

COVID-19
PRIVATE AVIATION
BEST PRACTICES FOR
AVIATION SAFETY ASIA

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Aviation Safety Asia is proud to partner with MedAire, the industry leaders for medical and security assistance, to provide this COVID-19 best practice paper for the private aviation sector.

In the interests of recovery and more importantly, safety, it is imperative for operators to adopt strategies to overcome the unprecedented pandemic that has decimated the aviation industry. With the world now in constant flux, organisations need to be prepared for eventualities that are outside the scope of normal operations. This paper addresses those issues and provides a framework for operational preparedness in the “new normal” era.

COVID OVERVIEW

The COVID-19 pandemic has had an unprecedented and devastating impact on the aviation industry. Almost two years later, we still find ourselves in a world of ever-changing circumstances. Operators need to put mitigation measures in place to protect their staff, crew and passengers and take consistent steps to help minimise the spread of COVID.

In addition to the above, vaccination has become the most effective tool in reducing the spread of the virus as well as reducing its morbidity and mortality.

Vaccination is playing an important role in the way different countries are dealing with COVID-19 regarding border control. According to the WHO there are 53 countries and territories allowing vaccinated international travellers to visit. Twenty-six countries exempt travellers holding a vaccination certificate from quarantine, and 17 countries exempt them from testing upon arrival.

While we know that instances of possible in-flight transmission are considered very small, aviation certainly played a role in the international spread. MedAire continued to support our commercial and private aviation clients that

maintained operations throughout the pandemic. We’ve learned a few things since January 2020. The stacking of preventative layers works to reduce the risk of inflight transmission; taking simple precautions like wearing a mask, washing your hands often, social distancing, and avoiding riskier activities works; and never get complacent with all things COVID related.

As we continue to navigate these uncertain times, there are a few things we can expect. Trip planning will continue to play a more critical role than ever, countries will continue to reevaluate and modify entry & exit requirements, and pandemic sparked security threats - like civil unrest, rioting and disgruntled passengers- will likely continue for some time.

This paper addresses considerations operators should be aware of to ensure operational preparedness for this next normal. After a look at the pandemic in Australia and available vaccines, we have broken the considerations out it into four sections—Pre-Trip, En-route, At Destination, and Duty of Care.



ASIA AND THE PANDEMIC

Operators across the Asia-Pacific region have faced some of the toughest border restrictions across the pandemic. Often only citizens and permanent residents have been granted access but face lengthy periods of quarantine. As such, this dramatically slowed international travel in the region.

Nations with a sizeable domestic market and lower rates of COVID-19 have experienced a come back in passenger levels. However, this is often disrupted by new waves of COVID-19 resulting in restrictions on mobility. Throughout the pandemic countries such as China, Hong Kong and Singapore have found themselves particularly isolated to the outside world given strict border policies.

China and Hong Kong have been following a COVID-Zero policy which aims to stamp out any outbreaks with harsh restrictions and mass testing. Managed hotel quarantine facilities have been successful in reducing the risk of importing the virus but has proved detrimental to the aviation industry. With up to 3 weeks in quarantine, it poses a significant obstacle to resuming normal operations.

Singapore is showing signs of more favorable border policies opening up ‘Green Lanes’ with partnering countries, such as Germany. Following the abandonment of their Covid-Zero strategy, Singapore is learning to live with the virus through high vaccination rates and targeted restrictions.

Operators should consider mental health and wellbeing programs and initiatives for employees to help unburden the stresses of quarantine and the toll of a prolonged pandemic. Healthcare and counselling can be provided by video tele consult with prescription delivery a possibility in most locations.

Pre-departure COVID-19 tests are required for most flight routes. Tests must be conducted by an approved provider, in accordance with local regulation. Usually, pre-departure tests should be conducted within 72 hours of your departure. Rapid antigen tests are not often recognized as a valid form of testing for the purpose of travel. These tests have a lower sensitivity as opposed to PCR.

Before travel, crew should familiarise themselves with the various requirements and follow best practice measures for travel in the COVID-era.

VACCINE DATA SNAPSHOT - ASIA

YOUR AVAILABLE VACCINES & DATA

There are several vaccines available across Asia. Availability is dependent on which vaccines each jurisdiction has secured and this can change over time based on supply and demand. These include vaccines produced in Asia, as well as those imported from other nations.

For medical advice on vaccines, please liaise with your local GP or MedAire for our independent information.

VACCINE EFFICACY VERSUS EFFECTIVENESS

- ▶ Efficacy: Trial data based on perfect or near-perfect conditions measuring the relative difference in infections between a vaccinated and a placebo group.

- ▶ Effectiveness: Real-world data based on how well the vaccine work in non-controlled populations. Comparing the vaccination status of a group of confirmed cases with the vaccination status of a group that doesn't have the infection can determine the effectiveness.
- ▶ Interpretation: Efficacy and effectiveness are calculated the same way. A vaccine with an efficacy/effectiveness of 80% means the vaccine group had an 80% lower risk of developing the disease compared to placebo/non-vaccinated groups. An efficacy/effectiveness of 80% does not mean that 20% of the vaccinated group will be infected.

THE %-WISE LOWERED RISK OF GETTING COVID-19 FOR PEOPLE VACCINATED COMPARED TO PEOPLE NOT VACCINATED							
Vaccine/ Company	Overall	Asymp-tomatic Disease	Symptom-atic Disease	Severe Disease	Hospital-isation	ICU Admission	Death
Astra Zeneca	66.7 - 80%	Data not available	55.1 - 90%	100%	100%	Data not available	Data not available
Pfizer	86.1%	86 - 91.5%	86 - 95%	Data not available	88.8 - 97.2%	97.5 - 100%	96.7%
Moderna	93.3%	Data not available	94.1%	Data not available	86%	100%	100%
Sinovac	Not available	Not available	50.7 - 84%	Not available	87.5 - 100%	90.3%	86.3%
Sino-pharm	78.1%	Not available	Not available	Not available	78%	Not available	Not available
Sputnik V	Not available	Not available	91.6%	100%	Not available	Not available	Not available

Source: International SOS COVID-19 Vaccine Overview, Version 17, 22 September 2021

Additionally, given the prominence of the Delta variant globally, the following statistics are available:

THE %-WISE LOWERED RISK OF GETTING THE COVID-19 DELTA VARIANT FOR PEOPLE VACCINATED COMPARED TO PEOPLE NOT VACCINATED		
Vaccine/ Company	Symptomatic Disease	Severe Disease
Astra Zeneca	70%	95%
Pfizer	85%	95%
Moderna	70%	96% (one dose)

PRE-TRIP

TRIP PLANNING

Trip Planning is an essential part of any mission. Add on the complexity of a global pandemic, and it becomes even more so. While it may seem obvious to say, the role of trip planning cannot be underestimated.

Because the situation is still ever-changing, it is best to treat every trip as your first. We are still seeing changes to entry/exit requirements, flight restrictions, and regulations at the local level. Perform a risk assessment for each trip, even if you have just flown there the week before. Security environments are fluid and may have changed dramatically throughout the duration of the COVID-19 pandemic. Risk assessments need to have local health and security considerations in mind and should incorporate the following:

- ▶ Entry/Exit restrictions and requirements
- ▶ Airport security profile
- ▶ Recent unrest or violence
- ▶ Identify the safest route to accommodations
- ▶ In-country COVID-19 'lockdown' restrictions & enforcement
- ▶ Transportation routes to hotel & meetings
- ▶ Hotel security profile
- ▶ Local healthcare capacity or limitations
- ▶ Airspace overflight risk

In addition to the risk assessment, operators may consider doing a thorough vendor assessment before each scheduled trip. The vendor assessment will help gauge if you need to implement extra precautions. When performing your vendor assessment, you will want to include your FBO, hotel, catering, fuel, transportation, and cleaning providers.

CONSIDERATIONS FOR VENDOR ASSESSMENT:

- ▶ Are they open & operating?
- ▶ Are they fully staffed? If not, could this impact your itinerary?
- ▶ Is the general terminal processing passengers, or are they being sent to the main terminal to support testing requirements?
- ▶ How are you getting crew and passengers to their hotel? Are those vendors taking health and security precautions?
- ▶ Are hotels open to generally travelling populace, or restricted to specific usage (isolation, quarantine, crew, etc.).
- ▶ Will the selected hotel allow individuals to convalesce should they test positive?
- ▶ Will the hotel allow for quarantine if it is required for entry?

Work alongside your handler, FBO, and medical & security provider to stay current on the situation at the destination right up until you leave.

Most importantly, have contingency plans that incorporate not just one or two backups but also three or four. MedAire has seen first-hand how even the best-laid contingency plans have fallen through at a moment's notice because of the ever-changing situation with the pandemic.



ENSURE CREW & PASSENGERS UNDERSTAND ENTRY/EXIT REQUIREMENTS

It is on the operator to ensure that all those travelling have the proper documentation to enter and exit a country. Crew and generally passenger entry requirements can vary dramatically in each country, so it is important to understand both. Educate passengers on what they will need to bring with them for departure, so there are no unnecessary delays. Additionally, be sure they know what will be needed to return and offer to assist with any testing needs.

While we are starting to see some easing of quarantine requirements upon arrival, the Delta variant has some countries experiencing a new wave. This increase in cases could see countries reversing course, or conditioning entry on whether crew or passengers have received a full dosage of an approved vaccine. If a crewmember tests positive outside their home county, they can be placed into mandatory isolation. Some countries may apply a quarantine to everyone else who travelled onboard, regardless of vaccination status. For locations with government-run quarantine facilities, advise they can be strict and not up to standards for those who fly private.

SCHEDULE CREW IN COHORTS

When possible, keep crews together in cohorts, so the same pilots and cabin attendants are paired. Cohorts will make it much easier to perform contact tracing in the event of positive COVID exposure.

VACCINATION EDUCATION

Vaccines are now widely available throughout Australia; urge your crew to get vaccinated as soon as they are eligible. Remember, the best way to prevent contracting COVID-19 is by getting vaccinated. Although not 100% effective to prevent the disease, vaccination significantly reduces the chances for severe infection causing hospitalisation or even death. Education efforts could include posters around the office, online training courses, newsletter articles or email campaigns around the safety and efficacy of the vaccines. Adding an incentive program for those who get vaccinated is another way to encourage employees to get their vaccine.

ROUTINE TESTING

Unvaccinated people give the virus more opportunities to mutate. The more it mutates, the more likely it becomes that emerging variants will evade the antibodies current vaccines have created. Until we get to a place where we have a higher number of vaccinated people globally than unvaccinated for herd immunity, the need for a routine testing programme for crew (and other frontline & essential staff) still exists. Routine testing can help minimise the risk testing positive down route, required isolations, exposing other crew or passengers to the virus, and last-minute crew changes. Testing should be performed on vaccinated and unvaccinated staff, as we now know a vaccinated individual can still shed the virus if they are infected.

COVID TRAINING

All crew and frontline staff should be trained on how to perform a health assessment before departure and respond to someone exhibiting COVID symptoms in flight. Crew should additionally receive training on COVID mitigation practices while travelling.

DAY OF DEPARTURE

PRE-FLIGHT SCREENING

In any pandemic situation, exit point screening of potentially infected passengers assumes paramount importance. The identification of potentially contagious passengers before they get on board is crucial. Operators should have COVID screening procedures in place that all crew and passengers are held to. Screening best practices could include implementing a health questionnaire, temperature checks, and over-the-counter testing kits become more readily available, requesting passengers be tested before departing. Although individually these measures have a low sensitivity, stacking them enhances the probability of detection of a potential case.

HEALTH QUESTIONNAIRE SUGGESTIONS

- ▶ Have you tested positive for COVID-19 in the last 12 days?
- ▶ Have you had close contact with anyone who has tested positive for the COVID-19 virus in the last 12 days?
- ▶ Are you currently experiencing any symptoms such as dry cough, fever, body aches, or shortness of breath?

ADOPTION OF MASKS & SOCIAL DISTANCING

Masks and social distancing are still crucial elements for mitigation. As new variants are emerging, a common recommendation is that all people - vaccinated or not - still wear a mask when indoors and within close proximity of others. We realise this can be a tricky situation when someone chooses not to follow this guideline. No one wants to upset a VIP at the onset of travel or put staff in harm's way, so rather than cause a scene trying to enforce this policy, we recommend finding alternative solutions. Some successful practices are moving reluctant individuals to a separate waiting area, or where space/weather permits adding socially distanced outdoor seating options to help de-escalate the situation.

REQUIRED DOCUMENTATION

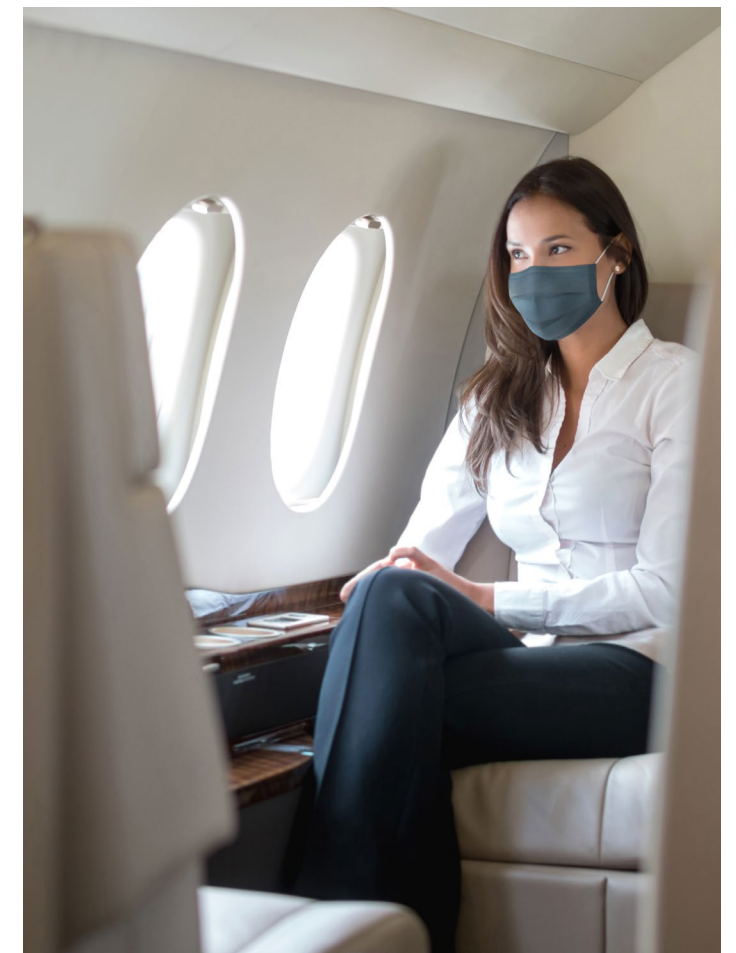
Depending on the country, operators may need to maintain proof they have verified required documentation at points of entry and exit for two years in case of regulator audit. As such, existing protocols for processing required documentation to enter a country will need to be adapted for COVID requirements.

IN-FLIGHT

This adoption of masks indoors extends to, cabin attendants, and passengers while onboard. Such measures ensure their safety as well as the safety of your passenger's. Masks could also be recommended to pilots in the flight deck, on a risk-assessment basis, for example if Covid-19 vaccination is not required.

Handling of cases identified in-flight are also extremely important, and identification of cases in-flight continue to play vital importance to trigger targeted public health measures, particularly in the scenario of travel bubbles.

Should a traveller begin to exhibit symptoms in-flight, the crew should do their best to isolate the passenger as the environment allows. The symptomatic individual should be as far away as possible from other passengers and crew while wearing at least one mask. There should be one dedicated person caring for them. Everyone onboard should be provided masks if they are not already wearing one. It is appropriate to notify local health officials upon landing; in fact, some countries continue to require that potential symptomatic cases be raised to ATS upon entering its airspace



AT-DESTINATION

ENTRY REQUIREMENTS & PROCESSING

We previously noted that operators need to check entry and exit requirements in the trip planning process, but they also need to be prepared for any changes to the requirements en-route. In addition, crew and passengers should be prepared for last-minute changes to requirements upon arrival. For example, due to COVID-19 testing requirements, some locations take passengers and crew from the general aviation terminal to the main terminal to be processed for entry.

Some countries have lifted negative test results or testing on arrival with proof of vaccination. With no universal guidance or agreement on digital vaccine verification, this can be a tricky process. Crew and passengers should be prepared for processing delays as each country works through this.

OUT & ABOUT

Many countries will vary significantly in both the nature of any lockdown restrictions that may be implemented, and the degree of their enforcement. When combined with the fact that such restrictions - 'lockdown' or otherwise - may be implemented at very short-notice, crew should make consistent efforts to remain apprised of any restrictions or changes. Hotel staff will be an excellent resource for this information, and all crew should do their utmost to adhere to the policies in place.

If in an area seeing increased transmission, crew should avoid popular attractions or crowded areas. Masks should be continued to be worn when indoors - whether this is the requirement or not. Also, ensure you are aware of and in compliance with local COVID such as mask requirements, movement restrictions, curfews, etc, including any restrictions that may exist at individual establishments

DINING

Numerous studies have linked indoor dining at restaurants as one of the riskiest behaviours for transmission of COVID. While not always available, carryout or outdoor dining is always preferable to dining in the restaurant. If dining inside a restaurant is the only option, remember that the more time spent inside with other unmasked dinners, the higher the risk of exposure.



PERSONAL SAFETY

The pandemic has brought with it some polarising views. In the last year, we have seen an increase in civil unrest and rioting around the world. Crew need to be mindful of their surroundings, and managers need to be monitoring the area from afar, communicating if they receive word of any planned or escalating activity that could pose a safety risk. Check with your security provider for the latest information on the overall threat and risk profile of your location and ensure you have a plan in the event of localised or wide spread unrest and violence.

GET CARE WHEN NEEDED

Having a travel health and safety partner who can provide your crew medical or safety assistance they need when travelling is essential. Your partner should have vetted providers around the globe to treat illness and injury either via teleconsultation, hotel doctor or at a clinic or Accident & Emergency department of a hospital. It's also important that they have relationships with laboratories in their network for any COVID testing that is needed along the way.

Calling for medical assistance is not exclusive to emergencies. At MedAire, we like to say, "call early and call often." Early intervention can minimise last-minute operational delays, but more importantly, in some cases, it can save a life. We have seen cases where a headache turns into something more than just a headache.

Care also includes mental wellbeing. For example, suppose an individual gets isolated from friends and family for weeks because they can't pass a COVID test to meet exit requirements or have a family member back home who become seriously ill while they were away. In that case, they may need to talk to someone. Such instances can be upsetting, lonely, and frightening. Having a partner that can provide your crew with a behavioural health specialist within hours can be just what they need to help get them through a difficult situation.

IMPLEMENT A FIT-TO-OPERATE PROCEDURE

Most operators will already have a fit-to-operate process in place. Those who do not should get one implemented. A fit-to-operate procedure will help if a crewmember has been impacted by COVID when travelling for duty. Cases of COVID require robust and consistent guidance to let the crew know when it is safe for them to work again.



DUTY OF CARE

Operators have always had a duty of care obligation to employees, crew and passengers. To ensure health and safety needs are met in today's environment enhancing existing protocols and implementing new ones will be required.

CLEANING PROCEDURES

At the onset of COVID, we thought the virus was mainly spread through contaminated surfaces. As a result, we saw operators putting new and extensive cleaning practices in place ranging from materials-safe disinfectants to advanced sanitation methods like utilising ionised air machines and ultraviolet-A lighting. While we now know the primary way the virus is transmitted is through aerosols and that risk from surface contamination is low, operators should continue practicing enhanced cleaning methods. These enhancements promote good sanitation processes and give crew and passengers peace of mind.

EMOTIONAL SUPPORT

The pandemic is responsible for global mental health and emotional struggles. COVID has provided a significant source of anxiety, stress, and uncertainty for almost everyone. Individuals who suffered from COVID-19 and recovered have a higher probability of experiencing an emotional health issue. The risk is even greater for those experiencing symptoms lasting longer than 4 weeks, a scenario now referred to as long-COVID. Those who were

impacted by furlough or increased work hours to support skeleton operations may also experience emotional health issues. Check in with employees and peers often, and make sure your people know they have access to care for their emotional needs.

FATIGUE MANAGEMENT

While fatigue management has always been on our industry's radar, operators need to realise the impact COVID can have on a person. Many organisations were faced with the difficult decision to either lay off or furlough staff over the last year. These actions reduced the number of available personnel and crew. As a result, many who remained had to take on additional responsibilities and work longer hours. As employees and crew come back, they may find it difficult at first. They could experience task distraction, workload saturation, or struggle to following instructions and processes. To mitigate risk associated with fatigue operators must strictly enforce a safety culture that promotes reporting possible cases of fatigue as a sign of care and respect, not with negative attribution.

LONG-COVID SUPPORT

Most people infected with COVID will recover from their symptoms, if any, in a maximum period of four weeks. However, 10-30% of people diagnosed with covid-19 will experience long-term after-effects. Long-COVID is a term used to describe when existing symptoms last longer than expected or new ones develop following the acute phase of COVID-19 infection. To put these numbers in perspective, 1 in 10 of those who've tested positive for COVID in the UK are developing long COVID. Researchers are still learning from emerging data, but initial findings show that long-COVID patients average around 40 years old.

Long-COVID can imply prolonged absenteeism for a variety of reasons. Though it is not a legal requirement today, as with all things COVID related, this could change rapidly and vary from country to country. Remain informed on the latest legal regulations and requirements on this matter to stay compliant. As we learn more about long-COVID and its implications, it might be considered a chronic condition for more severe cases and thus be in HR policies as any other disability or chronic disease.

Operators will also need to review their occupational health policy for crew impacted by long-COVID. Symptoms such as cognitive impairment & fatigue pose a significant threat to aviation. There is no place for brain fog or chronic fatigue at altitude. Additionally, while it may seem like a harmless symptom, loss of smell could have ramifications in the aviation environment. Crew need to have all senses intact to operate safely; for example, sense of smell helps identify an issue in the early stages of a fire, leaking fuel, etc.

SYMPTOMS OF LONG-COVID

COMMON SYMPTOMS

- ▶ Fatigue
- ▶ Shortness of breath
- ▶ Cough
- ▶ Joint or muscle pain
- ▶ Loss of smell or taste
- ▶ Dizziness when standing
- ▶ Chest pain and tightness
- ▶ Depression, anxiety, changes in mood

LESS COMMON SYMPTOMS

- ▶ Cognitive impairment: difficulty with thinking and concentration (sometimes referred to as "brain fog")
- ▶ Difficulty sleeping (insomnia)
- ▶ Headache
- ▶ Intermittent fever
- ▶ Heart palpitations

SERIOUS & UNCOMMON SYMPTOMS

-  MULTIORGAN EFFECTS
-  CARDIOVASCULAR: INFLAMMATION OF THE HEART MUSCLE
-  RESPIRATORY: LUNG FUNCTION ABNORMALITIES
-  RENAL: ACUTE KIDNEY INJURY
-  DERMATOLOGIC: RASH, HAIR LOSS
-  NEUROLOGICAL: SMELL ISSUES, DIFFICULTY WITH CONCENTRATION, MEMORY PROBLEMS

For additional support and information, don't
hesitate to get in touch.

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