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COVID-19 PANDEMIC: ITS IMPACT ON CIVIL AVIATION INDUSTRY



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Editorial

At present, we are facing an unprecedented global health crisis as a result of which the world economy has been derailed. The covid-19 affects all segments of population. The impact of covid-19 on the business and market sectors is also noticeable. It has now become necessary to address the risk issues that the corporates are faced with. The pandemic has presented a lot of challenges for the global economy some of which have direct bearing such as disruption in supply chains, challenges in meeting contractual obligations and problems of funding while others are universal in nature like maintaining the safety and health obligations at workplaces, impact of travel restrictions, protecting sensitive information and data etc.

In this newsletter, we will address a few of the issues faced by the aviation industry as it is one of the worst affected. Issues such as airport revenue, cancellation of flights, operation of airports and the airlines, government notifications and the invocation of the 'Force Majeure' clause in contracts and the analysis of the whole situations have been touched upon.

The economic impact of the pandemic is severe all over the world but the effect has been felt differently in the developed and the developing countries. As data suggests, there has been a reduction of international passengers ranging from 44% to 80% in 2020 as compared to 2019 (International Civil Aviation Organization). In order to deal with the situation, more stringent measures had to be taken by the governments in the developing countries. We are already in a global recession as declared by the IMF. In India, because of the nationwide lockdown many people lost their jobs, especially the contractual, casual and the migrant workers. Many of the companies suffered from severe losses and some of them are at the brink of bankruptcy.

Most of the airlines and airports had had to suspend their operation due to the travel restrictions and nation-wide lockdown. As reported by Crisil, India could face the revenue loss of INR 24,000-25,000 crores. It was also estimated that the aviation industry would be contributing to 70% of the losses or INR 17000 crores followed by the airport retailers with INR 1700-1800 crores. The adverse effect on the aviation industry due to this pandemic has been dealt with in this newsletter.

There has been a surge of cancellations due to the lockdown which had also affected the business of the airlines. Various govt. notifications have been released asking to shut off the operations and as a result many of the flights have been cancelled. Recently, a three judge bench of the Supreme Court issued a notice to the Ministry Civil Aviation regarding refund of

the full amount of tickets which were booked during the lockdown and got cancelled.

Force Majeure (FM) clause forms part of the Civil Aviation agreements executed between the various Airlines and the Airport operators. It is a clause which is included in the contract in most of the cases so as to safeguard the interests of the companies in the face of an act which is beyond the control of human beings. This clause gives the Airline the option to suspend performance of its obligations to the extent that it is prevented to do so. The clause of Force Majeure and how it would impact the aviation industry and the recourses available to the companies is also discussed in this newsletter.

CAPA India estimates that there could be 200-250 surplus aircraft for the next 6-12 months. As a result of complete suspension of travel, recovery is likely to be slow. The spread of COVID-19 has already resulted in an increase in companies experiencing financial distress as they try to mitigate the financial impact of maintenance and supply chain issues coupled with lower customer demand.

It is still uncertain as to how long the situation will persist. In such a scenario, we may have to accept Covid-19 as the new normal and have to live with it. Aviation industry needs to quickly accept that the standard operating procedures (SOPs), protocols, frameworks, business models and the whole ecosystem around the aviation activity will be different. IATA is expecting the aviation industry job losses to the tune of 29 lacs people in India alone. Globally too the aviation sector is looking to suffer losses amounting to \$252 billion or 44% below 2019's figure. In short, the aviation industry is expected to face a major setback due to the covid-19 pandemic. At a time like this, we need to stand together and prepare ourselves to face this.

Airlines have developed standards and best practices as was prescribed by the International Health Regulations (IHR) to manage effectively and efficiently in times of public health emergencies. Our govt. also needs to fine tune the prescribed practices in order to combat this situation. The government of India has shown immense fortitude and announced specific relief measures to address the aviation industry. Similarly, the Singapore government, is allocating SGD 112 million to provide financial relief to airlines and the aviation sector struggling to maintain connectivity. All in all, the industry is facing the gravest crisis and would see a lot of setbacks due to this. Hence, we need to fasten our seatbelts and prepare to go on a journey where the Covid-19 has forced new normals.

Summary

In this newsletter, we will address a few of the issues faced by the aviation industry as it is one of the worst affected. Issues such as airport revenue, cancellation of flights, operation of airports and the airlines, government notifications and the invocation of the 'Force Majeure' clause in contracts and the analysis of the whole situations have been touched upon.



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Economic Impact

Economic Impact of Covid- 19 on the world

Economics of a pandemic predict there is no industry more severely affected than aviation

Our concern is now shifting more and more to the long term economic impact that the pandemic will cause. The world is officially in a global recession as declared by the International Monetary Fund recently. However, the impact is likely to be felt differently among the developed and developing countries.

Lockdowns, while being effective at slowing the spread of the virus, are economically harmful. In a crisis, perfection is the enemy of the good. We have seen governments rushing to close borders and lockdown cities, while also creating financial lifeboats to help citizens and corporations weather the storm. While many of these measures are good and necessary, the haste with which they've been established has left many vulnerable people outside the safety nets.

In rich countries, governments have the capacity to support the economy for months. In developing countries, this is not the case. In India, the government acted with great speed to lockdown the country. But in so doing, it seemed to forget the millions of migrant and casual laborers that make-up a large percentage of the workforce. Many found themselves not only jobless, but also homeless – more or less overnight. With nowhere else to go, and little functioning public transport, many embarked on journeys by foot, for hundreds of kilometers to their home villages, in some cases carrying the virus with them. And many of the world's poor live in overcrowded conditions with little access to facilities to carry out the mandated regular hand washing.

There are similar cases throughout the developing world. South Africa and Brazil, among many other countries, have implemented lockdowns of varying severity, meaning many migrant and casual workers are out of jobs, but with limited or no savings to fall back on. This puts casual workers in an invidious position, either starve, or try to continue working in some capacity and risk either contracting the virus, the wrath of the authorities, or both.

And the governments of emerging economies are not strong enough to support their populations or corporations during lengthy shutdowns. And worse, capital is fleeing to safe havens, which means the US dollar, almost exclusively. The US Federal Reserve is easing access to the dollar for some countries, but this is likely to result in scant comfort.

The US, while rich, is a highly stratified society with a large underclass working in low paying jobs, effectively on a casual basis; most American employment contracts have few protections against immediate dismissal. And even those with decent contracts tend not to have access to statutory sick pay. As a result, jobless claims have skyrocketed – 16 million new claims in the past three weeks. And those were the ones able to negotiate flaky jobless claims websites that continually crashed under the weight of numbers, or visit overcrowded unemployment offices, running the risk of contracting the infection while doing so.

Rich countries have, nevertheless, created massive cash lifeboats to support companies unable to continue operating at capacity, or, in some cases, at all. Some countries, like the UK for example, are also creating support packages for the self-employed – such as builders, plumbers and electricians. These packages mean that as the countries come out of lockdown they can rapidly resume economic activity at something close to previous levels. The calculus is that a rapid resumption of economic activity will start fiscal flows to start paying-down the massive debts that governments are establishing.

We doubt, however, that the resumption of activity will be smooth across all sectors of the economy. Furthermore, the new ways of working for many may become a new normal, with more people than ever working from home. Companies may be able to reduce the size of office space as they realize that as many as a third of employees can work effectively from home on a near continuous basis

Impact of Government Notifications on the Aviation Industry



Governmental Notifications

The impact of Covid 19 is severe for both the domestic and international businesses alike across the world. The govt. of India has taken note of this and released various notifications.

The Ministry of Finance has released a notification on February 19, 2020. It has been clarified that Force Majeure under Manual of Procurement of Goods 2017 would be applicable in this pandemic situation because of the disruption of supply chains. They also clarified that this should be considered as a natural calamity.

The Ministry of New & Renewable Energy with respect to solar project developers, vide office memorandum dated March 20, 2020 has declared that the Force Majeure clause can be invoked in order to avoid financial penalties in case the parties default the contractual obligations on account of COVID-19. Similarly, respective notifications pertaining to invoking of Force Majeure clause have been issued by other ministries as well. However due to the widespread impact on the economy, caused by the pandemic, it is imperative to

discuss the effect of the Force Majeure clause and the doctrine of frustration clause on certain sectors whose exposure is more profound than others under the prevailing circumstances.

Impact on Aviation Sector

The outbreak of the pandemic Covid-19 has impacted the Aviation Sector adversely which was already suffering from huge losses. The Aviation Sector in India has been amongst the biggest loss-making sectors in the country, with Airlines barely managing to break-even.¹ With existing low-availability of credit to maintain day to day operations, the lockdown will have destructive effect on the sector. The government had made an appeal to the airlines to protect the interests of the employees. Despite that, airlines had to cut salaries and terminate contractual staff to remain afloat. Many carriers have put many of its employees on reduced salaries or sabbatical without pay which indicates the losses that the sector is bound to suffer in the days to come. The situation same with the other stakeholders in the aviation industry

¹ Rajat Prakash, Covid-19: Analysis Of Contractual Obligations And Force Majeure, INDIA LEGAL, (April 7, 2020, 3:10 pm), <https://www.indialegalive.com/special-story/covid-19-analysis-contractual-obligations-force-majeure-95067>

In such a situation, the airlines can seek invocation of Force Majeure clauses to defer payment of taxes, oil charges, and salary to workers amongst other payments, since it is evident that if the current situation exists, most of the airlines would have wiped out their cash reserves. In the current scenario, the airlines should invoke the Force Majeure clause forming part of the Civil Aviation agreement executed between the said Airline and the Airports Authority of India. The agreement consists of a Force Majeure clause which gives the Airline the right to suspend performance of its obligations to the extent that it is prevented to do so by an event of Force Majeure.

The Force Majeure clauses in the said agreements are amply wide so as to encompass an epidemic or plague as is the current situation within the Force Majeure clause. Airlines should send notices to the concerned parties seeking invocation of the Force Majeure clause whereby suspending performance of its obligations. With the current prevalent scenario, it is highly likely that the Aviation sector is bound to suffer unprecedented losses in the near future, and the Airlines can considerably reduce their losses by invoking the said clause.²

The Central Government has issued an ordinance namely Taxation and Other Laws (Relaxation of Certain Provisions) Ordinance, 2020 on 31st March, 2020 wherein an amendment has been brought to the CGST Act which introduced a new section 168A which lays down the power of government for extension of time limit in force majeure cases. The ordinance includes epidemic so as to deal with the situation of COVID-19. The ordinance was brought in with an aim to release the burden of the companies so as to prevent their collapse in these extraordinary times, which will help the Aviation sector in future which has already been experiencing a severely tumultuous period in the recent times.

The spread of COVID-19 has already resulted in an increase in companies experiencing financial distress as they try to mitigate the impact of supply chain issues coupled with lower customer demand. COVID-19 has significantly affected certain industries, such as civil aviation, ports & airports, hospitality, tours & travels, and retail to name a few. The disruption in supply chain has also impacted the manufacturing industry, unavailability of raw material and a drop in demand. If the current situation continues or worsens, some cases of insolvency may as well be filed³. Govt of India has made certain relaxations in this respect as part of the relief package.

Recently, a three judge bench of the Supreme Court issued a notice to the Ministry Civil Aviation that the full amount of tickets has to be refunded which were booked during the lockdown. Justice Sanjay Kishan Kaul said that the non-refund of the tickets booked during lockdown was arbitrary. The petition was moved by NGO Pravasi Legal Cell that airlines which are operating both international and domestic flights are contravening the ministry order which was issued on April 16 directing all the airline operators to refund full amount collected for the tickets booked during the first phase of lockdown. Advocate Jose Abraham argued that the failure to refund the amount for the tickets booked during lockdown following the cancellation of the tickets is a violation of Civil Aviation Requirement, 2008 issued by the Director General of Civil Aviation (DGCA).

The plea of the petitioner was that it was the duty of the airlines to initiate a refund without any passenger requesting the refund in case of a cancellation of flight. Instead of initiating a full refund the airlines are providing a credit shell valid upto 1 year.⁴

2. *Id*

3. Bharat Vasani, Molla Hasan, Samiksha Pednekar & Esha Himadri, COVID-19 : OFFICIALLY A PANDEMIC

4. Debayan Roy, *Airlines violating MCA order by not refunding full amount for tickets booked during COVID-19 Lockdown: Plea in Supreme Court, BAR AND BENCH (April 27, 2020, 2:49 PM)*, <https://www.barandbench.com/news/litigation/airlines-violating-mca-order-by-not-refunding-full-amount-for-tickets-booked-during-covid-19-lockdown-plea-in-supreme-court>

Revenue Impact

Revenue Impact on Airports Due to COVID-19

Airport revenue is head-on linked to the traffic levels. In 2019, it is reported that the global airport revenue grew by 6.2 per cent which is around US \$172.2 billion, comprised of 55.8 per cent aeronautical revenue, 39.9 per cent non-aeronautical and 4.3 per cent non-operating.¹ Airport revenue can be broadly classified as Aeronautical revenue and non- aeronautical revenue.

The revenue generated through airline terminal space rentals, airline landing fees, usage fee for terminals, gates, services and passenger counts et cetera is accounted in Aeronautical revenue while the income generated through fuel supply for aircrafts, catering (restaurants, cafeterias, vending machines, et cetera), airport shops affiliated with the local tax and duty-free regime, banks and currency exchange facilities, on-board food catering and supply services, parking, advertising at the airports, petrol/automobile service stations, so on falls under non-aeronautical revenue.

These airport revenues depend on many factors like size, passenger flow, airline route, types of planes serviced, global economy, local regulations et cetera. So majority airport revenue is depended on the air traffic and passenger flow.

With the pandemic Coronavirus (Covid-19), Aviation industry is considered to be one of the sector which faced most ramifications. To fight the virus, most of the countries had imposed partial or complete travel restrictions and closed the borders. These restrictions had led to the severe downfall in the air travel domestically and internationally in most of the countries. Most of the airlines and airports have shut their operations. Passenger transport is completely restricted but the cargo transport is partially in function.

This led to an estimate of 1.5 billion passenger traffic loss in only Asia-pacific region². Airport Council International (ACI) analyses that there had been about 80 per cent decrease in the traffic flow during January, 2020 to March, 2020 in Asia-Pacific region. The remaining or existing 20 per cent of the traffic is due to the air cargo while, Experts from the Industry assesses that global air cargo is down by 35 percent,³ which implies that 20 per cent of the traffic leads to minimal or non-existent non-aeronautical revenue. For the air cargo, certain parts of the airport and airside infrastructure has to be open and functional, which means the overall cost base for the operations remains almost same as the airport costs are fixed. This implies lot of loss to the airports as the utility of the opened infrastructure is not fully utilised.

It is estimated by the Center for Asia Pacific Aviation (CAPA) that the first Quarter loss for Airports in Asia Pacific in range of \$5.6 billion, and full year loss at \$23.9 billion. The first quarter loss for airports in India is around \$1.5 billion.

To mitigate these losses, Airports are trying to decrease its expenditure by postponing capital investments and resorting to various cost-containment measures. However, just like the Airlines, Airports are dependent on the government for support till they are stabilised. For this support, various regulatory authorities have to be approached and various regulations have to be brought forth by the authorities. So, concerned organizations are negotiating with the governments for the aid and finances. Private owned airport owners are also negotiating with the governments for the concessions and finances. However, some of the non-aeronautical sectors like car rentals and parkings et cetera are at major losses as the major negotiations with the governments are concerned with the direct investments but the ancillary/dependent industries are neglected and aid is not provided.

1 International Airport Review, available at: https://www.internationalairportreview.com/core_topic/revenues/

2 Mayday! Airports would need government support to stage a recovery, Financial Express, April 24th, 2020, available at: <https://www.financialexpress.com/opinion/mayday-airports-would-need-government-support-to-stage-a-recovery/1937992/>

3 Vladimir Zubkov, TIACA, International Airport review, 1st may, 2020, available at:

<https://www.internationalairportreview.com/article/115426/air-cargo-industry-reacting-responding-covid-19/>

Affected

How the Airports and the Airlines are being affected by the Covid-19 pandemic



Airports Council International (ACI), has reached out to India's civil aviation ministry seeking bail out the players affected by Covid-19 virus outbreak. The global body took to the notice of the Indian government that Covid-19 outbreak has "drastically impacted the airport business and is posing a serious threat to the financial sustainability of the airports in India. ACI has also recommended to the Indian government that "alternative relief measures should be explored to support both the airlines and the airport industries as primary generator of economic and social value for the country."

Airlines around the world are confronting the challenge of a sharp decline in demand, complicated by almost total uncertainty about when the virus will be under control and travel can return to normal. The collapse in demand has forced major airlines worldwide to announce severe cost-cutting measures, request government assistance, and, in the case of certain airlines, ground fleets. Many airlines are seeing more cancellations than bookings. Unless the virus is effectively contained within the next couple of months, we expect the depressed demand environment and

reduced global revenue passenger kilometers (RPKs) — a widely accepted metric of air travel demand to persist well into 2021.

Moving forward, aviation and the rest of the economy will need to be agile. When making network and capacity decisions, airlines must stand ready to pivot quickly, especially given the industry's increasingly strained financial position. They should consider the probability of different recovery scenarios and understand the financial implications and risks behind each move they make.

On March 23, The International Air Transport Association (IATA) increased its global estimate on lost passenger airline revenue from the latest strain of coronavirus to \$252 billion for 2020. That was up from an estimated \$113 billion on March 5 and \$29 billion two weeks before that. The new number would put revenue in 2020 44 percent lower than 2019. Airlines around the world will need as much as \$200 billion in government assistance to survive, IATA now predicts. As airlines weigh financial options to bridge the demand shock,

most find themselves with only enough cash on hand to make it through two months. Many have negotiated lines of credits to help them move forward.

These are unprecedented times for the industry. Air transportation systems are critical for the vitality of economies, and how governments and airlines collectively manage both the crisis and recovery will set the future course of the industry for the foreseeable future.

Given the global nature of the COVID-19 pandemic that threatens to throw many economies into recession—including the world's biggest, the US—it could take passenger air travel demand anywhere from several months to two years to recover to 2019 levels. This depends on multiple factors including the speed of virus containment, restoration of confidence in air travel, and a return to normal economic and social activity

To cope with the impact of COVID-19, airlines have adopted a pragmatic strategy of reducing capacity in line with falling travel demand to certain geographies that are affected. Global capacity was down 19.4 percent in March and is expected to fall close to 60 percent in April, according to the OAG, a provider of digital flight data and analytics.

Despite record order books, the financial uncertainties caused by COVID-19 are expected to compel airlines to defer or cancel new aircraft deliveries. In the months after 9/11, new aircraft orders decreased, cancellations increased, and the pace of commercial deliveries dropped throughout 2002 and 2003. As a result of COVID-19, we expect a more significant and immediate reduction, with operators deferring or even cancelling deliveries where possible until at least the third quarter of 2020 and possibly longer. This will include some of 737 MAX aircraft delayed by the 2019 grounding of the jet by regulatory agencies.

Uneven recovery:

The COVID-19 pandemic is proving to be more difficult to navigate than prior shocks because of the significant

increase in global travel over the past decade. Given that virus containment and economic recovery will be uneven, it will be vital to monitor developments in countries where the virus appears to be contained and detect early signals of rebound amid an otherwise noisy environment.

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Moving forward:

What lessons can we take from people's response to this situation? The current situation is that people are staying isolated in their homes and avoiding contact with people outside their own family, small businesses failing and streets deserted – is a world away

from the vision of personal wellbeing, and of strong and active local communities that motivates many environmental campaigners.

But perhaps there is some hope to be drawn from the fact that governments have acted quickly to deal with a global emergency despite economic consequences. Populations have been ready to make enormous sacrifices for the wellbeing not just of themselves and their families but of people who are more vulnerable. It's become socially unacceptable to put other people at risk,

Will the aviation industry recover?

This is not the first time that the aviation industry has faced hardships and challenges. Historically, pandemics such as for example SARS has shown to have a V-shaped impact on our industry. Although it does not serve as a guarantee for similar development in the future, the aviation industry has historically recovered rapidly from outbreaks and pandemics.

Pandemics and outbreaks are not the only challenges aviation has been faced with. The industry has also been challenged by oil crisis, acts of terrorism and war. The resilience and adaptability has enabled the aviation industry to recover and continue to grow despite these events.

It can be argued that the COVID-19 situation is unprecedented in scale, and thus the recovery might look different or take longer than it has in the past. Predicting the outcome of this situation is a futile attempt at this point in time, but it is reassuring that signs of recovery are emerging from the regions which has dealt with the situation the longest

Airports are two-sided businesses, engaging in a commercial relationship with both airlines and passengers. They receive their revenues from two primary sources: aeronautical activities and non-aeronautical activities.

Both revenue streams are vital to support the sustainable development of airports. They are used to recover the large capital costs incurred by airports—and these are significant as the airport industry is highly asset-intensive—as well as operating expenses and especially personnel expenses.

The impact of COVID-19 is challenging airports on both of those revenue channels. The shortfall in the number of passengers and the cancellation of flights leads to reduced revenues from airport charges (landing charge and parking charges paid by airlines for instance, and passenger service charges and security charges paid by passengers). While aeronautical revenues are being challenged, the cost base for airport charges remains unchanged as airports can neither close nor relocate their terminals during the outbreak.

Non-aeronautical sources of revenue usually provide diversification of airport income streams, but they also serve as an additional cushion during economic downturns. With the COVID-19 impacting, to a large extent, Chinese passengers, it creates a wider-effect for airports worldwide as passenger traffic from Eastern Asia tends to generate comparatively high revenue for retail concessions and other non-aeronautical services.

ACI forecasted that, prior to the COVID-19 outbreak, global airport revenues for the first quarter of 2020 would reach close to \$39 billion (all figures in US Dollars). Based on traffic trends under COVID-19 and constant unit revenues, ACI now estimates a loss of revenues of at least \$4.2 billion. This is approximately equal to the total annual revenues of two major European or Asian hubs combined.



Effects of the Cancellation of Flights on the Aviation Industry

According to the International Air Transport Association (IATA), at the beginning of 2020 the airline industry was maintaining a long-term annual growth rate of 5.5%. In the current situation, where governments are drastically reducing travel and airlines are cancelling flights and grounding their fleets, revenue from passengers is reduced to almost zero. This will result in a **loss of operating cash flow** over the next few months to the tune of tens of millions of Dollars/Euros, in addition to the cost of ticket refunds. Some airline operators around the world have already requested state support due to the sudden plunge in passenger traffic.

DEPARTURES				
TIME	DESTINATION	FLIGHT	GATE	REMARKS
12:39	BERLIN	BA 903	31	CANCELLED
12:57	SYDNEY	QF5723	27	CANCELLED
13:08	TORONTO	AC5984	22	CANCELLED
13:21	TOKYO	JL 608	41	CANCELLED
13:37	HONG KONG	CX5471	29	CANCELLED
13:48	MADRID	IB3941	30	CANCELLED
14:19	LONDON	LH5021	28	CANCELLED
14:35	NEW YORK	AA 997	11	CANCELLED
14:54	PARIS	AF5870	23	CANCELLED
15:10	ROME	AZ5324	43	CANCELLED

The next consequence in the chain of events is that many airlines will not be **able to maintain their aircraft leases**, directly affecting aircraft leasing companies, which currently account for more than a third of all operational aircraft. Similarly, operators who have orders for aircraft currently in progress will be quick to negotiate with manufacturers to arrange a cancellation or, at best, an indefinite delay in delivery.

In the airport sector, we are already seeing empty terminals. Most international flights scheduled for the next few days anywhere in the world are devoted to the repatriation of residents who have been caught off guard by the health crisis while far from home. Domestic flights have been reduced to a bare minimum due to the restrictions on movement imposed in dozens of countries. **For airports, this means not only minimising their activity** in the immediate term, but also closing their commercial areas, halting the activity of airport service companies and reducing their operating income practically to zero. All of this while they are required to maintain the facilities as per specified standards.

In today's unprecedented situation, airlines and airports are at the forefront taking the brunt of this global COVID-19 crisis. The Airport Council International (ACI)

estimates that the sector will have a loss of approximately US\$46 trillion by the end of 2020.

Governments across the world have announced or are planning to announce measures to ensure the aviation industry can survive this crisis. GRI members expect the

global air passenger segment to reduce by up to 30% this year, given extreme measures to restrict travel, which will therefore impact airline operations and airport concessions. Adoption of work from home (WFH) and virtual meetings replacing traditional meetings will further dent the revenues.

The most visible impact is on the airlines as the domestic as well as international air traffic has come to a standstill in most of the countries. Airlines are more fragile than the airport operators at the moment since a considerable percentage of airlines were struggling to survive even before the COVID-19 crisis started showing its impact. So if rescuing these airlines was a tough task before, now it seems next to impossible.

Airlines face different challenges in different parts of the world. While the majority of these are looking to reduce the number of flights in certain sectors, one major challenge discussed was the restrictions due to antitrust laws. These laws restrict the airlines from communicating with each other before cancelling flights intelligently. This may impact certain travel sectors more adversely than others.

There was a consensus that even on declaration of force majeure, operators and retailers will face challenges, as their claims will be extremely difficult to prove, and offsetting declining cash flow should be priority for both airlines and airport operators.

Impact of Covid-19

Impact of Covid - 19 on Airline Maintenance Industry



Corona Virus (COVID-19) is a respiratory illness caused by a virus called SARS-CoV-2. It has proven to be a highly communicable disease. This has caused the grounding of thousands of world's airlines, in an effort to safeguard all the planes now parked en masse on parking bays, runways and storage facilities. Managing such large-scale storage is a challenge. Airlines are scouting for parking space at airports and other facilities. The fee to park planes differs from type of aircraft, airport to airport and for an airline with a fleet of multiple jets, it could add up to millions.

Keeping an aircraft flying involves work, but keeping it on the ground involves work too. "With the grounding, the workload of aircraft engineers and technicians has only gone down by 35-40%," says the engineer, listing the maintenance routine around an aircraft, even when it's left parked for the long haul.

Aircraft can't simply be dusted back into action. They need plenty of work and attention while in storage, from maintenance of hydraulics and flight-control systems to protection against insects and wildlife — nesting birds

can be a problem. Then there's humidity, which can corrode parts and damage interiors. Even when parked on runways, planes are often loaded with fuel to keep them from rocking in the wind and to ensure tanks stay lubricated. Aircraft disinfection is another major task to be carried by the airlines.

If parked in one position for days together, tyres tend to develop a flat spot. "To avoid that, the aircraft should be moved every three days. Towing tractors move them forward and backward in order to rotate the tyres so that a different point is left in contact with the ground," said a senior Air India aircraft maintenance engineer requesting anonymity.

International Air Transport Association (IATA) have issued guidelines for cleaning crew who have to clean an arriving aircraft with a suspected case of communicable disease. They are as follows:

1. Wear Personal Protective Equipment (PPE) recommended by your national public health authority. Note that PPE requires appropriate training before use.

2. Remove and discard gloves if they become soiled or damaged, and after cleaning.
3. Use only cleaning agents and disinfectants that have been approved by aircraft manufacturers at recommended concentrations and contact times.
4. Begin the cleaning at the top (light and air controls) and proceed downward progressively working from clean to dirty areas.
5. Surfaces to be cleaned
 - a) Affected seat, adjacent seats same row, back of the seats in the row in front,
 - Light and air controls
 - Adjacent walls and windows
 - Seatbacks (the plastic and/or metal part)
 - Individual video monitor
 - Tray tables – Armrests
 - Remove seat pocket contents and replace. Safety Briefing Card can be cleaned with the approved disinfectant
 - b) In the lavatory(ies) used by the sick traveler:
 - door handle, locking device, faucet, wash basin, adjacent walls and counter and toilet seat
 - In exceptional circumstances public health authorities may require additional cleaning.
6. Disinfection of upholstery, carpets, or storage compartments is only indicated when they have been soiled by body fluids. In such cases, use absorption agent first if required, clean any visible soil and disinfect before vacuuming to eliminate the risk of re-aerosolization.
7. Wash hands with soap and water immediately after PPE is removed. An alcohol-based hand sanitizer may be used as an alternative if the hands are not visibly soiled.
8. Dispose of soiled material and PPE in a biohazard bag if one is available. If not, place in an intact plastic bag, seal it, and label it as biohazard. Z
9. Do not use compressed air. It might re-aerosolize infectious material.

D Anand Bhaskar, CEO of Air Works, a major aircraft maintenance, repair and overhaul company, said that they are currently maintaining and preserving aircraft as per a guidance of “parking period of less than 1 month and in flight-ready condition”. “If the parking period is further extended, we may need to perform additional tasks on engines— to protect the external surface from climate conditions; the engine fuel system, to avoid corrosion and contamination in pumps, gear box, etc; the fuel system, to avoid microbiological contamination; landing gear, to prevent corrosion and ensure smooth operation; water and toilet system, to avoid formation of contamination, corrosion, and to ensure cleanliness,” said Bhaskar. Besides, all open ports exposed to the atmosphere have to be blanketed to prevent deterioration due to environmental factors and to discourage birds from building their nests, he added.

It is the crucial time for aircraft maintenance industry as if the aircrafts aren't maintained from time to time even in this lockdown period, the regulator, i.e. DGCA, might cancel the airworthiness certificate granted to the aircraft.

Impact of Covid - 19 on Employees of Aviation Industry



Background

The Corona Virus COVID-19 (hereinafter referred to as “Virus”) pandemic is creating significant health, social, and economic challenges worldwide. The entire world including India has been badly affected due to the Virus. With an intention to combat and control the spread of the virus, the Government at both the Central and State-level has taken various precautionary measures. Among various steps the nation has been put on lockdown since March 25th, 2020 and the flight services shall remain grounded till further order. The grounding of flight services has stopped the flow of revenue for the airlines, airports and which has directly affected the future of employees which not only include the pilots and air hostess but also the ground staff (hereinafter referred to as “employees”)

The Impact

The airlines and airports are under lockdown from 25th March, 2020. Though airlines are showing laudable solidarity in helping the Indian Government to repatriate thousands of Indians stranded abroad & in providing essential supplies to various nations and bringing the essential supplies from other nations which has put them in a position to perform on the basis of requirement, the requirement is only restricted to government and not to private players.

The aviation industry is drying out of cash because of the lockdown which will eventually push the companies on

the brink of insolvency. Further, another added pressure on the pockets of the airlines is when the tickets are already booked by the passengers and they are asked to reimburse the amount

It's not only the airlines which are affected, because of the lockdown even airports are badly affected. The airports generate their revenue from various services offered by them at the airport this would include the duty-free goods, car parking, various other incentives which have now come to zero but the airports have a fixed cost & other liabilities. As no incomes are generated from the airports and neither from the airplanes the same has created much of a pressure for the players in the airlines industry to keep the business going.

In order to meet the expenses, the companies in the airline business and in the airports have started opting for various solutions. Some of the airlines have opted for indefinite sabbatical without pay and some have sent their employees on leave without pay.

With the revenues coming to zero, the employees are facing deep anxiety as now they are under the fear of facing a job loss, pay cuts and income freeze. Few airlines have already opted for a pay cut of employees which ranges from 10% to 50%. Further, there are airlines who have already terminated employees who were working on a contract basis. Though the government has issued various Circulars, Notification, Guidelines, and Orders to manage and control the situation of the pandemic in India keeping in light the

relationship of employer and employee along with their financial position of the employees, which are as follows:

- The Ministry of Labour & Employment issued an advisory dated 20th March 2020 to the employers for not terminating the employees particularly casual/contractual. The advisory further stated that the employers shall not opt for reducing the wages of the employee in the current scenario as it would further, deepen the crisis and will weaken the financial condition of the employee. Though the same is an advisory and therefore it does not have a binding effect.
- On 24th of March the Hon'ble Prime Minister of India announced a nation wide lockdown of 21 days with effect from 00:00 hours on March 25, 2020, pursuant to the directions issued under Section 6(2)(i) of National Disaster Management Act, 2005 & issued subsequent guidelines under Section 10(2)(l) of the Disaster Management Act, 2005.
- The Ministry of Home Affairs issued an order dated 29th March 2020 by exercising its power under Section 10(2)(l) of the National Disaster Management Act, 2005 whereby it directed the employers to make the payment of wages on due date without any deduction, for the period their establishments are under closure during the lockdown.

Further, Under the Indian legal system, the employees are categorized into two classes (i) Workmen, (ii) Non-workmen (executives), and on the basis of their category in which they fall into a set of regulations that are applicable.

- **Workmen** - If an employee falls under the category of workmen the relationship between the employer and the workmen will be governed by the Industrial Dispute Act, 1947 which makes an obligation on employers to give a 21 days prior notice if in case the employer intends to bring any detrimental change in terms of the employment of the employee listed in the fourth schedule. The Fourth Schedule of the Industrial

Dispute Act deals with (i) wages; (ii) social security contributions; (iii) compensatory and other allowances; (iv) hours of work, rest and shift working; (v) leave and holidays; (vi) withdrawal of customary concessions or privilege; and (vii) introduction of new rules of discipline or altering existing rules.

- **Non-Workmen (executive)** - For an employee falling under the category of Non-workmen his relationship with the employer will be covered in accordance with the terms of the contract which was executed between the parties.

Therefore, if an employer intends to reduce the headcount of the staff, he has the full power to do it under the Industrial Dispute Act (hereinafter referred to as "Act") or in line with the Contract between the employer and the employee.

Way Forward

If in case the lockdown remains in existence for a period of three months the two listed carriers alone i.e., Indigo and Spice Jet will report a combined loss of USD 1.25-1.50 billion in the quarter. The cash reserves of the carriers may wipe out. In order to survive the effect of pandemic the aviation industry is looking towards the government for wherein they are expecting that they might get some support for salaries, an exemption from airport charges, reduction of excise duty incurred on Aviation Turbine Fuel or bringing the Aviation Turbine Fuel under the Goods and Service Tax Regime and suspending the other charges.

The other ways to keep an industry going could be that the government invests in the equity of the company, to defer the taxes, fees, loans and other period for a later date, merger of two or more players into one. The worst solution could be nationalization. There are some steps that the companies would definitely opt for in the near future that include staff cuts, reduction of fleets. But, whatever is done by the government or the companies in the aviation business shall do it by keeping their long term objective in mind. If we intend to have global airlines in India or global hubs in India the government and the companies shall put its policies right.

Post Covid-19 Crisis

Post Covid-19 Crisis in Aviation Sector



Aviation sector, predominantly airlines face an unprecedented crisis in the wake of Coronavirus pandemic. The international Air transport Association estimates that the global aviation industry will lose \$252 billion in 2020¹. Some analysis show that the overall drop in global GDP is 6% due to this pandemic and several restrictions imposed by the governments will flatten the curve. Several governments had provided bail-outs for Industry to sustain the crisis. To quote some, United States federal government had issued initially, \$50-billion bail-out fund, of which, certain part goes to the airline workers, while other parts loan to the airlines. This federal bail-out fund has been revised on April 14th, 2020, in which \$25 billion was given for payroll support, and another \$25 billion loans for passenger airlines and

\$10 billion for cargo airlines and aviation contractors. United Kingdom had initially did not announce any industry-wise bail-out, however, subsequently, the government had given Easyjet a 600 million pounds loan. But the government had not given such liberty to the Flybe, a smaller secondary airline and as consequence, it collapsed.

This is not the situation in the Europe and UK. The worst affected Europe is facing much more crisis. Italy had re-nationalised Alitalia, forming a new-state owned entity with investment of US\$650 million. French government had indicated to bail-out Air France/KLM with \$6.5 billion bail-out package.

Some airlines had applied for loans to gain stability and

1. Darren Ellis, Jorge Guira, & Roger Tyers, The Conversation, "What the post-Covid-19 world will look like for the aviation industry", Global economy, scroll.in, 24th April, 2020, available at: <https://scroll.in/article/960054/what-the-post-covid-19-world-will-look-like-for-the-aviation-industry>

few got through it while some airlines are rejected loans. Australia's Qantas and Singapore Airlines had successfully secured \$660 million and \$13 billion loan respectively, while Virgin Australia was denied a \$880 million loan, which subsequently plunged into voluntary administration.

It is not the first time the aviation industry is dependent on the bail-outs by the governments. Previously, a V-shaped crisis was observed due to 9/11 attacks. The governments had responded and provided bail-outs and moral support then. Now the crisis observed are U-shaped. This is however, will be confirmed when the airlines resume the routine and the aircrafts leave the parking spaces. When the air transportation is resumed, the likelihood of routineness which was practiced till December, 2019 - January, 2020 may not be seen. This is due to various reasons.

The foremost is the chances of domestic and minor airlines to survive the pandemic. As stated earlier, the governments had provided incentives and bail-outs and are also entering into bilateral and multilateral agreements to save major airlines. The extent of the success of these negotiations is questionable. Though some negotiations achieve success, the likely chances for domestic and debt-ridden airlines is contentious. So the mergers and some acquisitions are likely on seen. There are also some airlines which are partially or completely nationalised and for some the negotiations are under process.

That being one, the bail-outs and aids provided by the government are by loans and some by sale of equity. This indicates the change of owners or major stakeholders/shareholders. The loan is assured by the shares of airlines and certain conditions on the distribution of equity amounts in coming years. These circumstances may lead to the organizational restructuring. The repayment of loans adds additional burden to the airlines, as the passenger movement Post-Covid is uncertain. The economic recession, fall of consumer confidence, et cetera are some of the factors which need to be addressed for the revival of the Industry.

After the restrictions are lifted, the security measures taken by the concerned governments are strict and compliance by the airports and airlines is difficult to achieve. To gain the confidence of the passengers, the airlines may opt for the single aisle aircrafts and to optimise the decrease in travel, the airlines may decrease its fleet. Some surveys indicated that the dependence on the small and medium size aircrafts will be more than the large aircrafts. Airports have all new challenges ahead. With the screening and safety, security measures which are required to control and stop new cases of virus, airports have to adapt to the screening technologies, have to have thermal scanners and other biometric and advanced disinfection technologies for all the passengers, crew and employees. Other likely issue for aviation industry will be the Visa regulations, which countries may implement post-covid-19. Countries may impose strict bans or restrictions on the travels from the most effected areas. USA and Europe are most effected countries and travel to and from these countries are more and they form one of the busiest air routes. Now that the impact in these countries is more, future travel from and to these places may be affected.

On the overall analysis of scenario, and predictions by various experts, the major task for the airlines is the massive optimisation of their fleets, clearing the loans, adhering to the compliances by various governments, brings back the confidence in passengers to travel, et cetera. Another concern for the airlines is the fares which are regulated by the concerned authorities in various countries. If the existing airline, after the whole crisis, wants to make good the losses by rise in prices, the regulatory authorities and the consumer protection programmes of the governments play a deterrent role.

Covid-19

Covid - 19 and The New Normals in Aviation



Management by disruption has been adopted by many companies in the past to make a paradigm shift in adapting to the new technologies or new business models or to suit the new environment resulting from acquisitions, mergers, etc. Unlike such a change management, the spread of COVID-19 virus across the globe is a disruption unprecedented. Almost the entire world population is either under lock down or trying to cope with the virus spread. Aviation industry, being a global activity in nature, has been greatly impacted by this disruption. There will be references like pre and post COVID period.

The impact and damage assessment will be unrealistic till the virus spread is largely contained. However, we can never expect normalcy to be restored in aviation and there will be new normals evolving with new benchmarks.

Disruption caused by COVID-19 spread across the globe is likely to result in the following challenges and opportunities.

Challenges

Latest IATA survey reveals that 86% of the passengers surveyed in 11 countries would wait for up to 2 months



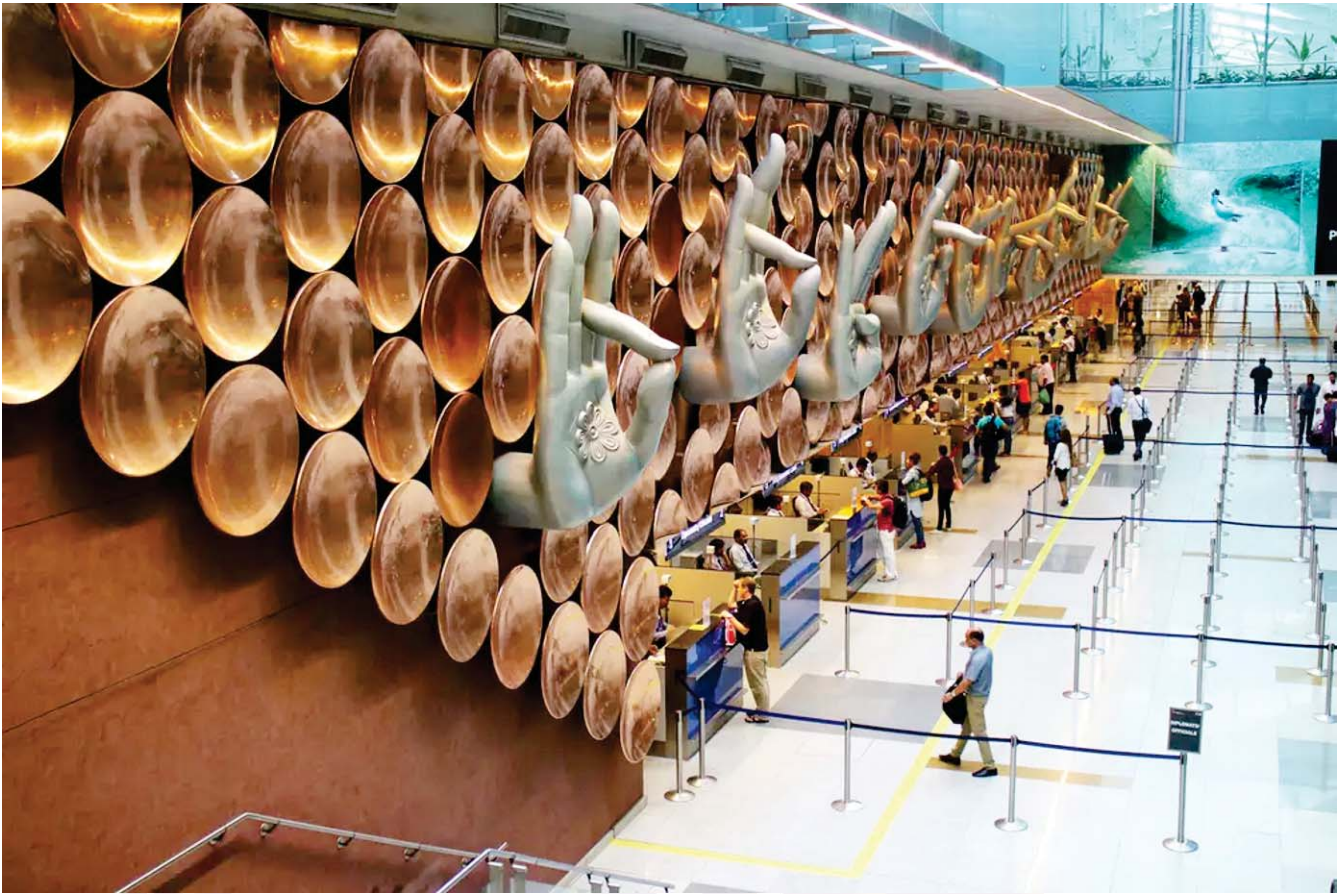
after lockdown to resume air travel while 40% would like to travel only after 6 months. The lack of passenger confidence and fear psychosis may result in fewer travellers. There is going to be a seismic shift in the revenue models for airports and airlines. Many private operators may find it economically unviable to operate airports and airport management may shift to public domain as in pre-liberalisation times.

Aviation industry needs to quickly accept that the standard operating procedures (SOPs), protocols, frameworks, business models and the whole ecosystem around the aviation activity will be different. Some airlines have announced closure and many more are expected to follow suit. Numerous leasing



companies will be battered. Many aircraft, especially the wide bodied ones, will remain grounded as the cost of maintenance will be too high with lesser revenues. MRO services have to re-align to cater for the likely increase in smaller aircraft. Many jobs across verticals will be lost. IATA is expecting the aviation industry job loss to the tune of 29 lacs in India alone. Large scale multi-skilling and re-skilling will be needed to create lean workforce. Many crew members will lose currency of ratings due to aircraft being on ground for long requiring regulators to give the required waivers. Air Crew may even lose their licenses due to medical issues and non-renewal of medical status.

Social distancing will become part of life, longer waiting, longer turn-around times, baggage restrictions etc. Touchless technologies and machine readable



documentation will be put to use. Security processes, technologies and SOPs will undergo changes. Baggage handling will be different.

The concept of lounge will undergo a sea change. Many concessionaires will lose economic viability and wind-up. Luxury brands may vanish from the terminals. Catering and food outlets may find less customers. Business travel will reduce drastically as executives will make do with video conferencing and work from being the norm. Public transportation will see less foot fall and private transportation may increase. Expenditure on hygiene and sanitation by airport management will increase. Thermal scanners will be in operation. Last minute cancellations at security gate level will increase due to enhanced checks.

Use of private transportation will increase the consumption in petroleum products. Thus, the aviation fuel may cost more. The government and airport management will look for higher taxation on passengers to off-set the revenue loss from other avenues and cater for subsidies. The cost of air travel will go up.

Opportunities

Demand for business aviation aircraft will go-up. Executive jets will be in demand. Charter flights will be preferred for group travel. Cargo flights from hitherto unconnected tier-3 cities/ towns will be more. Agri-aviation and Cargo hubs will generate traffic. Mergers, acquisitions and consolidations will happen. There may be a huge scope for aviation training especially the multi-skilling. Low cost carriers may rule the skies.

The world will never be the same for aviation and almost every rule book related to aviation activity will need to be reviewed to align with the new eco-system that will evolve. There can never be a normal that existed before 1st January, 2020 in the world aviation. Many established names may vanish and the new ones will arrive in due course. All stakeholders, be it the travellers, operators, aviation shippers, supply chain managers, employees, investors, regulators et al will have to accept a slow process to rise from the abruptness in closure of aviation operations. Let's tighten our seat belts for a long haul in recovery from the current situation while hoping that virus spread is contained soon.

Best Practices



Air port and airline managements are ordinarily required to provide training to handle potential outbreak situations, additional precautions and recommended practices in post COVID 19 times include:

- i. Contactless security processes
- ii. Strengthening the medical facilities at the airports
- iii. Medical screening, both at the gate and on the aircraft, who appear to be symptomatic for COVID-19, and conduct an appropriate medical inquiry
- iv. Cabin baggage restrictions
- v. Make sure the air ventilation in the cabin is compliant with aviation standards and functioning properly.
- vi. Flight crew to make regular safety announcements, reminding passengers who experience flu-like symptoms to seek immediate medical attention
- vii. Facilitate frequent pilot communication with crew members, air traffic control, and any other necessary personnel or authorities in the event of an outbreak.
- viii. Upon discovery of an infected passenger, provide notice to appropriate authorities, arrange for disinfecting procedures for the aircraft, and assistance to that passenger and others who may have been exposed
- ix. Standard operating procedure for contact tracing for passengers who may have been exposed to COVID-19 during a flight.



Analysis of the Whole Situation Amid the Outbreak of Covid - 19

Airlines face an unprecedented global crisis in the wake of the coronavirus pandemic. The International Air Transport Association (IATA) estimates that the global industry will lose US\$252 billion in 2020. Many airlines are cutting up to 90% of their flight capacity.

The airline industry has faced many crises before – 9/11 and the 2010 Icelandic volcano eruption, for example. But these pale in comparison to the economic hit that airlines are currently facing. Some are asking: can it recover? Is this an economic crisis that could reshape how we travel and live? Or will it turn out to be more of a pause, before returning to business as usual? And what role does the climate crisis play in all this – how will sustainability figure in any rebooting of the industry going forward?

We are all experts in the airline industry. Darren Ellis (Lecturer in Air Transport Management) considers these questions first, looking at the industry's structure and response. Jorge Guira (Associate Professor in Law and

Finance) then explores bailout options and likely future scenarios for the industry. Finally, Roger Tyers (Research Fellow in Environmental Sociology) considers how the industry might just be at a turning point in terms of how it tackles climate change

A global problem

Darren Ellis, Lecturer in Air Transport Management

Most of the global airline industry is currently grounded. Although some routes are still managing to operate, and there is evidence of a gradual domestic air market rebound in China, 2020 will certainly not see the 4.6 billion annual passengers of 2019. The long-term trend of ever-rising air passenger numbers year on year has been brought to a dramatic and rapid halt.

What this means for the global airline industry is vividly on display at airports around the globe as terminals remain empty and aircraft occupy any available parking space.



Like the predominantly national response to the virus, so the airline industry is also seeing a wide range of policies and practices tailored and implemented almost exclusively at the national level. This means that some airlines, thanks to well-chosen national policies, will fare better, while others will flounder.

This is because beyond the multilateral single air market of Europe, the global industry remains firmly structured on a bilateral system. This web of country to country air service agreements (ASAs) is basically made up of trade treaties which governments sign with one another to determine the level of air access each is willing to permit. Even in Europe, the single air market essentially acts as one nation internally, while externally, individual European countries continue to deal with many countries on a bilateral basis.

The bilateral system is based on a bundle of rules and restrictions, including airline ownership (typically, a minimum of 51% of an airline must be owned by people from the country where the airline is based), national control, single airline citizenship and home base requirements. This effectively locks airlines into a single country or jurisdiction.

Despite this structure, global cooperation in aviation is strong, particularly across safety standardisation, but less so on the economic front. A lot of this cooperation happens via the International Civil Aviation Organization (ICAO), the industry's specialised UN agency. Meanwhile, the IATA supports and lobbies on behalf of member airlines.

Consequently, national responses will be front and centre as the industry responds to the current pandemic. In countries where a single flag carrier is based, such as Thailand and Singapore, governments are unlikely to let their airlines fail. While in others, where multiple airlines operate, a level playing field of assistance and support is more likely, even if outcomes differ widely. This is not to say that all airlines will necessarily survive what is likely to be an extended U-shaped crisis, unlike the more V-shaped crises of the past, such as 9/11 and the 2008 global financial crisis.

And so, although airline brands have come and gone, the industry had remained on a growth path for decades. It will take time to recover from the pandemic. Some airlines will fail. But widespread changes to the industry's structure are unlikely to occur. People will, of course, need and want to travel by air again when this pandemic



is over. Which airlines survive – and which go on to thrive – will largely depend on how successful individual countries' economic support packages turn out to be.

Bailout essentials

Jorge Guira, Associate Professor in Law and Finance

The global outcomes of the crisis, then, are firmly anchored in national responses. The airline industry is cyclical: it is used to peaks and valleys. Bailouts have repeatedly been vital for airlines, so many countries have some sort of precedent to go by.

In any bailout, the key question is whether this is a solvency or liquidity crisis. Solvency means that the airline will be very unlikely to ever remain financially viable. Liquidity means that the airline has a high risk of running out of cash flow but should be solvent soon, if supported. Assessing this is sometimes complex.

Cash is king. "Streamlining" – a fancy word for cost cutting – can help. Unencumbered assets such as aeroplanes can be sold, or used as collateral for loans. But many planes are often leased, so this may be problematic.

Existing contracts must be reviewed. Breach of covenants, which are legally binding promises to do (or to refrain from doing) things in a certain way, may need to be waived. For instance, lease agreements for the planes often require flights to carry on, and business as usual is suspended at present. Other agreements require flights to maintain landing spaces in airports – leading to the "ghost planes" many were appalled by earlier on in the crisis, and that still continue.

Certain financial tests may not be met, such as how much debt there is compared to earnings. These can alarm creditors. And this can lead to deterioration in bond credit ratings, reflecting increased financial distress. Other triggers may also arise. Defaulting on one financial contract usually requires informing other creditors. This can trigger defaults on other agreements, creating a domino effect.

So renegotiating operating and financial contracts is crucial. Airlines may have to pick and choose who to pay

first. Unions must be kept happy, and other stakeholders must focus on recovery.

All this means that state bailouts, help and other guarantees are crucial for the industry to survive. In the US, for example, net operating losses are carried forward and used to shield revenues and offset these from tax for when things return to normal.

If liquidity is the problem, the real issue is time: how long will it take for the airline to get back on its feet and resume flying more normally? If solvency is the problem, the company cannot survive the demand collapse it is facing. The COVID-19 pandemic is such a fraught time for airlines because of the difficulty in predicting when the crisis will end. This can complicate determining whether it is a more temporary liquidity crisis or a deeper solvency concern.

Airline norms suggest that 25% of revenues should be kept in case of any emergency, but this has tended not to happen recently. Corporate earnings have generally not been held for a rainy day, and now that rainy day has arrived. This creates a classic moral hazard problem: many airlines seem to act as if they are too important to fail, because in the end, they believe they will be bailed out. And regulation does not otherwise hold any excesses in check.

Compounding this, some US airlines have recently been accumulating cheap debt, due to low interest rates and lots of credit availability. The five big US carriers, instead of paying off debt, have been spending 96% of available cash on stock buybacks. Many question whether airlines should be bailed out in these circumstances. Limits on paying dividends, buyback of stock, and other terms would logically apply here, as in the earlier US bailout measures announced in March.

While the US case may provide a helpful initial focus, the UK approach is likely to be highly influential, perhaps more so given the reduced resource level – and greater level of climate awareness – there. As Darren pointed out earlier, one model does not fit all but this may offer a useful comparative framework for other approaches that favour national champions or nationalisations.



The UK is reportedly considering partial nationalisation, such as in the case of British Airways. British Airways has furloughed 35,000 employees, with many pay packets supported by the government – for now. British Airways appears better placed to cherry pick key routes, assets and companies as it ranks in the top group for liquidity.

If Virgin Atlantic were to collapse, its size means it may fit in the too important to fail category. It appears that bailout talks are ongoing but Richard Branson's life as an offshore UK resident, and Delta's ownership of a 49% stake, present potential political clouds. Questions about whether it should get state aid given current crisis conditions also arise. This is generally forbidden, although the EU has temporarily indicated a COVID-19 relaxation of the rules. No environmental strings have apparently been attached, as former EU officials and others have suggested should be the case.

Overall, the survival of the global industry therefore depends on bailouts, not only to keep airlines afloat but also for the wider travel and leisure ecosystem.

Aviation and climate change

Roger Tyers, Research Fellow in Environmental Sociology

As Jorge said, for the growing number of people concerned by aviation's rising carbon emissions, this pandemic may be a rare chance to do things differently. When air travel is eventually unpaused, can we set it on a more sustainable trajectory?

Even before this pandemic hit, aviation faced increasing pressure in the fight against climate change. While other sectors are slowly decarbonising, international aviation is forecast to double passenger numbers by 2037, meaning its share of global emissions may increase tenfold to 22% by 2050.

Most flights are taken by a relatively well-off minority, often for leisure reasons, and of questionable necessity. We might wonder whether it is wise to devote so much of our remaining carbon “allowance” to aviation over sectors like energy or food which – as we are now being reminded – are fundamental to human life.

Regulators at the UN's ICAO have responded to calls for climate action with their Carbon Offset and Reduction Scheme for International Aviation (CORSIA) scheme. Under this, international aviation can continue to expand, as long as growth above a 2020 baseline is “net-neutral” in terms of emissions.

The future's up in the air

All three of us feel the airline industry is at a key turning point. The size and scale of bailouts will vary. Government political will and philosophy, access to capital, and the viability of the industry itself are key factors that will inform whether a company is worth saving.

Any future must be based on the premise of preserving economic vibrancy while reducing climate risk. But not all governments will factor this in.

Events are moving fast, with Emirates in Dubai starting to test passengers for COVID-19 before boarding. Meanwhile, easyJet is considering social distancing on planes as part of a “de-densification” policy, with fewer passengers and higher prices, albeit across more routes.

Longer term, there are various ways this could play out. All depend upon the duration of the crisis and the confluence of political, legal and economic factors.

It is possible that market structure remains unchanged, with ownership of airlines staying relatively stable, supported by bailouts. Under this business-as-usual scenario, sustainability would incrementally be enhanced through airlines retiring older, less carbon efficient planes and replacing them with better ones. But this scenario is subject to tremendous uncertainty.

Sustainability might become more important after the crisis, thanks to increased environmental awareness, demand loss, and new green investment. This would take place at different speeds, with Europe perhaps being more proactive through government incentives and serious emissions targeting.

With the current coronavirus outbreak, airlines' emergency preparedness is being tested every day. Airlines must continue to stay abreast of and comply with the latest international and federal regulations and airport protocols. When an airline becomes aware of an infected passenger or crew member on a flight, airlines must report the situation, notify other passengers and crew members, and take measures to mitigate the potential spread of the disease. Airlines also should

make every effort to document the measures they have taken to prevent contagion and be prepared to demonstrate that they acted reasonably under the circumstances.

Diseases such as COVID-19 pose a risk to the travelling public because they can be transmitted between humans. Thus, the situation also threatens the image and the business of airlines'. Therefore, it is important that all involved stakeholders assist in limiting its spread by air transport. ICAO, ACI, CANSO, IATA, TIACA, WFP and WHO have worked in close cooperation in the development of this single source for aviation-specific guidelines with the objective of ensuring appropriate planning and action at all levels in order to mitigate the effects of a human outbreak.

It remains to be seen whether airlines will be exposed to formal claims from passengers who may have contracted COVID-19 aboard flights and whether, as with DVT, issues will arise as to what is an accident. Many airlines have meanwhile taken precautionary measures to keep the travelling public informed of the latest health information available, to screen passengers at check-in and prior to boarding and disinfect aircraft. Tracing of passengers after flights to enable airlines to ascertain those most likely to have been exposed to risk is complicated by a number of factors: passengers on disembarkation are dispersed widely; there is a two to fourteen day period of incubation; and airline reservation systems may not have sufficient data relating to passengers to give to airline medical staff and health authorities.

It is also possible that prolonged, severe shortage of capital and an awareness of the climate crisis could, hypothetically, lead to massive change. But governments' concern for jobs is likely to crowd out environmental concerns. Political forces on the left and right would have to mend fences and agree that, in a depression-like scenario, a new world is needed, not just a new normal.

Implication

Implication of the Force Majeure Clause in the Aviation Industry during the Covid-19 Endemic:



The World Health Organization (WHO) and the Ministry of health and Family Welfare on 19th February, 2020, had declared that the disruption of the supply chains due to spread of coronavirus in China or any other country should be considered as a case of natural calamity and “*force majeure clause*” may be invoked, wherever considered appropriate, following the due procedure.

Now, let's see what *Force Majeure* is and why it is important to understand the significance of the *Force Majeure clause* in the current scenario.

Definition of the term '*Force Majeure*'

The origin of the term is traced back to the French meaning 'greater force which is defined in the Collin's dictionary as “*force majeure*” as “*irresistible force or compulsion such as will excuse a party from performing his or her part of a contract*”.¹

The Cambridge Dictionary also defines the term as “*an unexpected event such as a war, crime, or an*

earthquake which prevents someone from doing something that is written in a legal agreement”.²

The question that arises in this regard is whether the event of Covid-19 pandemic can be considered as a *Force Majeure* event for all the agreements and whether it can be invoked by the parties claiming that the contract has been impossible to perform? Will it be considered as the default of the parties or a breach of contract?

Now to be called as a *Force Majeure* event, there are a few conditions which need to be fulfilled in order for an event to be considered as a *force majeure* event such as-

- a. The occurrence of an unexpected event
- b. Neither of the parties had any control over such an unexpected event
- c. Such an event was not foreseen by the parties
- d. The unexpected event has rendered the performance of the contract impossible
- e. The parties have taken all the necessary measures to perform the contract or mitigate the damage.

1. Available at <https://www.collinsdictionary.com/dictionary/english/force-majeure>, last accessed on April 24, 2020

2. Available at <https://dictionary.cambridge.org/dictionary/english/force-majeure>, last accessed on April 24, 2020

Legal position of the doctrine of *Force Majeure*:³

Although, this principle is not stipulated in the Contract Act, 1872, it is important to notice that the principle is embodied in Sections 32 and 56 of the Act. The Supreme Court in ***Dhanrajmal Gobindram vs Shamji Kalidas & Co.***⁴ stated that force majeure is a term of wide import and that precedents have established that “strikes, breakdown of machinery, which though normally not included in ‘*vis major*’ are included in *force majeure*”. Such clause is provided in contracts in order to protect the interests of the parties from consequences of an unexpected event on which the parties have no control.

The specific language of the *Force Majeure* Clause in the contract will determine whether the outbreak of Covid-19 can be considered as a *Force Majeure* event. In circumstances where there is no express mention of terms 'epidemic' or 'pandemic' the event will be regarded as an Act of God. But any interpretation will have to be carefully considered.⁵

In circumstances where there is no express mention of terms 'epidemic' or 'pandemic' the event will be regarded as an Act of God. But any interpretation will have to be carefully considered.

An important question that arises out of this is how has the performance been affected or obstructed or delayed by the outbreak? As it is already mentioned that an event to be considered as a *Force Majeure* event, the performance has to be rendered impossible as a result of such event and also the parties to the contract have taken all necessary measures to perform the contract or at least mitigate the damage. When faced with such crucial questions, the courts have attempted to clarify that just because the performance of the contract becomes more expensive or economically unviable to perform, the *Force Majeure* clause cannot be invoked.

Now, what happens to the contracts which do not have a *Force Majeure* clause? Normally majority of the contracts have an FM clause. However, the contracts that do not possess such clause can take their resource to section 56 of the Indian Contract Act that lays down the Doctrine of frustration.⁶

In the landmark case ***Energy Watchdog vs. Central Electricity Regulatory Commission***,⁷ The Supreme Court had held the doctrine of frustration has to be interpreted within narrow limits and shall not be attracted as long as the fundamental basis of the contract remains unaffected. In cases where the contract provides for an FM clause, it would be given primacy over the doctrine of frustration. The Court also made it clear that where the performance of the contract is otherwise possible, the mere fact that there is an increase of price would not absolve the parties from performing the contract on the ground of impossibility to perform the contract.

Although this is clear that in the light of the present scenario, the FM clause will be put to test, but the language and the text of the contract and the FM clause stipulated in the contract will play a pivotal role in determining whether the performance of the contract is impossible or not. The onus of proof will fall on the non-performing parties to prove that the efforts have been made to mitigate or avoid delay or hindrances and occurrence of such event was not anticipated in the time of entering into the contract. Therefore in such situations, informing the other party about any delay or hindrances will play a crucial role.⁸

3. *Id*

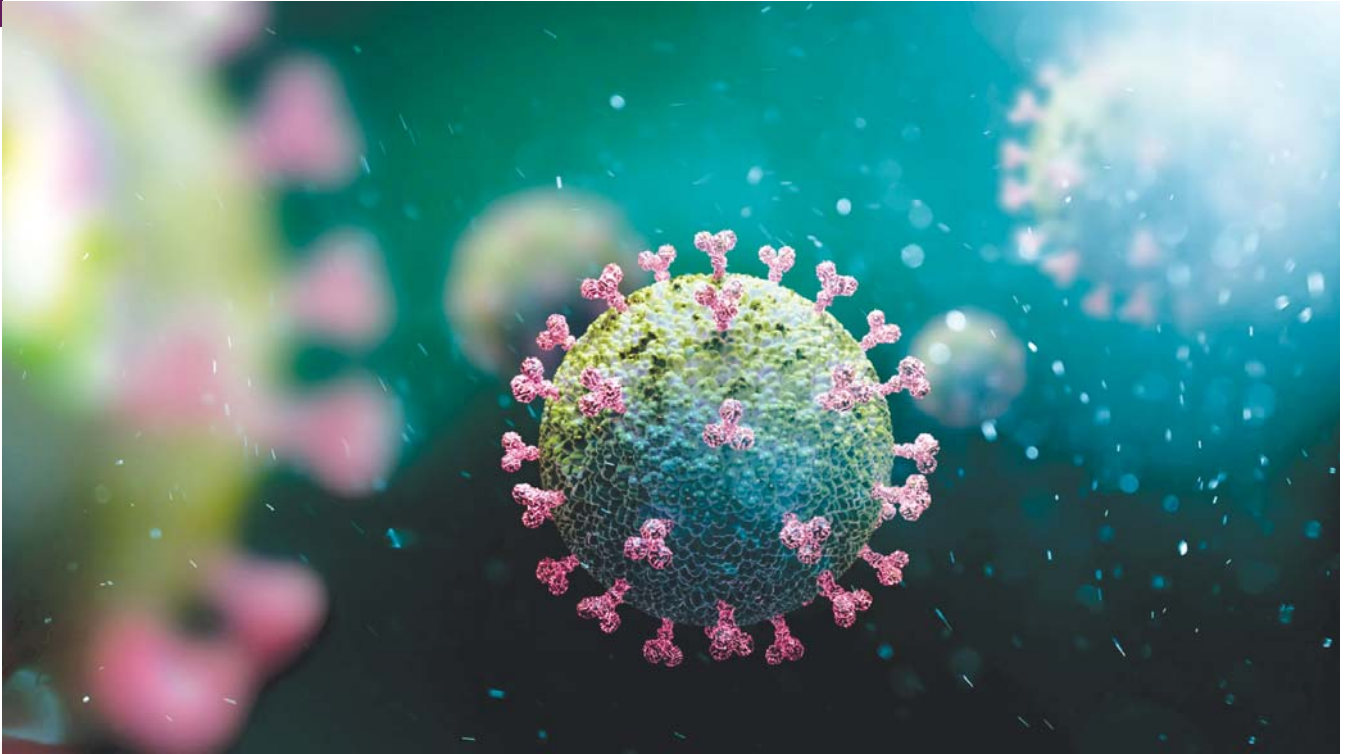
4. (1961) 3 SCR 1020

5. Madhu Sweta & Shivangi Khanna, Impact Of Covid-19 On Indian Commercial Contracts, SINGHANIA & PARTNERS, (March 27, 2020), <https://singhania.in/safeguards-in-force-majeure-in-india/>

6. *Infra* note 8

7. (2017) 14 SCC 80

8. Rajat Prakash, Covid-19: Analysis Of Contractual Obligations And Force Majeure, INDIA LEGAL, (April 7, 2020, 3:10 pm), <https://www.indialegalive.com/special-story/covid-19-analysis-contractual-obligations-force-majeure-95067>



B. Implications of *Force Majeure* on the Aviation Industry:

Now, let's see how this affects the airlines industry. One of the major industry suffering from this pandemic is the airline industry. It is already suffering from low availability of credit to maintain their day to day operation and has been plagued by rampant corruption. The Federation of Indian Chambers of Commerce and Industry (FICCI) has suggested that the government should declare that force majeure applies to all civil aviation contracts to save the domestic civil aviation industry from the COVID-19 induced crisis.

In order to stop the virus from spreading, the passenger airlines, domestic and international both have been suspended for an indefinite period. In such an extraordinary situation the airlines are seeking invocation of force majeure by the government to defer the payment of taxes, oil charges, aviation turbine fuel and salary to workers. Most of the airlines capital reserves would be wiped out if the situation persists for more than three months. FICCI also recommended that in order to cut down the cost of fuel, the Oil Marketing Companies may be directed to extend unsecured interest-free credit terms to the aviation sector as the aviation turbine fuel is one of the three major costs for domestic airlines.⁹

Force Majeure in Select Airline Operator Agreements

Airline Operator Agreement is a civil aviation agreement which is generally entered into between the Airline Company and the Airports Authority of India wherein, the airline company gets contract to fly its airplanes as per the schemes launched by the Central Government and also the airline get to use the airports of India. The agreement consists of the relationship between the parties, the amount payable on transactions and so on. The agreement lays down certain conditions where the Selected Airline Operator shall be permitted to suspend the performance of its obligations in an event of Force Majeure where the performance of its' obligations become impossible. For invoking the clause in the agreement, certain conditions need to be fulfilled. They are-

- the performance of an obligation gets affected adversely;
- Situation is beyond the reasonable control of the Selected Airline Operator;
- The Selected Airline Operator could not have foreseen the event or could not have prevented the event from happening.

9. Covid - 19 - Performance in Agreements in India, AZB & Partners, <https://www.azbpartners.com/bank/covid-19-performance-of-agreements-in-india/>

- The Selected Airlines Operator had taken all necessary measures and exercised skill and care of that of a prudent man.¹⁰
- It is not a direct consequence of the negligence or misconduct of the Selected Airline Operator or its inability to perform its obligations.¹¹

Circumstances which involve force majeure events:-

- If the selected Airline Operator declare any airport as unusable for flight operations.
- In events of War, invasion, armed conflict or invasion of a foreign enemy;
- Revolution, riot, insurrection or other civil commotion, act of terrorism or sabotage;
- Nuclear explosion, radioactive or chemical contamination or ionizing radiation;
- Strikes, working to rule, go-slows and/or lockouts which are in each case widespread, nationwide or political but excluding strikes by the employees or personnel of the Selected Airline Operator;
- Any effect of the natural elements, including epidemic or plague, lightning, fire, earthquake, heavy rains, tidal wave, flood, storm, cyclone, typhoon or tornado;
- Explosion.

The abovementioned conditions can attract the clause of Force Majeure in a contract. After reading the circumstances, it becomes clear that in case of an endemic the clause can be invoked in order to save the aviation industry. The dilemma that the Govt. faced was whether this outbreak can be considered as Force Majeure or not. But on February 19, 2020, the Govt. of

India had declared the outbreak as as a natural calamity and said that the invocation of FM clause is possible in present condition.

Response of the Government:

On 31st of March, an ordinance namely **Taxation and Other Laws (Relaxation of Certain Provisions) Ordinance, 2020** was issued by the Central Govt. wherein an amendment has been brought to the CGST

Act by inserting a new section 168A which enables the government to extend the time limit in force majeure cases. The ordinance stipulates the condition of epidemic in order to deal with the situation of COVID-19. Even otherwise, this ordinance has been introduced in order to absolve many companies from legal burden and to prevent their collapse in these extraordinary circumstances. Subsequently, certain amendments to IBC have been announced to give

relief to the companies suffering losses due to COVID 19 pandemic.

It is interesting to know that the Government acted promptly to address the demands of the airlines in these challenging times by announcing specific relief package. Various commercial organizations have already raised concerns over the colossal losses which are being borne by the airline companies due to complete grounding of airplanes and anxious passengers seeking full refund of their tickets.

The agreement which was entered by the Airport Authority of India and the Airlines companies generally includes the term epidemic in *Force Majeure* clause wherein the onus now falls upon the government to save the airline companies.

It is interesting to know that the Government acted promptly to address the demands of the airlines in these challenging times by announcing specific relief package.

10. *Id.*

11. Airline Companies want Government to invoke 'force majeure' due to COVID-19, INDIA LEGAL, (April 6, 2020, 12:29 pm) <https://www.indialegalive.com/top-news-of-the-day/news/airline-companies-want-government-invoke-force-majeure-due-covid-19-94929>

12. *Id.z*

About NALSAR



NALSAR University of Law was established by Act 34 of 1998. It has been pursuing the objective of imparting comprehensive legal education while promoting cultural, legal and ethical values in order to foster the rule of law. The University is committed to delivering the highest quality of legal education and undertaking research on contemporary areas in order to produce socially relevant lawyers. The University also bears the responsibility of promoting legal awareness in the community so as to strive for social and economic justice.

NALSAR has been repeatedly acknowledged as a leader of legal education in the country with its academic standards being compared with international counterparts. The National Assessment and Accreditation Council (NAAC) awarded it an 'A' grade with a score of 3.60 on a scale of 4.00 which is the highest among the National Law Universities (NLUs). This has placed NALSAR at the 5th spot among all the Higher Educational Institutions in the country and at the first place among the State Universities in Telangana. Subsequently, NALSAR was accorded the status of a Category I University under the UGC (Categorization of Universities (only) for Grant of Graded Autonomy) Regulations, 2018.

Being accorded Category I University, NALSAR is conferred with the autonomy to start new programmes and offer innovative courses without prior approval from UGC.

NALSAR has evolved through an insistence on holistic 'justice' education. This exposes students to the different facets of legal systems and how they interact with public policy, social institutions and markets. The academic programmes emphasize interdisciplinary linkages that enable its faculty members, students and researchers to both understand and critique the rationale behind legislations, executive acts and judicial decisions. In doing so, they develop the ability to propose constructive solutions to socio-economic problems. NALSAR was an early-mover among Indian Universities in respect of introducing a full-fledged 'Choice Based Credit System' (CBCS) that reflects international norms. NALSAR offers the broadest range of elective and seminar courses among Indian Law Schools. The University has been offering courses under the Global Initiative for Academic Networks (GIAN) that is supported by the Central Government in order to invite eminent academicians and practitioners from other nations.

NALSAR offers diplomas, undergraduate, postgraduate and doctorate degree programs in law and allied areas. The university offers programs both in regular as well as distant mode. NALSAR has introduced 'Choice Based Credit System' for all its undergraduate and post graduate programs offered in regular mode. All courses are designed in such a way that each course comprises both teaching and research. 'Academic Flexibility' is the major hallmark of NALSAR curricula. The university provides academic flexibility in curricula by offering a wide range of courses to choose from. There is also flexibility in examination and evaluation pattern for students allowing them to represent the university at various national and international events.

Since its inception, NALSAR teams have participated in and won accolades in several national and international moot competitions. Teams from NALSAR have reached the semi-finals (top 4) of the international rounds of the Philip C. Jessup Moot Court Competition in 2006 and 2010. They have won the Vis Commercial Arbitration Moot in Vienna in 2012 as well as the Oxford Price Moot that year. They have also competed in the World Rounds of the Manfred Lachs Space Law Moot Court Competition. NALSAR students frequently win domestic moot court competitions hosted by various Universities in India.

Our Graduates have made a mark in diverse career paths such as litigation, judicial services, teaching, research, social advocacy, international organizations and commercial law firms. Our graduates have been awarded the prestigious Rhodes Scholarship; Gates Cambridge Scholarship; Commonwealth Scholarship; Felix Scholarship; Leiden Gold Scholarship; Thomas Buergenthal Scholarship; Young India Fellowship; Hirani Foundation Scholarship for pursuing their

higher studies in prestigious universities abroad. Beginning from 2012, around 25 students have received the Aditya Birla scholarship.

In recognition of the increasing importance of comparative and international dimensions of higher education, the University has signed Memorandums of Understanding (MoUs) with nearly 33 foreign Universities located in the United States of America, Canada, United Kingdom, Germany, Switzerland, Australia, Israel, The Netherlands and Singapore. These MoUs

provide for the exchange of faculty members and students as well as the pursuit of collaborative research projects. In the preceding academic year, MoUs were signed with the Tel Aviv University (Israel), University Islam Sultan Sharif Ali (Brunei) and the Barcelona University (Spain). These

partnerships enable our students to develop a rich understanding of cultures from other parts of the world and consequently enhance the quality of discussions and scholarship at NALSAR. Approximately 20-25 students get the opportunity to study at foreign universities in every academic year.

NALSAR has established 20 research centres for advanced learning. These centres conduct research, publish journals and promote academic activities. The university also undertakes funded research projects from national and international agencies and the Central and State Governments. The university publishes eleven journals and has developed clinical courses to impart vocational training. It also has a wide range of extended activities giving its students hands on experience besides helping the poor. These activities also help to inculcate values and requisite professional skills among students.

The National Assessment and Accreditation Council (NAAC) awarded NALSAR an 'A' grade with a score of 3.60 on a scale of 4.00 which is the highest among the National Law Universities (NLUs).

About CADL

NALSAR established the Centre for Aerospace and Defence Laws (CADL) in 2005 with the objective of promoting the development of aviation, space, maritime and defence laws and policies. Since then, NALSAR-CADL has been promoting the study of Aerospace and Defence Laws by introducing courses, conducting National and International Conferences, Moot Courts, Workshops and also publishing Newsletters, Journals, Books and Articles, besides awarding a few M.Phils. and Ph.Ds. in the said areas. The objective of introducing these unique and value added courses is to cater to the needs of unprecedented aviation growth coupled with commercialization and privatization of aerospace, defence and maritime industries, which calls for thousands of skilled manpower to meet not only managerial requirements but also legal compliances that arise from the high value transactions.

Vision Statement

To be world's renowned Centre of excellence in the field of Aerospace and Defence Laws, research and education.

Mission Statement

NALSAR University of Law through CADL has envisaged the mission to -

- ★ Contribute to the growth of Air, Space and Defence Laws in domestic and international arena and help in extending the frontiers of these Laws.
- ★ To play a pivotal role in spreading the importance of aerospace and Defence laws in the 21st Century.
- ★ To promote the study and research of law relating to Aerospace and Defence Laws and to encourage students to gain expertise in these areas.
- ★ To undertake Policy research and advise the Governments both in India and abroad in the realm of fast growing law of Aerospace, Defence and Security Regimes.

- ★ To promote collaborative research in Aerospace and Defence projects having national and global importance.
- ★ To render consultancy services to stakeholders for resolving all issues arising out of Aerospace and defence sector.
- ★ To disseminate the knowledge of Aerospace and Defence laws through high quality publications, pioneering research work, offering Courses etc.
- ★ To become world reputed repository of knowledge in the field of aerospace and Defence laws.
- ★ To create value for all the stake holders and make a difference.

Objectives of CADL

- ★ To provide assistance to Government institutions/organizations and private institutions and industries on all legal aspects relating to Air, Space, Security and Defence.
- ★ To produce well researched expertise on various kinds issues in Aerospace and Defence arena.
- ★ To enhance Research and Publications in the realm of Aerospace and Defence Laws.
- ★ To arrange and offer internship programs to trainees from Aviation, Space and Defence Research Centres.
- ★ To spread awareness programs on Aerospace and Defence Laws education throughout India and abroad.

Pursuant to achieving the coveted objectives, CADL, NALSAR has been continually promoting teaching and research in the field of Aerospace and Defence Laws for more than a decade and half. CADL organized several national and international conferences, workshops, moot courts, publishing books, journals, newsletters etc. to disseminate the significance and importance of Aerospace and Defence Laws.

Activities of CADL:

Teaching – Innovative Courses

The Centre for Aerospace and Defence Laws (CADL), NALSAR University of Law has always pioneered in teaching and research in advanced areas. CADL offers various elective/seminar courses for LL.B., LL.M. students including Contemporary Issues in Air and Space Law, Defence Procurement Policy, Public Private Partnership in Aviation Industry, Aerospace and Defence Start-ups etc. These Courses are being offered by the Centre for the past 20 years and produced number of scholars. Many students with degrees in air and space law have now been absorbed in the national mainstream and are working with the airlines, airports, law firms, multinational corporations etc. Several of them have also taken up important assignments abroad, enriching global prospects.

For Regular Students: Every Year we have been offering regular courses on Air and Space Laws to LL.B and LL.M students at NALSAR University of Law. To date, more than 50 Students had opted for this Courses and attained immense knowledge in the Air and Space Laws. There are also few Ph.D

Scholars who pursued in Air and Space Laws and Defence Laws.

Distance and on-line Mode: With the concept of “Education at door steps of Needy Students”, NALSAR through CADL has also launched few innovative on-site and online courses. In the year 2013, CADL, NALSAR has also started innovative 'online-onsite' courses such as Master's Degree in Aviation Law and Air Transport Management (MALATM); Master's Degree in Space and Telecommunication Laws (MSTL); One-year PG Diplomas in Aviation Law and Air Transport Management (PGDALATM); One-year PG Diploma in GIS and Remote Sensing Laws (PGDGRSL) under the aegis of Centre for Air & Space Law. The objectives of these courses are to cater to the needs of the unprecedented growth in aviation sector coupled with the commercialization of space technologies has created the need for thousands of skilled manpower to meet the requirements of rapidly growing aerospace and telecommunications sectors. In view of 2G controversy, there is an urgent need to have specialisation in the upcoming discipline of telecommunication laws. The Centre also undertook collaborative research activities in areas of common concern with State Governments; Multi-National





Corporations such as the GMR group, Non-Government Organizations and other International Organizations. The enrolled students in the year 2013 for the One Year Post-Graduate Diploma in Aviation Law and Air Transport Management, 25 students have successfully completed their course and the Diplomas were awarded in the Twelfth Annual Convocation held on August 2, 2014.

During 2014, CADL, NALSAR, started a Centre at New Delhi for conducting the onsite sessions for the 2-Year Master's Degree in Aviation Law and Air Transport Management and One Year Post-Graduate Diploma in Aviation Law and Air Transport Management in order to accommodate the growing demand and having regards to the needs of the working professionals from New Delhi. During the year, 74 candidates were admitted to Master's Degree in Aviation Law and Air Transport Management; 08 candidates were admitted to Master's Degree in Space and Telecommunication Laws; 13 candidates were admitted to PG Diploma in Aviation Law and Air Transport Management.

During the year 2015, 88 candidates were admitted to Master's Degree in Aviation Law and Air

Transport Management (Delhi & Hyderabad Centres); 10 candidates were admitted to Master's Degree in Space and Telecommunication Laws (Hyderabad Centre). Onsite sessions were conducted at Delhi and Hyderabad Centres and examinations were conducted both at Hyderabad and Delhi Centres. 19 students have become eligible for award of Master's Degree in Aviation Law and Air Transport Management; 04 students of Master's Degree in Space and Telecommunication Laws; 07 students of Post-Graduate Diploma in Aviation Law and Air Transport Management.

Ms. Sadaf Amrin Fathima, student of Master's Degree in Space and Telecommunication Laws (2015) has been awarded the prestigious 'DAAD Scholarship' for pursuing Master's Programme in the University of Munich, Germany.

In 2017, the Centre for Air and Space Law (CASL) was changed as Centre for Aerospace and Defence Laws (CADL) to expand its research in the area of Defence Laws also.

During 2018, CADL offered M.A. (Aviation Law and Air Transport Management) and P.G. Diploma in Aviation Law and Air Transport Management

courses through Directorate of Distance Education. The Centre also offered a Certificate Programme on Advanced Air Laws during February 8 – 12, 2018. The programme was offered at NALSAR as a residential programme and a total of 24 candidates registered for the programme and the certificates were awarded to the successful candidates.

Brief background about Masters and Diploma Courses

The objective of introducing these unique courses is to cater to the needs of unprecedented aviation growth coupled with commercialization of telecom & space technologies, which requires a large and highly skilled workforce to meet not just the managerial requirements of the rapidly growing aerospace industry but also the legal complications that arise from the high value transactions involving the market participants. These courses seek to meet the burgeoning demand of the industry from the supply-side by producing legal and managerial aerospace experts which India is facing an acute shortage. NALSAR's initiative crystallize an academic – industry partnership in the domain of Air Transport Management, Aviation, Space, Remote Sensing, GIS and Telecom Laws which makes the programme first of its kind not only in India but also in this part of the world.

The aforesaid courses are unique value-added qualifications which would help the aspirants to acquire global placements in aero-space and telecom industries.

The uniqueness of the programme: The curriculum of the programme is a tailor-made to meet the professional needs of the aviation industry-airport, airline, aerospace and related sectors so that the products are in a position to directly take on the core managerial positions in any of these sectors. A lawyer who has been traditionally endowed with rational mind can now be seen as a 'Professional Aviation Manager' because of the specialization, sector specific knowledge and competence in the aviation industry that he/she receives during the program. Similarly, a manager who is endowed with analytical ability is now in a position to function at a higher lever with a greater competence by acquiring the specific knowledge of the rules of the game i.e. Aviation Law. This unique advantage of a comprehensive understanding of the industry its operational aspects, managerial functions and of the general management module interlined with the aviation specific module such as advanced airport management and airline management. Thus it provides a comprehensive understanding of the industry with the practical exposure.



Conduct of the Programme: Master's Degree and PG Diplomas are of 'Blended version' (a mix of Onsite and Online) sessions spread across four and two semesters respectively. Each semester will have Onsite intense session by the subject experts, followed by Online session where participants will work on the case studies/project assignments and upload them on the dedicated web portal. Under the mode of intense e-learning process, the students can have access to subject experts specializing in various areas of the subject. The relevant updated materials will be uploaded from time to time. At the end of the final semester, students are required to submit a Dissertation.

United Nations Recognition for Air and Space Law courses offered by CADL, NALSAR

CADL's (earlier known as Centre for Air and Space Law (CASL) innovative courses on Space and Telecommunication Laws have been recognised by the United Nations Organization Office for Outer Space Affairs (UNOOSA), Vienna in its

updated Directory on Education Opportunities in Space Law (A/AC/105 /C.2/2015/CRP.9). This Education Directory by UNOOSA recognizes and showcases the innovative education opportunities in Aerospace Industry available across the world. These courses offered by Centre for Aerospace and Defence Laws (CADL), NALSAR are a unique combination of Law, Management and Technology in the field of aerospace.

Following are the Masters and Diploma Courses:

1. Two-Year M.A. (Aviation Law & Air Transport Management)
2. Two-Year M.A. (Security & Defence Laws)
3. Two-Year M.A. (Space and Telecommunications Law)
4. One-Year Post Graduate Diploma in Aviation Law & Air Transport Management
5. One Year Post-Graduate Diploma in Advanced Maritime Laws
6. One-Year Post Graduate Diploma in GIS and Remote Sensing Laws

Complete details about courses are available at www.cadl.nalsar.ac.in and www.nalsarpro.org





CENTRE FOR AEROSPACE AND DEFENCE LAWS (CADL)

DIRECTORATE OF DISTANCE EDUCATION

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ADMISSION NOTIFICATION 2020-21

NALSAR University of Law established by Act 34 of 1998 is engaged in teaching and research in law and allied disciplines. In recognition of its academic standards National Assessment and Accreditation Council (NAAC) awarded it 'A' grade (A+ as per new grading system) with a score of 3.60 out of 4.00 which is the highest amongst all National Law Universities in the country. NALSAR has also been accorded with the status of Category-I under UGC (Categorization of Universities (only) for Grant of Graded Autonomy) Regulations, 2018.

NALSAR established the Centre for Aerospace and Defence Laws (CADL) in 2005 with the objective of promotion of teaching and development of Aviation, Space, Maritime, Telecom and Defence Laws and Regulations. Since then, NALSAR-CADL has been promoting the study of Aerospace and Defence Laws by introducing courses, conducting National and International Conferences, Moot Courts, Workshops and also publishing Newsletters, Journals, Books and Articles, besides awarding a few M.Phils. and Ph.Ds. in the said areas. The objective of introducing these unique and value added courses is to cater to the needs of unprecedented aviation growth coupled with commercialization and privatization of aerospace, defence and maritime industries, which calls for thousands of skilled manpower to meet not only managerial requirements but also legal compliances that arise from the high value transactions. CADL invites applications for admission to the following courses :

S.No.	Name of the Course	Course Fee
1.	Two-Year M. A. (Aviation Law & Air Transport Management)	Rs.40,000/- p.a. (for Defence personnel – Rs.35,000/- p.a.)
2.	Two-Year M. A. (Security & Defence Laws)	
3.	Two-Year M. A. (Space & telecommunication Laws)	Rs.40,000/- p.a.
4.	One-Year P.G. Diploma (Aviation Law & Air Transport Management)	Rs.30,000/- (for Defence personnel – Rs.25,000/-)
5.	One-Year P. G. Diploma (Advanced Maritime Laws)	
6.	One-Year P. G. Diploma (GIS & Remote Sensing Laws)	Rs.30,000/-

Eligibility

Bachelor's Degree or an equivalent Degree in any discipline from any recognized University; (OR) 3-year Degree/Diploma in Aircraft Maintenance Engineering (AME) will be applicable to S.No.1 & 4, (OR) Students appearing for the final year examination of Graduation / Engineering are also eligible to apply. In such a case, the admission will be subject to submission of passing certificate of the qualifying examination on or before September 30, 2020.

Admission Procedure: Direct Admission subject to fulfillment of the eligibility criteria for the said courses. The Online portal for submitting the Application Form is available at www.cadl.nalsar.ac.in

Curriculum for Masters Programmes:

Semester	Two-Year M.A. (Aviation Law & Air Transport Management)	Two-Year M. A. (Security & Defence Laws)	Two-Year M. A. (Space & Telecommunication Laws)
I	<ul style="list-style-type: none"> General Principles of Law International Air Law Principles of Management Airport Management 	<ul style="list-style-type: none"> General Principles of Law International Security, Diplomacy and Conflict Resolution Defence Technology and Defence Laws International Institutions and Global Security 	<ul style="list-style-type: none"> General Principles of Law Space Technology and Law International Space Law Information Technology and Law
II	<ul style="list-style-type: none"> Domestic Air Laws in India Aviation Safety, Security and Liability Laws Airline Management Air Space & Air Traffic Management 	<ul style="list-style-type: none"> Defence Management and Strategic Studies Defence Contracts and Tenders Defence Procurement Policies: National and International Perspectives Defence Laws and Policies in India 	<ul style="list-style-type: none"> International Telecommunications Law Space Technology, Telecommunications and IPRs Issues Space Commercialization and Legal Issues Space Security: Laws and Policies
III	<ul style="list-style-type: none"> Aviation Contracts & Tenders Aviation Corporate Laws Air Transport Economics and Statistics Aviation Marketing 	<ul style="list-style-type: none"> Regional Security and Global Governance Terrorism and Counter Terrorism Aviation, Space and Maritime Security Laws Cyber Space, Cyber Security and National Defence 	<ul style="list-style-type: none"> Telecommunication Laws in India Law of Remote Sensing and Geospatial Data Trade Laws relating to Space and Telecommunications Space Law and Contemporary Issues
IV	<ul style="list-style-type: none"> Dissertation 	<ul style="list-style-type: none"> Dissertation 	<ul style="list-style-type: none"> Dissertation

Curriculum for Diplomas:

Semester	One-Year P. G. Diploma (Aviation Law & Air Transport Management)	One-Year P. G. Diploma (Advanced Maritime Laws)	One-Year P. G. Diploma (GIS & Remote Sensing Laws)
I	<ul style="list-style-type: none"> General Principles of Law Principles of Management International Air Law 	<ul style="list-style-type: none"> General Principles of Law International Maritime Laws Maritime Security and Law of the Sea 	<ul style="list-style-type: none"> General Principles of Law Remote Sensing Technology and Laws GIS Technology and Law
II	<ul style="list-style-type: none"> Airport Management Airline Management Domestic Air Laws in India 	<ul style="list-style-type: none"> Maritime Laws in India International Trade and Marine Transport Services Maritime Laws and Contemporary Issues 	<ul style="list-style-type: none"> Coastal Zone Regulation and Management Satellite Technology and Telecommunication Laws Information Technology and Cyber Laws

Important Dates :

Release of Notification and Application Form May, 2020
Last date for Receipt of Application Form July, 2020
Commencement of Classes September-October, 2020

Admission Procedure :

Direct Admission subject to fulfilment of the eligibility criteria for the said courses. The Online portal for submitting the Application Form will be available at www.cadl.nalsar.ac.in
Email ID : cadladmissions@nalsar.ac.in

Sd/-
Prof. V.Balakista Reddy
Registrar & Head, CADL



**Centre for Aerospace and Defence Laws (CADL)
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