

# AVIATION SAFETY BULLETIN



ISSUE 1 | 2021

An official publication of the Civil Aviation Authority of Fiji

## 2021 | THE YEAR OF SECURITY CULTURE

*'Promoting Effective Aviation Safety and Security in Fiji and the Region.'*





2020: WHAT HAVE WE LEARNT



HOW TO OBTAIN AN APPROVAL FOR A HELICOPTER LANDING SITE



TESTING OF AIRPORT EMERGENCY PLAN

Cover Photo : Jue Huang, Unsplash.



CONTINUOUS AIRWORTHINESS

# In this issue...

<b>ACTING CHIEF EXECUTIVES MESSAGE</b>	<b>3</b>
<b>BOEING 737 MAX RETURNS TO SERVICE</b>	<b>3</b>
<b>2020: WHAT HAVE WE LEARNT?</b>	<b>4-5</b>
<b>2021: YEAR OF SECURITY CULTURE</b>	<b>6</b>
<b>AVIATION SECURITY IN A POST-COVID WORLD</b>	<b>7</b>
<b>HOW TO OBTAIN A REGISTRATION APPROVAL FOR HELICOPTER LANDING SITE</b>	<b>8-9</b>
<b>CONTINUOUS AIRWORTHINESS MATTERS</b>	<b>10-11</b>
<b>TESTING OF AIRPORT EMERGENCY PLAN</b>	<b>12-13</b>
<b>CONVICTION OVER NEW ZEALAND'S FIRST MID-AIR COLLISION BETWEEN DRONE AND PARAGLIDER</b>	<b>14</b>
<b>LICENCE PROCESSING TIMELINES</b>	<b>15</b>
<b>PACIFIC AVIATION SAFETY OFFICE TO FOCUS ON PACIFIC REGIONAL CO-OPERATION AND OPERATIONAL STABILITY</b>	<b>16-17</b>
<b>MANDATORY OCCURRENCE REPORTING</b>	<b>18</b>
<b>THE IMPACT OF COVID ON TECHNOLOGY</b>	<b>19</b>
<b>AVIATION MEDICINE</b>	<b>20-23</b>

## AVIATION SAFETY BULLETIN

**PUBLISHED BY THE :**

Aviation Safety Bulletin (ASB) Committee  
 Civil Aviation Authority of Fiji (CAAF)  
 Private Mail Bag, NAP 0354,  
 Nadi International Airport, Fiji.  
 Tel: (679) 8923 155 | Fax: (679) 6721 500  
 Email: info@caaf.org.fj

Editor - Roshni Deo

Committee - Alisi Namoro, Asif Khan and Waisale Sigawale

Design : ASB Committee

**PUBLICATION CONTENT** Unless expressly stated as CAAF policy, the views expressed in this *Aviation Safety Bulletin* do not necessarily reflect the policy of the Civil Aviation Authority of Fiji. Articles are intended to stimulate discussion, and nothing in this *Aviation Safety Bulletin* is to be taken as overriding any Fiji Civil Aviation Legislation, or any statements issued by the Chief Executive or the Civil Aviation Authority of Fiji.

Reader comments and contributions are welcome and may be published, but the Editor reserves the right to edit or abridge them, and not to publish those that are judged not to contribute constructively towards safer aviation. Reader contributions and correspondence regarding the content of *Aviation Safety Bulletin* should be addressed to:

*Aviation Safety Bulletin* Editor, CAA Fiji, Private Mail Bag  
 NAP 0354, Nadi International Airport, Fiji or  
 email: info@caaf.org.fj.

**DISTRIBUTION**

*Aviation Safety Bulletin* can be downloaded from CAAF's website, [www.caaf.org.fj](http://www.caaf.org.fj).

**COPYRIGHT**

Reproduction in whole or in part of any item in *Aviation Safety Bulletin*, other than material shown to be from other sources or named authors, is freely permitted, provided that it is intended solely for the purpose of promoting safer and secure aviation, and provided that acknowledgment is given to *Aviation Safety Bulletin* ■





## From the Acting Chief Executive

**B**ula Vinaka and welcome to the Civil Aviation Authority of Fiji's first edition of its Aviation Safety Bulletin for 2021.

It has now been a year since COVID-19 was declared a pandemic by the World Health Organisation and contrary to the hope that the restart of the aviation industry would be well underway come 2021, we are still facing international travel restrictions and quarantine requirements with the emergence of new variants of the COVID-19 virus. Fiji has taken a step in a positive direction with the commencement of the COVID-19 vaccination here in our country, with most in the aviation industry having received their first shot of the Oxford-AstraZeneca COVID-19 vaccine.

The pandemic has provided many lessons for those that are open to see them as such and has brought out the resilience and resourcefulness in each of us. For many in the aviation industry it was a nudge to reassess priorities and the way we work and adapt to the new normal while waiting for the industry to recover. The article titled "2020 - what we have learnt" on page 4, provides for good reflection and some positive takeaways on the year that was 2020.

The International Civil Aviation Organisation (ICAO) has declared 2021 as the Year of Security Culture (YOSC) and has requested its 193 Contracting States, including Fiji, to participate in this global initiative to create greater security awareness in aviation. The ICAO Secretary General launched the YOSC Initiative during the fourth (4th) Annual Global Aviation Security Symposium in December 2020 with a rallying call for practical action by all States and stakeholders to make security awareness and security culture a priority. Support from all of the aviation community is vital to the success of the Year of Security Culture.

CAAF has received many enquiries on the requirements for registering a helicopter landing site (HLS) and to this end we have featured two (2) pages on this topic in this bulletin. Other articles included in this edition cover the testing of airport emergency plans, processing timelines for personnel licences and an interesting article on "The Fijian Pilot" from an approved medical authority's perspective.

CAAF's focus for 2021 is to discharge our responsibilities under the Civil Aviation Act 1979 (as amended) more effectively, with a greater focus on improving the implementation of the eight critical elements of our safety and security oversight system. To achieve this, we seek the assistance of the aviation community that we serve. We will engage and consult more, and seek your feedback and solutions accordingly.

I hope you find this Issue 1, 2021 of the Aviation Safety Bulletin interesting and informative. We are open to suggestions on the types of articles you wish to see published in the future and we welcome your feedback.■

  
**MS THERESA LEVESTAM**  
 ACTING CHIEF EXECUTIVE

## Boeing 737 MAX Returns to Service

**T**he US Federal Aviation Administration [FAA] on 18<sup>th</sup> November 2020, signed an order that paved the way for the B737 Max to return to commercial service. The FAA action followed a comprehensive and methodical safety review process that took 20 months to complete.

During that time, FAA worked diligently and closely in cooperation with other leading state regulatory authority counterparts such as EASA, Canadian DOT, Singapore CAA, China CAA and the Brazilian CAA, to identify and address the safety issues that played a role in the tragic loss of 346 lives aboard Lion Air Flight 610 and Ethiopian Airlines Flight 302.

The re-design and re-certification of the B737 Max aircraft by Boeing and FAA respectively (with unprecedented level of collaborative and independent reviews by aviation authorities around the world) not only included software and hardware design changes, but changes to crew procedures as well as training enhancements, validating the aircraft as safe to fly; the Head Administrator of the Federal Aviation Administration,

Stephen Dickson being directly involved by personally undergoing the recommended pilot training and piloting the Boeing 737 MAX firsthand during the re-certification phase.

The Civil Aviation Authority of Fiji (CAAF) has accepted and adopted the comprehensive return-to-service requirements specified by the FAA as the Regulator of the State of Design and Manufacture for the Boeing 737 Max operated by our National Carrier, Fiji Airways.

Civil Aviation Safety Authority Australia and Civil Aviation Authority New Zealand have also accepted and supported the FAA and other regulatory authority's efforts to return the B737 Max to service.■





# 2020

## *what have we learnt?*

### Was 2020 a wasted year?

2020 felt like the year that would never end. Between the physical, social, and economic effects of the COVID-19 pandemic, this is a year that many of us would love to strike from our memories. But that would be a mistake. Like it or not, 2020 has offered us a fantastic opportunity to learn and grow. But just because the lesson is there doesn't mean that the knowledge is absorbed.

So what are some of the lessons that 2020 had to offer? Perhaps the biggest lesson is that nothing is certain. Since the end of March, not a day went by where most of us didn't hear someone talking about their struggle of dealing with uncertainty, how they felt that their life's stability had been shattered and that they had no idea what was going to happen next. But guess what? Life has and will always be uncertain. As with so many other things, the pandemic simply shined a spotlight on truths hiding in plain sight. Just as change is the only constant in the universe, the only thing you can ever be certain of is that nothing is certain. And if we were to be completely honest with ourselves, it's the unpredictable nature of life that makes it exciting and enjoyable.

### Algorithms of Change

We sometimes tend to confuse probability and possibility with certainty. Yes, there are probable outcomes to every situation, and for centuries people have searched for ways to predict those outcomes more accurately. We have always been fascinated with ways to know the unknown, from casting bones and consulting oracles to running algorithms and hiring analysts/experts/consultants. But the nature of life is fluid. It is when you come to accept that at any given moment, everything is subject to change - that nothing is set in stone - that realization opens your mind to the possibility of new and better ways.

A false sense of certainty can lull us into a state of complacency. Why would you want to change something if it's working for you right now? As the old saying goes, "if it ain't broke, don't fix it." The problem with that way of thinking is that it stonewalls innovation. Remember, everything around us, and in us, is changing every moment. It may not be rapid or radical change, but it is change none

the less. And if we don't learn to flow with the currents of change as they occur, we eventually find ourselves either capsized or washed to the shore by a wave of change. Businesses that traditionally relied on in-person interactions have been forced to either shift, pivot, or evolve if they wanted to stay open. And not everyone was successful in finding an innovative solution. In times of upheaval, it is not "survival of the fittest" but the "survival of the agile."

### Agility and adaptability

A lecturer/teacher, or a instructor would coach students on the importance of agility and hence would explain that they are not only agile in their movements but also their thinking. To survive in combat, you have to be able to move quickly and easily. But you also have to be able to adapt your own techniques and strategies. The longer it takes for you to adjust, the greater the odds of ending up on the losing end. Remember, what is true on the battlefield and the competition arena is true in the boardroom. Agile businesses found inventive ways to survive. The organizations that thrived during the pandemic were those that were quick to adapt. Adaptation to the economic upheaval caused by COVID-19 required leaders to go beyond simple change management; it required recognizing that new problems require new solutions. And the only way to develop new solutions is to be willing to abandon old ways of thinking.

### Mindfulness Matters

If there is one thing that 2020 has confirmed for most, it's that the practice of mindfulness-based strategies has never been more critical.

Mindfulness has helped you to gain a deeper appreciation even when it seems that there is nothing to be thankful for. Mindfulness has given one the ability to step out of emotional reactivity and into a calm awareness of things. *Mindfulness doesn't make things magically change, but it does help you change how you look at things. And when your perspective changes, you begin to see things that you didn't see before.* Obstacles suddenly become opportunities. Isolation becomes an opportunity for introspection. The things that were thought falling apart, you would now realize were actually falling into place.



Humans have one of the most extraordinary powers in the universe – the power of the mind. We can create, we can imagine, we can contemplate, we can choose. The human mind is one of the most powerful tools in the universe, making it one of the most dangerous weapons. Mindfulness is a method for developing better control of our minds. When you learn to apply mindfulness-based strategies to your life, you can create tremendous improvements in your physical, mental, emotional, spiritual, and even financial wellbeing. So if you have been practicing mindfulness in 2020, renew your commitment this year (2021) as well. And if mindfulness has been missing from your life so far, now is the time to start.

## What are some of the other lessons that 2020 had to offer?

### Remote working is here to stay

For decades, most business believed that productivity would suffer if employees were given the option to work from home. Now, as a result of the need for physical distancing, most organizations have been forced to allow their staff to work from home. And as such many businesses around the globe have noticed increase in productivity attributed to remote working. Now that the genie is out of the bottle, it would be difficult to demand a return to the old paradigm.

### Businesses need to consider how to help employees better manage stress

The stress of our current situation is impacting everyone. While most employees now benefit from working at home, they are still dealing with job-related stress on top of the stress caused by the pandemic. But perhaps no group more than in the medical profession. In a typical year, around 90% of doctors and nurses experience a high level of work-related stress. And as we can all agree, 2020 was anything but typical. This has led to increase in businesses developing corporate programs and stress management presentations. The current situation highlights the fact that productivity and profitability are impacted by the workforce's mental and emotional wellbeing.

### Self-care needs to be a priority for everyone

Self-care is about more than going to the gym and eating right. Self-care is taking care of all aspects of your life to be in the best possible condition. While physical health is vital, your mental, emotional, spiritual, and financial wellness are all critical when adversity strikes.

This is a concept that refers to as the "Five Pillars of Holistic Wellness." Life is holistic by nature. You can't affect one area without it impacting all of the other areas of your life. While it is beneficial to have employers offer assistance, it is ultimately up to each individual to do the work necessary to make sure that their "Five Pillars" are strong enough to support them when things get rough.

### Need to master mindful communications skills

When emotions run high, it's too easy to say things that are hurtful and not helpful. Social media has created an environment where everyone has their own personal soapbox to stand on. While that is not necessarily bad, social media gives people the courage to say something without considering the consequences. Or, as Mike Tyson put it, "Social media made you all way too comfortable with disrespecting people and not getting punched in the face for it." When we practice mindful communication, we learn to become aware of the impact of our words. Mindful communication also teaches us how to listen to others, not merely hear them.

### Every moment is precious

We have just witnessed how a global shift can occur in the blink of an eye. All of the things that we depend upon and often take for granted can be stripped away. Never forget that tomorrow is not promised, and this moment is all that we really have. So please make the most of it.

### So what have we learnt?

*Pema Chodron* said, "Nothing ever goes away until it teaches us what we need to know." If we wish to see the hardships of 2020 stay in the past, we must learn our lessons well. And we should not just be committed to learning; we must also be diligent in applying that knowledge now. Always remember, you are not a passive bystander in your life. While some things are outside of your control, you have the power to find order in the chaos. But if you want to experience different results, you must develop a different attitude and take different actions. If you want to change your life, you first have to change your mind.

**Let's all do our best to learn from the past, apply that knowledge in the present, and create a better future. ■**





# 2021 | The ICAO Year of Security Culture

2021 has been designated by the International Civil Aviation organization (ICAO) as the **Year of Security Culture**.

As per the ICAO State Letter on the Year of Security Culture (ref: AS8/23-20/125), the initiative aims to raise security awareness and promote a positive security culture in aviation operations across the world. It seeks to encourage and facilitate the enhancement of security behaviours and practices, focusing on the principle that **security is everyone's responsibility** – from the ground up and top-down. The Authority trusts you will agree that these objectives are admirable and which we can all support.

The ICAO Secretary General launched the Year of Security Culture during the fourth annual ICAO Global Aviation Security Symposium 2020 (**AVSEC2020**)<sup>1</sup> on 18<sup>th</sup> December 2020 with a call for **practical action** by all. The full Symposium, which had the theme of “*Improving Security Culture by Connecting the Dots*”, is available to watch free of charge on **ICAO TV**<sup>2</sup>.

The Year of Security Culture is a global effort. We are all a part of it, and we should participate by integrating security culture philosophy in to everything we do. To assist, there is a wealth of security culture resources and material, including guidance documents, videos, toolkits in multiple languages, training links and articles on the **ICAO Security Culture website**<sup>3</sup>. Please do review the website for ideas and best practices to help build and implement a strong and effective security culture within your organization and within aviation in general.

Additionally, the CAAF and ICAO recognize that our industry partners might have experience in the promotion of security culture in your organizations. The Authority urges you to share your best practices with our office and provide CAAF Controller Aviation Security & Facilitation for review and further sharing with ICAO at [yosc@icao.int](mailto:yosc@icao.int). Equally, if you have success stories or examples to share with us, please do so to help inspire the wider aviation community. ICAO will ensure full privacy and discretion when sharing specific examples widely.

ICAO will deliver a range of events and activities to support the Year of Security Culture. Our own engagement at State level will include the provision of security awareness training material, PowerPoint presentations and discussions. We welcome your organization's participation and collaboration in these and/or would welcome the opportunity to collaborate with you on any activities you may already have planned.

Support from all of the aviation community is vital to the success of the Year of Security Culture. The Authority encourages you to help develop promotional programmes for a strong security culture. This may include:

1. creating display materials amongst your employees, around your offices and through your digital distribution channels, that highlight the importance of security;
2. providing security culture training and continuous learning activities for all staff; and
3. establishing a framework that affords protection to reports and their sources when reporting suspicious behaviour or lapses in airport security.

We appreciate the continued difficult conditions we are all operating under. But we hope that you will welcome the Year of Security Culture initiative as you continue to maintain high standards of security throughout the current crisis and beyond.

Let us remember that threats against civil aviation continue to evolve and COVID-19 has not reduced the attractiveness of aviation as a terrorist target. Arguably, disruption in the sector has exposed new vulnerabilities and risks, with security culture coming under more pressure to remain robust. Our collective efforts are essential in order to support the successful restart and recovery of our industry.

The Authority looks forward to your full support and proactive actions this year. ■

<sup>1</sup> [www.icao.int/Newsroom/Pages/AVSEC2020-ICAO-inaugurates-2021-as-Year-of-Security-Culture.aspx](http://www.icao.int/Newsroom/Pages/AVSEC2020-ICAO-inaugurates-2021-as-Year-of-Security-Culture.aspx)

<sup>2</sup> [www.icao.tv/global-aviation-security-symposium-avsec2020/videos/avsec2020-securityculture-connectingthedots](http://www.icao.tv/global-aviation-security-symposium-avsec2020/videos/avsec2020-securityculture-connectingthedots)

<sup>3</sup> [www.icao.int/Security/Security-Culture](http://www.icao.int/Security/Security-Culture)



# Aviation Security in a Post-COVID World

The unprecedented crisis the world is facing poses a great challenge to the entire aviation industry and its capacity to recover both operationally and financially. According to ICAO's Air Transport Monthly Monitor, world passenger traffic fell by 52.9 per cent and capacity worldwide fell by 36.2 per cent year on year in April 2020. The COVID-19 pandemic has dramatically affected the air transport system, in ways that we have never seen before. The impact on airport operations, including aviation security, is significant.

Despite the continued impact of the pandemic around the world, states have started loosening travel restrictions as the normalization of sanitary measures becomes widespread. Such measures aim to protect the health and safety of airport staff, crew and passengers in a bid to reduce the spreading of COVID-19 among people and across borders. The role played by aviation security is fundamental in establishing that new normal.

By design, security processes at airports involve many verbal and physical interactions between security staff and the travelling public, which makes physical distancing a challenge. Proximity is inevitable when verifying travel documents or when screening passengers and their belongings. As one can imagine, manual searches of persons (often referred to as pat-downs) will be limited as much as practicable during the crisis. To those constraints can be added the limited space within which airports are normally capable of accommodating an efficient security screening checkpoint, along with feeding queues.

To address those challenges, ICAO, in collaboration with states and industry experts, coordinated the development

of a guidance document called the ICAO 'Guidelines for Aviation Security Contingency Measures during the COVID-19 Pandemic'. These guidelines are designed to assist states and relevant stakeholders in complying with international security provisions and applying security best practices while meeting requirements mandated by health authorities. The document recommends temporary solutions to implementing security measures during these difficult times.

One of the cornerstones of those guidelines is that adequate security levels shall be maintained at all times in order not to introduce vulnerabilities in the system. This is a fundamental principle that cannot be transgressed. Indeed, despite the current low number of regular operations and the fact that the widespread nature of the disruption may have resulted in a temporary lowering of terrorist capability, aviation is, and will continue to remain, a target of choice for terrorists. It should be noted that air cargo continues to operate at high capacity levels during the crisis. It is for those reasons that efforts and resources should be directed to closely monitor threat levels (especially those related to air cargo and insider threat), while vulnerabilities arisen as a result of current disruptions should be reduced as much as practicable, both in time and scope.

The new sanitary requirements affect all areas of aviation, and air travel will look very different to what we were used to for the foreseeable future. Aviation security continues to adapt its processes and procedures to integrate sanitary measures while maintaining adequate security levels. ■





# How To Obtain an Approval for a Helicopter Landing Site

## Background

Section 10 of the Civil Aviation Reform Act 1999 stipulates that a person shall not operate an aerodrome except under a certificate or registration approval issued by the Authority.

The Act further defines an aerodrome as:

*“a defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft”.*

The Standards and Recommended Practices (SARPs) for Heliports, is set out in Volume II of Annex 14 to the Convention on International Civil Aviation. Owners/operators of Heliports for the purposes of Regular Public Transport are required to certify such heliports and shall comply with the SARPs as set out in Volume II of Annex 14.

However, for Helicopter Landing Sites (HLS) catering for General Aviation helicopter operations on private, aerial and chartered flights, the Standards Document - Aerodromes Appendix 11 sets out the basic requirements for the establishment of a safe HLS. These HLSs are required to obtain registration approval from the CAA Fiji and shall comply with the requirements for registration approval as set out in the SD – Aerodromes.

Although a HLS registration approval does not cover the full scope of certification, a fundamental criterion, that is, the establishment and maintenance of an appropriate Safety Management System (SMS) commensurate with the size and type of operations, remains the same for both certified and registered sites.

Because HLSs are often developmental and ‘basic’ in nature, CAA Fiji recommends that helicopter operators carry out thorough risk and hazard assessments for the proposed operation

**“These HLSs...shall comply with the requirements for registration approval as set out in the SD – Aerodromes.**

and apply appropriate controls to any hazards identified during this process.

Any passengers, crew and operational personnel carried into such locations should be briefed on the hazards of the site and any safety procedures needed to ensure safe loading and unloading at the HLS.

## Site and Selection

**A helicopter is one of the more versatile of aircraft and can, if required under special circumstance, operate to and from a space a little larger than its overall length. The smaller the site, the greater the risk associated with its use.**

**The operator /owner of the HLS may reduce the risks presented by such hazards by taking these criteria into considerations:**

- To minimize noise disturbance, the ambient noise level should be considered, particularly, near noise-sensitive buildings such as hospitals, schools and resort accommodation.
- HLS design and location shall be such that downwind operations are avoided and cross-wind operations are kept to a minimum. HLS’s should have two approach surfaces, separated by at least 150°.
- For HLS’s used by performance class 2 and 3 helicopter, the ground beneath the take-off climb and approach surfaces should permit safe one engine-inoperative landings or forced landings during which injury to persons on the ground and damage to property are minimized. The provisions of such areas should also minimize the risk of injury to the helicopter occupants. The main factors in determining the suitability of such areas will be the most critical helicopter type for which the HLS is intended and the ambient type for which the HLS is intended and the ambient conditions.
- The presence of large structures close to the proposed site may be the cause, in certain wind conditions, of considerable turbulence that might adversely affect the control or performance of the helicopters operating at the HLS. Therefore, high terrain or other obstacles, especially power lines and cliff faces, in the vicinity of the proposed HLS should be taken into consideration when selecting a site. Equally, the heat generated by large chimneys under or close to the flight paths may adversely affect helicopter performance during approaches to land or climbs after take-off.



- The site must have suitable areas for liftoff, take-off manoeuvre, approach manoeuvre and touchdown.
- Normally a site will have a simple layout which combines those individual areas that have common characteristics. Such an arrangement will require the smallest area over-all where the helicopter will be operating close to the ground and from which it is essential to remove all permanent obstacles and to exclude transient and mobile obstacles when helicopters are operating. When the characteristics or obstacle environment of a particular site do not allow such an arrangement, the component areas may be separated provided they meet their respective individual criteria. Thus a different direction may be used for take-off from that used in the approach and these areas may be served by a separate touchdown and lift-off area, located at the most convenient position on the site and connected to the other manoeuvring areas by helicopter ground taxiways or air taxiways.
- Possible air traffic conflicts between helicopters using an HLS and other air traffic should be avoided.

### The Site shall:

- be determined, by way of the helicopter operator's risk assessment, to be large enough to accommodate the helicopter and have additional operator-defined safety areas (or buffers) to allow the crew to conduct the proposed operation safely at the location;
- have a touchdown and lift-off area (TLOF) i.e. surface over which the touchdown and lift-off is conducted, with suitable surface characteristics for safe operations and strong enough to withstand the dynamic loads imposed by the helicopter;
- have sufficient obstacle-free approach and departure gradients to provide for safe helicopter operations into and out of the site under all expected operational conditions.
- have approach and departure paths that minimise the exposure of the helicopter to meteorological phenomena which may endanger the aircraft and provide escape flight paths, if a non-normal situation arises, which maximise the potential for using suitable forced landing areas.
- only be used for day operations under helicopter VMC or better weather conditions.

**Note:** *Dynamic load-bearing capability assumes all static load limits imposed by the helicopter and any other structure or vehicle will also be met. Operators should ensure this is the case before using the site.*

For more information or clarification on Helicopter Landing Sites please call CAAF Aerodrome Inspectors on 8923155 Ext 3389/3326 or send an email to [info@caaf.org.fj](mailto:info@caaf.org.fj).

[Source: Extract from SD Aerodrome Appendix 11]

### Other physical and ancillary considerations

*The HLS shall be equipped with suitable fire protection and equipment based on the operations and the types of helicopters in use at the site.*

- \* **Rescue equipment;** should be housed in a heavy-duty carry bag/box.
  - An Axe
  - Fire resistant gloves, 2 pairs.
  - Crowbar
  - Hacksaw, heavy-duty with a minimum of 6 spare blades
  - Large Bolt cutters
  - Length of rope (climbing) to assist access (approx. 30m)
  - Fire resistant blanket

- \* **Fire equipment;** 2 medium (9kg) Dry Chemical Powder (DCP) or foam, or alternative fire-fighting resources providing a similar or better level of protection may be used.

- \* **Medical Kit;** Medical first aid equipment, ideally consisting of pre-packed wound dressings in protective containers, scissors, adhesive dressings and burn dressings, stretchers or spine boards and blankets.

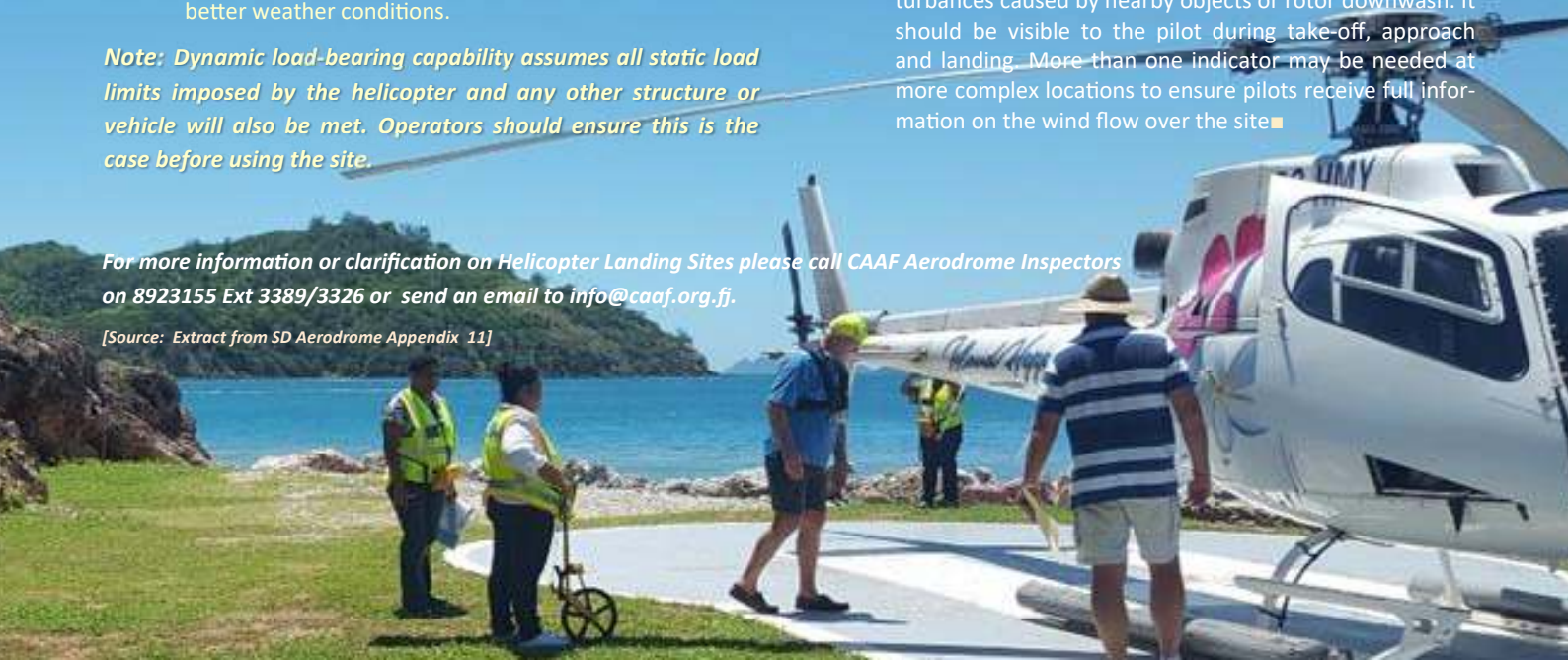
- \* **Ground Crew** Two competent ground crew available on-site for all helicopter movements. The ground crew shall have completed training acceptable to the Authority in the following areas: -
  - working around helicopters (normally provided by the Helicopter Operators, and
  - Rescue and Fire-fighting.

- \* **Emergency Response Plan**

A plan, acceptable to the Authority, shall be developed, identifying facilities, equipment, procedures, personnel and responsibilities at the HLS, that will be activated for an accident or incident.

- \* **Wind Direction Indicator;**

At least one wind direction indicator located so as to indicate the wind conditions over the FATO and TLOF and in such a way as to be free from the effects of airflow disturbances caused by nearby objects or rotor downwash. It should be visible to the pilot during take-off, approach and landing. More than one indicator may be needed at more complex locations to ensure pilots receive full information on the wind flow over the site ■





# CONTINUOUS AIRWORTHINESS MATTERS

Image: Vadim Sadovskiy, Unsplash

The year 2020 will be forever known as the year that redefined air travel and how the world came to terms with the changes that was brought about by the COVID-19 pandemic. Certain catch-phrases were formed such as; “We’re in this together”, “stay at home”, “contact-tracing”, “essential workers”, “flatten the curve”, “frontline workers”, “social distancing”, “work from home”, “zoom meetings”, “hands-face-space”, etc. Other words became a part of household conversation like; pandemic, coronavirus, quarantine, isolation, lockdown, reduced hours and unemployment.

This was truly a force to be reckoned with, as for months the whole world came to a standstill. No travel by air or sea, supplies became depleted, companies struggled to stay afloat, workers sent home, families try to make ends

meet and list goes on. The Aviation Industry was not immune to this, as it was directly affected by this ordeal.

Across the globe, the aviation industry became subjected to prolonged parking which demanded the need for periodic storage checks and implementing conditions for aircraft return to service. These extended parking, increase the risk of deterioration of the aircraft structure and systems. These require preservation checks which are critical to the aircraft return to service.

In a tropical environment, certain adverse conditions can be detrimental to the aircraft structure and its systems if such preservation checks are not conducted. These are the extended exposure to heat, humidity, rain, wind, insects, etc.



Continued to next page...



The aircraft external openings must be sealed and sensitive equipment such as pitot probes, static ports and other sensors must be protected.

The Civil Aviation Authority of Fiji (CAAF) within its responsibilities as the custodian of the Air Navigation Regulations and in its mission to promote aviation safety and security within the region, saw it fit that awareness and safety oversight continues to be the central focus despite the recent changes. CAAF requires that every holder of an Aviation Document satisfies the requirements of its approval certificate as granted by the Authority. Such is the case for Approved Maintenance Organisations (ANR145C) and Approved Maintenance Training Institutions (ANR145B).

As part of its core functions of promoting safety, the CAAF Air Safety Department, Airworthiness Section, began the year 2021 by conducting two training sessions for the Nominated Postholders of the various ANR145C and ANR145B organisations.

The training addressed key aspects of the Postholder's responsibilities, COVID-19 Maintenance arrange-

ments, common audit issues, refining of processes and areas of improvement within the ANR145C and ANR145B establishments, which will encourage continuous airworthiness.

The theme for the training was **Continuous Airworthiness Matters** and both sessions saw over fifty candidates with industry experience ranging from 10 - 50+ years attend the training. This was a historical event seeing that it was the first ever training to be conducted specifically for Nominated Post holders. The two training sessions were conducted on 22 February 2021 and 1 March 2021 and each session was for 3 days.

The training highlighted continuous maintenance arrangements, upkeep of facilities, employing adequate manpower, up-to-date airworthiness data, incident reporting, etc.

This training also opened up dialogue between industry and the authority on real issues faced by the industry during the current COVID-19 conditions. The Authority emphasised the importance of continuous dialogue between stakeholders and the authority, as this will assist in improving services within the industry. ■

“ These extended parking, increase the risk of deterioration of the aircraft structure and systems. ”





# Testing Of Airport Emergency Plan

**T**he Airport emergency planning is the process of preparing an airport to cope with an emergency occurring at the airport or in its vicinity. The objective of an airport emergency plan is to minimize the effects of an emergency, particularly in respect of saving lives and sets forth the procedures for coordinating the response of different airport agencies (or services) and those agencies surrounding community that could be of assistance in responding to the emergency.

The *Standards Document Aerodromes (SD AD)* states that an aerodrome emergency plan shall be established at an aerodrome, commensurate with the aircraft operations and activities conducted at the aerodrome.

The aerodrome emergency plan shall provide for the coordination of the actions to be taken in an emergency occurring at an aerodrome or in its vicinity.

The plan shall contain procedures for periodic testing of the adequacy of the plan and for reviewing the results in order to improve its effectiveness.

The plan shall be tested by conducting:

a) A full-scale aerodrome emergency exercise at intervals not exceeding two years and partial emergency exercises in the intermediate year to ensure that any deficiencies identified during the

full-scale aerodrome exercise have been corrected and that the aerodrome personnel are refreshed on aerodrome emergency procedures; or

b) A series of modular tests commencing in the first year and concluding in a full-scale aerodrome emergency exercise at intervals not exceeding three years;

and reviewed thereafter, or after an actual emergency, so as to correct any deficiency found during such exercises or actual emergency.

Fiji Airports conducts the crash exercise to their fourteen certified aerodromes on yearly basis on different scenarios based on the different types of emergencies provided in the Airport Emergency Plan.

## TYPES OF EMERGENCIES:

- Aircraft Accidents
- Bomb Threats
- Hurricane / Storm Emergency
- Tsunami Warnings
- Aircraft Full Emergencies
- Hijacking
- Major Structural Fires at the Airport





## EMERGENCIES IN DIFFICULT ENVIRONMENTS

The plan shall include the ready availability of and co-ordination with, appropriate specialist rescue services to be able to respond to emergencies where an aerodrome is located close to water and/or swampy areas and where significant portion of approach or departure operations takes place over these areas.

At those aerodromes located close to water and/or swampy areas, or difficult terrain, the aerodrome emergency plan should include the establishment, testing and assessment at regular intervals of a pre-determined response for the specialist rescue services.

An assessment of the approach and departure areas within 1000m of the runway threshold should be carried out to determine and implement options for intervention.

## INTER-AGENCY AGREEMENT ON NATIONAL SEARCH AND RESCUE RESPONSE ARRANGEMENTS

Any aircraft accident beyond the 1000m from the threshold, Search and Rescue coordination center will activate under the Interagency Agreement on National Search and Rescue response. This agreement was signed between Fiji Airports, Republic of Fiji Navy and Fiji Police Force in 2018.

A joint water crash exercise was conducted at the Rewa river in 2019 to test the effectiveness of the Interagency Agreement which Police took the leading role as On Scene Commander. ■



CAA Fiji is keen to hear from you regarding our levels of service. If you believe you have constructive ideas on how we can improve our services, or would like to report instances where we have failed to meet your expectations, please send your feedback to CAAF, preferably using the QA 108 form that can be accessed from our website. This can be sent to CAAF by faxing it to the Executive Office on 672 1500, or dropping it in the feedback box in the foyer of CAAF HQ, or emailing to :

[info@caaf.org.fj](mailto:info@caaf.org.fj)

## FCAIR

**FIJI CONFIDENTIAL  
AVIATION INCIDENT  
REPORTING  
FORMS AVAILABLE ON WEBSITE**

[www.caaf.org.fj](http://www.caaf.org.fj)



# Conviction over New Zealand's first mid-air collision between Drone and Paraglider

The Civil Aviation Authority is welcoming the conviction yesterday of a recreational drone pilot at the Manukau District Court over a “deceptively dangerous” 2018 mid-air collision between his drone and a trainee paraglider at Karioitahi Beach near Waiuku.

The conviction follows Judge Mina Wharepouri finding the man guilty in October 2020 on two charges under the Civil Aviation Act 1990 over his drone being used in a manner causing unnecessary endangerment, and for failing to keep clear of a manned aircraft.

In his judgement, Judge Wharepouri found the drone operator had been overly reliant on the view from his drone's camera and failed to maintain visual line of sight of the drone when he hit the paraglider about 100 metres above the ground.

The CAA's Deputy Chief Executive Aviation Safety, Dean Winter, says it's lucky the paraglider pilot wasn't killed or seriously injured in the collision, and he hopes this case serves as a wake-up call to other drone users.

“This conviction shows there can be real consequences when drone users fail to follow the rules and put the lives of others at risk through their lack of understanding or carelessness,” Mr Winter said.

“Although the pilot of the paraglider pilot was able to safely walk away after the collision, the accident was deceptively dangerous and it was only down to sheer luck and the skill of the paraglider that there wasn't a death that day.”

This prosecution was the first in New Zealand over a collision between a drone and manned aircraft. It demonstrates the CAA's commitment to take occurrences involving the dangerous use of drones seriously, particularly when there's a threat to other aircraft or people on the ground below.

Drone users can learn more about the Civil Aviation Rules at [www.aviation.govt.nz/drones](http://www.aviation.govt.nz/drones).

## Six key rules all drone users should know

- Always fly below 120 metres.
- Don't fly over people without permission.
- Keep your drone in sight at all times.
- Stay 4 km away from aerodromes and helipads.
- Give way to all manned aircraft. Land immediately.

Don't fly over property without permission.

## Notes to the editor

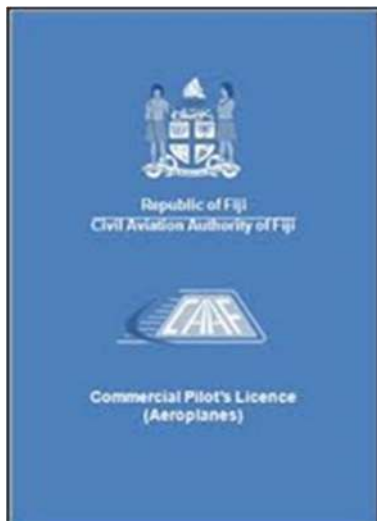
- The drone pilot was convicted and fined \$1000 on two charges:
  - Operating a drone in a manner that caused unnecessary endangerment pursuant to s44 of the Civil Aviation Act 1990;
  - While operating the drone, failed to give way and keep clear of a manned aircraft as required by Civil Aviation Rule 101.213(a).
- A copy of the October 2020 judgement is available to media on request. ■

Source: [media@caa.govt.nz](mailto:media@caa.govt.nz)





# Licence Processing Timelines



**CPL/ATPL licence renewal** – application forms submitted up to 3 months prior to expiry date.

**AMEL Renewal** - application forms submitted up to 60 days prior to expiry date

**Medical Renewal** – submitted up to 45 days before expiry

## CAAF Processing Period

- For medical renewal—3 working days
- For licence/rating issue—5 working days
- For licence/rating renewals—3 working days
- For KDR issue —Pilots—3 working days
  - Engineering—5 working days
  - ANS/ATS—at least 10 working days
- Flight Crew Licence Verification—10 working days



**YOU MUST ALWAYS HAVE YOUR LICENCE WITH YOU WHILE ON DUTY OR FLYING AND ENSURE THAT YOU ARE NOT OPERATING WITH AN EXPIRED LICENCE, RATING OR MEDICAL**

Contact CAAF

Office Number: (679) 892 3155

E-mail: [licensing@caaf.org.fj](mailto:licensing@caaf.org.fj)

Website: [www.caaf.org.fj](http://www.caaf.org.fj)



# Pacific Aviation Safety Office to focus on Pacific Regional Cooperation and Operational Stability

*The Pacific Aviation Safety Office will focus on Pacific regional cooperation and operational stability in 2021 agreed the PASO Council at their March AGM.*

## PORT VILA

Fostering Pacific regional cooperation and organisational operational stability are the focus for the Pacific Aviation Safety Office (PASO) over the next twelve months to enable continued delivery of aviation safety and security Member services agreed the PASO Council of Directors at their Annual General Meeting.

The PASO Annual General Meeting on Thursday, 11 March 2021 was attended virtually by representatives from eight signatories of the Pacific Islands Civil Aviation Safety and Security Treaty (PICASST) and two Associate Members.

PASO Council representation included Pacific government executive level transport and foreign affairs officials from Australia, Cook Islands, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, Samoa, Tuvalu, and Vanuatu. The Singapore Civil Aviation Authority also attended on the invitation of the PASO Council.

The PASO Council considered PASO's annual performance and direction, including improved governance arrangements, continued operational strengthening, corporate compliance, strategic partnerships and donor support, and noted the ongoing preparations for the virtual Regional Aviation Ministers Meeting (RAMM) in April.

## PASO Council Elections

In accordance with the PASO Constitution, the PASO Council conducted elections for the Council Chairperson and Deputy chairpersons at the Annual General Meeting.

Member State Samoa was unanimously re-elected to Chair the PASO Council. Mr. Magele Hoe J. Viali, the Secretary of Transport, Chief Executive Officer and Director General of Civil Aviation will continue as the PASO Chairperson.

Niue was appointed unopposed as the Deputy Chair of the Council and Chair of the Technical Sub-Committee by the PASO Council. Mr. Bill MacGregor, Director of Niue Civil Aviation, and a long-serving member of the PASO Council will perform the role on behalf of Niue.

With this change in PASO Council leadership, the Council of Directors took the opportunity to note Vanuatu's long standing service and thanked them for their contribution to PASO in this capacity

The Cook Islands was re-appointed unopposed as the Deputy Chair of the Council and Chair of the Finance Sub-Committee. Mr. John Hosking, Secretary of Transport for the Ministry of Transport will stay in the role on behalf of the Cook Islands.



## Strong Organisational Growth

The PASO Council recognised PASO's strong service delivery and organisational strengthening achievements over the previous twelve months despite the operational challenges of the COVID-19 pandemic.

The PASO Council Chairperson, Mr. Magele Hoe J. Viali said:

"Amidst the COVID-19 pandemic there became an increasing need to improve PASO's services for our Members and to ensure PASO is fit-for-purpose with a new organisational structure that allows better collaboration, and coordination, and encourages greater efficiencies for our Members."

"Now the key emphasis for PASO is maintaining stability, strong governance, and organisational effectiveness to support our Members with their economic recovery efforts. Pacific aviation safety systems must be robust for when borders eventually open. We must be prepared."

"PASO is moving forward, and we are making progress at last, despite these hard times. Hopefully with the vaccine program being rolled out it will enable some travel restrictions to be lifted so our aviation safety inspectors can attend to work on the ground," said Mr. Viali.

Nauru's Director of the Civil Aviation, Mr. Dominic Tabuna at the meeting said:

"We commend PASO for strategically addressing the Pacific's need for an integrated and harmonised regulatory system to support aviation safety and enable connectivity. This good work is critical and will benefit all PICASST Signatories, and we are grateful for PASO's assistance."

The Council heard that PASO will embark in coming weeks on virtual country consultations and regional engagement in advance of the RAMM preparations and endorsement of individual country service-level agreements.

## Strategic Partnerships

The PASO Council recognised that the Australian Government's AUD \$2 million *COVID-19 PASO Support Package* for 2021 would assist with organisational stability and technical advisor service delivery.

The funding support is directed at assisting PASO to provide aviation safety oversight services directly to Members to increase their aviation safety and security compliance levels to meet international obligations under the Chicago Convention.

"We are very grateful to the Australian Government for their strategic donor support in recognition of the economic hardship and aviation security challenges PASO and its Member countries have faced this year with the COVID-19 disruption. Australia's assistance ensures our Members are supported during these challenging times and can continue their required aviation safety oversight," said Mr. Viali.

"This strategic funding support enables PASO's *Technical Advisor Program*, which includes provision of expert advice and assistance from six technical aviation advisors for a period of 12-months in the areas of aerodromes and ground aids, air navigation, airworthiness, and flight operations," said PASO's General Manager, Mr. Andrew Valentine.

PASO is well positioned to rapidly meet the needs of Members in 2021 and will have sufficient resources to respond to requests for technical assistance.

"We continue to appreciate the financial support from our other strategic partners, including the Vanuatu Government as host of PASO, the World Bank funded *PASO Reform Project*, and the New Zealand Government for PASO core funding and indirect support via PASO's USOAP programme," concluded Mr. Valentine. The Council also welcomed Singapore's participation at the meeting and was pleased to hear of their continued commitment to capacity building for Pacific Island civil aviation authorities.

A PASO Special Council meeting is scheduled for 24 March 2021 for the PASO Council to progress RAMM arrangements in collaboration with Members of the Pacific Island Forum Secretariat. ■

## ABOUT PASO

The Pacific Aviation Safety Office (PASO) is an international organisation providing quality aviation safety and security service for Member States in the Pacific.

PASO is the sole Pacific regional organisation responsible for regulatory aviation safety oversight services for the 10 Pacific Governments who are signatories to the Pacific Islands Civil Aviation Safety and Security Treaty (PICASST).

The PICASST signatories include the Pacific nations of Cook Islands, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu and make up the PASO Council. Associate Members of PASO are Australia, Fiji and New Zealand.

International agencies supporting PASO includes: Airways New Zealand, Asian Development Bank (ADB), Association of South Pacific Airlines (ASPA),

International Civil Aviation Organization (ICAO), Pacific Islands Forum Secretariat (PIFS), USA Federal Aviation Agency (FAA) and the World Bank (WB).

PASO is a member of the Council of Regional Organisations (CROP) and has been hosted since its inception in 2005 by the Republic of Vanuatu. ■



# Mandatory Occurrence Reporting

The provisions in Chapter 8 of ICAO Annex 13 (Aircraft Accident and Incident Investigation) require the States to establish mandatory occurrence (incident) reporting (MOR) systems to facilitate the collection of information on actual or potential safety deficiencies. The Civil Aviation Regulation on Occurrence Reporting and Investigation fulfils the requirements of ICAO.

These regulations apply to all occurrences that occur :

- (a) in the Fiji Islands, except for occurrences that solely involve the operation of aircraft operated by Military forces and where such aircraft are not on the civil register of Fiji or a Contracting State; and
- (b) to aircraft registered in the Fiji Islands when such aircraft is over the high seas or over the territory of a non-contracting State; and

- (c) to aircraft not registered in the Fiji Islands but leased, chartered or interchanged to the Fiji Islands and Fiji is the State of Operator, when such aircraft is over the high seas or over the territory of a non-contracting State.

To fulfil the requirements of Sub regulation 33(1) of the Civil Aviation (Occurrence Reporting and Investigation) Regulation, CAA Fiji uses Aviation Quality Database (AQD) application to facilitate collection on information on actual and potential safety deficiencies. ■

## Notification of incidents to the Authority

*Note: Definition of 'Incidents' refer to ICAO Annex 13*

- 8. (1) Any person who is involved in a serious incident or incident or who maintains, services, operates or performs any other activity in relation to an aircraft, an aeronautical component or aeronautical service shall notify the Authority of the serious incident or incident by the most expeditious means available.
- (2) The notification under sub regulation (1) shall be made within 96 hours of the incident and shall be in the notified Mandatory Occurrence Reporting form or by other means acceptable to the Authority.
- (3) The notification under sub regulation (1) shall contain as much of the required information prescribed under regulation 9, as is readily available, but its dispatch shall not be delayed due to the lack of complete information.

## Notification of accidents to the Authority

*Note: Definition of 'Accidents' refer to ICAO Annex 13*

- 6. (1) The pilot-in-command of an aircraft that is involved in an accident, or the operator of such aircraft if the pilot-in-command is killed or seriously injured shall notify the Authority of the accident by the most expeditious means available.
- (2) The notification under sub-regulation (1) shall:
  - (a) be made within 96 hours of the occurrence; and
  - (b) be in a form or by other means acceptable to the Authority; and
  - (c) contain as much of the following information as is readily available;
    - (i) manufacturer, model, nationality and registration marks and serial number of the aircraft;
    - (ii) name of owner, operator and hirer, if any, of the aircraft;
    - (iii) name of the pilot-in-command;
    - (iv) type of operation;
    - (v) Meteorological conditions in the vicinity of the accident site (cloud cover, precipitation, wind velocity, visibility, any hazard such as fog or wind shear);
    - (vi) date and time (local time or UTC) of the accident;
    - (vii) last point of departure and point of intended landing of the aircraft;
    - (viii) position of the aircraft with reference to some easily defined geographical point and latitude and longitude;
    - (ix) number of crew and passengers on board;
    - (x) number of crew and passengers killed and seriously injured; others, killed and seriously injured;
    - (xi) nature of the accident and the extent of damage to the aircraft so far as is known.
    - (xii) identification and contact details of the person making the notification;
    - (xiii) location and description of any dangerous goods on board.



# The Impact of COVID-19 on Technology

**W**ith the world going into lockdown, the COVID-19 pandemic is bringing all travels to a halt and countries imposing strict travel bans, the aviation sector stands as one of the most affected industry. COVID-19 is going to have longer-term repercussions and it seems to be creating a bigger hole than what 9/11 attack did. Fears that the impact of the pandemic on technology adoption will intensify the problems that is weakening the productivity growth, however recent evidence offers reason for vigilant optimism, as many organizations try to 'innovate their way out of the crisis'. It is imperative that aviation stakeholders act quickly to reduce the impact on their business operations, customers and employees. So, *how does Information Technology mend the gaps created by COVID 19?*

Countries all over the globe have implemented lockdowns, bringing activities to a stand-still that required human gathering and interactions including universities, schools, shopping centers, temples, offices and airports. The lockdown resulted in most people taking up internet-based services to communicate, interact, and continue with their job responsibilities from home. The changes have occurred so suddenly, with barely any time for businesses/ organizations and people to plan for, prepare and implement new setups and arrangements; they have had to adjust, try, experiment, and find ways that did may have existed but never exploited before.

A massive rise in the use of internet services was noted all around the world. Internet service providers in Fiji have also stated that the internet usage has increased from 40% to 100% when compared to pre-COVID days. Video-conferencing services like Zoom, Skype, Google meets, Viber, etc. have seen an increase of almost up to ten times more utilization. COVID 19 has entailed a rise in the use of information systems and networks, with massive changes in usage patterns and usage behavior. Employees are adapting to the idea of working from home concepts, attend virtual meetings from the comfort of the homes and conduct digital transactions. Organizations will soon shift to work from home as a new "normal" rather than as an exception. It is essential that the businesses adapt to this new digital change and comply with the requirements to conduct business operations, be it a privately-owned company or a government organization.

## *How is CAA Fiji coping with the COVID 19 pandemic?*

In March 2020, during the lockdown CAA Fiji introduced the use of Microsoft (MS) Teams to all affected staff to ensure continuity of roles and responsibilities to stakeholders. MS Teams was used as one of the main platforms to schedule and conduct virtual meetings, IM correspondence, transactions, document transfer, voice and video calls. This application ensured that CAA staff stayed connected and were able to perform and deliver their assigned task without any hurdles. The only issue encountered during this lockdown phase was internet connective at individual's residents but even then, it was manageable. Staff were also allowed access to the systems housed at the Authority HQ via virtual private network access. Keeping system security in mind, firewall rules were tightened up to ensure that there were no uninvited GUESTS.

During the pandemic when most of the business houses were suspending and shelving projects, the Authority continued with their website project. One of the main requirements was to move to a paperless environment. The new website will allow the users to be able to make an online application submission. The workflow at the backend of the website is configured to ensure that applications are received by the appropriate assigned department for processing with a timer assigned to mitigate delays. To keep their customers informed, upon submission the user receives a notification of acknowledgment and also a digital copy of the submission made. The new website is expected to be up by early second quarter 2021. As expected with any new system implementation there will definitely be some hiccups. How this new implementation plays out remains largely dependent on the aviation industry's responses in shaping and improving of the new CAA Fiji website. ■





# The Fijian Pilot: An AMA's Perspective

## Introduction:

**The Fijian Pilot or the Local Pilot** (i-Taukei, Rotuman, Indo-Fijian, Chinese and others born and raised in Fiji) and your **AMA (Approved Medical Authority)** are intertwined in a unique relationship in the paradisaical landscape that is Fiji. The Fiji Aviation environment consists of both local and expatriate pilots who are employed either by the Larger Airline Companies such as Fiji Airways, or by the many smaller airlines that service the Fijian skies made up of tourism operators, domestic carriers, and the like. Similarly, the population of pilots are just as diverse, by ethnicity, race, gender, age, culture, religion, social class and more.

From a Medical viewpoint, the diversity is often accounted for whilst making decisions because factors such as gender, age, race, economic ability, etc may predispose an individual to a certain disease more than someone else.

Furthermore, in Fiji, it appears that these factors also need to be considered when making aeromedical decisions for local pilots. Currently, a generic template is applied for a range of risks and diseases such as assessing for Cardiovascular Risk or Diabetes or Hypertension. But should we look at this increased risk differently in this population of pilots. Should we delve deeper to find better algorithms to assess local pilots who may be at a disadvantage due to their genetics or the environment. The Genetics and Environment and such factors are known broadly as **Determinants of Health**. It is the aim of this article to shed some light onto what can determine one's health as a Fijian Pilot and hopefully what can be done towards a better Health Status for the local pilot.

## What are Determinants of Health and How do they Affect the Local Pilot?

**The context of people's lives determines their health, and so blaming individuals for having poor health or crediting them for good health is inappropriate. Individuals are unlikely to be able to directly control many of the determinants of health.**

The determinants of Health—or things that make people healthy or not—include the following factors:

- **Income and social status** - higher income and social status are linked to better health. The greater the gap between the richest and poorest people, the greater the differences in health.
- **Education** – low education levels are linked with poor health, more stress and lower self-confidence.
- **Physical environment** – safe water and clean air, healthy workplaces, safe houses, communities, and roads all contribute to good health. Employment and working conditions – people in employment are healthier, particularly those who have more control over their working conditions.
- **Social support networks** – greater support from families, friends and communities is linked to better health. Culture - customs and traditions, and the beliefs of the family and community all affect health.
- **Genetics** - inheritance plays a part in determining lifespan, healthiness, and the likelihood of developing certain illnesses. Personal behaviour and coping skills – balanced eating, keeping active, smoking, drinking, and how we deal with life's stresses and challenges all affect health.
- **Health services** - access and use of services that prevent and treat disease influences health.
- **Gender** - Men and women suffer from different types of diseases at different ages. (WHO, 2021)

The above factors decide whether anyone anywhere in the world would have Good or Bad Health. Pilots are well educated and usually start their careers as very fit and healthy individuals and they are put through more stringent tests and medical examinations than any other profession. However, pilots are also Human Beings and as such subject to the same Determinants of Health as everyone else.

**A Stark View: Adult Mortality Rate Fiji vs Australia and NZ**

Mortality rate, adult, male (per 1,000 male adults) - Fiji, New Zealand, Australia:

- (1) United Nations population Division. World Population Prospects: 2019 Revision.
- (2) University of California, Berkeley, and Max Planck Institute for Demographic Research.

The Human Mortality Database

Country	Most Recent Year	Most Recent Value
Fiji	2018	257
New Zealand	2013	81
Australia	2016	76

This table shows the Adult mortality rate, male (the probability of dying between the ages of 15 and 60). In Fiji the chance of dying thus is 257 per 1000 males for an adult male compared to 81 or 76 per 1000 males in NZ and Australia. This means you are 3.39 times more likely to die as an adult male aged between 15 and 65 in Fiji compared to an Adult male of the same age in NZ.



“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”

**LIFE EXPECTANCY AT BIRTH, TOTAL (YEARS) – FIJI, NZ, Australia**



The above graph shows the Life Expectancy at Birth of a person born in Fiji vs Australia and NZ. The Life Expectancy is the average number of years a Baby at birth is expected to live for. Fiji has an average Life expectancy of 67 years compared to 82 and 83 years for NZ and Australia respectively. That means you are expected to die 16 years earlier than your compatriot born in Australia. (The World Bank, 2021).

Fiji is a melting pot of cultures with a very plural population. Whilst this has led to it being a Utopia of sorts and the pride of the South Pacific, the Health Status of the General Population has been long staggering well below that of the Developed Nations. This effect has also been exaggerated by a struggling Health System. The combination has led to lower than normal Life Expectancy of individuals.

**The Local Pilot and the AMA (Medical Examiner)**

*The relationship between the pilot and the AMA can be a trustworthy one or can also become one where the Pilot fears the Annual or Biannual Medical Check. It can be described as a Bad Dance at times between two well-meaning individuals.*

Often the opportunity to get regular medical checks apart from usual Aviation Medicals are not taken. This deprives one from valuable advice and strategies for keeping healthy and to prevent, treat, or control illnesses. Some Pilots remain fearful of visiting GPs or Doctors to avoid getting diagnosed with a condition. The Pilot fears that his GP may discover that his Cholesterol is High, or his Sugar is High and that he may have to offer up this information to CAAF and then subsequently be stood down from duties. Hence the Medical Examiner may give a “Warning” or a “Check Light” that grounds the pilot.

However, in all instances, your GP, and your Medical Examiner are merely trying to set you on the right path. Having Diabetes, or Hypertension, for example, needs to be treated early to prevent dangerous complications, such as Heart Disease or Stroke or Kidney Disease. In this instance if you diagnose and treat Hypertension or Diabetes early and properly, then complications do not arise, and one could get back to flying after a short period of time. It is dangerous to not look after yourself even after getting these diseases and this can lead to dangerous complications making you seriously ill. Better still, you can prevent these illnesses by leading a Healthy Lifestyle.

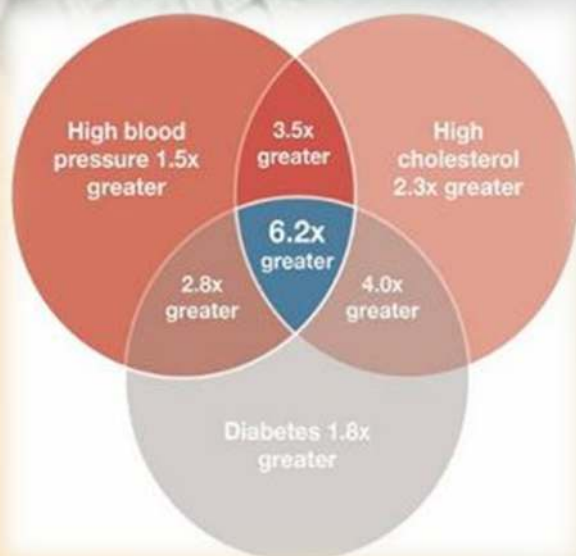


# The Fijian Pilot:

## An AMA's Perspective Cont....

### Heart Disease – The Killer in Fiji

Below is an excellent illustration of risk factors of Cardiovascular Disease (CVD). Cardiovascular Disease is another term for Heart Disease and Stroke. The risk factors for CVD shown below are High Blood Pressure, High Cholesterol and Diabetes. There are other factors such as your Age, Smoking and Obesity which are not shown here.



Doctors work out your risk of developing a Heart Attack or Stroke using risk factor calculations such as above. The diagram shows if you have High Blood Pressure your risk of getting a stroke or Heart Disease (your CVD risk) is 1.5 times more than the general population. If you have High Cholesterol alone your CVD risk is 2.3x greater and if you have Diabetes alone than your CVD risk is 1.8x greater. But **if you have all three risk factors (Diabetes + Cholesterol + High Blood Pressure) than you are 6.2 times more likely to get a Heart Attack or Stroke.** However, if you control your High Blood Pressure, treat your Diabetes, and lower your Cholesterol, the risk of getting a Heart Attack or Stroke goes right down.

### What can I as a Local Pilot Do?

**Your Checklist** to Live a Long and Healthy Life (or to get the odds in your favour).

- **Trust your AMA and your GP.** They may be the same person or two different Doctors, but you rely

on them to keep you safe. Form a good relationship. Schedule yearly routine check-ups including your General Physical Examination, Blood Tests including Sugar, Cholesterol levels, Kidney, Liver Tests, and a Full Blood Count. Pap Smears and Breast Cancer screenings are also necessary additions at required intervals if you are Female. Prostate Test is necessary if you are over 40 and a Male.

- **Stop Smoking.** Smoking is a risk factor for most diseases including Heart Disease, Strokes, Lung Cancers, and many other types of Cancers.
- **Cut down on Salt to less than 2g per Day.** This is less than one Teaspoon of salt per day. Salt leads to High Blood Pressure. High Blood Pressure can lead to Heart Disease and Strokes and Kidney Disease.
- **Keep a healthy diet therefore less or no Sugar, Less Fat and minimise Alcohol.** This minimises your risk of developing Diabetes and Heart Disease. It also helps prevent Obesity and helps to shed off extra weight. The Alcohol reduction helps to prevent liver disease and prevent risk of stroke etc.
- **Lose weight or Maintain your Ideal Body weight.** Your ideal body weight should be roughly calculated as:  $\text{Height (cm)} - 100 = \text{Weight (kg)}$
- E.g., if your Height is 1.77m then its 177cm – 100 = 77kg.
- **Treat your Diabetes or Hypertension.** If you unfortunately do develop these conditions, get the best available treatment and you can be potentially placed on medications which are aviation safe. Therefore, you may be able to fly with these conditions. However, if you ignore these diseases, they go on to cause permanent damage to organs and complications without adequate treatment. They can lead to Heart Disease, Stroke, Eye and Vision problems, Nerve damage, Kidney damage and more. Once these advanced complications have developed, you may be unable to fly thus it is important to get this treated early and brought to the attention of the AMA and CAAF early. The AMA and your GP can work with you to take the necessary steps for you to continue maintaining good health and keep these diseases under control, and to help you keep flying.

- **Get a Heart Treadmill Test as soon as you are 40 in Fiji.** If you are an adult male in Fiji the biggest killer is Heart Disease. A simple treadmill test at a Cardiac Centre (e.g., at Heart International, Nadi or Oceanic Hospital – Suva Private Hospital, Suva) may indicate early that you may have blocked arteries. If positive you can get an angiogram and if confirmed, either Stents or Surgeries can happen saving your life. Do not wait for a Heart attack and take symptoms like Chest Pain, Shortness of breath on climbing stairs or after exertion as serious symptoms and seek the help of a Doctor. Get an ECG and they may also refer you for a Treadmill Test or if it is more serious to get admitted for treatment to a Hospital.
  - **Take care of Stress Levels and Mental Health.** Right now with the Aviation Sector severely affected due to COVID, try and maintain your Mental Health. Do seek Counselling, try Meditation and Yoga, and do regular exercise. Do not leave your stress unattend-
- ed. If you think your mental health is suffering, whatever the cause may be, do seek professional help. A starting point may be a confidential chat to your GP.
- **Exercise Regularly.** You need to exercise regularly to keep fit, prevent heart disease, hypertension, and a host of other diseases. In addition, exercise wards off stress and depression. For Heart Health, 30 minutes of Exercise five days a week or 10000 steps a day is recommended.
  - **Get Medical Insurance for yourself and the Family.** Always be prepared. Fiji does not have an advanced tertiary Healthcare System. This means that a lot of the time one might have to travel overseas for necessary treatment. Medical Costs can get out of hand very quickly but Insurance safeguards you and your family and opens lots of options to getting the best medical care out there in tough situations.

## Final Comments

It can be concluded that the Local or Fijian Pilot is as exposed to the unfavourable health risks surrounding him or her as the General Population of Fiji. However, pilots are astute, highly intelligent professionals. They are often creatures of habit disciplined to follow checklists, to look after safety and minimise risk. Thus, it would not be hard to convince pilots to apply this same attitude towards their Health. Prevention is better than cure so take an active step to prevent diseases. Discuss and maintain your Physical and Mental Health enabling you to be healthier.

Further Research is needed to help identify areas of concern and notable modifiable risk factors within the Local Population of Pilots to help them lead better quality lives ■







**ISO 9001:2015 CERTIFIED**  
Civil Aviation Authority of Fiji

# **FOR EVERYONE'S SAFETY & SECURITY**



**PLEASE  
REPORT SUSPICIOUS  
ACTIVITIES YOU SEE OR  
OVERHEAR**

**You Could Save Lives By Doing So  
Help Promote A Strong Security Culture**

**More info @ [www.caaf.org.fj](http://www.caaf.org.fj)**