

## Through a Glass Darkly *Media Reporting of the Cabin Air Quality Issue*

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In May 2006, Sarah Mackenzie Ross of University College London (UCL) presented the results of a clinical audit of the cognitive functioning of aircrew exposed to contaminated air to the U.K. government's Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT, for short).

Mackenzie Ross explained the report's limitations. These included the fact that the report was not a research study. Rather, it consisted of a "clinical audit of aircrew seen for clinical purposes." The "aircrew seen for clinical purposes" were in fact a self-selecting sample of pilots. This sample was not compared to a control group. Consequently, said Mackenzie Ross, "The conclusions that can be drawn from these findings have limitations." Under the rubric Terms of Reference, Mackenzie Ross stated: "The author ... makes no attempt to ascribe causality." In other words, while the report investigated the cognitive functioning of a small self-selecting group of pilots (the majority of which had reported chronic health problems) it did not seek to rationalise observed symptoms.

The report's conclusions were ambiguous: "There was no evidence of ... intellectual decline, language or perceptual deficits .... Indeed pilots were intact on the vast majority of tests. However, there was evidence of under-functioning on tests associated with psychomotor speed, executive functioning and attention .... [T]he evidence available to us in this audit does not enable us to draw firm conclusions regarding a causal link with exposure to contaminated air." In her audit, Mackenzie Ross did not associate (limited) observed deficits with exposure to contaminated air.

The Mackenzie Ross findings were interpreted in a variety of ways. The way in which the findings were represented by Dagbladet.no, a Scandinavian news-based Internet site, tells us much about that publication's editorial policy. Dagbladet.no concluded: "This report ... adds weight to the hypothesis that compounds resembling nerve gas in cabin and flight deck air have caused irreparable neurological damage to aircrew." It must be asked how a report that was careful not to ascribe causality could be seen to support the hypothesis that organophosphates in flight-deck and cabin bleed air cause neurological damage among aircrew?

Communications theory, specifically Kasperson's theory of risk amplification, can help explain Dagbladet.no's construction. In his essay 'The Social Amplification of Risk' Kasperson notes how "receiving stations" like newspapers and TV news channels reproduce ("amplify") stories that complement their editorial line, and discount or attenuate stories that do not. As

Kasperson puts it: "[S]ignals that are inconsistent with previous beliefs or that contradict the person's values are often ignored or attenuated. They are intensified if the opposite is true." Regarding the Mackenzie Ross audit, it is clear that Dagbladet.no ignored those findings that contradicted its editorial line on organophosphates and intensified those findings that were supportive.

Another characteristic of Dagbladet.no's reporting was its sensationalism. One article carried the banner headline: "You are being gassed when you travel by air." This headline gave the impression that cabin air is routinely contaminated. This is not the case. As Dagbladet.no itself explained in another article: "When asked by Dagbladet.no for information, the Norwegian Civil Aviation Authority's analysis section ... revealed 13 mysterious incidents which may be connected with contaminated cabin air in aircraft [between 2001 and 2005]."

It would seem that media sensationalism is ubiquitous: In an article titled "Death in the Air", *The Thamesmead Gazette*, a newspaper sold to those living close to London City Airport, claimed that residents were being crop-dusted with organophosphates by arriving and departing aircraft: "The lubricant leaks into the cabin, but it also leaks into the air. This means that Thamesmead could be crop dusted by organophosphates as much as 200 times a day."

Bizarrely, the Gazette also claimed that "aircraft are using OPs [organophosphates] as their main lubricant." In fact, it is synthetic oil that is a jet engine's main lubricant. Potentially hazardous OP-type compounds may be produced if the synthetic oil reaches a very high temperature. *The Thamesmead Gazette's* report was subtitled: "Every day, planes flying in and out of London City Airport are slowly killing us." Curiously, this report reproduced a statistic that seemed to undermine its own argument: "The DETR [Department of the Environment, Transport and the Regions] confirmed recently that the failure of oil seals occurs in one in every 22,000 flights."

In an article titled "Flight Fumes Warning", the Newcastle paper *Sunday Sun* opened its report with the hyperbolic "North people jetting off on their summer holidays are under threat from deadly chemicals which leak into planes .... Independent air industry pressure group Aopis has warned that air crews and frequent flyers could even suffer brain damage caused by breathing in the toxic fumes." The oddest aspect of the Sun's report was how it sensationalized the issue despite printing a statement from the U.K. Civil Avi-

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ation Authority to the effect that the risks presented to the travelling public were “negligible”: “The preliminary findings show the constituents of the oil cause no long-term harm. Leakage into aircraft cabins is a very rare occurrence and only happens if there is a fault on the aircraft. The risk is negligible as far as we [the CAA] are concerned. The chances of any aircraft having oil vapours leak into the cabin is very small.”

Sensationalism is not confined to the popular press. In December 2003, the U.K. broadsheet *The Times* reported on this author’s research into flight crew fatigue and stress. Despite its positioning as a “quality” newspaper, *The Times* produced a determinedly skewed account of the research. Important facts — like the limitations of the research methodology (the research paper was based on interviews with just 11 pilots) — were not mentioned by *The Times*.

For a detailed analysis of the paper’s bias in the matter of reporting the research see: “Bennett, S.A. (2005) The Role of Social Amplification and News Values in the Representation of Risk Research: A Case Study. *Risk Management: An International Journal*. Volume 7, Number 1.” For a wider review of media bias when reporting on the aviation industry, see this author’s latest book *A Sociology of Commercial Flight Crew*, published by Ashgate.

As to why the media seem drawn to bad news, the answer lies in the public’s appetite for misery and gore. Bad news sells, in part because it makes readers, viewers and listeners feel better about their own tedious existence. Good news cannot do this. As Alan Bonner explains in his book *Media Relations*: “[N]ews organisations are often accused of ignoring the good to concentrate on the bad .... Well, yes. Who, after all, is going to rush out and buy a newspaper ... to learn that everything worked the way it should that day?”

Sensationalist reporting on commercial aviation is irresponsible. It may sell newspapers, magazines or airtime, but it does so at great cost to passengers’ peace of mind and the industry’s reputation. Sensationalist reporting is a cruel disservice to all those women and men who labor long and hard to make commercial aviation one of the world’s most dynamic and successful industries. Commercial air transport creates wealth, drives scientific and technological innovation and facilitates cultural exchange and understanding. It deserves serious journalism.

It’s not all bad news, however: some newspapers and journals do exercise their power and influence responsibly. Surprisingly, perhaps, the British satirical magazine *Private Eye* published a remarkably considered review of the Mackenzie Ross report. In its July 7-20, 2006 edition, the magazine commented: “[T]he study is limited because there are no ‘controls’.” It also noted: “The preliminary

findings ... while not providing any kind of causal link, might suggest otherwise (my emphasis).” In its February 14, 2006 edition, *The Daily Telegraph* cited the U.K. Defence Evaluation and Research Agency’s observation that “... a conclusive link between ‘fume incidents’ and staff sickness could not be found.”

With regard to the cabin air quality issue, two conclusions can be drawn: First, the quality and safety of flight deck and cabin bleed air merits further rigorous scientific investigation. As Mackenzie Ross says: “Given the scientific uncertainty regarding the potential hazards of inhalation of pyrolyzed engine oil, further research ... is definitely warranted.” Until the results of such investigations are made available, however, protagonists should behave responsibly.

I recently spoke to the Safety Manager of a large U.K. airline who complained that a certain pilots’ union had been encouraging his flight and cabin crew to query cabin air quality. The subject airline had no history of organophosphate contamination. Its aircraft were powered by engines whose bleed-air architecture minimized the risk of contamination. Engines were maintained to the highest standards by a reputable international aero-engineering company. The airline purchased only new aircraft (that were fitted with the latest filtration technologies). Despite the airline’s positive safety climate and commitment to high quality flight operations, the union insisted on pushing the cabin air quality issue.

At what point, it might be asked, does health and safety “consciousness raising” become scaremongering, or even intimidation? Secondly, sensationalist reporting on the cabin air quality issue is a disservice to safety campaigners. Far from helping them in their work, it undermines their credibility and makes rational debate impossible. Media sensationalism is self-serving, its purpose being solely to improve the “saleability” of reportage. Media corporations’ prime concern is the maximization of shareholder value — as any media mogul would confirm.

It is important that aviation professionals remain alert to the media’s proclivity for bias and sensation and to its tendency to be — as a member of the U.K. parliament once put it — “economical with the truth.” Media reporting on the industry is schizophrenic. Flight and cabin crew are portrayed as either heroes or villains. They are either canonized or demonized. In the world of the mass media there is no happy medium. An appropriate degree of scepticism is therefore required when reading, viewing or listening to reports about the industry. ➔

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