Safe Skies, Secure Fiji

AVIATION SAFETY BULLETIN

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Nadi International Airport's Green Transformation

CAAF Launches New Website with Online CASA Exam Registration

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Taking Aviation Law to New Heights Key Conferences Shaping the Skies

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Cover Page:
Taken by External Engagement and Communications Officer CAAF

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MESSAGE FROM CAAF'S CHIEF EXECUTIVE

Bula vinaka and welcome to the second edition of the Aviation Safety Bulletin for 2025.
As we move into the third quarter of the year, I want to acknowledge the continued commitment and collaboration of our aviation community in working toward a safer and more resilient aviation system. The first six months of 2025 have reaffirmed the importance of staying alert, informed, and ready to adapt in a dynamic operational environment.

This issue of the Bulletin explores several critical safety themes and developments. The article on the "Impossible Turn" is a timely reminder of how quickly circumstances can shift in-flight, reinforcing the need for pilot discipline, decision-making, and situational awareness. Similarly, the Hudson River Bell LongRanger IV accident case study brings valuable lessons around risk management, airworthiness, and pre-flight checks.
Closer to home, we are proud to highlight Nadi International Airport's Green Transformation—an inspiring step towards a more sustainable aviation ecosystem. The inclusion of Fiji Airports as a data provider in the European AIS Database (EAD) further underscores Fiji's growing role in international information-sharing and data integrity.

As we strive to maintain high performance and safety standards, understanding our internal culture is equally important. The feature on Just Culture unpacks what this means for CAAF and how it supports a learning-oriented, non-punitive safety environment. This approach underpins our oversight role and encourages transparent reporting throughout the industry.

I also invite you to reflect on how we celebrate and support our people—the pilots, crew, and innovators at the heart of aviation. Their professionalism and dedication are what keep our aviation system safe and efficient.

Looking ahead, we must remain vigilant to global risks such as mid-air collisions, as highlighted in the article on the Überlingen accident. We must also embrace digital transformation, as seen in the launch of our new website and CASA exam registration system, which enhance service delivery and regulatory access.
Finally, I am pleased to note Fiji's continued participation in regional and international aviation security programmes, as well as ongoing discussions on the use of defibrillators in-flight and the growing importance of interactive airspace. These are not just niche topics, they reflect the expanding scope of what aviation safety entails in today's world.

Let us continue to stay informed, engaged, and proactive as we work together toward the goal of Safe Skies, Secure Fiji.
Vinaka vakalevu,

Theresa Levestam

CHIEF EXECUTIVE

Fight or Flight with the "Impossible Turn"

The "Impossible Turn" is one of the most debated maneuvers in aviation, especially when it involves an engine failure after takeoff below 1000 feet AGL (Above Ground Level). This turn earned its name because of the extreme difficulty and risk involved in attempting to turn back to the runway when faced with an engine failure at such a low altitude.

In Fiji, with many of its unique landscapes, over-water and rugged terrain departure paths, the "Impossible Turn" presents additional challenges. The islands' varied terrain, including mountainous and coastal areas, require pilots to be vigilant and aware of their surroundings and the specific characteristics of their aircraft.

The risks of performing the "Impossible Turn" include altitude loss where altitude is lost quickly, often more than anticipated, turning too early or too late could result in a dangerous stall-spin scenario.

Not only this, but decision time is also affected, with limited altitude, there is little to no time to assess the situation. Indecision during these few seconds can prove to be fatal.

Fortunately, over time Pilots have discovered key considerations that increase the possibility of a safe turnaround. For instance, best glide speed, by immediately pitching for best glide speed (as highlighted in the simulated engine-out procedures) is critical to maximize your ability to make a controlled landing. In most cases, 1000 feet AGL is considered the minimum height to attempt the turn back, though some argue it may be possible at lower altitudes if well-practiced by an experienced pilot-in-command. Additionally, factors such as runway length, surrounding terrain, and wind conditions heavily influence the decision. Being aware of the environmental surroundings during flights and planning for any emergencies can reduce risk.

> *This turn earned its name because of the extreme difficulty and risk involved in attempting to turn back to the runway when faced with an engine failure at such a low altitude.*

Training for these moments is crucial. Fiji has several certified aviation training institutions that provide comprehensive training programs for pilots including emergency situations, handling various in-flight scenarios and aspects of dealing with engine failures after take-off. The Civil Aviation Authority of Fiji (CAAF) mandates that student pilots are trained to handle airborne emergencies and AOC (Air Operators Certificate) holders with single-engined aircraft are required by ANR (Air Navigation Regulation) 45 to practice these emergencies to an acceptable standard with appropriate check pilots and/or flight operation inspectors. CAAF ensures that all aviation training institutions comply with strict safety and training standards.

As some pilots may argue that it should still be called "The Impossible Turn," others beg to differ and claim that with enough practice and situational awareness, it is possible, under the right circumstances, to safely return to the runway.

However, it is essential pilots are competently trained for these scenarios and understand their aircraft's performance limits before attempting such a maneuver in real life.

In Fiji, the decision to attempt this turn must be made with careful consideration of the unique environmental factors and thorough training. Pilots must ask themselves: would I consider returning to the runway below 1000 feet? By understanding the risks, practicing emergency procedures and knowing the aircraft's capabilities, pilots can make informed decisions in these high-risk situations.

Source: This article was inspired by Federal Aviation Administration. (2017). Impossible Turn. FAA-P-8740-44 • AFS–920.

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Nadi International Airport's Green Transformation

The Civil Aviation Authority of Fiji (CAAF) acknowledges the remarkable achievement of Nadi International Airport in attaining Level 4 Transformation of the Airport Carbon Accreditation (ACA). This milestone marks Nadi International Airport as the first in the Blue Pacific region to reach this prestigious level, reflecting a steadfast commitment to sustainability and environmental stewardship.

Fiji Airports, under the leadership of CEO Mesake Nawari, has demonstrated exceptional dedication to aligning its carbon management practices with global climate goals. This achievement is a testament to the unwavering support of the Fiji Airports Board of Directors, management, staff, and stakeholders in driving sustainability across all airport operations.

The ACA, an initiative by Airports Council International (ACI), independently assesses airports worldwide on their efforts to manage and reduce emissions.

By achieving Level 4 Transformation, Nadi International Airport has showcased its ability to reach absolute emission reductions and establish meaningful partnerships with business partners, contributing to the global airport industry's response to climate change.

Over the past year, numerous sustainability initiatives have been launched at Nadi International Airport. These include the procurement of 14 electric vehicles powered by a solar system, with surplus energy stored in a battery bank to power streetlights and external signage at night. Additionally, four domestic airport terminals in Savusavu, Matei, Rotuma, and the temporary Labasa terminal building are now fully solar-powered.

Fiji Airports' board chairman Hasmukh Patel and CEO Mesake Nawari received the award recognition in Delhi, India, underscoring the airport's role in the global effort to combat climate change. Mr. Nawari emphasized the importance of mobilizing resources to address climate change, highlighting that this recognition signifies Fiji Airports' commitment to reducing carbon emissions and minimizing environmental impact.

Having previously achieved Level 3 "Optimisation" in 2020, Fiji Airports' progression to Level 4 "Transformation" is a significant step forward.

This accomplishment places Nadi International Airport alongside other major international airports such as Japan's Narita International Airport, Dubai International Airport, King Khalid International Airport, and Taoyuan International Airport in Taiwan.

The Civil Aviation Authority of Fiji commends Fiji Airports for its leadership and proactive measures in sustainability. This achievement not only enhances Fiji's reputation on the global stage but also sets a benchmark for other airports in the region to follow. As we continue to support and oversee aviation activities in Fiji, CAAF remains committed to promoting sustainable practices and ensuring the aviation sector contributes positively to our environment.

Source: This article is referenced from an article written by Fiji Airports Ltd Communications

Safety Reminder

Following Hudson River Bell LongRanger IV Helicopter Accident

Overview

On 10 April 2025 in New York, USA, a Bell 206L- 4 LongRanger IV, operated by New York Helicopter Tours, suffered an in-flight breakup, descended and impacted the Hudson River, resulting in the loss of all 6 individuals on board, including a family of 5 from Spain, and the pilot.

Preliminary reports indicate that the helicopter experienced an in-flight breakup, with witnesses observing the main rotor separating from the aircraft before it descended into the river. The aircraft was not equipped with flight data (FDR) or cockpit voice recorders (CVR), which has complicated the investigation.

The U.S. National Transportation Safety Board (NTSB), in collaboration with the U.S.Federal Aviation Administration (FAA), Bell Textron, and Rolls-Royce, is actively investigating the incident.

Recovery efforts have retrieved significant components of the helicopter, including the main and tail rotor systems, which are expected to provide insights into the contributory factors and cause of the accident.

Safety Advisory to Fiji Helicopter Operators

In light of this incident, CAAF urges all helicopter operators, maintenance personnel, engineers, and pilots in Fiji to reaffirm their commitment to the highest standards of aviation safety.

The following practices are essential:

- Rigorous Maintenance Procedures: Ensure all maintenance activities are conducted in strict accordance with manufacturer guidelines and regulatory requirements.
- Comprehensive Preflight Inspections: Perform thorough preflight checks to identify and address any potential issues before flight operations.
- Adherence to In-Flight Handling Protocols: Operate aircraft in accordance with established procedures and the company's exposition to maintain control and safety during flight.

Compliance with Regulatory Standards: Maintain strict adherence to all aviation regulations to ensure the continued airworthiness and safety of aircraft operations.

CAAF's Ongoing Commitment

CAAF continues to execute its safety oversight and surveillance responsibilities diligently, ensuring that all helicopter operations within Fiji adhere to the highest aviation standards.

Our proactive approach aims to help prevent accidents and enhance the overall safety of the aviation sector.

Specific Note on Bell LongRanger IV Operations in Fiji

Currently, there are no Bell 206L-4 LongRanger IV helicopters operating within Fiji.

However, CAAF emphasizes the importance of this safety reminder to all operators, regardless of aircraft type.

It is our collective responsibility to uphold rigorous maintenance procedures, conduct meticulous preflight inspections, and operate aircraft in strict compliance with company expositions and aviation regulations.

For further information or assistance, please contact the CAAF Air Safety Department.

Strengthening Aeronautical Data Integrity

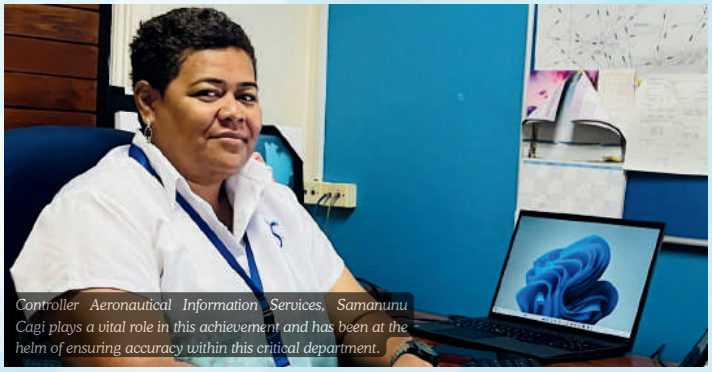
Fiji Airports Joins EAD as a Data Provider

Fiji's aviation landscape continues to evolve with notable progress in aeronautical information management. On May 15, 2025, Fiji Airports' AIS (Aeronautical Information Services) Department, under the Air Traffic Management Division, officially transitioned to Data Provider status within the European AIS Database (EAD) the world's largest centralized, real-time aeronautical information management system, marking a significant step in enhancing the country's airspace operations.

The move from Data User to Data Provider represents more than a technical upgrade it is a strategic leap toward greater data ownership, international alignment, and regional ATM efficiency.

"This achievement is a testament to the dedication and professionalism of our AIS Team," Fiji Airports chief executive Mesake Nawari said. "We are proud to see Fiji take a leading role in managing its own aeronautical data, supporting both safety and efficiency in our airspace operations."

The EAD, managed by EUROCONTROL, is the world's largest centralized aeronautical database, supporting global air traffic management by providing quality-assured, real-time information to ANSPs and aviation stakeholders.



Controller Aeronautical Information Services, Samanunu Cagi plays a vital role in this achievement and has been at the helm of ensuring accuracy within this critical department.

For Fiji Airports, this achievement follows years of preparation and capacity building. With dedicated training of specialised AIS personnel beginning in 2023, including the establishment of a fully operational NOTAM Office in Nadi, the groundwork was carefully laid to support this advancement.

The Aeronautical Information Services (AIS) Team at their Nadi office. This dedicated team's hard work now allows Fiji Airports to submit, manage and monitor Fiji's aeronautical data, enhancing data accuracy, reliability and timeliness for the safe and efficient operations of aircraft within the region.

It is exciting to witness Fiji Airports committed to continuous access and active subscription to the European Aeronautical Database until Fiji Airports purchases its own aeronautical interactive base.

Now, as an active Data Provider, Fiji can directly submit, manage, and maintain its own aeronautical data, improving accuracy, timeliness, and coordination with neighbouring Flight Information Regions. This shift also reduces dependency on external data agencies, allowing better integration with modern platforms for flight planning and messaging.

The achievement was formally marked on World AIS Day, celebrated globally on May 15th in recognition of the establishment of ICAO's Annex 15 in 1953 a foundational document for global AIS standards.

The Civil Aviation Authority of Fiji recognises this development as a positive contribution to the national and regional aviation system. The ability to manage and validate aeronautical data locally supports safe, efficient, and globally connected operations, in line with ICAO's global aviation safety objectives.

Fiji Airports' commitment to continuous improvement, including ongoing training, access to international databases, and plans to acquire its own interactive system, further reinforces Fiji's growing presence in the global aviation data ecosystem.

Source: This article is referenced from an article written by Fiji Airports Ltd Communications

Just Culture

What it means to the Authority (CAAF)

***Just** Culture* informs the management of three types of behaviors: human error; at-risk behaviours; and reckless behaviour.

There are a number of Just Culture models available to assist in identifying individual behaviours and to guide management response decisions. Advanced models include system factors such as procedures, training, and management.

Just culture implies a 'duty of care' of aviation participants to follow procedures and rules, and to avoid causing harm or unjustifiable risk. Decision-makers should strive to strike the right balance between accountability and learning in responding to events, in order to create an environment where people feel comfortable reporting errors, hazards, and occurrences. Just Culture supports learning from events through enhanced sharing of safety information to prevent future accidents.

How we apply Just Culture?

The Authority applies Just Culture principles as part of our proactive safety activities, and also in our response to safety deficiencies and risks.

Proactively, the CAA is beginning to assess safety culture as part of our oversight of participants' Safety Management System (SMS).

While SMS provides an effective framework and processes for safety, good safety performance will only be achieved if underpinned by a positive safety culture. The indicators we look to when assessing safety culture include the nature and extent to which:

- Responsibility for safety is accepted and demonstrated at the management level
- Decisions and actions align with what is documented in the Exposition, and reflect 'safety mindedness'
- Non-compliant and at-risk behaviours are not condoned by fellow employees, and are addressed by management using a just and fair process
- Attitudes of care and concern permeate the organisation
- Employees report events, hazards, errors and concerns without fear of reprisal

Here are the normal responses to the manageable behaviours		
Behaviour	**Description**	**Response (options)**
Human Error	Unintentional (e.g. slip, lapse)	Console Remedial action
At-Risk	Knowing deviation from a rule, procedure or standard practice Aware of risk, though believed to be insignificant or justified Intentional action but unintended outcome	Coach Remedial action
Repetitive At-Risk	Choice to continue to deviate from rule, procedure or standard practice	Remedial action Punitive action
Reckless	Conscious disregard of substantial or unjustifiable risk Intentional action with probable outcome (though individual may overestimate own control)	Punitive action

- Information is used for on-going reflection and improvement of safety practice

The Authority aims to provide feedback to participants on the above to assist them on the journey from a 'Present and Suitable' SMS to one that is 'Operating and Effective'.

The Authority also employs Just Culture principles in our response to safety deficiencies and safety occurrences.

We first seek to examine the nature of the event or breach, the level of risk, the causes, the systems in place, and the behaviour of the people involved. We examine whether the participant self-reported the event in a timely and fulsome manner, whether the matter is part of a pattern, and the extent to which those involved accept accountability and are willing to learn or change. In addition to these factors the Authority must always consider what is best in the public interest. In doing so, our application of Just Culture will consider the wider impacts including enhanced reporting, which benefits overall system safety.

Our application of Just Culture is as follows:

If an aviation participant reports their involvement in an incident or Rules omission/breach in a complete, accurate and timely fashion then the Authority will apply just culture principles in its response. Where there's no self-reporting, or there is evidence of repeated at-risk behaviours or recklessness, then the protections of Just Culture will not apply.

There are three challenges to the Authority's application of Just Culture which need to be acknowledged. These relate to:

- accidents involving harm;
- legislation; and
- transparency of Authority's actions.

Accidents involving harm

When there is an accident involving harm, particularly death or serious injury, this consequence becomes a significant factor when determining the appropriate regulatory response. Action to hold people to account may be required in the public interest.

However, in reaching this decision the Authority will weigh the benefits of addressing the specific event against other actions which may have wider or more enduring system safety benefits. This challenge should not be used as a rationale for participants to refrain from reporting occurrences which do not involve harm.

Legislation

Advice from industry representative bodies is that the lack of Just Culture provisions in legislation is a barrier to full adoption by participants, including open reporting. While the Authority acknowledges that this may be the case in some areas, it is unfortunate that this is being used as justification for not providing occurrence information which might assist in preventing a future accident. Nevertheless, work is underway in this area. Legislation reviews will investigate the barriers to full reporting of occurrences and assess options to create an environment for free and open disclosure of information. This work has been included in the drafting of the recent Civil Aviation Bills, namely ANR 81 and expanding ANR 82. The Authority has proposed the inclusion of Just Culture principles in this Bill, including how reported safety information is used.

Transparency

When the Authority is required to take strong regulatory action in the public interest the full facts of the case, including the application of Just Culture principles, are often not visible to the wider aviation sector and the public via industry consultation. There is good reason for this including our obligations under the Privacy Act. In this vacuum the industry and public are often provided with a one-sided view of what has taken place, which may not explain the reasons and rationale for the regulatory response. This can erode the sector's confidence in the Authority's application of Just Culture and affect occurrence reporting.

The Authority intends to address this in two ways.

First, we will provide information on the number of prosecutions taken annually. This information will show that CAAF has not historically taken any punitive action against participants who self-report in a timely and comprehensive manner. Second, where appropriate, CAAF intends to provide additional detail regarding significant regulatory action taken so that the application of Just Culture principles is more evident.

Source: This article is inspired by Skybrary - Just Culture

Celebrating the Heart of Aviation Pilots, Crews & Innovators

✈️ April 2025

- World Pilots' Day – April 26

Honors pilots worldwide and recognizes their crucial role in aviation safety. First celebrated in 2014, this day commemorates Fesa Evrensev's inaugural flight in 1912

- FAA Drone Safety Day – April 26

A U.S. FAA initiative promoting safe drone operations through events and outreach under the theme "Fly Right ".

✈️ May 2025

- Aviation Maintenance Technician Day – May 24

Celebrates AMTs and honors Charles Edward Taylor, the Wright Brothers' first mechanic

- International Flight Attendants Day – May 31

Acknowledges flight attendants for their essential role in passenger safety and comfort.

✈️ June 2025

- International Women in Engineering Day – June 23

Woman in Engineering

Drone Pilot in Action

Aircraft Maintenance Inspection

Flight Attendants in Training

Pilots in Training

Source: Photos were obtained are from CAAF past year Annual Reports and Canva Pro Gallery

FCAIR
Fiji Confidential Aviation Incident Report

The Fiji Confidential Aviation Incident Reporting (FCAIR) form is a voluntary, non-punitive tool that allows anyone in the aviation community to confidentially report safety concerns or incidents to help improve aviation safety and security in Fiji.

FCAIR forms are available for download from the CAAF website (www.caaf.org.fj) or from the Enquiries counter at CAAF HQ. Completed forms are to be emailed to fcair@caaf.org.fj.

FIJI CONFIDENTIAL AVIATION INCIDENT REPORTING FORMS AVAILABLE ON WEBSITE www.caaf.org.fj OR FRONT DESK, CAAF HQ

Take Our Survey

CAAF 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 via email or dropping it in the feedback box in the foyer of CAAF HQ; or email to:

info@caaf.org.fj

Avoiding Disaster in the Sky

LESSONS FROM THE ÜBERLINGEN MID-AIR COLLISION (MAC)

Mid-Air Collisions (MAC) remain one of aviation's most catastrophic risks. The 2002 Überlingen disaster, where a DHL cargo plane and a Bashkirian Airlines passenger jet collided over southern Germany, tragically underscores the importance of robust air traffic control systems and adherence to collision avoidance protocols.

The Incident

On July 1, 2002, Bashkirian Airlines Flight 2937, a Tupolev Tu-154, and DHL Flight 611, a Boeing 757, collided at 36,000 feet over Überlingen, Germany. All 71 individuals aboard both aircraft perished. Despite both planes being equipped with Traffic Collision Avoidance Systems (TCAS), conflicting instructions from air traffic control and TCAS advisories led to the fatal outcome. (Wikipedia)

Contributing Factors

Several factors contributed to the collision:

- **Air Traffic Control (ATC) Failures:** The sole controller on duty was overwhelmed, managing multiple sectors without adequate support.
- **Maintenance Activities:** Critical systems, including the main radar image processing and telephone systems, were under maintenance, limiting the controller's situational awareness and communication capabilities. (Wikipedia)
- **Conflicting Instructions:** The Russian crew received a descent instruction from ATC that conflicted with the TCAS advisory to climb. (Wikipedia)
- **Crew Decision-Making:** The Tu-154 crew chose to follow ATC instructions over the TCAS advisory, contrary to standard procedures.

Investigation Findings

The German Federal Bureau of Aircraft Accident Investigation (BFU) identified both direct and systemic causes:

- **Direct Causes:** Delayed recognition of the impending collision by ATC and issuance of conflicting instructions.
- **Systemic Causes:** Organisational shortcomings within Skyguide, including inadequate staffing and maintenance scheduling during operational hours.

The investigation led to 19 safety recommendations, emphasising the need for improved ATC procedures, system redundancies, and adherence to TCAS advisories. (Startseite).

Aftermath and Reforms

In response to the findings, several measures were implemented:

- **Policy Changes:** Mandating that pilots follow TCAS advisories over conflicting ATC instructions.
- **Organisational Reforms:** Skyguide underwent restructuring to enhance staffing protocols and maintenance scheduling.
- **International Collaboration:** Enhanced coordination between neighbouring ATC units to ensure seamless communication and handovers.

Sources: BFU. (2004). Investigation Report AX001-1-2/02: Collision over Überlingen. Bundesstelle für Flugunfalluntersuchung. ICAO. (2003). Annex 10 – Aeronautical Telecommunications, Volume IV: Surveillance and Collision Avoidance Systems. International Civil Aviation Organization. ICAO. (2022). Global Aviation Safety Plan 2023–2025. International Civil Aviation Organization.

CAAF Launches New Website with Online CASA Exam Registration

The Civil Aviation Authority of Fiji (CAAF) has launched its redesigned website, featuring a modern interface, better mobile access, and online registration for CASA exams. This upgrade enhances user experience and supports aviation professionals across Fiji and the Pacific.

Key Highlights

Online CASA Exam Registration: Register anytime, anywhere—no paperwork required.

User-Friendly Design: Easy access to licensing, safety regulations, aerodrome operations, airworthiness and other core aviation services.

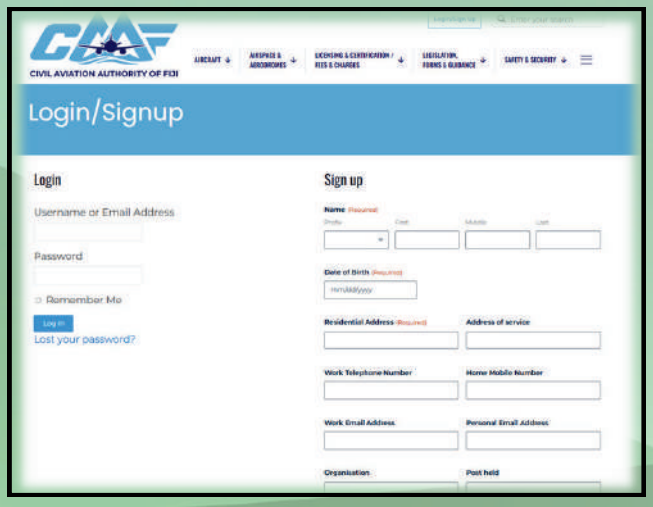
Mobile Compatible: the website is now fully responsive, ensuring a seamless experience across desktop, tablets and smartphones

Updated Resources: Accessible forms, documents, and updates in real-time on CAAF regulations and announcements.

1. **PL101A Application Process:**

Step 1: Sign up/ Log in to the website.
Proceed to log in if you have signed up already or sign up to the website.

Navigate to the sign-up page on the top right-hand side of the page, alternatively you can access the sign up page using this link: Login/Signup - Civil Aviation Authority Of Fiji



Step 2: PL101A Application and Payment
Please refer to attached video via QR Code as a guide to fill in the form

Once you are logged in you will find the PL101A form under the quick links on the homepage or directly access it from this link: https://www.caaf.org.fj/product/application-for-crew-licence-rating-examination/

SCAN ME

WE ACCEPT

Bank to bank transfer, MPaisa, Direct Cash Payment, Cheques

Taking Aviation Law to New Heights

Key Conferences Shaping the Skies

Attending aviation law conferences and trainings is crucial for legal professionals in the field of aviation to stay informed about the latest developments, connect with industry leaders, and enhance their knowledge and skills. These conferences offer valuable insights into emerging trends, challenges, and best practices in aviation law, fostering collaboration and expanding networks.

The following conferences and training initiatives have significantly benefited aviation lawyers in Fiji:

1. **ALAANZ Conference**
Hosted by: The Aviation Law Association of Australia and New Zealand (ALAANZ).
Held: Once every year.
Last Conference: Was held this year (2025) in Melbourne Australia.
Website: https://alaanz.org/
Why is it important?
This conference brings together legal professionals in the aviation field from Australia and New Zealand. However, Aviation lawyers from the Pacific are most welcome to attend this conference if they wish to do so. It provides a platform where lawyers in aviation can discuss current issues, share knowledge and experiences, and network with peers.

2. **ICAO Legal Seminar**
Hosted by: The International Civil Aviation Organization (ICAO).
Held: Once every three years.
Last Seminar: Was held last year (2024) in Seoul, Korea.
Website:
https://www.icao.int/Meetings/LegalSeminar2024/Pages/default.aspx

Why is it important?
ICAO organises legal seminars aimed at informing and updating government officials and legal professionals on the Work Programme of ICAO in the legal field as well as a number of current subjects in the field of international air law, including aviation safety, security, and the current legal issues faced in the aviation sector.

3. **ICAO Civil Aviation Legal Advisors Forum (CALAF)**
Hosted by: The International Civil Aviation Organization (ICAO).
Last edition: The third edition was held in London, United Kingdom in 2024.
Website:
https://www.icao.int/Meetings/LegalSeminar2024/Pages/default.aspx
Why is it important?
The forum serves as a platform for aviation legal advisors to share insights, experiences, and perspectives on legal matters in civil aviation, while addressing the current challenges faced by states and organisations.

4. **Aviation Law Training**
ICAO also offers specialised training programs in aviation law. These specialised courses cover topics in international air law, such as the Chicago Convention, liability rules, and aviation insurance. This is essential for aviation lawyers to stay abreast of the aviation legal frameworks and regulatory requirements across the globe.
The aviation law training offered by ICAO is accessible on the website https://www.icao.int/training/Pages/default.aspx

5. **IATA Courses on Aviation Safety**
The International Air Transport Association (IATA) offer diverse training opportunities within the aviation industry, encompassing areas like passenger ground services, cargo operations, safety management systems, accident investigation, risk management, aviation safety and security regulations. The courses are designed to enhance the knowledge and skills of aviation law professionals, entry-level to senior management, and are recognised globally by airlines and airports.
The IATA courses are accessible on the website https://www.iata.org/en/training/

Relevance to Aviation in Fiji
By participating in these conferences and training programs, aviation lawyers in Fiji will be able to enhance their expertise in aviation law, better regulate aviation safety and security, and foster regional and international collaboration.
More information on these conferences and training courses can be accessed online.

Keep a look out for the next opportunity.

Sources: Article is inspired by Aviation Law Trainings.

Renewal of Fiji's Membership into the Cooperative Aviation Security Programme. -Asia Pacific (CASP-AP) Programme

The Cooperative Aviation Security Programme – Asia Pacific (CASP – AP) is a separate arm of ICAO, created to assist member states in properly implementing Annex 17 – Aviation Security Standards and Recommended Practices (SARPS). The CASP- AP Programme membership includes 28 states within the Asia Pacific region. In the Pacific Islands, Fiji, Vanuatu, and the Solomon Islands are member states. The remaining member states are from Asian nations.

CASP-AP provides specialized training, technical advice, and support. They update aviation security documents, including aviation security templates, provide research and development and provide access to new technologies and innovations.

With the support of the government and the CAAF Board, Fiji was able to renew its membership with CASP-AP, as of late of 2024.

Through the assistance of CASP-AP, the Aviation Security Management Course, a training which was highly in need within the industry, was carried out this year.

The Aviation Security and Facilitation Department of the Authority, together with the IT Department, participated in a Computer Based Training (CBT) focused on Oversight, Reporting Resolution (ORR), and screeners examination organized by CASP-AP.

The CBT software provided by CASP-AP would enable Fiji to transition specific aspects of its screeners' certification, such as x-ray image interpretation to a virtual setting. This would be a step forward for the aviation industry once this software has been approved for use. This software, which would have cost the Authority $USD500,000-$750,000, has been provided to the Authority for free, as a benefited outcome arising from Fiji's renewal membership to CASP-AP.

Being a member of CASP-AP will enable Fiji to access other benefits to help improve our security systems as well open the door to networking with other member states. More importantly, it establishes a good working relationship with ICAO.

Joining the CASP- AP will help strengthen Fiji's implementation of Annex 17's aviation security standards and recommended practices (SARPs).

Through a fresh set of eyes, CASP- AP would be able to share its expertise when it comes to reviewing and checking Fiji's aviation security systems. CASP- AP would also be able to provide a different perspective when it comes to implementing aviation security standards. Through Fiji's membership, CASP -AP would also be able to assist Fiji and offer guidance for future USAP-CMA audits.

The renewal of Fiji's membership to CASP-AP is something that the Authority values as this will assist the Authority and its industry partners in areas in need of improvement.

The Authority and the industry, with the assistance of CASP- AP would be able to work through complying with the rapid developments and changes arising from Anex 17.

Aviation Security & Facilitation News

ICAO Facilitation Conference: Doha, Qatar

The ICAO Facilitation Conference,

2025 was held in Doha, Qatar, from the 14th -17th of April 2025 and was attended by the Minister of Civil Aviation, Permanent Secretary, Director of Civil Aviation and the Executive Manager Aviation Security and Facilitation.

The ICAO Facilitation Conference (FALC) 2025 presented a special chance for States and aviation industry participants to examine progress in air transport facilitation. The Conference was aimed at creating a space for attendees to work together on a worldwide facilitation strategy that allows for adaptation and quick responses to the fast changes in civil aviation. This event emphasized on fostering collaboration, efficiency, and inclusivity in global air travel with the theme, "Facilitating the Future of Air Transport."

It also serves as a significant milestone following the 2024 celebrations of the Year of Facilitation, the 75th anniversary of Annex 9 – Facilitation, and ICAO's 80th anniversary.

The Authority Hosts its 1st Meeting with the Aviation Industry Stakeholders

The Authority hosted its 1st meeting for the year 2025, with its aviation industry stakeholders. These stakeholders include: the airport operator, domestic and international airlines, aviation security service organisations, ground handling service providers, the air cargo operator, aircraft catering service providers and regulated agents.

The meeting was divided into three (3) sessions. It touched on important matters such as:

- The status of Fiji's USAP-CMA Corrective Action Plan
- Benefits of Joining CAP- AP
- Details of Areas of Strengths and Challenges faced by the industry
- The Year 2025 Workplan, together with the Authority's Training Schedule
- Open discussions – On the Way Forward

This was a constructive meeting as the Authority was able to provide an update from a regulatory perspective.

In the like, the industry was also given the opportunity to clarify their doubts and share their concerns.

This meeting is a demonstration of the ongoing commitment to building stronger partnerships with the aviation industry, in our collective goal to ensure the safety and security of civil aviation.

ICAO Certified Aviation Security National Instructor

Another ICAO Certified Aviation Security National Instructor among the ranks of the Authority.

The Authority has added a new ICAO Aviation Security National Instructor to its ranks, Mr. Mohammed Asif Nawaz Khan.

The Authority has hosted three (3) trainings so far this year; Basic ASTP 123 Airlines, ASTP 123 Air Cargo and Mail Security and AVSEC Quality Control training.

Mr. Khan played a crucial role in supporting Lead Instructor, Mr. Mosese Tuisa, in delivering two (2) trainings: the Basic ASTP 123 Air Cargo and Mail Security and the AVSEC Quality Control training.

With the challenge of limited instructors within the industry, the addition of Mr. Khan to the Authority's scarce pool of Instructors, will enhance the Authority's capability in providing trainings to the aviation industry.

Important Reminder:

- To all our industry partners, when completing applications, please ensure that you are using the most current versions. You can access these updated forms through our website at the following link: https://www.caaf.org.fj/forms/

MEDICAL MINUTE

DANGERS OF DEFIBRILLATOR USE IN FLIGHT

Introduction

Defibrillation is the termination of ventricular fibrillation (VF) or ventricular tachycardia (VT) after the delivery of an electrical current across the myocardium enabling restoration of coordinated electrical activity.

The use of electricity to resuscitate a patient was first described in animal models in the 1770s, however it was not until 1960s that Zoll demonstrated the effective use of externalised electricity to resuscitate a patient. Due to severe pain and burns, several years passed before technology allowed for defibrillation to be carried out safely and effectively.

Early defibrillation has now become a core aspect of advanced life support and is one of the few interventions proven to improve outcomes from cardiac arrest secondary to ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT).

Since the probability of successful defibrillation is time dependent, advances in technology and reduction in cost has allowed the procedure to be conducted outside of hospital. The rate of cardiac arrest during aeromedical transport is between 3.4-5% with a requirement for defibrillation occurring in 0.8% of all missions.

Defibrillation can cause significant harm to both patient and health practitioners unless appropriate measures are undertaken to reduce the risk. When defibrillation is attempted during an aeromedical transport the risk increases. The dangers of defibrillation can be divided into four main categories: fire, electrical, avionic interference and physical carriage and packaging.

Fire

Fire is a rare but devastating consequence of defibrillation however this risk is not mentioned in standard critical care or cardiology literature. If fire were to occur during an aeromedical evacuation, it could result in the loss of the patient and crews' life and loss of the aircraft.

The causes of fire can be further divided into two categories:

1.Electrical Sparks and Arcs

The production of any spark in an oxygen rich, enclosed environment has the risk of igniting a catastrophic fire. A case report from 2003 demonstrated a fire from a spark formation during defibrillation. The anterior-posterior placement of defibrillation resulted in a spark which set the bedding, cotton wool and wool cap on fire.

Sparks can form when pads are improperly placed resulting in a reduced electrode-chest wall interface. The spark produced can 'jump' between conductors. This is called an electrical arc. Arcing of electricity during defibrillation can occur from several scenarios:

- Poor skin electrode interface
- Excess conducting gel forming a conduit between the pads
- Paddles/pads placed too close to ECG electrodes
- Other conduits present – saline soaked pads (surgical/open wounds)

The spark or electrical arc is a source of heat and the first part of the triangle of fire.

Oxygen, the second part of the triangle of fire, is always in close proximity to the patient during defibrillation and all case reports of fires during defibrillation have occurred in oxygen rich settings. Within an aircraft cabin, space is limited and moving oxygen far enough away from the patient may not be enough to reduce the oxygen concentration around the defibrillation paddles. Lower barometric pressure may reduce the combustion potential; however, this is potentially offset by the presence of oxygen delivered to the patient.

The final part of the triangle of fire is fuel which, in effect, is anything that can burn. Many potential fuel sources exist at the beside including cleaning agents, linens, dressings, ointments and patient body hair.

Specific fuel sources within the aeromedical environment include aviation fuel, medical dressings, patient hair/skin and a variety of rubber supplies.

2.Lithium battery failure

Lithium-ion batteries have revolutionised portable medical devices providing increased power and longer life with reduced size and weight. Fires occur when one of the battery cells are damaged, punctured or overheated by overcharging or external heat. Due to the configuration of the lithium-ion batteries, external damage can cause contact between the positive and negative electrodes leading to short circuit and rapid electrical discharge.

When a single cell becomes unstable, it causes a cascade overheating of adjacent cells causing in a chain reaction known as thermal runaway which can become an explosive inferno.

Air incidents involving smoke, fire, extreme heat or explosion have been reported to the Federal Aviation Administration between 1991 and 2011.
The highest profile of these incidents was the catastrophic lithium-ion battery fire which resulted in the crash of a cargo plane in Dubai in 2010, killing the 2 pilots on board. More recently, during an aeromedical transport of a patient in Utah, smoke was identified originating from a bag containing an oxygen cylinder. Investigation identified a smoking spare ventilator lithium-ion battery. The battery was removed from the vehicle and the transport continued uneventfully; however it took over 60 minutes to fully extinguish the battery.

The risk of fire from lithium ion batteries is well documented and has become an accepted risk during aeromedical evacuation. Recommendations including appropriate charging and storage have been well documented by the manufacturers, however due to operational constraints these are colloquially known to be compromised.

The paucity of evidence on fires associated with defibrillation does not reflect the absence of these events, in part due to the litigious nature of the event. No reports exist of fires due to defibrillation during aeromedical evacuations. It could be argued part of the reason for the lack of reported cases could stem from a variety of reasons including a lower incidence of defibrillation during flight.

Electrical

Medical practitioners suffering an electrical shock from defibrillation is a recognised if rare occurrence. Although several case reports describe accidental defibrillation of medical practitioners or bystanders, the UK Medicines Health Regulatory Agency (MRHA) has received only a single report of an electrical shock to a paramedic during patient transport.

The risk of electrical shock is increased during aeromedical transport due to the constricted environment within the cabin. Depending on the configuration of the aircraft it may be impossible to move or see around the entire stretcher increasing the risk of accidental defibrillation of crew-members.

Case Study Continued:
DANGERS OF DEFIBRILLATOR USE IN FLIGHT

Getting clear of the metal stretcher, including but not limited to, IV poles and infusion pumps can also be a challenge. Flight can be unpredictable and unexpected turbulence can present a significant risk to health practitioners. All these risks make the requirement for clear, effective communication and teamwork paramount.

The Medicines and Healthcare products Regulatory Agency (MHRA) suspects a significant amount of under-reporting of electrical events during defibrillation and to date, no accidental bystander defibrillation events have been reported during an aeromedical evacuation.

Automated external defibrillators (AEDs) are commonplace both inside and outside of hospital but their use when transporting a patient is not recommended in current resuscitation guidelines. AEDs can interpret artefact rhythms arising from movement within the ambulance as VF resulting in an inappropriate shock.

In 2011, Sang et al, demonstrated AEDs can correctly identify shock delivery for cardiac rhythms during helicopter flight. However, despite an increasing body of evidence, there is a level of disagreement on whether AEDs can be used safely during aeromedical retrieval. It is important to note AEDs have been adopted and used successfully in many commercial airline operations with no reported injuries or inappropriate shocks delivered.

Avionic Interference

All electronic devices carried aboard aeromedical aircraft are subject to approval by the Civil Aviation Authority within the UK. An approval assessment is carried out to demonstrate the equipment, installation and operation will not adversely affect the proper functioning of the aircraft.

When a defibrillator is activated, it discharges 5000 volts of electrical energy over 1-2 seconds. During this discharge, a small but distinct electromagnetic pulse is emitted, similar to a lightning bolt. It is best practice to inform the pilot prior to activating the defibrillator in case of any interruption to the avionics.

In most modern aeromedical aircraft, there is no effect on the avionics however, in the past, a ‘blip’ would occur in the cockpit depicting an unknown, unexpected signal. This would require the pilot to check all avionics if they had not been informed prior to defibrillation.

Informing the pilot has the additional benefit of improving safety during the mission. During critical moments of the flight, the pilot can instruct the defibrillation to be paused until it is safe to continue. An example is during flight (particularly take-off and landing) using instrument flight rules (IFR). Discharging the defibrillator can interrupt the instruments and make landing/take-off significantly more dangerous. With knowledge of impending defibrillation, if safe to do so, the pilot can maintain straight and level flight rather than manoeuvring, increasing the safety for the patient and health practitioners.

Physical Carriage and Packaging

Despite all the safety testing undertaken prior to a defibrillator being certified fit for use within an aircraft, the physical carriage of a defibrillator is the most common cause of injury to patients and medical staff. Two main categories exist:

1.Falling Equipment

Within an aircraft, unless all equipment is secured there is a high propensity for equipment falling and causing injury. The most common time is during disembarkation from the helicopter or aeroplane.

Additionally, turbulence in-flight can cause equipment to shift and fall causing injury to both patient and medical team. As mentioned before, lithium batteries are a significant source of risk and falling equipment can damage batteries resulting in a catastrophic fire.

Most established aeromedical services have integrated monitors and diagnostic equipment which are housed either on the stretcher or permanently in the aircraft. This significantly reduces the risk of individual pieces of equipment becoming dislodged and falling.

If a service does not have specific housings, extra care must be taken by the crew to ensure all equipment is accessible but appropriately secured to prevent injury.

2.Equipment Failure

Failure of defibrillators have reduced significantly since they have become smaller and single use pads have been introduced. This has reduced the risk of exposed wires and subsequent electrical accidents.

All equipment should be serviced regularly and maintained to a high order. However it remains the responsibility of the flight team to remain vigilant and inspect defibrillators regularly to ensure they remain in good working order.

Conclusions

Defibrillation is a critical resuscitative tool that requires time efficient use to maximise patient survival. Multiple factors present risk during defibrillation in the aeromedical environment and therefore appropriate training and effective teamwork is imperative. Despite few to no reports of any adverse events from defibrillation, factors unique the aeromedical environment, including turbulence and a confined environment magnifies the risk. A limited body of evidence exists to recommend specific measures to be taken to prevent risk beyond a 'common-sense' approach adopted by all health practitioners. Even more debate exists surrounding whether AEDs can be used safely during aeromedical retrieval and whether this will reduce the risk to patient and healthcare practitioner. Further research will be required to provide a definitive answer.

With ever increasing aeromedical missions, defibrillation will occur in flight more often and it is crucial health regulatory agencies work with aeromedical teams to promote safe practice and blame-free incident reporting.

Reference : Austalasian Society Of Aerospace Medicine Journal , 2019

Interactive Airspace

ASB Word Search

P	R	O	P	E	L	L	E	R	R	A	D	A	R
Y	L	R	M	E	T	E	O	R	O	L	O	G	Y
F	N	A	B	R	C	G	R	E	S	R	R	T	Y
U	S	L	A	R	R	A	M	D	T	R	E	O	E
S	A	T	G	T	U	R	B	U	L	E	N	C	E
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BAGGAGE
TURBULENCE
ALTITUDE
FUSELAGE
RUNWAY
SIMULATOR
DESCENT
TERMINAL
PROPELLER
TAXIWAY
ALTIMETER
METEOROLOGY
MAYDAY
APPROACH
DEPARTURE
AILERON
RADAR

Through the AeroLens: Your Safety, Your Spotlight

Calling All Aviation Safety Champions! Submit a photo of your workplace showcasing top safety practices–whether it's proper equipment use, clear signage, or your team in action.

The best shot will be featured in our next issue! ✈️📸

Submit your photos to: socialmedia@caaf.org.fj

We would love your feedback
on how we can improve!

QUICK SURVEY

SCAN ME