

“An Analysis of Aviation Laws regarding Alcohol Consumption by Commercial Pilots in India and the World”

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Abstract

The life of a pilot is not easy. It is a highly stressful job. Pilots are required to maintain good standards of mental health and physical health. Pilots are required to keep calm during emergency situations and make quick decisions which may decide the fate of not just their lives but also the lives of the crew of the craft and its passengers.

Alcohol interferes with one's cognitive abilities. Short term effects may include hallucinations, headaches, loss of psychomotor functions, etc. In other words, these symptoms would seriously hamper a pilot's ability to discharge his or her duty to the best of his/her ability.

Every country has laws in place to deal with drunk flying i.e., the act of flying an aircraft under the influence of alcohol. Some are strict, some are lax. However, what cannot be denied is that drunk flying affects people globally. This paper talks about the law in India and other countries and the recent trends that have taken place in this area of aviation law particularly the 'bottle to throttle' rules. It also draws a comparison between the laws in India and other countries who are the main players in the aviation industry (commercial travel).

This paper also attempts to draw attention to the fact that drunk flying is a serious crime which apart from being a grave professional ethics violation and a moral wrong, also, on a more severe note endangers the life of others.

Keywords: drunk flying, bottle to throttle, alcohol.

INTRODUCTION

The life of a pilot is not easy. It is a highly stressful and gruelling job. On top of that they are required to maintain good standards of mental health and physical health. They are required to keep calm during gruelling emergency situations and make quick decisions which may decide the fate of not just their lives but also the lives of the crew of the craft and its passengers.

Alcohol interferes with one's cognitive abilities. Short term effects may include hallucinations, blackouts, headaches, loss of psychomotor functions, loss of coordination, perception, etc. Hangover causes a person to experience altitude sickness, vomiting, severe

headache, etc. In short, it makes a pilot incapable of discharging his or her duties effectively and efficiently.¹

As the presiding officer of the aircraft, it is expected from the pilot to maintain high standards of discipline and it is expected from the pilot that he/she would strictly adhere to the guidelines and rules set by the regulatory authorities. An Irish Pilot was awarded six months jail time by a Norwegian Court for preparing to fly a plane even though his crew was drunk. The Court while passing the judgement laid emphasis on the fact that the Pilot, even though was sober at the time of arrest, was the highest authority on board and was responsible for the conduct of his subordinates, hence, ignoring the intoxicated state of his crew was a grave offence.²

Even after so much of technological advancements in the aviation sector, disasters still happen. The aircraft might develop a complication but the quick thinking and presence of mind applied by the men and women involved have saved the lives of many people.

For toying with the lives of those who have entrusted the same in your hands when they boarded the flight commandeered by you, is nothing less than criminal breach of trust apart from being serious professional ethics violation. Hence, it is contended that such pilots must be charged under penal provisions and be sent to jail or at least a hefty fine should be charged. Duration of such a sentence is not what matters here. Such a punishment would act as a strong deterrent to other potential violators. It might be argued that the journey was uneventful and all the passengers aboard the plane were safe and sound, however, there lies a possibility that the journey could have ended in disaster and loss of life. While it is acknowledged that it is nearly impossible to make air travel completely safe, why shouldn't we try to limit the chance for disaster by ensuring that human error is kept to a bare minimum.'

“The pilots flying under the influence of alcohol or flying post consumption of alcohol (within the bottle to throttle duration), is not merely a breach of their, passenger's, trust but rather a breach of faith and sense of security of citizens in general, therefore, this blatant violation of rule as given under the law of the land, especially a rule which is to be complied with at all times, is a crime against the society in general. One's 'license to drink' is not 'license to endanger the lives of others' or worse, 'a license to kill'.”³

‘When drunk driving is considered to be a serious criminal offence as it endangers the lives of others, why ‘drunk flying’ shouldn't be considered a criminal offence is a wonder. In the latter case, the lives of hundreds are endangered.

¹ Requirements of Civil Aviation- safety of air Series part III Issue III ,

² <https://www.independent.ie/irish-news/irish-pilot-jailed-for-six-months-over-drunk-crew-25982162.html> .

³ “ <https://www.nytimes.com/1990/10/27/us/prison-for-3-northwest-pilots-who-flew-jet-while-drunk.html> “ .

WHAT ALCOHOL DOES TO THE HUMAN BODY?

Any liquid, which is fit for human consumption or in other words is potable, containing ethanol or ethyl alcohol is an alcoholic beverage. Alcohol is consumed by many people to attain a sense of relaxation. It acts a social ‘ice-breaker’ as it alters the mood of the consumer by decreasing inhibitions.

The table below gives a summary some of effects on the body of various blood alcohol concentrations:

0.01-0.05 (10-50 mg%)	average individual appears normal
0.03-0.12* (30-120 mg%)	mild euphoria, talkativeness, decreased inhibitions, decreased attention, impaired judgment, increased reaction time
0.09-0.25 (90-250 mg%)	emotional instability, loss of critical judgment, impairment of memory and comprehension, decreased sensory response, mild muscular incoordination
0.18-0.30 (180-300 mg%)	confusion, dizziness, exaggerated emotions (anger, fear, grief) impaired visual perception, decreased pain sensation, impaired balance, staggering gait, slurred speech, moderate muscular incoordination
0.27-0.40 (270-400 mg%)	apathy, impaired consciousness, stupor, significantly decreased response to stimulation, severe muscular incoordination, inability to stand or walk, vomiting, incontinence of urine and feces
0.35-0.50 350-500 mg%	unconsciousness, depressed or abolished reflexes, (abnormal body temperature, coma; possible death from respiratory paralysis (450 mg% or above)

However, the effect alcohol has on a person depends on certain biological factors like gender, age, weight, height, etc.

The symptoms indicated in the above table coupled with factors like sleep depravity, flying in bad weather, etc, would significantly increase the effects of the former. Hence, anybody with blood alcohol levels higher than 0.04 is incapable of flying an aircraft.

Hangover

Hangover is as dangerous as the intoxication itself. They can sometimes last for 48 to 72 hours. Symptoms of hangover include the following

1. Headache.
2. Dizziness.
3. Dry mouth.
4. Stuffy nose.
5. Fatigue.
6. Upset stomach.
7. Irritability.
8. Impaired judgement.
9. Increased sensitivity to bright light.’⁴

‘The above said following means that, any pilot who has the above said symptoms would’nt be fit to safely operate an aircraft. It could also be perceived that the pilot is under the influence of alcohol.

ICAO

The International Civil Aviation Organisation abbreviated and commonly known as ICAO is a (U N specialized agency). ICAO was made in 1944. The purpose behind the establishment of the ICAO is to direct the governance and administration of the Chicago convention. ICAO has 192 member states, India being one of them. ⁵

The primary purpose of ICAO involves, resolving consensus driven international SARPs (Standards and Recommended Practices) and policies among its member states and Industries. Other functions of ICAO can be listed as follows:

1. To achieve aviation development objectives and to coordinate with assistance and capacity increment in a strategic alliance.
2. Creating global decisions for the future and to administer strategic progress of air safety and its navigation
3. Monitoring the functioning of various air transport sectors.
4. Conducting audits and analysing the security and safety measures that a member state has put in place. ⁶

⁴ Pilot safety brochure published by FAA as available at <https://www.faa.gov/pilots/safety/pilotsafetybrochures/media/alcohol.pdf> .

⁵ Information as available at <https://www.icao.int/about-icao/Pages/default.aspx> (last modified at 19:27 on 17-05-2020) .

⁶ Information as available at <https://www.icao.int/about-icao/Pages/default.aspx> (last modified at 19:27 on 17-05-2020) .

The ICAO identifies ‘alcohol’ as a psychoactive substance, whose misuse or abuse could be very dangerous. (Annex 6, part II) of the Convention declares that the pilot in command shall be responsible for ensuring that no member of the crew of the craft is intoxicated⁷. Also, Annexe 2, 2.5, declares that no person shall pilot an aircraft, or act as a flight crew member of an aircraft, while under the influence of intoxicating liquor or any kind of narcotic or drug, by reason of which his capacity so to act is impaired.⁸

Article 1.2.7 (Use of psychoactive substances) of the Annex 1 (Personal Licensing) to the Convention on International Civil Aviation reads as follows:⁹

1.2.7.1 Holders of licences provided for in this Annex shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges.

1.2.7.2 Holders of licences provided for in this Annex shall not engage in any problematic use of substances.

The ICAO strongly recommends that the contracting states must ensure that pilots operating from their countries strictly abide with the anti alcohol consumption laws. It also recommends that the contracting states identify those who engage in the use of problematic substances and are removed from their safety critical functions. Once treated successfully, they can return to their safety critical functions.

LAW IN INDIA

The current law in India is rather strict, at least on paper. As per the DGCA rules and regulations, the permissible alcohol levels for pilots before flying is zero. Rule 24(1) contained under part III of the Aircraft Rules, 1937, declares, “No person acting as, or carried in aircraft for the purpose of acting as pilot, commander, navigator, engineer, cabin crew or other operating member of the crew thereof, shall have taken or used any alcoholic drink, sedative, narcotic or stimulant drug or preparation within twelve hours of the commencement of the flight or take or use any such preparation in the course of the flight, and no such person shall, while so acting or carried, be in a state of intoxication or have detectable blood alcohol whatsoever in his breath, urine or blood alcohol analysis or in a state in which by reason of his having taken any alcoholic, sedative, narcotic or stimulant drug or preparation, his capacity so to act is impaired, and no other person while in a state of intoxication shall enter or be in aircraft or report for duty”. As per this rule a pilot or any member of the crew cannot consume alcohol 12 before take-off. This rule is known as the ‘bottle to throttle’ rule. If a pilot fails his/ her breath analyser test, he/she will have her license suspended for three months. Repeat offenders will have their license suspended for three years or more.¹⁰

⁷ The Convention on International Civil Aviation (Chicago Convention) .

⁸ *Supra* Note 7.

⁹ *Supra* Note 7, art 1.2.7 .

¹⁰ Civil Aviation Requirements- Air safety Series part III Issue III,

Subsequently, such an offender can be charged under “section 11 Aircraft act 1934 (penalty for flying so as to cause danger), which states “a prison term which may go upto to 2 years or a fine which may go upto to ₹10 lakh or both” and /or section 11A (“Penalty imposed on failure of complying with directions issued under section 5A”) of Aircraft act 1934”.¹¹

All these rules and regulations are rather strict, however, they are like a beast without claws and fangs, hence, can only roar and not bite. There are multiple reasons for this. Mostly because pilots are shielded and protected by airline companies, also repeat offenders are not reported to the concerned authorities. Hence, it can be said that there is no proper enforcement mechanism. Also, in the year 2016 over 160 pilots have violated DGCA norms and rules, especially the ‘bottle to throttle rule’¹². What is ironic is that most of these pilots are Air India pilots. The Government of India owns Air India and comes under the ambit of the Ministry of Civil Aviation, DGCA is also part of the same ministry¹³

Indian Aviation market shall soon overtake Japan and become the 3rd largest aviation market, yet, its safety standards are nowhere close to what is normally expected from such a booming market.

It is also highly recommended that the rule of ‘bottle to throttle’ (12 hours as per DGCA rules), be amended to ensure that ‘practicality’ subsists and an overly enthusiastic law, which though highly lucrative on paper but is difficult to implement, is made effective. Alcohol is present in many common household items, food, common medicines, etc., the law must be amended to include all these factors into foray so that an innocent man/woman is not prosecuted.

LAWS IN USA

The United States of America has the world’s busiest airport, the Hartsfield Jackson Atlanta International Airport. Air travel statistics of the said airport is unmatched when it’s compared to other countries like Germany, China, India and Japan, which happens to be the top 5 largest aviation markets of the world.

The Federal Aviation is the primary body which regulates all aspects of civil aviation in the United States of America.

Part 91’s Section 91.17(a)(1), (a)(2), (a)(3) and (a)(4) - General Operating Flight Rules of the Electronic Code of Federal Regulations, strictly prohibits a person from discharging or attempting to discharge the duties of crewmember, pilot included, for a civil aircraft in the following circumstances:

1. 8 hours of alcoholic beverage consumption.
2. Under the influence of alcohol.

¹¹ The Aircraft Act, 1934 (XXII OF 1934).

¹² Information as available at https://www.telegraphindia.com/1160325/jsp/nation/story_76303.jsp

¹³ Information as available at <http://www.civilaviation.gov.in/aboutus/orgsetup>

3. Under influence of any narcotic substance.
4. While using any medical drug that would have an adverse affect on the faculties of the user to the contrary of safety.
5. Having alcohol concentration of 0.04 or greater in breath specimen or blood levels, Concentration of alcohol means grams of alcohol per 210 litre of breadth or grams of alcohol per decilitre of blood ¹⁴

The rules also call upon the aircraft's pilot to which the authority decides whether to allow or not to allow a person who appears to be under the influence of any narcotic substance or alcohol to board the aircraft. However, such a discretionary power shall stand suspended during an emergency.¹⁵

Clause C of Section 91.17 obligates crewmembers to submit for a test, which shall determine their blood alcohol levels, under the following circumstances:

1. On request by an officer who is authorised under local or state law to conduct such a test or to have such a test conducted or can also be done when an officer has to investigate due to suspicion on violation of any local or state law governing the same or substantially similar conduct prohibited by paragraph (a)(1), (a)(2), or (a)(4) of section 91.17.
2. "Whenever there is a reasonable apprehension to believe or to suspect that a person could have violated paragraph (a)(1), (a)(2), or (a)(4) of this section, on request of the FAA, said person must furnish to the FAA, such results, or authorize any hospital, doctor or clinic, or other person to release to the results, the tests must be taken within 4 hours after acting or attempting to act as a crewmember that indicates an alcohol concentration in the breath specimen or blood stream.
(d)Whenever the Administrator has a reasonable apprehension or basis to believe that a person may have violated paragraph (a) (3) of the said section, that person shall, upon request of the Administrator, shall furnish the Administrator, or authorize any doctor, clinic or hospital, or other person, who shall release the results to the Administrator, the results of such test must be taken within 4 hours after acting or attempting to act as a crewmember that indicates the presence of any drugs in the body.
(e) "Any test information obtained by the Administrator under paragraph (c) or (d) of this section may be evaluated in determining a person's qualifications for any airman certificate or possible violations of this chapter and may be used as evidence in any legal proceeding under section 602, 609, or 901 of the Federal Aviation Act of 1958."¹⁶

¹⁴ Electronic Code of Federal Regulations.S. 91.17.

¹⁵ *Supra* Note 14 .

¹⁶ *Supra* Note 14.

Unlike in India, where it is mandatory for crew members to take a pre-flight breath analyser test, in the USA such tests are conducted randomly. The minimum annual percentage is published in the federal register each year. Also, it is up to the discretion of the airline to choose a scientifically approved sampling method and how the testing, to ascertain the blood alcohol levels or breath alcohol levels, is conducted.

LAW IN UNITED KINGDOM

The UK is also one of the top five largest aviation sectors in the world. The Parliament of UK had established Civil aviation Authority as a statutory corporation which is a specialist agency which regulates all aspects of civil aviation in the United Kingdom.

The Railways and Transport Safety Act, 2003 has laid down its sets procedures, rules and regulations which are to be followed by the civil aviation sector in the United Kingdom. It also prescribes penalties which are to be imposed on those who would violate them, the Act's provisions. Apart from the above mentioned Act, the Aviation Order, 2009 also sets down rules for the aviation industry of United Kingdom.

A person is said to have committed an offence under section 92 of the Railways and Transport Safety Act, 2003 if he is under the influence of an alcoholic beverage or is drugged to an extent that it begins to effect his ability to discharge his duties the contrary to which would endanger the safety of others¹⁷.

Under Section 93(1) (a) -A person is said to commit an offence if:

“He performs an aviation function at a time when the proportion of alcohol in his breath, blood or urine exceeds the prescribed limit.” (The railway and safety transport safety act)¹⁸

“The prescribed limit for pilots and other crew members of an aircraft under section 93(2) as follows:

- a. Limit in case of breath- 9 micrograms of alcohol in 100 millilitres.
- b. Limit in case of blood- 20 milligrams of alcohol in 100 millilitres.
- c. Limit In case of urine- 27 milligrams of alcohol in 100 millilitres. “¹⁹

The penalty under section 95 for offences made out in part 5 is as follows:

“A person guilty of an offence under this Part shall be liable—

(a) on conviction on indictment, to imprisonment for a term not exceeding two years, to a fine or to both, or

(b) On summary conviction, to a fine not exceeding the statutory maximum.”²⁰

¹⁷ The Railways and Transport Safety Act, 2003,S.92 .

¹⁸ The Railways and Transport Safety Act, 2003,S.93 .

¹⁹ *Supra* Note 18.

²⁰ *Supra* Note 18,S.95 .

Section 97 confers the power of a police constable to arrest without warrant if he reasonably suspects, a person to have committed an offence under part 5 of the Act, 2003²¹.

Section 98 of the Act, also confers the 'right to entry' into an aircraft on a police constable; however, the police constable must be in uniform.²²

LAW IN JAPAN

The Japanese Civil Aviation Bureau is the organisation tasked with civil aviation regulation in Japan. The Japanese Civil Aviation (Civil aeronautical act of Japan) governs all aspects of civil aviation in Japan.

Article 70 of the Japanese Civil Aviation (Civil aeronautical act of Japan) reads as thus, "No member of the aircrew shall engage in air navigation services while he/she is under the influence of alcohol or drugs or other chemical agents which are likely to impair in anyway his/her ability to perform normal operations of aircraft."²³

The bottle to throttle rule in Japan is also 12 hours, similar to India²⁴. There shall be a drug and an alcohol check every time a pilot has to fly the aircraft prior to the boarding during security check. Even if the medical certificate and competency certificate is available and valid.

CHINESE LAWS

The Chinese have a primary legislation for Civil Aviation Law which governs the civil aviation sector of China and The Civil Aviation Administration of China is the organisation concerned with regulating and governs all related aspects of civil aviation in China.

Civil Aviation Law of the People's Republic of China states in the Article 77 that:

"No crew member of a civil aircraft shall perform a flight mission if his work capacity is impaired by the effect of alcoholic beverage, narcotic or other drugs."²⁵

The bottle to throttle rule in China is 8 hours as opposed to India and Japan, where the duration is 12 hours²⁶.

CONCLUSION

Man has always dreamt about flying. Since the inception of art and literature, the notion of flying has existed. This dream was actualised on the 17th of December, 1903, when the Wright brothers flew their aircraft for the first time. Since then, the aviation industry, both

²¹ *Supra* Note 18,S.97 .

²² *Supra* Note 18,S.98 .

²³ The Japanese Civil Aviation (Civil aeronautical act of Japan), Art 70 .

²⁴ The Japanese Civil Aviation (Civil aeronautical act of Japan).

²⁵ The Civil Aviation Law of the People's Republic of China, Art 77 .

²⁶ The Civil Aviation Law of the People's Republic of China."

military and civil, has come a long way. With fighter jets like the North American X-5, that can break the sound barrier, to the Airbus A380, which can accommodate nearly 800 passengers, mankind has come a long way since 1903. Air travel unites the world. It connects two destinations that are separated by thousands of kilometres of land and thousands of nautical miles of ocean. It has made it possible to cover great distances in a short period of time.

However, even with all our technological advancements, we cannot prevent air disasters. There can be many causes for air disasters. It could be turbulence, mechanical failure, birds, human error, etc. Man has no control over nature. He has learnt this the hard way on numerous occasions. Hence, the only way we can make air travel safer is by ensuring that 'human error' is kept to a bare minimum. Drunk piloting is a terrible thing. It is a moral wrong apart from being an ethics violation. When a passenger boards an aircraft, he or she is placing their trust and their lives in the hands of the pilot. This trust is invaluable. No one has any right to play with it or to be careless in discharging their duty. It has been, time and again, stressed that the pilot of the craft is its highest authority. If such a person is careless or possesses a lackadaisical attitude while discharging his or her duty by consuming alcohol, such a crime is unforgivable. The irony is that various countries, the above mentioned included, have uncompromising laws and harsh penalties for the crime of drinking and driving, but, when it comes to drinking and flying the laws seem pale in comparison. In countries like India, the law is perfect to some extent; however, the fault lies, not in the law, but in the enforcement of that law.

Civil Aviation industries all over the world should take into consideration the following points and make necessary changes in their laws and regulations:

1. Make the pre flight breath analyser test and the post flight breath analyser test mandatory. If any other test is being used then such a test, pre-flight and post flight, should be made mandatory.
2. Update testing methods, which are being used periodically, so that the testing methods are more scientific and scope for error is mitigated.
3. Prescribed blood alcohol levels should not be more than 0.004.
4. Regular tests must be conducted. Potential alcohol addicts and existing ones must be identified and treated for the same.
5. Regular counselling sessions must be conducted for pilots to apprise them of the dangers of alcohol consumption.
6. The appropriate government authority in the country i.e., civil aviation regulator, must conduct breath analyser test or any other test which that country follows. In other words, the test must be conducted by a neutral party and most certainly not by the airline.

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