

Alcohol-Related Air Rage: Assessment, Prevention and Management

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ABSTRACT

Air rage is the term commonly used to describe a spectrum of disruptive behaviors on the part of airline passengers during flight. This behavior has received increasingly frequent attention by the media in North America and elsewhere, partly because of its lethal potential and occasionally bizarre nature which lead to sensationalistic coverage. However, systematic research on the problem of air rage barely exists. This deficiency is explained by the relatively recent public attention to the phenomenon and certain political tensions that cause key players to be uncertain about how to view or handle it. Motivation to collect and disseminate data in a systematic way is not always present where it would count. In the interest of public safety, the time has come for a new attitude of openness and cooperation among governments and representatives of the airline and alcohol industries. Such an attitude will facilitate the creation of a database relevant to this public health and safety issue. Once available, the database will serve to guide primary prevention strategies and training designed to avoid the negative consequences of passenger disruption.

Key words: alcohol, travel, air rage, prevention, research.

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INTRODUCTION

Disruptive behavior by passengers on airliners or in connection with air travel is a phenomenon that is receiving increasing attention from the media, national and international regulatory agencies, flight crews and airlines. This behavior has not been consistently or clearly defined. Actions that are officially recorded as air rage by flight crews tend to be on the extreme end of the scale. Yet the range of behavior labeled as air rage by the media includes everything from defiant smoking on non-smoking flights, angry exchanges and verbal abuse to physical attacks, drunk and disorderly conduct and attempts to break into the cockpit and seize control of the aircraft.

Some of these events may seem like terrorist acts but differ in that they are not politically or ideologically motivated and are probably not planned beforehand. The drunken or deranged perpetrator may react violently when certain expectations are not met, but he (less likely she) is not demanding the release of countrymen or provision of a ransom. Another difference is that there have been systems in place for decades to try to prevent terrorism, including security checks of commercial flights, whereas systems to curtail other forms of aggression in connection with air travel are rudimentary.

Comparisons may be drawn to other types of “transportation” rage, such as road rage, but again there are differences. For one thing, road rage is a more common occurrence. For another, witnesses and victims of road rage often have the physical protection of their own car and the possibility of escape such as driving away. No such protection or escape is afforded in

airspace (Luckey, 1998). Although the estimated frequency of air rage incidents is low in proportion to passenger hours or miles traveled, nevertheless several such incidents have nearly brought the aircraft down. Air rage incidents have also resulted in injury and fatality on board (Kovac, 1999; Canadian Broadcasting Corporation, 2001).

There are reasons for the hitherto unfocussed approach to the air rage problem. An array of contributory factors makes it hard to identify effective solutions. The relatively low frequency of incidents results in a lack of attention on the part of the airlines and there is disagreement about who is responsible for incident management. In international jurisdictions, national groups are inclined to avoid responsibility.

Even the task of obtaining routine information is not simple. To date, no standardized international system is in place that would facilitate a tally of circumstances, perpetrators, incidents and responses. Given the low frequency of reported events, the use of conventional survey methods would be expensive and unreliable. Airline employees are a potential source of information, but airline managers appear in some instances to be reluctant to provide information or to specify in the public domain what prevention measures, if any, they are taking. Some airlines have expressed a fear of “information liability,” i.e., the risk of being sued after releasing sensitive information (Forrestall, 2000). However, with increased media attention and regulatory activity, the motivation of the airlines to be accountable for air rage incidents may improve.

This paper, of necessity, uses mainly secondary sources of information. It is based on accounts in the media, government and transportation industry documents, opinion polls and surveys conducted by or for the media. There is not much mainstream research literature on

air rage, e.g., published in social science or aviation journals, but whatever we found we have included.

Two Incidents

Most information about air rage derives from anecdotal accounts, whether these appear in newspapers, magazines, web sites, radio or television. In fact, in an interview aired by the Canadian Broadcasting Corporation on a television show entitled *The Fifth Estate*, February 7, 2001, a representative of Transport Canada admitted that this federal regulatory agency itself gets most of its information on air rage from newspapers, after the fact. From several hundred such anecdotal accounts reported over the past decade, we have selected two to illustrate the potential and real harm caused by air rage as well as certain contributory factors. The role of alcohol is pivotal in the first incident and the role of mental health is especially important in the second.

1. *Biker on a binge goes ballistic.* In 1990, during a charter flight from Toronto to Mexico, an alcoholic biker and chain-smoker with a criminal record including violent offenses, having consumed 40 ounces of liquor before boarding, continued to drink on board from his own two bottles of rye whisky. Despite non-smoking regulations, he smoked in the bathroom. When asked to stop smoking by a flight attendant, he defiantly put ten cigarettes in his mouth and lit them all. He proceeded to attack members of the cabin crew, threatening to kill the pilot. The flight arrived in Mexico where police had been radioed ahead about the imminent arrival of a disruptive passenger. At the immigration office, the perpetrator fought five armed Mexican police and trashed the room. He was

sprayed with mace and beaten. The only Canadian to date ever to be convicted of endangering flight safety, this man was sentenced to three months in a Canadian jail.

2. *Unstable man gains access to flight deck.* In December 2000, during the last leg of a British Airways flight from London to Nairobi, a deranged man entered through an open door to the cockpit of the 747. He grabbed the flight controls. Passengers felt the plane, which was cruising at 35,000 feet, drop. The engine became silent. The man bit the pilot's ear and finger. The pilot fought the man off and regained control. The perpetrator, considered mentally ill, was sent for psychiatric assessment. All witnesses who later offered comment believed the airplane came close to crashing. Some said the incident would not have occurred had the cockpit door been locked.

Statistics

Statistical information on air rage is not easy to find. What little information is available tends to appear in anecdotal reports with scant explanation as to how the figures were acquired and sometimes without mention of data source. Furthermore, statistics from different sources do not tell the same story. Reporting is inconsistent, partly because airline crew are obliged to report only those incidents that affect safety, and this requirement is subject to elastic interpretation. In general, official statistics cover only the most serious cases.

Lack of reliable data presents challenges, not least of which is determining whether the frequency of air rage incidents is really increasing or only appears to be increasing as a result of escalated media coverage. From different U.S. web sites referring to a similar time period, one may learn that incidents are down by a modest amount or up by a large amount.

Even raw numbers vary. The (U.S.) Association of Flight Attendants (AFA) reported 141 incidents in 1995 whereas the (U.S.) Federal Aviation Administration (FAA) reported 125 incidents for the same year.

[Figure 1 About Here]

An overview of the way in which air rage might be seen to fit into the bigger picture of air travel and alcohol service is presented in Figure 1. The proportions for each sphere are rough. More important than exact proportions is the point that air rage incidents, like car crashes, involve the intersection of activities in which the role of alcohol is sometimes relevant and harmful. The figure avoids exaggeration. For example, there is no evidence that air rage occurs on most flights and no reason to suppose that all air rage is triggered by alcohol consumption. Nevertheless, informal estimates suggest that 40% of air rage incidents are alcohol-related. Therefore, an attempt to reduce the frequency and severity of air rage could logically target alcohol service practices in airports and onboard aircraft.

The part of the figure labelled “D,” showing the intersection of alcohol and air travel apart from the issue of air rage, may benefit from examples. Positive examples of this intersection include relaxation enjoyed by passengers who consume alcohol with no untoward effect, therapeutic value of moderate consumption in calming those who suffer from fear of flying (McIntosh et al., 1998), and profit accruing to the airline and alcohol industries from alcohol sales. Negative examples include the danger posed by pre-flight alcohol consumption on the part of pilots or crew (e.g., Cook, 1997), whether this danger takes the form of motor impairment due to intoxication, carelessness caused by excessive relaxation or irritability associated with hangover.

[Table 1 about here]

The data from Table 1 are based on a poll of approximately 3,000 frequent business flyers. The source document gives no information on polling methodology. In addition to the information presented in the table, it was found that 2% of those polled had had flights diverted due to air rage ($n = 60$). Overall these frequent flyers had taken 5% more flights in 1998 than in 1997, an indicator of the tendency of air travel to become increasingly commonplace. Alcohol- and smoking-related incidents combined amount to 32%.

[Table 2 about here]

The percentages in Table 2 are from the Air Transport Association. Again, the source document does not include a discussion of methodology. Alcohol and smoking combined gives 35%.

[Table 3 about here]

The data from Table 3 are based on an anonymous self-completed questionnaire sent to 100 of the top airlines and 300 other airlines. Of 400 questionnaires, 206 (52%) were completed and 197 were usable. Respondents were given ten possible causes of air rage and asked to rank order their significance.

[Table 4 about here]

The data in Table 4 are from the Aviation Safety Reporting System, an air safety program conducted by the National Aeronautics and Space Administration (NASA). Methodological details are not provided, except to say that NASA collected and analysed the data. Adding percentages for alcohol, tobacco and drugs gives 60%.

At the moment it is the media who control most information dissemination about air rage, and therefore the database is skewed towards sensationalistic anecdotal reports. These reports have value, but they cannot be usefully compared with each other since each writer is at liberty to stress whatever strikes his or her fancy. It is hard to get a sense of trends, to compare different jurisdictions in any meaningful way, or even to gauge the relative magnitude of the problem.

Research Synopsis

Air rage has not been the focus of extensive research. As with other social issues, prevention initiatives have proceeded in an unsystematic manner, hampered by limited information on the cause, nature, extent and context of the problem (e.g., Reiss, 1998).

Few studies have had access to primary data, such as firsthand observations by researchers, perpetrators, other passengers or flight crew. The research to date has relied mainly on media accounts, hearings and data tabulated by official agencies, such as the U.S. Federal Aviation Association (FAA). In contrast, the impact of alcohol use by the pilot on performance and accidents has been more extensively examined. For example, Cook (1999) presented data on alcohol involvement in commercial and military incidents.

Pontell and co-authors (1983) show that antecedents of and reactions to air rage are influenced by the culture of the times. Drawing on media accounts and testimony at U.S.

hearings, they examine the dynamics of assaults against flight attendants. A number of underlying factors are noted, such as the contrasting roles expected of cabin crew who might be performing food service duties one minute and giving safety instructions the next. Sexual stereotypes in the advertising of the day reinforced the assumption made by some men that sexual aggressiveness directed at female flight attendants (“stewardesses”) should be tolerated. About alcohol consumption the authors say, “The vast majority of attackers are intoxicated when the assaults occur.” The study suggests that underreporting of disruptive behavior was common in the 1970s, based partly on a reluctance to stigmatize middle-class perpetrators.

Augustin and Wichman (2000) discuss stress and its relationship to in-flight violence. The authors say the FAA reported that the number of physical and verbal assaults by passengers on crew increased 300% from 1991 to 1997. Their analysis is based on 107 reports of unruly behavior filed with the Aviation Safety Reporting System over the past five years. In 31% of these cases, the perpetrator was rude or obnoxious to a flight attendant; in 15%, attacked a flight attendant; in 11%, was rude to other passengers; and in 12%, the perpetrator attacked other passengers. Incidents were more likely to be instigated by persons travelling alone and to occur during longer flights, in medium-sized aircraft.

Lange and McCune (1989), though not specifically discussing air rage, devote most of an entire paper to the role of alcohol in international travel. They emphasize the health risks incurred by people with medical problems who consume alcohol during flight. Li et al. (1998) analyze medical examiner data on the blood alcohol level of pilots and passengers in aviation fatalities and conclude that the safety implications of alcohol use by passengers of commercial flights should be further examined.

Bor et al. (2001) report findings from a 1999 survey of employees of 206 airlines. Respondents were asked whether incidents tend to be recorded, whether the crew is trained to deal with disruptive passengers, and whether there are shared views about causes of air rage. The method consisted of mailing out 400 questionnaires, 100 to top airlines and 300 to randomly selected airlines from the World Airline Directory. The authors provide frequencies for the results from the 197 questionnaires (just under 50%) that proved usable. About 88% of respondents said their company required that incidents of passenger violence be recorded. Under two-thirds (61%) said their company provided training. Respondents were provided with 10 statements naming causes of air rage, and asked to rate them from most to least significant. As shown in Table 3, 88% chose excessive alcohol consumption as the most significant cause.

Alcohol policy and key players

Alcohol consumption is relevant to air travel in a number of ways:

- *People use alcohol to relax and overcome fear of flying.* Many begin drinking before boarding and continue during flight, sometimes combining alcohol with prescription medication.
- *Alcohol has a pronounced effect on flyers.* Lack of food and high concentrations of carbon monoxide in recycled cabin air combine to exacerbate the effects of alcohol, which can include aggressiveness and poor judgment.
- *Alcohol is widely available during air travel.* In addition to normal sales, airlines use alcohol to mollify travelers who have been stranded or inconvenienced in some other way.

- *Jurisdiction is unclear.* Rules that apply to other alcohol providers do not apply to the airline industry, or at least the application of the law is different. A sense of the complexity of relevant jurisdictional issues can be gleaned from legal transcripts, e.g., *Air Canada v. Ontario* (1997).
- *Airline employees have difficulty assessing intoxication.* Most receive little training in how to recognize intoxication or distinguish it from behavior due to other conditions, such as diabetes, drug interactions or bipolar disorders.
- *The airline industry is competitive.* Airports are becoming more and more like huge entertainment centers. It would hardly be surprising if managers of this lucrative venue resisted anything seen as a threat to profits, including restrictions on alcohol service.
- *Air travel is in a mid-life crisis.* It has become the transportation for the masses, plagued by congestion, delays and aging aircraft. A reduction in perks, such as liberal access to alcohol, is likely to be resented by the travelling public.
- *Key players disagree.* The airline industry views air rage as a matter of individual pathology for which legal sanctions are the preferred remedy (e.g., Walsh, 2001). Employee representatives see air rage as a matter of labor relations, whereas passenger rights advocates call it a media invention that overshadows the real issue of declining service (Transport Canada, 1999). Policy-makers, though sensitive to public pressure, are also aware that, by most accounts, air rage is still a relatively rare phenomenon. The alcohol industry so far seems to have been silent on the subject.

Based on the above list, three areas for improvement can be identified: liquor licensing and controls at airports; legislation on alcohol consumption, promotion, sales and service on airlines; and research on effective alcohol policies for the air travel industry.

CONCLUSIONS AND RECOMMENDATIONS

The chronological Appendix highlights some of the actions taken by courts, governments, airlines and safety-minded groups from many countries in an attempt to deal with the problem of air rage. These initiatives, with varying degrees of effectiveness, date back to 1947. In 2000, the U.S., Canada, Japan, Norway, Switzerland and the U.K. all took significant steps. However, the continuing emergence of air rage as an international issue in which alcohol plays a part implies that an even more concerted effort is warranted.

Airline companies are generous with alcohol. However, this purchase of public good will come with a liability. The imperfect nature of the data on alcohol-related air rage does not excuse a failure to respect the well-known general incompatibility of alcohol and travel safety. This incompatibility has been documented beyond the shadow of a doubt in the case of drunk driving (e.g., Wilson & Mann, 1990), and with impressive certainty also in regard to boating and snowmobiling (e.g., Anglin et al., 1994). Although alcohol-related air rage involves alcohol consumption on the part of a passenger rather than a driver, unruly passenger behavior can certainly impinge on pilot performance.

Alcohol is not an inalienable right accorded to airline passengers by international law. Regulators in the U.S. and Canada have recognized passenger impairment as an inherent danger and made it illegal to board or serve an intoxicated passenger. Effective prevention should entail three components: research, policy and training.

Research

Incidents need to be documented in a systematic fashion on an international basis, e.g., detailing antecedents, severity, response and ramifications. In the long term, both quantitative and qualitative evaluation studies are needed to show the impact of training and policy towards the elimination of air rage.

Primary data are what is lacking. Studies should include direct observation of alcohol service practices and server interventions on a number of airlines, with comparison of regular and charter flights. The rate of enforcement and effectiveness of regulations already in place should be assessed. In each case, it would be good to know who approved the regulation and how it was implemented. Data from the U.S. and Canada are particularly valuable in that these two countries, respectively, have the largest air systems in the world, as measured by number of pilot licenses and permits, registered aircraft and air operators (Forrestall, 2000).

Policy

In order to be effective, an alcohol policy for air travel would have to be enforced in an even-handed way across international jurisdictions. Otherwise, the risk of non-compliance would be great.

Such a policy should define the level of passenger alcohol use considered to be low-risk. It should forbid such practices as unlimited free drinks, simultaneous service of multiple drinks, self-serve lounges and toleration of illegal consumption of duty-free alcohol on board. It should describe appropriate practices in the matter of alcohol sale, service and promotion in airport and flight environments and clarify responsibilities of passengers, ground and flight personnel and pilots. (It may be a novelty for some people to realize that as passengers they

have responsibilities as well as rights.) It should outline penalties for non-compliance. The implementation process of this policy should aim to develop consensus among key stakeholders, especially the major airline companies, and educate the travelling public about its purpose, content and consequences. The alcohol industry might need to re-think its relationship with the airline industry in response to the kind of policy we have just described.

Training

Prevention being the primary goal, we recommend that both ground and flight personnel receive regular mandatory training on management of disruptive passengers, and that this training be standardized across the airline industry. To be emphasized are skills in de-escalation of conflict, reporting procedures and legal issues.

An obstacle to overcome is the tension that sometimes exists between managers of airline companies who want to attract passengers and employees of airline companies who want protection from abusive passengers. Ideally some way should be found to unite managers and personnel in a common desire to make air travel as pleasant but also as safe as possible for all concerned. If conflict arises between convenience and safety, then safety should take precedence.

Appendix: Chronological Examples of International Management of Air Rage

1947

In one of the earliest documented cases, an intoxicated man on flight from Havana to Miami assaults another passenger and three crew members with a bottle. He is charged, but courts are unable to convict because jurisdiction for aircraft in international airspace has not been established (Bor, 2001).

1963

Tokyo Convention on Offenses and Certain Other Acts Committed on Board Aircraft, signed by 162 nations, lays foundation for prosecution of crimes on aircraft.

1988

The U.S. Aviation Safety Reporting System, jointly administered by the Federal Aviation Administration and NASA, accepts voluntary reports of airline incidents.

1996

The Civil Aviation Amendment Act allows first-time offenses committed on board foreign-registered aircraft headed to the UK to be tried in the UK.

The U.S. Federal Aviation Administration names three levels of passenger misconduct: initial refusal to comply; repeated refusal; and disruption. Within the U.S., passenger interference is classified as a federal crime.

1997

First International Conference on Disruptive Airline Passengers is held in Washington DC.

Assault on flight attendant leads to formation of SKYRAGE Foundation, website www.skyrage.org

1998

British Airways issues yellow cards to unruly passengers.

U.S. court says air carrier could be liable for passenger-on-passenger tort if employee played causal role (e.g., service of alcohol).

1999

ICAO (International Civil Aviation Organization) Secretariat Study Group on Unruly Passengers meets.

UK House of Commons Subcommittee considers use of breathalyzers to prevent drunks from boarding.

British Airlines logs incidents of interference with crew.

Transport Canada, airlines and labor groups launch information campaign posters and ticket stuffers to increase awareness of interference with crew and zero tolerance policy.

Quebec Superior Court fines KLM \$32,000.00 for not protecting one passenger from another drunk passenger.

UK raises maximum penalty for interference with aircraft crew to two years in jail or fine of \$3,200.00 U.S.

2000

European Commission launches air passenger rights consultation on legality of conditions of carriage, air carrier liability, delays and cancellations. Consultation document proposes assessment of rules in force governing authority of pilot, minimum training for crew, and service of alcohol.

Transport Canada issues *Commercial & Business Aviation Advisory Circular on Managing Disruptive and Unruly Passenger Behavior*.

The FAA Reauthorization Bill increases fines for unruly behavior from \$1,100.00 to \$25,000.00 per federal offense, gives U.S. Attorney General power to deputize and protects whistleblowers.

Japan Airlines, All Nippon Airways and Japan Air Systems use restraints on disruptive passengers.

A frequent flyer files complaint with Canadian Transportation Agency protesting ban from Air Canada.

The ICAO issues *State Letter LE4/59-00/44 on Legal Aspects of Unruly Passenger Problem*.

The Transport Canada Working Group on Prohibition of Interference with Crew Members makes 11 recommendations.

A Parliamentary Committee recommends revision of the *Criminal Code of Canada* to make it easier to prosecute unruly passengers who are not Canadian citizens (Forrestall, 2000).

The ITF (International Transport Workers Federation) releases *Charter for Action Against Disruptive Passenger Behavior* and the *Air Rage Good Practice Guide*.

Swissair allows cabin crew to restrain passengers endangering safety and supplies plastic ties for this purpose.

A British judge allows the family of a teenage girl sexually assaulted by a drunken passenger to claim damages from Dutch airline, KLM.

The Norwegian government announces it will amend traffic laws to introduce fines and jail sentences up to six months for air rage incidents.

2001

The Canadian Transport Minister directs airlines to lock cockpit doors.

The Canadian Transportation Agency rules Air Canada can bar unruly passengers with fair warning of penalties.

The Air Transport Association of Canada meets with 10 airlines to draft guidelines for dealing with air rage.

Table 1. Business-class travellers witnessing passenger behavior (n = 3,000). Source:

Asiaweek, Nov. 26, 1999

Verbal abuse of crew	21%	Sexual advances	2%
Drunk disorderly	19%	Physical abuse of other passengers	1%
Illegal smoking	13%	Physical abuse of staff	1%
Verbal abuse of other passengers	13%		

Table 2. Rank order of causes of air rage according to American Airlines (n = not stated). Source: *Salt Lake Tribune*, Dec. 10, 1997

Alcohol	25%	Carry-on bags	9%
Seat disputes	16%	Employee attitude	8%
Smoking	10%	Food	5%

Table 3. Causes of air rage in rank order, according to opinion of 197 airline employees.**Source: Bor et al., 2001**

Alcohol	88%	Cramped conditions	66%
Passenger personality	81%	Passenger denied carry-on	59%
Timetable delays	78%	Passenger expectation too great	57%
Stress of air travel	75%	Crew mismanagement	51%
Smoking ban	70%	Passenger denied upgrade	48%

Table 4. Causes of 152 passenger incidents as assessed by NASA. Source: *USA Today*,**June 12, 2000**

Alcohol	43%	Drugs/medication	8%
Prohibited electronic devices	15%	Bomb/hijack threat	5%
Smoking in lavatories	9%	Other	18%

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