEWS REPORT

REPORTER: According to British Airways, a flight from San Francisco to London was diverted to Vancouver International Airport on Tuesday morning. The airline said members of the cabin crew became ill.

POWELL: So what happened on board that diverted flight? The BBC has seen a confidential report from the crew on board that very plane. In it, the crew leader said that there were reports of, dizziness, headaches, nausea, itchy red eyes, metallic taste

READER IN STUDIO: ... Dizziness, headaches, nausea, itchy red eyes, metallic taste, aggression and, most worryingly, forgetfulness and confusion. Twelve crew were giving us cause for concern. Eight crew were on oxygen. We would lose crew who would say they were going to the loo and they'd be found at the other end of the aircraft not knowing how they got there. Crew were found in corners with blankets over their heads and others stuffing food in their mouths while on oxygen. It was discussed about crew being capable for managing doors for landing, but we had little choice.

READER 2 IN STUDIO: During the event I had a euphoric-type feeling, a giddiness.

POWELL: One of the crew involved in the emergency spoke to File on 4 but, concerned for their career, they wanted someone else to speak their words.

CREW MEMBER [SPOKEN BY ACTOR]: The effects after that flight are more worrying. I am regularly out of breath and have a heavy feeling on my chest and night palpitations.

POWELL: In a statement, British Airways told us: “We would never operate an aircraft if we believed it posed any health or safety risk to our customers or crew. We always encourage our colleagues to tell us about any concerns they have.” The solution to toxic cabin air, achieving a better environment inside planes, may lie in industry efforts to reduce the impact of air travel outside aircraft – to be more environmentally friendly.

ACTUALITY ON TRAIN

POWELL: When it comes to innovation in aircraft design and new technology, Cranfield Aerospace is a national leader, working with the biggest names in aviation from around the world to develop prototypes, test new models and ensure everything they come up with complies with the regulator’s guidelines.

ANNOUNCEMENT: Ladies and gentlemen, the train is now approaching Bedford.

POWELL: I’m on my way to the company’s headquarters to meet their CEO, Paul Hutton.

ACTUALITY AT CRANFIELD AEROSPACE

HUTTON: What you can see here is our work facility, which is a 1930s hangar. I think the first photographs that we’ve got of aircraft being worked on in this hangar are Lancaster bombers. Today we’re very much focused on the green revolution in aerospace. If we carry on, no, you can’t go on the hangar floor, sorry, we have to keep on the red walkways for safety. Carry on along here.

POWELL: Talk us through as we come through the hangar.

HUTTON: Okay, as we go past the, past this shelving here, at the front of the hangar you can see

POWELL: So we're standing by the engine of a jet here, Paul. Maybe you could just explain to us how the engine works and how it kind of draws in air into the cabin.

HUTTON: I mean, essentially a conventional engine, a jet engine is mixing the air that you get in the atmosphere with the propellant, the jet fuel or, in some cases, some aircraft add gas in order to provide the propulsion. So the air that's injected into the cabin, there's always a risk that that air gets mixed up and that can cause pollutants into the cabin. That problem starts to disappear as you move to pure green technologies, because if you're using pure battery, for example, then there is absolutely no emissions. If you're using something like a hydrogen fuel cell, the outputs are just water, so there aren't any noxious propellants that will cause that sort of problem. So whilst these green technologies are not being developed specifically to address any problems with bleed air into cabins, they potentially do help to make that problem reduce or, in fact, go away.

POWELL: So we're in a part of the hangar which is completely sealed off. This is a bit of a secret project going on, Paul.

HUTTON: Exactly that. Now what we see here in this walled-off area, which unfortunately we can't go in because it's commercially sensitive, is the first prototype of what's called an air taxi. That's an electric vertical take-off and landing aircraft, being developed by and for one of our customers. It's designed to carry between three and five people and it has what looks like a conventional wing, but that wing can rotate to the vertical, and of course, at the same time, we're replacing conventional propulsion with electric or hybrid electric propulsion to start the journey of going green with aircraft, which is a must. We're talking about six plus years to get these into passenger carrying service.

POWELL: How long until commercial airliners would use this kind of technology?

HUTTON: It's likely to be two or three decades before we get these sort of technologies turning those types of aircraft completely green.

POWELL: In years to come then, toxic cabin air may disappear. The chance of oil leaking into the cabin will diminish as we move away from fossil fuels. In the meantime, air crew who feel they've already been harmed are suing the airlines. They've been advised not to speak to the media ahead of their cases coming to court later this year. So this former pilot did not want us to use his name.

ANON CAPTAIN: I've had four or five fume events during my careers. As an ex aircraft engineer myself, I realised that when we are having the fume event that there was a necessity to measure that fume event, and there is a piece of equipment which is available to the engineers called an aerotracer which I asked the engineers to bring on board and measure the oil quantity, which they subsequently did after the flight, and it proved that there was oil, quite a high quantity of oil in the aircraft. They appear to be sweeping something under the carpet.

POWELL: The UK regulator, the Civil Aviation Authority, said in a statement that the research upon which they rely shows no evidence of a link between exposure to contaminants in cabin air and possible acute and long-term health effects, although such a link cannot be excluded. So how might a possible link be investigated? According to Dr Sarah Mackenzie Ross, no large-scale epidemiological study has ever been commissioned.

MACKENZIE ROSS: You would need two things – one is funding, the other thing you need is access to airline pilots and air crew.

POWELL: Dr Mackenzie Ross is a consultant clinical neural psychologist and a professor at University College, London. Like Sir Colin Berry, she's also been part of scientific investigation into the impact of organophosphates in sheep dip on farmers' health. She says the issue of toxic cabin air calls for a large-scale neuro-psychological clinical study, which considers the many factors that might undermine air crew health.

MACKENZIE ROSS: Shift work, jetlag and chronic sleep deprivation, incidents of ill health, how many people are ill, and does it relate to exposure or does it relate to some other factor? And one of the frustrating things is that a lot of the regulatory authorities, like the CAA and the airlines, will tell you that there's substantial body of research is out there which they have reviewed and there is no evidence, or limited evidence to suggest that contaminated air is harmful. Now what I would say in response to that is, absence of evidence is not the same as evidence of absence. The quality of the studies that have been reviewed is quite weak and really there's been a lack of research on this topic of any decent quality.

POWELL: Professor Sir Colin Berry says a proper assessment of long-term build up would require air crew cooperation.

BERRY: What one would need to do is document whether there is build up. The only way you can do that sensibly is a fat biopsy, which is not as grim as it sounds – you can needle a bit of fat from the anterior abdominal wall and see whether there are compounds in there. I don't think many people would volunteer for a study where every year they had their fat biopsied, but as a scientist you think that's what I'd like to do to discover what's going on here.

POWELL: So you think that crew, frequent fliers, pilots who are concerned about this should be doing that?

BERRY: Well, if you are that concerned, then that is not a silly thing to think about.

POWELL: A growing number of people are saying that they are highly concerned by the amount of fume events that are happening on board the aircraft. What would be your response to that? Do you think that people are getting worried for no reasons?

BERRY: If there is a fume event, what should happen is that some measurement should be made of what has been deposited on relevant surfaces in the plane. That's the data you need to be able to make any sort of sensible statement. What you

BERRY cont: could do is simply swab any plane surface, non-absorbent surface in the plane. That would tell you if there have been fumes in there, whether the compounds were present or not. And that, I think, in some ways is the first step.

POWELL: And what levels are acceptable?

BERRY: I don't think any level is acceptable. That's why these compounds have been steadily removed from garden use, for example.

POWELL: Swabbing the insides of aircraft is exactly what members of the cabin crew union BASSA have been doing, they say detecting contaminants. All this in preparation for court action. David Robinson of Thompsons Solicitors told us more than a hundred cases are lined up.

ROBINSON: This has recently been described by one circuit judge as potentially ground-breaking litigation. The science behind this and the experts that we're talking to – they're very well respected - are saying actually the toxins that cabin crew are being exposed to do have damaging impacts to health.

POWELL: Unite is the airline union behind the class action. In previous cases individuals have settled out of court, meaning the evidence hasn't been aired. But Unite Assistant General Secretary, Howard Beckett, says its members are determined that won't happen this time.

BECKETT: My union, Unite, is not in the business of creating public fear as a result of litigation simply to pursue litigation. It is the simple reality for us that our evidence is now compelling, that our members are at risk from low level exposure and from discreet fume events and it is a simple reality that frequent fliers will also be at risk as a result of that.

POWELL: So, let's return to the UK Flight Safety Committee, which numbers airlines, manufacturers and regulators among its members. I asked the Committee's CEO, Dai Whittingham, about the industry's unwillingness to discuss the issue in public.

WHITTINGHAM: The operators are not going to volunteer for the guardroom in terms of spending time and resources on a problem that they may not necessarily think is sufficiently serious. If we frame this in the aerotoxicity area, then until there is evidence that there is a serious problem and incontrovertible scientific evidence, you would perhaps say that it would be reasonable for an operator to work on the basis that there isn't a problem until he's got one.

POWELL: I've spoken to loads of people in the industry and we're talking about captains who are very educated people, very intelligent, they're in command. They're raising concerns, crew are raising concerns, passengers are raising concerns and politicians are doing likewise. Surely we've now come to the stage where this has rumbled on for far too long and the aviation industry has to be transparent, it has to say, 'Okay, we realise there's a problem and we're going to act to make sure that these fume events don't continue to occur.'

WHITTINGHAM: You're correct in that the flying community – the pilots and the flight crew – they're by definition not idiots. They're educated and highly trained people and I have no doubt that those of them who have concerns have sincerely held beliefs for doing that. The operators themselves and the manufacturers, I am sure if they are presented with the information that there is a problem – in other words, more evidence – then it will be dealt with. But at the moment what they're not seeing is sufficient scientific evidence that would warrant the level of not just investment in cash terms, in resources terms to get this dealt with, and that will be contingent on the level of exposure of people across the travelling public.

POWELL: We asked to interview British Airways, easyJet, Lufthansa and Ryanair. No one was available. It was the same with aircraft manufacturers Boeing, Airbus and Bombardier. Likewise, the regulators - the CAA in Britain, EASA in Europe and the FAA in America.

ACTUALITY IN AEROPLANE CABIN

ANNOUNCEMENT: Ladies and gentlemen, we are now going to brief you on the safety procedures of this aircraft. We ask you to

POWELL: Fume events continue. In the past few days, File on 4 has learnt that another British Airways A320 has been involved in its third fume event in just five months. In one event, both pilots were partially incapacitated and in the most recent, both pilots were affected, one seriously. Aircrew feel they are risking their jobs when they tell us about such incidents, while they wait to see whether courts across the world will support their claims.