AVIATION SAFETY BULLETIN

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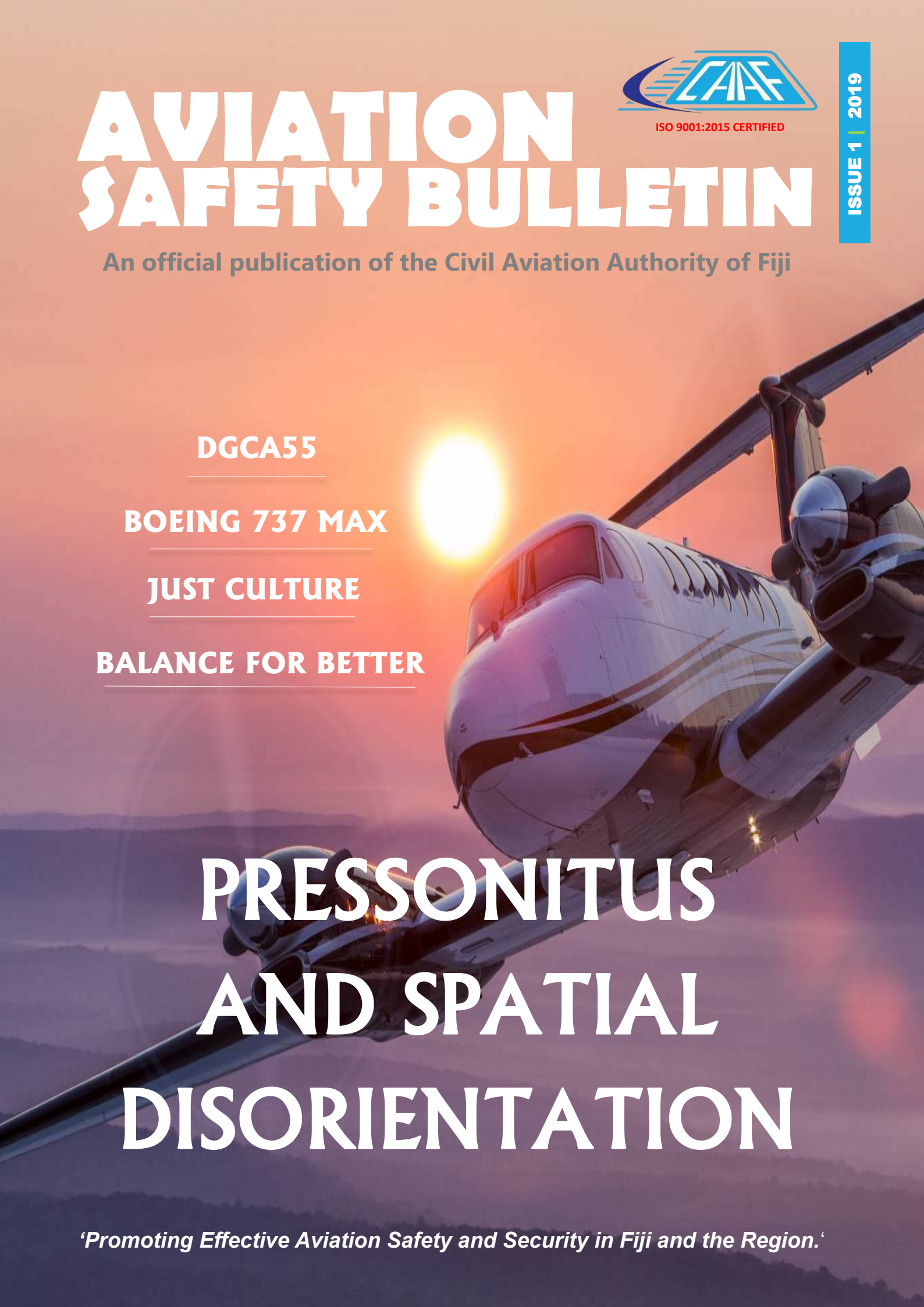


DGCA55

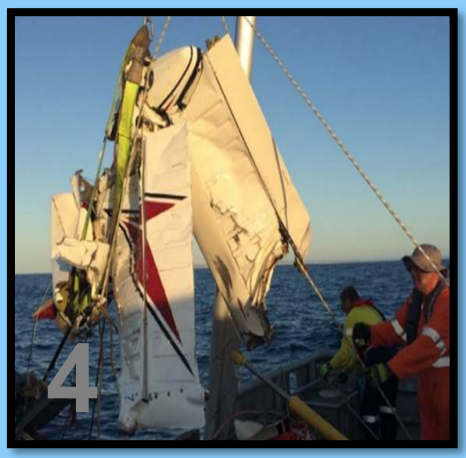
BOEING 737 MAX

JUST CULTURE

BALANCE FOR BETTER

PRESSONITUS AND SPATIAL DISORIENTATION

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



PRESSONITUS AND SPATIAL

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AVIATION SAFETY BULLETIN

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PUBLICATION CONTENT Unless expressly stated as CAAF policy, the views expressed in *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 *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**.

FREE DISTRIBUTION *Aviation Safety Bulletin* is distributed to all industries certified by CAAF and others interested in promoting safer and secure aviation.

Aviation Safety Bulletin can also be downloaded from CAAF's website, **www.caaf.org.fj .**

From the Acting Chief Executive

After a short break, the CAAF Aviation Safety Bulletin (ASB) is back with more interesting and relatable topics. It is the Authority's intention to have this Bulletin published on a quarterly basis.

The ASB will feature articles that address aviation safety from all perspectives; safety insight derived from root cause analysis done on accidents and incidents and safety information tailored to the needs of the holders of various CAAF issued documents (licenses, permits, certificates etc and other aviation stakeholders.

There were a lot of activities in 2018 which sadly point to a lack of adequate knowledge of the various Laws, Regulations and Standards, the ASB will endeavor to address.

In view of the above, Stakeholders are invited to contribute relevant articles for publication in the ASB.

AJAI KUMAR,
ACTING CHIEF EXECUTIVE

International Women's Day | #IWD19

#BalanceforBetter

March 8 2019 marked International Women's Day. Women in Fiji and across the globe were called to action in promoting a gender balanced world.

Story on page 20-21

PRESSONITUS AND SPATIAL DISORIENTATION

Pressonitus: The perceived need to carry on regardless of all the flags and clues informing you otherwise.

Many pilots will suffer from pressonitus, whether that is due to their personality, or the worry of financial costs of not making their destination. Those suffering from pressonitus will do so, sadly, regardless of their qualifications and it is only the site of the accident that may differ slightly.

Spatial disorientation: The inability to correctly orient oneself with respect to the horizon.

Pilots conducting a flight under the visual flight rules should make every effort to avoid areas of low visibility and plan for unforeseen eventualities. This, however, is dependent on the pilot perceiving the risks of the situation, which is not necessarily inherently easy. Holding an instrument rating, or not, is not the solution to avoiding these types of accidents, it is about having someone train you on how to control an aircraft in instrument meteorological conditions (IMC). Education and training in the practical application of entering IMC inadvertently has been shown to enhance a pilots' ability to respond correctly and recover to visual meteorological conditions (VMC). Author's comment: All base checks should cover recovery from inadvertent entry into IMC.

The Australian Transport Safety Bureau (ATSB) has released its investigation into the crash of a Piper PA-28 Cherokee that killed four people in January 2016.

'The aircraft took off from Moorabbin, in Melbourne, and the aircraft entered an area of low visibility after passing over Point Lonsdale at the entrance to Port Phillip Bay, near Geelong.

The ATSB found the pilot had 'conducted a 180-degree turn and initially tracked back towards Point Lonsdale, before heading south over the ocean'. After about two minutes, the aircraft turned right again and entered a rapid descent. Witnesses saw it just before it hit the water in a nose-down, right wing -low attitude with the engine sounding as though it was producing power.'

The ATSB found that due to the presence of low cloud and rain, near Point Lonsdale, the pilot probably became spatially disorientated, leading to a loss of control and impacted with the water. The risk of a loss of control in the conditions was increased by the pilot's lack of instrument flying proficiency.'

There is a very disturbing pre-wedding video doing the rounds on YouTube of a bride and bridegroom on their way to a wedding in Brazil in an R44 which starts off in VMC and continues into IMC with the resultant crash with the loss of all onboard.

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Source: ATSB Report | Victoria Police

Recovery by Victoria Police of the aircraft's fin and left horizontal stabiliser

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These flights were classic cases of Pressonitus. There is a distinct possibly that peer pressure could have been a factor on those significant days. Here we all spend an enormous amount of time flying over water, to take our passengers and clients out to see the exquisite archipelago that is Fiji. For those high flying Instrument rated pilots, it's all a matter of procedure, providing you follow the procedure… but for the VFR pilots who are unable to go into the fluffy white clouds aloft. Flying over water at low level in poor visibility is dangerous and a recipe for disaster.

"Flying over water at low level in poor visibility is dangerous and a recipe for disaster."

Spatial Disorientation: Anyone with a normal sense of balance can suffer from it, it is caused by a disparity between visual and vestibular signals to the brain. As pilots we find ourselves in a dynamic environment where our mental model (our Situation Awareness) has to be constantly updated, sometimes under significant pressure, and therefore we are susceptible to a number of illusions.

Your head uses 'Somatosensory Perception' which is a system of nerves and pressure receptors that the brain uses to decide which way is up! When flying in cloud, gradual movements below the sensory threshold go unnoticed, say a slight turn to the right 2-3 degrees right wing low on the AI (Artificial Horizon Indicator).

The major indicators are as follows, but not limited to;

***The Leans*:** A false sense of being moved in a non-level flight resulting in leaning to one side or the other and turning the aircraft (most common).

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A Graveyard Spin / Spiral: A false sense of spinning.

Coriolis Illusion: Most severe vestibular illusion occurs when the semi-circular canal fluid flows in two planes of rotation simultaneously.

- The aircraft must be turning
- Rapid head movement

Occulogravic Illusion: A false sense of climbing.

Ultimately, **YOU HAVE TO BELIEVE IN YOUR INSTRUMENTS!**

Attitude Indicator

CASA has produced a video, '***178 seconds to live'*** which presents the risks of inadvertent flight into VMC in a harrowing, but memorable, way. It would be worth reviewing by VFR pilots on the following link: https://www.youtube.com/watch?v=pc9xl4kpY4w

Attitude. (Excuse the play on words)

"The longer I live, the more I realize the impact of attitude on life. Attitude, to me, is more important than education, than money, than circumstances, than failures, than successes, than what other people think, say or do. It is more important than appearance, giftedness or skill. It will make or break a company or a home. The remarkable thing is we have a choice for that day. We cannot change our past…

We cannot change the fact that people will act in a certain way. We cannot change the inevitable.

The only thing we can do is play on the one thing that we can control, and that is our attitude… I am convinced that life is 10% of what happened to me, and 90% of how I react to it. And so it is with you...we are in charge of our attitudes." By Charles Swindoll.

Finally, two questions for you all to consider: (The latter excludes medical evacuations)

1. Why do, inexperienced pilots, and very experienced ones, feel the requirement to "press on" regardless of the conditions for fear that they inconvenience their clients or passengers who are blessedly unaware of the perils they face?'

2. Is anyone going to die if you, delay or, say "no I am sorry the weather isn't good enough?" ■

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,

FCAIR

FIJI CONFIDENTIAL AVIATION INCIDENT REPORTING FORMS AVAILABLE ON WEBSITE

www.caaf.org.fj

***OR* FRONT DESK, CAAF HQ**

DGCA55-FIJI 2018 HIGHLIGHTS

GIFT EXCHANGE DIRECTOR CAA NEPAL WITH ACTG CE-CAAF

The Conference of Directors General of Civil Aviation (DGCA), Asia and Pacific Region provides an important platform for discussing the progress and solutions on international and regional civil aviation matters which has been taking place every year since 1960.

This conference is a significant aviation regional forum for the collaboration amongst Regional Directors General and Chief Executives, Chief Executive Officers of Civil Aviation in the Asia Pacific Region.

Fiji hosted the 17th DGCA conference in 1981 and again 31st DGCA Conference in 1995, both in Nadi Fiji. Fiji was again privileged to host the 55th Conference of Directors General of Civil Aviation, Asia and Pacific Regions, in Sheraton, Nadi, Fiji together with International Civil Aviation Office (ICAO) Fiji Government and CAA Fiji. This was the third DGCA conference hosted by Fiji and it commenced on 22nd October and concluded on the 26th October 2018.

The theme for 2018 five-day Conference, which concluded successfully, was "***Collaboration and Harmonisation for Safe, Secure and Sustainable Aviation in the Asia Pacific Region***". The Conference was attended by over 200 delegates from about 50 states, administrations and industry organisations. Some 130 papers were submitted by aviation authorities and industry organisations to the conference covering a wide range of subjects, including aviation safety, air navigation, aviation security, unmanned aircraft systems and technical co-operation.

The conference gave the opportunity to showcase the unique Pacific culture we have. This was evident with the relaxed atmosphere and the camaraderie that had been built during the conference.

The 56th Conference of the Directors General of Civil Aviation of the Asia and Pacific Regions (56th DGCA Conference) is scheduled to be held in Kathmandu, Nepal from the 19th to 23rd August 2019. The theme topic for this years conference is '***Harmonizing Efforts to meet the capacity constraints***'.■

ICAO SECRETARY GENERAL (FANG LIU), SOLICITOR GENERAL (MR. SHARMA) WITH DELEGATE FROM CAA NEPAL

DELEGATES FROM ICAO DGCA MEMBER STATES

BOEING 737 MAX

Following the second deadly crash of a 737 Max 8, Boeing is facing massive scrutiny over one of its newest and most critical aircraft models. The airliner consisting of 374 at the moment remains grounded around the world. The developments are a huge blow to Boeing, which has thousands of 737 max orders in its books.

The 737 Max 8 has had two deadly crashes in five months, and authorities are looking into how the aircraft was certified.

What happened in the most recent crash?

On March 10th, Ethiopian Airlines flight 302 departed Addis Ababa bound for Nairobi, Kenya. Just after take-off the pilot radioed a distress call and was given immediate clearance to return to land. But before the crew could make it back, the aircraft crashed 40 miles from the airport, six minutes after it left the runway. Aboard were 149 passengers and eight crew members representing 30 nationalities. The aircraft was only four months old.

What was the previous crash?

On October 29, 2018, Lion Air flight 610 crashed into the Java Sea 13 minutes after takeoff from Jakarta, Indonesia, killing 189 people. As with the Ethiopian crash, the flight crew lost control early in its flight and made a distress call. The aircraft was three months old.

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What caused the crashes?

We do not know the official reason and we will not know for a long time. Remember that crash investigations are complex – it takes months to evaluate the evidence and determine the critical cause. Investigators must examine the debris, study them and if possible check the victims' bodies to determine the cause of death.

But there are important clues so far. Remember those larger CFM LEAP engines? Well, because they are bigger, and because the 737 sits low to the ground [a deliberate design choice to let it serve small airports with limited ground equipment] Boeing moved the engines slightly forward and raised them higher to their under wing pylons. [If you place an engine too close to the ground, it can suck in debris while the plane is taxing] That change allowed Boeing to accommodate the engines without completely re-designing the 737 fuselage.

But the new position changed how the aircraft handled in the air, creating the potential for the nose to pitch up during flight. A pitched up nose is a problem in flight – raise it too high and a plane can stall. To overcome this action, Boeing designed software called Maneuvering Characteristics Augmentation System or MCAS. When a sensor on the fuselage detects the nose is too high, MCAS automatically pushes the nose down.

How has Boeing responded?

As common after a crash, Boeing has not commented on specific aspects of the investigation, but on 11th March, it said it would issue a software update by the end of April that would include changes to MCAS, pilot displays, operating manuals and crew training. When the company issues the update, the company says, the FAA will issue an airworthiness directive ordering 737 Max operators to make the change. Though some reports have indicated that the software fix could come by end of March, however, the company has not confirmed an earlier release.

What has to happen before the Max can fly again?

First off, investigators need to agree on the cause of both crashes. Then, once Boeing develops a fix, the FAA needs to certify as safe and order airlines to implement it and train pilots appropriately. There is no telling how long it will last.

But that is just the US FAA, Aviation regulatory agencies around the world, like the European Aviation Safety Agency [EASA] also need to approve the fix before they will let the Max fly to the countries they oversee. Traditionally, they have followed the FAAs lead on such matters, but there is no guarantee they will.

Two crashes in five months is a troubling record for a plane that entered service barely two years ago and airlines will have to reassure passengers the planes are safe.

Even with the grounding order, Boeing is permitted to conduct test flights. Also airlines are allowed to ferry empty Max aircraft back to their home ports and maintenance bases■

Source: The Boeing 737 MAX, Boeing

ICAO GLOBAL AVIATION SECURITY PLAN (GASeP)

The GASeP addresses the needs of States and industry in guiding all aviation security enhancement efforts through a set of internationally agreed priority actions, tasks and targets.

Source: EUROCONTROL

Objective of the GASeP

The objective of the GASeP is to help ICAO, States and stakeholders enhance the effectiveness of global aviation security. The GASeP seeks to unite the international aviation security community and inspire action in this direction, taking into account that the threats and risks faced by the civil aviation community continue to evolve. It is also intended to achieve the shared and common goal of enhancing aviation security worldwide and to help States come together to fulfil the commitments set out in UNSCR 2309 (2016) and relevant ICAO Assembly Resolutions.

The overarching principles that support the GASeP's objective are:

- **No Country Left Behind.** To ensure that the implementation of security SARPs are urgently undertaken globally so that all States have access to the significant socio-economic benefits of safe, secure and reliable air transport.
- **Effective implementation and compliance.** Appropriate measures that are applied to ensure consistent outcomes, coupled with a robust security quality control and oversight system.

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- **Sustainability.** Utilising measures that are proportionate and realistic in the long term, duly coordinated with entities from other sectors (e.g. aviation safety, air navigation, facilitation).
- **Cooperation and information sharing.** Strengthen cooperation and sharing of information between and amongst States and stakeholders. To ensure that the principles of cooperation defined in bilateral and/or multilateral air services agreements, recognition of equivalent security measures, and focus on security outcomes continue to be the basis for international cooperation.
- **Security culture and human capacity development.** Establish a strong and robust security culture and develop human capital, skill and competency.
- **Innovation.** Encourage States and stakeholders to devise, establish and share new and innovative ways to implement security policies and measures.
- **Identifying, understanding and managing risk.** Enhance understanding of aviation security risks, and take appropriate and effective action.

GASeP Priorities

The GASeP provides the foundation for States, industry, stakeholders and ICAO to work together with the shared and common goal of achieving five key priority outcomes:

a) **Enhance risk awareness and response.** Understanding risk is essential for policies and measures that are effective, proportionate and sustainable. Undertaking risk assessments will help to identify gaps and vulnerabilities, which can then be urgently addressed in the most practical way possible, and with optimal use of resources.

"A strong security culture must be developed from the top management across and within every organisation."

b) **Develop security culture and human capability.** The promotion of effective security culture is critical to achieve good security outcomes. A strong security culture must be developed from the top management across and within every organisation. The existence of a well-trained, motivated and professional work force is a critical prerequisite for effective aviation security.

c) **Improve technological resources and foster innovation.** Promoting and applying better technological solutions and innovative techniques can provide the tools for enhancing security effectiveness while ensuring operational efficiency.

d) **Improve oversight and quality assurance.** Effective quality control and oversight processes globally, nationally, and locally are critical in delivering sustained effective aviation security.

e) **Increase cooperation and support.** Increasing collaboration between and within States will enable the key security objectives to be achieved more quickly and efficiently.■

[*Source:https://www.icao.int/Security/Pages/Global-Aviation-Security-Plan.aspx*]

JUST CULTURE

One key to the successful implementation of safety regulation is to attain a "just culture" reporting environment within aviation organisations, regulators and investigation authorities. This effective reporting culture depends on how those organisations handle blame and punishment.

Only a very small proportion of human actions that are unsafe are deliberate (e.g. criminal activity, substance abuse, use of controlled substances, reckless noncompliance, sabotage, etc.) and as such deserve sanctions of appropriate severity. A blanket amnesty on all unsafe acts would lack credibility in the eyes of employees and could be seen to oppose natural justice. A "**no-blame**" culture is therefore neither feasible nor desirable.

What is needed is a "**just culture**", *an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety-related information - but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour.*

There is a need to learn from accidents and incidents through safety investigation so as to take appropriate action to prevent the repetition of such events. In addition, it is important that even apparently minor occurrences are investigated, in order to prevent catalysts for major accidents. Safety analysis and investigation is a necessary and effective means of improving safety, by learning the appropriate lessons from safety occurrences and adopting preventative actions. It is therefore important that an environment exists where occurrences are reported, the necessary processes are in place for investigation and for the development of necessary preventative actions such as re-training, improved supervision etc.

CONDITIONS FOR JUST CULTURE

Under "Just Culture" conditions, individuals are not blamed for 'honest errors', but are held accountable for wilful violations and gross negligence.

People are less willing to inform the organisation about their own errors and other safety problems or hazards if they are afraid of being punished or prosecuted. Such lack of trust of employees prevents the management from being properly informed of the actual risks. Managers are then unable to make the right decisions in order to improve safety. However, as mentioned in the beginning, a totally "no-blame" culture is neither feasible nor desirable. Most people desire some level of accountability when a mishap occurs.

In an attempt to solve this problem, a "Just Culture" as an atmosphere of trust in which people are encouraged, and even rewarded, for providing essential safety-related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour.

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In an attempt to solve this problem, a "Just Culture" as an atmosphere of trust in which people are encouraged, and even rewarded, for providing essential safety-related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour.

Hence, a Just Culture supports learning from unsafe acts in order to improve the level of safety awareness through the improved recognition of safety situations and helps to develop conscious articulation and sharing of safety information.

Consequently, a Just Culture can be regarded as an enabler, and even indicator of, (a good) Safety Culture.

STATEMENT OUTLINING JUST CULTURE

People are understandably reluctant to report their mistakes to the organisation that employs them or the department that regulates them. To encourage them to do so, these organisations should publish statements summarising the fundamental principles of a just culture which they will follow. Additionally, they must ensure that these principles are applied at all levels of their organisations.

Such a statement should cover the following matters:

Confidentiality

People are reluctant to draw attention to errors made by themselves or their colleagues, due to personal embarrassment. They must be confident that their identity, or the identity of any person implicated in the report will not be disclosed without their permission or unless this is required by law. An assurance should also be given that any subsequent safety action taken will, as far as possible, ensure the anonymity of the persons involved.

Punitive Action

A person who breaks the law or breaches a regulation or company procedure through a deliberate act or gross negligence cannot expect immunity from prosecution. However, if the offence was unpremeditated and unintentional, and would not have come to light except for the report, he/she should be protected from punishment or prosecution.

Loss of Licence

The circumstances of a report may indicate that the performance of an individual is below the acceptable level. This may indicate the need for further training, or even cancellation of an individual's licence. Such action must never be punitive.■

[Article uplifted from skybrary.com]

Key features that need to be addressed when developing and maintaining a "Just Culture" in an organisation:

- Just Culture policy documented.
- Definitions agreed about what is "acceptable" behaviour, and what is "not acceptable". (Note: these will be specific to, and aligned with, values derived from national, organizational and professional cultures).
- Sanctions agreed for unacceptable behaviour.
- Process to deal with actions in the "grey area".
- Just Culture policy communicated throughout the organisation.
- Reporting systems linked to Just Culture policy.
- Fair treatment being applied.
- Breaches of the policy being monitored (e.g., error punished or violations excused).
- Reports being followed-up; actions taken to address error-producing conditions.■

SAFETY AUDIT

WHAT IS SAFETY AUDIT?

Safety auditing is a core safety management activity, providing a means of identifying potential problems before they have an impact on safety.

Safety regulatory audit means a systematic and independent examination conducted by, or on behalf of, a designated State Authority to determine whether complete safety-related arrangements or elements thereof, related to processes and their results, products or services, comply with required safety-related arrangements and whether they are implemented effectively and are suitable to

OBJECTIVE

Safety audits are conducted in order to assess the degree of compliance with the applicable safety regulatory requirements and with the procedural provisions of a Safety Management System if one is in place. They are intended to provide assurance of the safety management functions, including staffing, compliance with applicable regulations, levels of competency and training.

DESCRIPTION

Safety auditing is an element of safety management which subjects the activities of airline operators/ service providers to a systematic critical evaluation. An audit may include one or more components of the total system, such as safety policy, change management,

SMS as a whole, operating procedures, emergency procedures, etc. The aim is to disclose the strengths and weaknesses, to identify areas of non-tolerable risk and devise rectification measures. The outcome of the audit will be a report, followed by an action plan prepared by the audited organisation and approved by the regulator/supervisory authority. The implementation of the agreed safety improvement measures shall be monitored by the supervisory authority.

Safety audits are used to ensure that:

- Organisation's SMS has a sound structure and adequate staffing levels;
- Approved procedures and instructions are complied with;
- The required level of personnel competency and training to operate equipment and facilities, and to maintain their levels of performance, is achieved;
- Equipment performance is adequate for the safety levels of the service provided;
- Effective arrangements exist for promoting safety, monitoring safety performance and processing safety issues;
- Adequate arrangements exist to handle foreseeable emergencies.

Safety audits are carried out by a single individual or a team of people who are competent (adequately qualified, experienced and trained) and have a satisfactory degree of independence from the audited organisation or unit. The frequency of the audits depends on the regulatory/management policy.

For example some State authorities may conduct annual safety audits; others may consider that a full safety audit is only necessary at a few years interval.

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Ad-hoc safety audits may be conducted to verify the compliance of a particular system component or activity, or may be initiated following an incident. In accordance with ICAO Standards and Recommended Practices (SARPs) safety audits are to be conducted on a regular and systematic basis. Usually the frequency and scope of safety audits is fixed in a dedicated annual safety audit (inspection) programme of the responsible authority/organisation.

Safety audits are one of the principal methods for fulfilling the safety performance monitoring requirements. Often audits are integrated, i.e. they include not only safety but also other business processes and performance areas, such as quality, capacity, cost efficiency etc.

All audits should be pre-planned and supporting documentation (usually in the form of checklists) of the audit content prepared. Among the first steps in planning an audit will be to verify the feasibility of the proposed schedule and to identify the information that will be needed before commencement of the audit. It will also be necessary to specify the criteria against which the audit will be conducted and to develop a detailed audit plan together with checklists to be used during the audit.

The conduct of the actual audit is essentially a process of inspection or fact-finding. Information from almost any source may be reviewed as part of the audit. The techniques for gathering the information include:

- Review of documentation;
- Interviews with staff;
- Observations by the audit team.

The results from the safety auditing present evidence of the performance and the general condition of the organisation's SMS. Audits which limit observations to items of regulatory non-compliance are of limited value, because they will not encourage the audited organisation to act proactively. The audit report should be an objective presentation of the results of the safety audit.

The key principles to be observed in the development of the audit report are:

- Consistency of observations and recommendations;
- Conclusions substantiated with references;
- Observations and recommendations stated clearly and concisely;
- Avoidance of generalities and vague observations;
- Objectivity of observations;
- Avoidance of criticism of individuals or positions.

According to ICAO Doc 9859 - Safety Management Manual safety auditing is a proactive safety management activity which provides means for identifying potential problems before they have an impact on safety. Therefore, safety auditing has the characteristics attributed to both the safety assurance domain of SMS, and the hazard identification element of risk management.

Safety audits may be conducted externally - by the designated State regulatory authority, internally - by the aviation services provider organisation, or by a qualified external safety auditor, for example a consultancy agency.

Regardless of the driving force behind the audit, the activities and output from both internal and external audits are similar.

REGULATORY SAFETY AUDITS (*EXTERNAL AUDITING*)

Under the Chicago Convention, States are required to put in place a safety oversight system to promote aviation safety by observing and assessing the compliance of aircraft operators/service providers with the applicable regulations, procedures and recommended practices.

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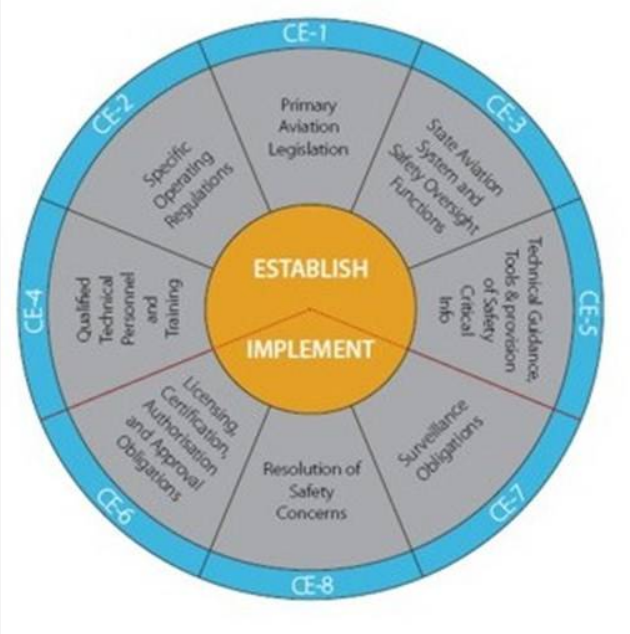
This is to be achieved through a mix of activities, including safety audits. Such audits conducted by a safety regulatory authority should take a broad view of the safety management procedures of the audited organisation. The key issues in such audits should be:

- ***Surveillance and compliance*** - the authority needs to ensure that international, national and local standards are complied with prior to issuing any licence or approval and continue to be complied with afterwards;
- ***Areas and degree of risk*** - the audit should assess how risks are identified and how any necessary changes are made to ensure that all safety standards are met;
- ***Competence*** - the audited organisation should have adequately trained staff for all safety related positions
- ***Safety management*** - ensure that the organisation's SMS is based on sound principles and procedures, and that the organisation is meeting its safety performance targets.

ICAO Document 9734-A - The Establishment and Management of a State's Safety Oversight System defines Eight Critical Elements of a State's Safety Oversight System in - as shown in the diagram.



Ideally the State regulatory authorities should have established procedures and criteria to focus inspections, audits and surveys (in an annual audit programme) on those areas of greater safety concern or need, as identified by the analysis of operational hazard data and risk areas.

Regulatory audits are independent of internal auditing activities undertaken by the organisation concerned within the framework of its safety management system.

Safety audit is an essential safety oversight tool for international and national regulatory and supervisory authorities. In 1999 ICAO established the Universal Safety Oversight Audit Programme (USOAP) with the objective to oversee the effective application of ICAO standards regarding the development of safety regulatory frameworks by Member States.

Third Party Audits (*external auditing*)

The organisation's management or the regulator may decide to have an external agency carry out an independent safety audit. ICAO Doc 9859 specifies that: "External audits of the SMS may be conducted by relevant authorities responsible for acceptance of the service provider's SMS. Additionally, audits may be conducted by industry associations or other third parties selected by the service provider.

Third Party Audits (*external auditing*)

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These external audits enhance the internal audit system as well as provide independent oversight."

An organisation which possesses the necessary expertise and technical experience to verify on behalf of a State authority the compliance of an air navigation service provider with the applicable regulatory requirements is called a qualified entity. An organisation wishing to become qualified entity must be certified by a State authority in accordance with the provisions of the Fiji Air Navigation Regulation.

Internal Safety Audits (*self-auditing*)

Internal safety audits and safety surveys should be used by the aviation service providers to assess the level of compliance with the applicable regulatory framework and the organisational SMS processes and procedures, to verify the effectiveness of such processes and procedures and to identify corrective measures if needed. Planning of the audits should take into account the safety significance of the processes to be audited and the results of previous audits. An annual audit program should include:

- Definition of the audits, in terms of criteria, scope, frequency, and methods;
- Description of the processes used to select the auditors;
- The requirement that individuals shall not audit their own work;
- Documented procedures for assignment of responsibilities, planning and conduct of audits, reporting results and maintaining records;
- Audits of contractors and vendors.

According to ICAO Doc 9774 - Manual on Certification of Aerodromes, an aerodrome operator should arrange for an audit of the aerodrome SMS, including an inspection of the aerodrome facilities and equipment. For conducting such a large scale safety audit "the aerodrome operator should also arrange an external audit for the evaluation of aerodrome users, including aircraft operators, ground handling agencies and other organizations" operating at the aerodrome.

- ICAO Doc 9735 - Safety Oversight Audit Manual;
- ICAO Integrated Safety Management website;
- Regulation (EU) No 1034/2011 on safety oversight in ATM and ANS
- European Action Plan for Prevention of Runway Incursions, Annex G;
- FAA Advisory Circular No.120-92, Introduction of Safety Management Systems for Air Operations.■

LAGs now PLAGs

Carrying powders, liquids, aerosols and gels (PLAGs) on Board.

Security measures are in place that limits the quantity of powders, liquids, aerosols, gels (PLAGs) that can be brought onboard international flights. These restrictions do not apply to checked-in baggage. Domestic flights within Fiji are not subject to these restrictions on how much powder, liquids, aerosols and gels you can carry onboard.

Powder – fine dry particles or clumpy, grain or compressed material like flour, sugar, ground coffee, spices, grog.

Liquid – flowing substances like wine, bottled water, shampoo, foundation make-up and other cosmetics.

Aerosol – items kept in an under-pressure container like deodorants, sunscreen sprays and other sprays.

Gel – jelly-like substances like vegemite, honey and toothpaste.

Key facts about Powder, Liquid, Aerosol and Gel items for International Flights:

- Passengers are only able to take liquids, aerosols and gels in containers up to 100ml in carry-on baggage.
- Liquid, aerosol and gel items must be stored in a re-sealable transparent plastic bag that measures approximately 20cm x 20cm with a maximum capacity not exceeding 1 litre.
- These restrictions affect items such as drinks, creams, perfumes, sprays, gels, toothpaste and other similar substances in hand luggage.
- For all powders either organic or inorganic such as salt, talcum powder, grog a limit of 350ml or 350g per passenger applies for cabin baggage.
- Exceptions apply to baby products, prescribed medication■

If transiting, do not carry PLAGs for they will be confiscated at the screening point.

ENSURE THAT ALL PLAGS ARE SAFELY STORED IN A TRANSPARENT RE-SEALABLE PLASTIC BAG.

TOY GUN HIJACK

Following September 11, 2001, when an airplane was hijacked to carry out the devastating attack on the World Trade Centers in New York, USA, [airports across the globe tightened Aviation Security measures]. It is now almost impossible to board a plane with any sharp object or even a bottle of water from the screening point, let alone a firearm. Security measures have been enhanced

On 24th February 2019 with all the security measures in place, a young man named Polash Ahmed used a toy gun to hijack a Dubai-bound Biman Bangladesh Airlines flight 147 from Dhaka via Chittagong.

The alleged hijacker had tried to enter the cockpit of the flight after waving a toy gun and threatening to blow up the aircraft carrying 155 passengers, including crew.

An emergency landing was made at Chittagong where the passengers and crew were released without any further incident. But the hijacker was shot by the response team.

The initial report released after this incident stated that the hijacker appeared to be mentally imbalanced as he had a personal issue with his wife and also demanded to speak to Bangladesh's Prime Minister.

Question for thought:

How did the toy gun and explosives pass the screening point with no red flags raised at the security checkpoint?

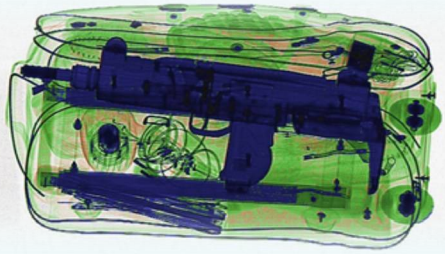
- The alleged hijacker of a Biman flight boarded the plane carrying a plastic toy gun in his backpack. But security staff did not notice the object "clearly" during screening as there was no battery or metal screw attached to it.
- The security staff of the airport could see a long object but the image was blurry as it was wrapped in a cloth. The security staff did not clarify their doubt by opening the backpack and verifying the item.
- The alleged hijacker was carrying some plastic pipes with wire attached to it in and although the security staff noticed in another bag the items during the screening, they did not challenge him as they considered those as harmless items tied together by spiral binding,

Points to note:

1. Screeners must confirm the images in a bag.
2. Toy gun are not allowed to be carried in cabin baggage.

The total number of aircraft hijacking after the 9/11 is 9■

[Source: Story uplifted from– Al Jazeera - 'Bangladesh police say suspected plane hijacker carried toy gun'].



METEOROLOGICAL SERVICES PLAY A CRUCIAL ROLE IN AVIATION SAFETY

OVERVIEW

Under the Chicago Convention on International Civil Aviation and as set out in ICAO Annex 3 to that convention, Meteorological Services for International Air Navigation, it is intended that signatory States, such as Fiji, fulfil an obligation to facilitate the provision of meteorological services and products for international civil aviation. States are expected to supply information, such as aerodrome forecasts (TAF), aerodrome weather reports (METAR/SPECI), information on weather phenomena which may affect the safety of aircraft operations (SIGMET), upper air sounding information; aircraft reports (AIREPs) etc., and all information are integrated into international databases so other States can provide meteorological information for flights inbound to their States using such information.

SECTION 1—9.1 OF ANNEX 3 TO THE CHICAGO CONVENTION SETS OUT THAT :

a) Each State is to ensure that its registered operators obtain sufficient meteorological information for each flight, including: route winds / temperatures, tropopause SIGWX, METAR, SPECI, TAF etc.

b) The specified meteorological information is to be supplied by the Meteorological Authority of the State in which the flight is originating.

c) The meteorological information is to be supplied at location/time as agreed between operator and Meteorological Authority.

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storm

Photo from Flight Safety Australia, 'Running from the storm'

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METEOROLOGICAL AUTHORITY

Each State is required to designate a Meteorological Authority (MA) whose task is to ensure that the State fulfils its Annex 3 obligations. Specifically, Meteorological Offices (MO) and Meteorological Watch Offices (MWO) are to provide international aviation with certain information including that for flight planning. It is expected that the MO's use World Area Forecast System (WAFS) material and all other information available to them to ensure the best and most timely possible products are issued to international operators.

In Fiji, the Civil Aviation Authority is the Meteorological Authority, and it contracts Fiji Meteorological Services (FMS) to meet most of the operational Annex 3 requirements.

CERTIFICATION OF METEOROLOGICAL SERVICE ORGANISATION.

In Fiji, unlike many other States, all organisation's providing meteorological services to aviation must be certificated under Regulation 145D of the Fiji Air Navigation Regulations 1981. This Rule was introduced to ensure that services and products provided by such organisation meet prescribed standards. Fiji Meteorological Services (FMS) is the only organisation certificated under ANR145D.

Fiji Meteorological Services as the designated Aeronautical Meteorological Service Provider for the state, it shall demonstrate compliance with requirements relating to the standards for the provision of aeronautical meteorological service.■

[Compiled by GSD—Article uplifted from CAANZ]

#BalanceforBetter

"It is important that gender equality as a core value is instilled in our children at a young age so we continue to foster a culture of gender equality"

Theresa O'Boyle-Levestam

International Women's Day was celebrated around the world on the 8th March 2019 with the theme, "BALANCE FOR BETTER".

The increasing number of female professionals now in the aviation industry is a testament to Fiji's advocacy for gender equality in this area.

The CAA Fiji is proud to boast that 41% of its workers are female with one department being headed by a female Controller, Theresa O'Boyle-Levestam, who was also Fiji's first female licensed air traffic controller.

Furthermore, there are two female inspectors, both of whom are pioneers in their fields; Alisi Namoro being the second Fijian female to receive an Air Traffic Controller's license and Sereima Tuiketei-Bolanavatu being Fiji's first female licensed CNS engineer. Another female in the Authority's ranks, Peniana Waqavanua is set to become the Authority's first female Aviation and Security inspector.

The CAA Fiji was privileged to have been a part of the Fiji Human Resource Institute's Western celebration to commemorate International Women's day which was hosted by Fiji Airports. The Controller Ground Safety of CAA Fiji, Theresa O'Boyle-Levestam was invited to be one of the guest speakers.

Her speech touches on her journey and provides an insight into how she has contributed to building a more gender balanced world. We share with you some aspects of her speech in this article.

"Along this 27year aviation journey I have often asked myself the question; ***HOW DID I GET HERE? ...*** the answers were many and varied. However, three areas have stood out, which I believe were pivotal in getting me to where I am today and in doing so contributing to building a more gender balanced world. I would like to share this with you.

HARDWORK

First and foremost I am a believer in **HARDWORK**. This takes me back to my early years...I was extremely fortunate to have had a truly amazing mother who knew many a thing about HARDWORK and SACRIFICE.

...she was my first introduction to what hard work was all about. She placed a huge emphasis on the importance of education and encouraged my siblings and I to work hard and to cease every opportunity with both hands.

As my training/career progressed, I came to appreciate the value of hard work and sacrifice and with these came discipline and a more fierce determination to achieve my goals.

VISUALISATION

The second area is what I call **"THE END GOAL"** or as the new age gurus call it, **"VISUALISATION".** When I started out on my journey to become an air traffic controller, no female had, at that stage been issued with an air traffic control license, it was purely a male dominated field. This in itself was an obstacle because I had started off the journey with the mindset that maybe this wasn't an arena for females.

However, I was lucky to have begun my journey with another female colleague, Alisi Namoro, who went on to become the second female air traffic controller to be licensed in Fiji. The journey was tough and it was during these times when it felt like we had hit a steep hill in our training that we were encouraged by our lecturers to visualize the end goal and put in place necessary steps to reach it.

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It was this visualisation that helped us move outside our comfort zone and persevere, knowing what was waiting for us at the end of that road...our end goal; the mind is indeed a powerful thing.

If I may share with you data to illustrate how, if the mind believes something is possible then that something indeed becomes possible. When I started as an air traffic control assistant in early 1992 there were no female air traffic controllers, in 1996 the first female air traffic controller was licensed, by January of 1997 the second female air traffic controller had come on line and now 22 years later, a total of 23 females have been licensed as air traffic controllers by the Authority. That makes up 25% of the total Fiji air traffic control licenses issued.

PEOPLE

Finally the third area I would like to touch on…is the importance of **PEOPLE**….more specifically, the people you surround yourself with and to whom you look towards for mentorship. If you want to achieve a goal or a better way of life then the people you surround yourself with is very important. Surrounding yourself with likeminded people who share the same values and who have similar goals will help propel you in the direction you want to go instead of pulling you in a different direction.

Look for a good mentor. Not just anyone who is willing and available to mentor you but someone who has the values you seek and is able to inspire you. We were extremely fortunate that we had two very good instructors when we began our training at the school and one of them happened to be what was known back then as one of the 'top-gun' controllers, meaning he was GOOD.

So, our two instructors also became our mentors, admonishing us when it was needed and providing the encouragement to keep moving forward, at every step reminding us of the end goal and assuring us that it was achievable.

One of these mentors (the top gun controller) not only saw me through my training to achieve my license but remained a mentor throughout my controlling career and many years later would be the reason I joined the Regulator and am where I am today...

...women are entitled to the same opportunities as men, and I believe, we are very lucky here in Fiji as we are provided with those opportunities on a daily basis. It is up to us to grab these opportunities with both hands.

It is important that gender equality as a core value is instilled in all our children at a young age so we continue to foster a culture of gender equality.

A mindset change is needed to ensure respect, support and encouragement of others regardless of gender; we need to be building each other up and not tearing each other down, there is no limit to what we, as women (and men), can accomplish and even more so when we work together.

No matter where we are in life, we need to inspire and empower the women around us and remember that success is never reached alone. Knowledge and Success is even sweeter when it is shared.

I leave you with one of my favorite quotes from Michelle Obama's book "BECOMING" "For me, becoming isn't about arriving somewhere or achieving a certain aim. I see it instead as **forward motion**, **a means of evolving**, **a way to reach continuously toward a** better self. *The journey doesn't end.*" ■

FIREWORKS!

NOTIFYING CAAF ABOUT FIREWORKS DISPLAY

If you are conducting a fireworks display, you may need to notify CAAF and get an approval for the display. This section outlines what you need to know about the requirements when conducting fireworks displays with regards to ground safety.

If you are unsure notify CAAF of your fireworks display, please contact by phone 679 8923155 or email Info@caaf.org.fj

Notification of fireworks displays.

The conduct of certain fireworks displays are regulated under section 78(2) of the *Air Navigation Regulation 1981 (ANR 1981)* CAAF must be notified in relation to the operation of the fireworks display and will assess a proposed activity to determine if, and to prevent, such activity from being a hazard to air safety as per the regulations. In certain circumstances, CAAF will issue an approval or permission to the operator to conduct the fireworks activity.

Who should notify CAAF of a fireworks displays?

The Persons or organisation's who wish to conduct firework activities at a place within 5 kilometers of the Nadi and Nausori International Airport or 3 kilometers of other domestic Airports or if using projectiles capable of reaching more than 200 feet above ground level are required to notify CAAF at least 10 working days prior to the conduct of such activities. The notification must be provided to CAAF by the operator of the display - that is, the person or organisation that places or fires off the fireworks.

Approval or permission from CAAF to conduct the display is required if:

- **any projectiles in the display are capable of reaching more than 200 feet above ground level, or**
- **the display will be within 5KM of the Nadi and Nausori International Airports or 3km of other domestic airports**
- **specifically a movement area or runway of an aerodrome, or**
- **the approach or departure path of a runway of an aerodrome.**

If you're in doubt as to whether your firework activity falls within the above parameters, please send your email to Info@caaf.org.fj and CAAF will assess the nature of your firework activity and advise you accordingly. If an approval or permission is not required, no fee will be applied.

How to notify CAAF of a fireworks display

To allow CAAF to assess your notification and issue an approval or permission, we recommend that you submit your application at least ten (10) working days before the scheduled firework activity. In order to comply with the notification requirements specified please email details to Info@caaf.org.fj.

No fee is applied to the service - If CAAF determines that an approval or permission is required for the conduct of the display.

CAAF may also impose conditions on the operation of a fireworks display. CAAF may also inform Fiji Airports regarding a fireworks display so that a notice to airmen (NOTAM) can be issued regarding the hazard to air traffic at the location and time of the display.

Operators of fireworks displays will require to fill in the NOTAM REQUEST FORM and submit to Fiji Airports NOTAM Office 24hrs prior to the firework activity after approval or permission from CAAF has been granted.

Conducting the fireworks display

If CAAF has imposed conditions on the operation of the fireworks display, you must comply with those conditions. This may require you to take some action prior to firing off the fireworks, including contacting and following directions from air traffic control authorities.

Failure to notify CAAF prior to the display, have approval or permission to conduct the display, or comply with conditions imposed on the display may result in penalties. ■

Photo by rawpixel on Unsplash

AVIATION MEDICINE

Photo by: Jason Leung | *'aerial view of sea of clouds'*, unsplash.com

WHY IS AN AVIATION MEDICAL CERTIFICATE REQUIRED?

To maintain and enhance aviation safety, a valid medical certificate appropriate for the class of licence is required for the licence holder to legally exercise the privileges of their specific licence.

Civil Aviation Authority of Fiji (CAAF) issues aviation medical certificates to applicants who meet the relevant medical standard.

Each class of medical certificate also has a medical standard set out in tables in Standard Document Medical Standards, Tests and Certification of CAAF. A summary of these standards can be found on the Aeronautical Information Circular (AIC) 02/16

CAAF Role in Aviation Medicine

Many factors contribute to aviation safety. The health of air crew and air traffic controllers (ATCs) is an important consideration and all pilots and ATCs must meet certain medical standards to ensure that their health status does not pose a risk to the safety of air navigation.

In order for a pilot or ATC to exercise the privileges of their license, they must hold a current medical certificate.

The **PERSONEL LICENSING SECTION of CAAF** is where applications for medical certification of pilots or ATCs are assessed and issued.

Each application is considered by CAAF medical officers who are specialists in the field of aviation medicine. The applications are assessed on a case by case basis and each time a new application is received the process commences again. These doctors assess how medical conditions and their treatments affect the safety of air navigation as detailed in the CAAF SD MEDICAL STANDARDS AND TESTS.

"...a valid medical certificate appropriate for the class of licence is required..."

In some cases, monitoring of a condition or restrictions on pilot or ATC activities is necessary to ensure aviation safety. It is important to be clear how CAAF'S role varies from that of the doctor caring for your health. CAAF are required under law to make a risk assessment as to whether your condition is "safety-relevant" as applied in the regulations .

This is a different question to whether or not treatment is either possible or appropriate. As the regulator CAAF does not recommend treatment - this is the treating doctor's role.

Where an applicant's medical condition is under review by CAAF, the duration of a medical certificate may be varied at the discretion of the **CAAF MEDICAL BOARD OF ASSESSORS** ■

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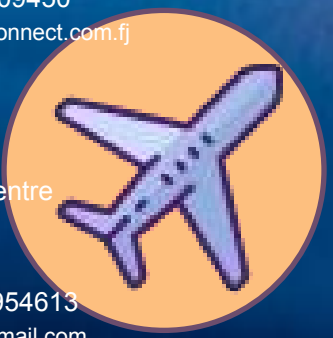

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FIGHTING OBESITY IN AVIATION

What is Obesity?

Obesity indicates as a weight greater than what is healthy. Obesity is a chronic condition defined by an excess amount of body fat which it is necessary for storing energy, heat insulation, shock absorption, and other functions.

How common is obesity?

Obesity has reached epidemic proportions around the globe and is increasing rapidly. Over two-thirds of adults are overweight or obese. The prevalence of obesity in children has increased markedly.

Health risks associated with Obesity

Obesity is not just a cosmetic consideration; it is harmful to one's health as it is a risk factor for many conditions. Patients with a body mass index (BMI) over 40 have a reduced life expectancy. Obesity also increases the risk of developing a number of chronic diseases, including the following:

- ***Insulin resistance*** (IR) is the condition whereby there is diminished effectiveness of insulin in transporting glucose (sugar) into cells. Fat cells are more insulin resistant than muscle cells; therefore, *one important cause of insulin resistance is obesity.*
- ***Type 2 (adult-onset) diabetes***. The risk of type 2 diabetes increases with the degree and duration of obesity. Type 2 diabetes is associated with central obesity (co); a person with co has excess fat around his/her waist (apple-shaped figure).
- ***High blood pressure (hypertension).*** This is common among obese adults and in cases of weight gain it increases blood pressure.
- ***High cholesterol*** (hypercholesterolemia).
- ***Stroke*** (cerebrovascular accident or CVA).
- ***Heart attack***. Increases the risk of developing coronary artery disease three to four times more. In patients who have already had a heart attack, obesity is associated with an increased likelihood of a second heart attack.
- ***Congestive heart failure.***
- ***Cancer.*** Obesity is a risk factor for cancer of the colon in men and women, cancer of the rectum and prostate in men, and cancer of the gall bladder and uterus in women. Obesity may also be associated with breast cancer, particularly in post-menopausal women.
- ***Gallstones.***
- ***Gout*** and gouty arthritis.
- ***Osteoarthritis*** (degenerative arthritis) of the knees, hips, and the lower back.
- ***Sleep apnea.***

The most common causes of obesity.

- ***Genetics***. A person is more likely to develop obesity if one or both parents are obese.
- ***Overeating.*** This leads to weight gain, especially if the diet is high in fat. Foods high in fat or sugar (for example, fast food, fried food, and sweets) have high energy density (foods that have a lot of calories in a small amount of food). Diets high in fat contribute to weight gain.
- ***A diet high in simple carbohydrates***. Carbohydrates increase blood glucose levels, which in turn stimulate insulin release by the pancreas, and insulin promotes the growth of fat tissue and can cause weight gain.
- ***Frequency of eating***. The relationship between frequency of eating (how often you eat) and weight is somewhat controversial.
- ***Physical inactivity***. Sedentary people burn fewer calories than people who are active.
- ***Medications***. Medications associated with weight gain differs for each medication.
- ***Psychological factors***. For some people, emotions influence eating habits. Many people eat excessively in response to emotions such as boredom, sadness, stress, or anger.
- ***Diseases*** such as ***hypothyroidism***, insulin resistance, ***polycystic ovary syndrome***, and ***Cushing's syndrome*** are also contributors to obesity.
- ***Social issues***: There is a link between social issues and obesity. Lack of money to purchase healthy foods or lack of safe places to walk or exercise can increase the risk of obesity.

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What can be done

The following treatment of obesity is recommended to be an ongoing lifelong process would include:

- lowered blood pressure;
- reduced blood levels of cholesterol;
- reduced risk of type 2 diabetes;
- decreased chance of stroke;
- decreased complications of heart disease;
- decreased overall mortality.

What is the role of physical activity and exercise in obesity?

Physical activity and exercise help burn calories. But exercise as a treatment for obesity is most effective when combined with a diet and weight-loss program. Exercise alone without dietary changes will have a limited effect on weight because one has to exercise a lot to simply lose weight. However regular exercise is an important part of a healthy lifestyle to maintain a healthy weight for the long term.

Benefits of exercise

- improved blood sugar control and increased insulin sensitivity (decreased insulin resistance);
- reduced triglyceride levels and increased "good" HDL cholesterol levels;
- lowered blood pressure;
- a reduction in abdominal fat;
- reduced risk of heart disease;
- release of endorphins that make people feel good.

Exercise Precaution

The following people should consult a medical practitioner before vigorous exercise:

- Men over age 40 or women over age 50;
- Individuals with heart or lung disease, asthma, arthritis, or osteoporosis;
- Individuals who experience chest pressure or pain with exertion, or who develop fatigue or shortness of breath easily;
- Individuals with conditions or lifestyle factors that increase their risk of developing coronary heart disease, such as high blood pressure, diabetes, cigarette smoking, high blood cholesterol, or having family members with early onset heart attacks and coronary heart disease;
- A patient who is obese.

What is the role of Diet in the treatment of Obesity?

The first goal of dieting is to stop further weight gain. The next goal is to establish realistic weight-loss goals. It is also important to remember that any weight reduction in an obese person would result in health benefits.

One effective way to lose weight is to eat fewer calories. Other guidelines for achieving and maintaining a healthy weight:

- A safe and effective long-term weight reduction and maintenance diet has to contain balanced, nutritious foods to avoid vitamin deficiencies and other diseases of malnutrition.
- Eat more nutritious foods that have "low energy density." Low energy dense foods contain relatively few calories per unit weight (fewer calories in a large amount of food).
- Eat less "energy dense foods." Energy dense foods are high in fats and simple sugars.
- About 55% of calories in the diet should be from complex carbohydrates. Such as brown rice, whole-grain bread, fruits, and vegetables. Avoid carbohydrates such as table sugars, sweets, doughnuts, cakes, and muffins. Cut down on non-diet soft drinks, these sugary soft drinks are loaded with simple carbohydrates and calories. These carbohydrates cause excessive insulin release by the pancreas, and insulin promotes growth of fat tissue.
- Educate yourself in reading food labels and estimating calories and serving sizes.
- Consult a medical Practitioner before starting any dietary changes.

Staying healthy

Maintaining your ideal body weight is a balancing act between food consumption and calories needed by the body for energy. The kinds and amounts of food you eat affect your ability to maintain your ideal weight and to lose weight.

Some dietary guidelines to stay healthy:

- Eat a variety of foods.
- Balance the food you eat with physical activity -- maintain or improve your weight.
- Choose a diet with plenty of grain products, vegetables, and fruits.
- Choose a diet low in fat, saturated fat, and cholesterol.
- Choose a diet moderate in sugars.
- Choose a diet moderate in salt and sodium.
- If you drink alcoholic beverages, do so in moderation.

You are what you eat !!!■

MANDATORY OCCURRENCE REPORTING

Mandatory Occurrence Reports is a requirement as stipulated under Chapter 8 of ICAO Annex 13 is a system to facilitate the collection of information on actual or potential safety deficiencies. Further to that, ICAO requirements relating to the implementation of safety management systems (SMS) require that aviation service providers develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

Furthermore, this requirement is also mandated in the Air Navigation Regulations 1981, particularly Regulation 71 Mandatory Reporting of Occurrences and the Civil Aviation (Occurrence Reporting and Investigation) Regulations 2009. ICAO Annex 13, Appendix C provides a list of examples of serious incidents that are to be reported.

The safety occurrences are grouped in the following domains:

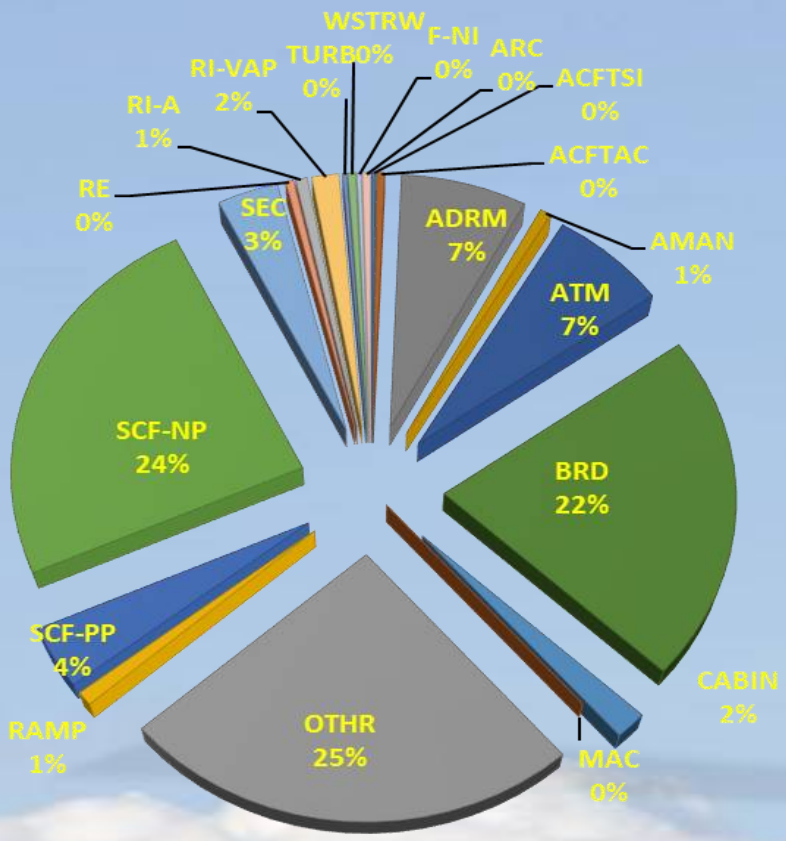
- Aircraft flight operations;
- Aircraft technical, maintenance and repair;
- Air navigation services and facilities;
- Aerodromes and ground services.

The reporting process should be as simple as possible and at the same time well documented, including details as to what, where, when and to whom to report. Usually, reporting templates are developed by States and organisations to facilitate the submission of information.

The national requirements of what to report vary depending on the laws of the State where the safety occurrence happened and on the operational environment. The number of variables is so great that it is difficult to establish a universally applicable comprehensive list of items to be reported. For example, the loss of a system component may be critical on one type of aircraft, while on another it may be not. A relatively minor problem in one set of circumstances can in different circumstances result in a hazardous situation. Hence, the generic rule for reporting is established by the principle: *If in doubt — report it.*

According to ICAO Safety Management Manual mandatory occurrence reporting systems tend to collect more information on technical ("hardware") failures than on human performance aspects.

The following pie chart shows the occurrence proportion by type over the last 12 months (DATA)



ABBR	RAMP	GCOL	LOC-G	RE	RI-VAP	RI-A	F-POST
ELE-MENTS	Ground Handling	Ground Collision	Loss Of Control - Ground	Runway Excur-sion	Runway Incursion – Vehicle, Aircraft Or Person	Runway In-cursion – Animal	Fire/ Smoke (Post-Impact)
ABBR	**AMAN**	**WSTRW**	**TURB**	**ICE**	**SCF-PP**	**SCF-NP**	**CABIN**
ELE-MENTS	Abrupt Maneuvre	Wind-shear Or Thunder-storm	Turbu-lence En-counter	Icing	System/ Component Fail-ure Or Malfunction (Powerplant)	System/ Component Failure Or Mal-function (Non-Powerplant)	Cabin Safety Events
ABBR	**EVAC**	**MAC**	**CFIT**	**LOC-I**	**USOS**	**ARC**	
ELE-MENTS	Evacuation	Midair/ Near Mid Air Collision	Controlled Flight Into/ Toward Terrain	Loss Of Control - Inflight	Undershoot/ Overshoot	Abnormal Runway Contact	
ABBR	**FUEL**	**LALT**	**OTHR**	**UNK**	**F-NI**	**SEC**	
ELE-MENTS	Fuel Relat-ed	Low Alti-tude Oper-ations	Other	Unknown Or Unde-termined	Fire/Smoke (Non-Impact)	Security Related	

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