AVIATION SAFETY BULLETIN

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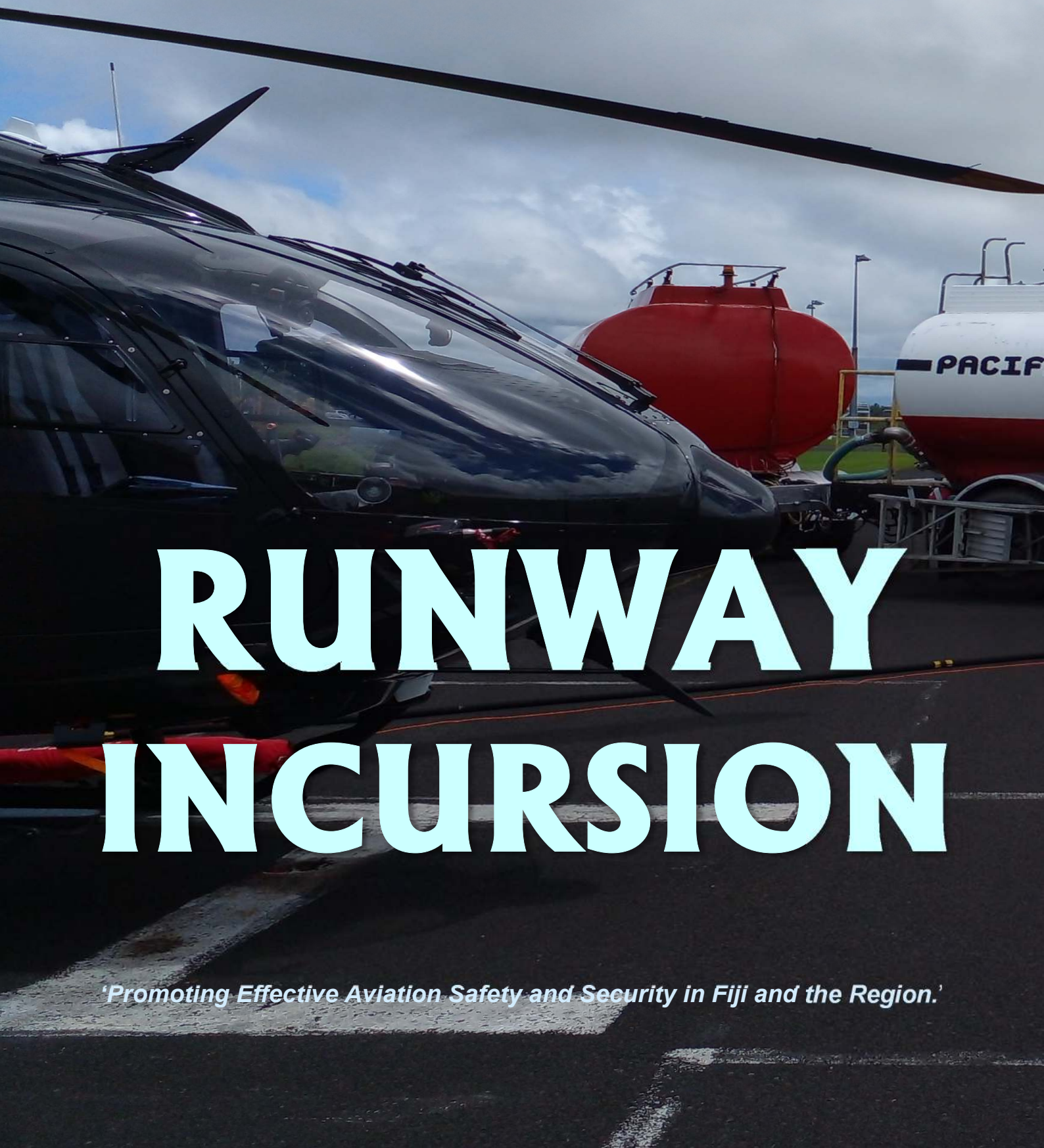

RUNWAY INCURSION

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

RUNWAY INCURSION

IT'S ALWAYS DARKER ON THE GROUND

5 WHYS—ROOT CAUSE ANALYSIS

OBESITY

Cover Pic: CAAF

In this issue…

AVIATION SAFETY BULLETIN

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From the Acting Chief Executive

Bula Vinaka and welcome to the Civil Aviation Authority of Fiji's (CAAF) third edition of its Aviation Safety Bulletin for 2022.

Movement, particularly transportation by air, is at the epicenter of our socio-economic fabric. It supports connections and enables access to goods and services, including trade, jobs, health care and education. These are vital to our nation's recovery and as such we in the aviation industry and particularly CAAF, as the gatekeepers, must ensure we protect the safety and security of this important industry so it is efficient, inclusive, accessible and sustainable.

As Fiji enters the last quarter of the year, the rebound of our aviation industry continues its forward momentum as it gears up for the upcoming holiday season when we anticipate increased activity. However, returning to operations after such a hiatus has not been without its hitches. Mandatory occurrence reports received by CAAF has increased. To adequately address these, a robust system of root cause analysis has been key to addressing the findings highlighted during investigations; this important topic is captured in the article on pages 8-9. Other articles featured in this bulletin address areas of concern that have been highlighted in this last quarter; runway incursions and medical issues encountered by aviation licence holders.

The International Civil Aviation Organisation's Resolution A39-30 has committed to enhancing gender equality by 2030, at all professional and higher levels of employment in the global aviation sector. CAAF is proud to state that it is taking gender equality at heart. We have appointed another female to the CAAF Executive team, Sereima Bolanavatu, as Controller Standards. In addition, a new Manager Corporate Services, Nirroshana Parera, also joins the Executive team. A brief on the two newest members to our Executive team can be found on page 19 of this bulletin.

We hope that you will find the articles we have provided for you in Issue 3 of 2022 interesting and informative. To ensure we publish information that is of interest to you, CAAF is seeking your input. We welcome your suggestions on the types of aviation related articles you wish to see published in the future and any feedback on how we can improve our publication.

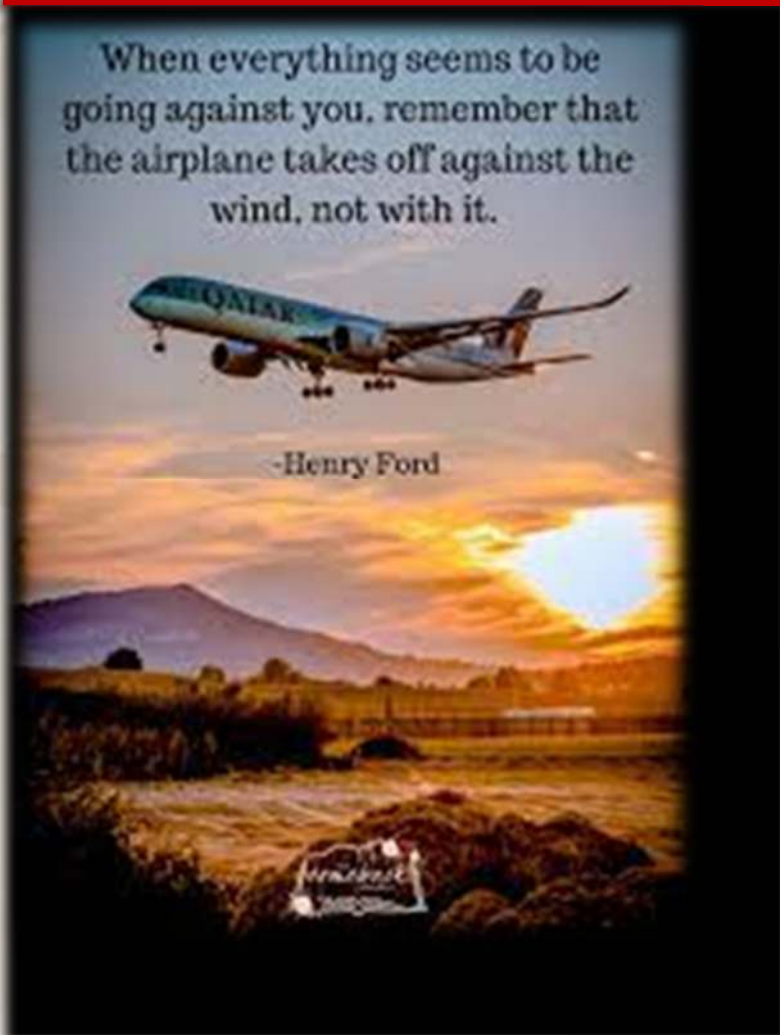
Stay Safe ■

Vinaka,

Ms Theresa Levestam
Acting Chief Executive

See page 14...

SAFETY FIRST!



Runway Incursion

Runway incursions have led to some of the world's most serious aircraft accidents with significant loss of life.

On March 27, 1977, two Boeing 747 passenger jets collided on the runway at Los Rodeos Airport (now Tenerife North Airport), on the Spanish Island of Tenerife, Canary Island. The crash killed 583 people, making it one of the deadliest accidents in aviation history.

Runway operations are an integral part of aviation; the hazards and risks associated with runway operations need to be managed in order to prevent runway incursions that may lead to accidents. Aviation safety programmes have a common goal — to reduce hazards, mitigate and manage residual risk in air transportation.

In 2001, the ICAO Air Navigation Commission acted to address the problem of runway incursions. Several critical areas were identified as affecting the overall runway safety, including radiotelephony phraseology, language proficiency, equipment, aerodrome lighting and markings, aerodrome charts, operational aspects, situational awareness and Human Factors.

WHAT IS A RUNWAY INCURSION?

Runway Incursion is any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft (*ICAO Doc 4444 PANS-ATM)*.

Image: Google

It is important to note that the 'incorrect presence' may be a consequence of a failure of a pilot or vehicle driver to comply with a valid Air Traffic Control (ATC) clearance or their compliance with an inappropriate ATC clearance.

EFFECTS

Runway Incursion poses an increased risk of collision for aircraft on the ground. When collisions occur off the runway, the aircraft and/or vehicles involved are usually travelling relatively slowly: in contrast, when a collision occurs on the runway, at least one of the aircrafts involved will often be travelling at considerable speed which increases the risk of significant aircraft damage and the severity of the consequences therefrom, including serious or fatal injury.

MOST COMMON RUNWAY INCURSION TYPES

An analysis of a sample of investigated accidents and serious incidents involving runway incursions occurring in the period 2014-2016, distinguished the following generic types:

- Incorrect entry of an aircraft or vehicle onto the runway protected area (without or contrary to ATC clearance or due to incorrect ATC clearance).
- Incorrect presence of a vacating aircraft or vehicle onto the runway protected area.
- Incorrect runway crossing by an aircraft or vehicle (without or contrary to ATC clearance or due to incorrect ATC clearance).
- Incorrect spacing between successive arriving or arriving and departing or departing and arriving aircraft.
- Landing without ATC Clearance.
- Take-off without ATC Clearance.

TYPICAL SCENARIOS

- **Air Traffic Control Officer (ATCO)-induced situation.**
  The controller does not ensure sufficient spacing between two successive landing aircraft or between the preceding departing aircraft and the succeeding landing aircraft, and issues the landing clearance to the succeeding aircraft which causes the infringement of the applicable runway use spacing/separation minima. In other instances, an ATCO loses situational awareness and issues and take-off or landing clearance when a maintenance or service vehicle is on the runway.

- **Flight Crew-induced situation.**
  An aircraft lands at an unfamiliar airport and the flight crew becomes disorientated as they exit the runway. Despite this, they acknowledge taxi instructions and without being confident of their position or the taxi route given, continue taxing and inadvertently enter an active runway.

- **Vehicle driver-induced situation**
  The vehicle driver is not sufficiently familiar with the manoeuvring area layout at an airport (e.g. due to inappropriate training and lack of formal runway access approval dependent upon satisfactory training completion) and misinterprets the runway entry clearance issued by ATC which causes him to enter the runway at the incorrect position.

Image: Google

CONTRIBUTORY FACTORS

- **Weather**
  Low visibility may increase the chance of flight crew becoming disorientated and unsure of their position whilst taxying. Low visibility is also likely to restrict a controller's ability to identify and follow aircraft visually so that cross-checking a reported aircraft position with its actual location may become impossible unless Surface Movement Radar is available.

- **Aerodrome design**
  If, as a consequence of aerodrome design, aircraft have to cross active runways to move between their take off or landing runway and their parking position, the likelihood of runway incursions is increased. This risk may be reduced if the Local Runway Safety Team identifies the Runway Hotspots thereby created and effective risk mitigation is developed and applied. Operation with intersecting active runways is also likely to require careful consideration to ensure that the inherently increased risk of conflict is adequately managed.

- **Multiple Simultaneous Line-ups**
  Use of Multiple Line-ups for a series of aircraft departures from the same runway from different entry positions may increase the potential for runway collision.

- **Conditional Clearances**
  If conditional clearances are used, the risk consequent upon any error in their issue or actioning may be increased because of errors in aircraft identification by adjacent aircraft. The chances of such errors are increased if aircraft livery does not readily correspond to the Radiotelephony (RTF) callsign being used; this is sometimes the result of airline alliance livery policies or the ad-hoc operational substitution of leased-in aircraft.

- **Simultaneous Use of Intersecting Runways**
  Unless Standard Operating Procedures are carefully formulated and rigorously applied, use of intersecting runways can significantly raise the risk of both runway incursions and Loss of Separation between aircraft near the ground and aircraft on the ground. At some airports where intersecting runways are used, especially in the USA, Land and Hold Short Operations are part of normal procedures. These are considered by some non-US aircraft operators to introduce an unacceptable level of additional risk; consequently, their flight crews are instructed to decline offers of such clearances.

- **Late Issue of or late changes to Departure Clearances**
  This may lead to a temporary lapse in flight crew situational awareness if an attempt is then be made to set up or modify the Flight Management System (FMS) for departure whilst it is taxiing.

- **Phraseology**
  Use of Non-Standard Phraseology or non-adherence to Standard Phraseology can lead to clearance confusion and misunderstanding between flight crew and controllers. In particular the standard expression "Taxi into position and hold" used in the USA until 2010 in place of the ICAO Phrase "Line up and wait" is worthy of note.

- **Concurrent Use of More than One Language for ATC communications**
  At some international airports, locally-based users are permitted to communicate in the local language whereas foreign aircraft do so in English. Depending on the nature of the local language and the language skills of the visiting flight crew, this may have the effect of significantly reducing their awareness of the relative position of other traffic.

- **English Language Competence**
  Despite the introduction by ICAO of a system of validating competence in Aviation English, instances of pilots whose native language is not English misunderstanding taxi clearances still occur.

- **Workload**

  - **Pilot Workload** - Shortly after landing, flight crew have to orientate themselves quickly in respect of their actual position in relation to taxiways and the airport layout. After clearing the landing runway, they also have to reconfigure aircraft systems in accordance with the After Landing Checks and may receive detailed taxi instructions from ATC. Similar levels of workload may occur prior to departure while the flight crew are concurrently carrying out tasks including configuring the aircraft systems ready for take-off, briefing crew and passengers, receiving amended departure clearance instructions from ATC, checking unfamiliar departure procedures, etc. Under these circumstances of high workload, a temporary loss of situational awareness or communications confusion are more likely to occur.

  - **Controller Workload -** Controllers handling multiple aircraft and vehicle movements and handovers have relatively little time available for monitoring individual aircraft to confirm that they are taxiing in accordance with their clearances.

- **Distraction.**
  This is the immediate cause of many incursions, although the context in which it occurs is often of more direct relevance to effective risk mitigation.

Runway Incursion cont...

DEFENCES

Available defences relate to both the occurrence of runway incursions and the danger thereby created. The role of Safety Nets as a last line of defence against error is increasingly valuable at busy airports with complex movement areas. Not in any order of significance, these defences include:

- Maintenance of situational awareness by flight crew and others using the manoeuvring area, specifically in respect of their own location in relation to active runways, and that of other aircraft and vehicles relative to active runways.
- Maintenance of situational awareness by Tower and Ground ATCO's in respect of aircraft and vehicle disposition and movements near to active runways
- Flight Crew use of the Traffic Collision Avoidance System (TCAS) display to provide situational awareness of other aircraft both in the air and on the ground.
- Effective flight crew use of appropriate features of Runway Awareness and Advisory System (RAAS) if installed
- Where installed, effective procedures for the use of Enhanced Vision Systems (EVS) for improved awareness of runway occupancy
- Use of ICAO Standard Phraseology at all times to minimise any risk of clearance confusion.
- Presence of ICAO standard Runway Markings and Taxiway Surface Markings and Signs
- Presence of ICAO standard Runway Lighting and Taxiway Lighting including the installation of Runway Status Lights (RWSL) and Runway Holding Point Lighting.
- Controllers working traffic where the flight crew are not native speakers of English should pay particular attention to their speech clarity, use only standard phraseology and make a particular effort to closely monitor readbacks of taxi clearances.

As the true "gatekeepers" of the aviation safety systems, human performance through operational personnel remains the last line of defense against latent conditions that can penetrate the aviation system defenses and potentially compromise safety. It is therefore crucial that a consolidated effort of heightened awareness from Air Traffic Controllers, Pilots and Ground crews are required at all times to avoid Runway Incursion.

Sources in reference to this article :
https://www.cartoskill.com/interactive/deadliest-accidents-in-aviation-history/
ICAO Doc 9870 – Manual on the Prevention of Runway Incursions
ICAO Doc 4444 – PANS Air Traffic Management
skybrary.aero

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

emailing to :

info@caaf.org.fj

FCAIR

FIJI CONFIDENTIAL AVIATION INCIDENT REPORTING

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www.caaf.org.fj

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

It's always darker on the ground

Close call by Simon Bromiley

I was an occasional jump pilot for a small skydiving operation in Western Australia. It was one of those perfect spots where the skies were always blue and the views from altitude were fabulous. The 182 I was flying was an older model and a bit skydiver tatty. Normal procedure was to fly with an inch of fuel in each tank and leave the selector to 'both', putting a bit more in for each sortie. Being a bit cautious I usually erred on the side of safety and flew with two inches (5 cm) each side.

The last load of the day was a tandem to 12,000 feet and the solo descent was beautiful as dusk was setting in. As I taxied back to the hanger a group of four fun jumpers ran out kitted up ready and eager—not unusual—sunset jumps are fabulous. This was my first mistake. I opened the door and they climbed in. I knew I had enough fuel and I thought yep, just time for a 10,000 footer before sunset, but I didn't really consider the local conditions including cloud and moon.

The strip was desert dirt scraped out of the rocks and spinifex, oriented north/south between two rows of hills, about 400 feet high. There was a rail depot nearby and high voltage transmission cables at each end. It presented challenges at the best of times.

As we climbed through 3000 feet I started to get a bit edgy. So did the jump master. A quick change of plan and I turned into wind over the strip at 5000 feet and opened the door. Five seconds later they were gone, and I was on my own—normally a wonderful feeling.

I made my usual powered descent to keep the horses hot but spiraling down over the top I realised I couldn't actually see the strip. I could see where it should be but by now everything was in dark shadow and the lower I got the darker it got. By the time I was downwind it was totally dark. Mistake number two—I turned on every light I could find. It made me feel better I suppose but ruined my night vision.

So now I was downwind for a dirt strip I couldn't see, in hilly terrain, with power cables all over the place, in the dark. Oops! I made an approach to where I thought the strip was, not below 500 feet with landing lights on. I could make out a shadow and I could see lights on the club house, but I wasn't sure. I turned around and had another look from the other direction. I went through the options in my mind. Could I land on a road? No, not without being sure about power cables. Could I make it to the local airport with lighting? Ten miles over water on minimal fuel? No way. I tried lining up on the rail yard signals, knowing the strip was just to the right. Couldn't see a thing and I knew my fuel was now minimal.

Fortunately, the jump master was an older bloke. On my fourth pass I saw a Ute with headlights on racing up to where I guessed the strip should be. He reversed into the perimeter fence with headlights full on and I knew I was saved. The old bush pilot's trick of landing over the farm ute worked a treat. I greased it on, taxied up to the hanger and as if nothing unusual had happened, joined the boys for a beer.

What did I learn from that? Don't let non-pilots influence your decision to fly. Better for the jumpers to be disappointed than an aircraft wreckage or worse. Remember it is always dark on the ground sooner than in the air. Don't ruin your night vision, no amount of lights will bring the sun back. Calculate a time to be on the ground and don't let anything change your mind■

Source: Article uplifted from Flight Safety Australia.com

5 Whys: Root Cause Analysis

What It Is and How to Use It

Have you ever experienced a problem that kept recurring? Addressing a problem or failure mode more than once is time-consuming and a waste of valuable resources. The issue is that the root cause isn't being identified or addressed. If you're not getting to the root cause, you are merely treating a symptom of the problem. In addition, if a permanent remedy is not determined and implemented, the problem will eventually repeat. However, an easy-use tool can assist in eliminating repeat problems. This tool is known as 5 Whys analysis. Unpredicted problems might occur in any team or process. However, issues are just symptoms of deeper issues. Fixing a problem faster may be a convenient solution. However, it does not protect your work process from recurring errors. This is why your team must concentrate on identifying the root cause and tackle it properly.

The 5 Whys analysis, often known as the root cause analysis, is one of the fundamental process used the principle idea behind the tool is that there is a cause for every effect. Therefore, the quality issue can be seen as having multiple causes. However, it is also known that there is a series of reactions called symptoms before the cause reaches its effect. Therefore, pinpointing and solving the problem at its source would benefit management. Every team encounter roadblock in its daily work. However, using the 5 Whys will assist you in finding the root cause of any issues and protect the process from recurring errors and failures.

Origin of 5 Whys

The 5 Whys technique was created in the 1930s by Sakichi Toyoda, a Japanese manufacturer, inventor, and founder of Toyota Industries. It became very famous in the 1970s, and Toyota still uses it to solve problems today. One of the essential variables for the successful implementation of the technique is to make an informed decision.

The method is remarkably simple: you drill down to its root cause by asking "Why?" five times when a problem occurs. Then, when a countermeasure becomes evident, you follow it to prevent the recurring issue.

What is 5 Whys Analysis?

Five whys (5 whys) is an iterative inquisitive technique used to explore the cause-and-effect relationships underlying a particular problem. The primary objective of the technique is to determine the root cause of a defect or issue by repeating the question "Why?". Each answer frames the basis of the next question. The "five" in the name derives from a recounted observation of the number of iterations to resolve the problem. Not all problems have a solitary root cause. If one wishes to reveal multiple root causes, the method must be repeated, asking a different sequence of questions each time. The method provides no rigid and fast rules about what lines of questions to investigate or how long to proceed with the search for additional root causes.

We got the definition of 5 Whys. Now, let us try to understand why we need 5 whys analysis?

Why Do We Need 5 Whys Analysis?

The primary advantage of the Five Whys is that it is one of the most powerful assessment methods of all non-statistical analyses. It can uncover and trace back to problems that were not obvious.

When applying the 5 Whys technique, you need to get to the problem's essence and fix it. The 5 Whys may demonstrate to you that the source of the problem is quite unpredictable. Often, issues considered a technical problem turns out to be human and process issues. Therefore, finding and eliminating the root cause is crucial to avoid iteration of failures.

As we have discussed why we need 5 whys analysis, now will discuss how to use 5 why analysis

How to Use the 5 Whys Analysis?

The 5 Whys technique will help you achieve continuous improvement at any level of your organization. Though the core of 5 Whys problem-solving is only asking five questions, we recommend some additional steps to bring the mental ability of your team members together and take action on the root causes you find.

Following are some of the fundamental steps you need to follow.

1. Gather your team
2. Define the issue
3. Ask "Why?"
4. Ask "Why?" four more times
5. Know When to Stop
6. Address the Root Cause
7. Monitor Your Measures

Conclusion

The 5 Whys technique is a problem-solving method that relies on asking "why?" five times in a continuous sequence to find the root cause. Each time you inquire why a problem occurred, your answer turns into the reason for your next question, compelling you to dig deeper and deeper into the true cause of the issue.

This informed decision-making technique investigates the cause-and-effect relationships hidden behind a specific problem. Rather than coming up with a solution that could only address a certain symptom, the 5 Whys process focuses on countermeasures that aim to prevent the problem from ever occurring again■

Source: Invensis Global Learning Services

Why Is Regular Medical Check-up Important

The twenty-first century is characterized by hustling and a fast-paced way of life, in which technology has surpassed all other foundational elements and on which people are constantly on the move. We hardly ever take time for ourselves, and as a result, we do not adequately nourish ourselves, get enough rest, engage in physical activity, or lead healthy lifestyles. Environmental variables are also a factor. We often ignore these, assuming that they are minor and unimportant, until things turn nasty and our health is in serious peril, even though they may emerge and hint at our health in subtle ways.

Through regular physical examination, people can learn more about the state of their body, any anomalies or risk factors, and how to take proactive steps to avoid serious health problems. Early warning indications of health problems might be found with routine medical exams. Early detection of issues improves the likelihood of receiving successful treatments.

Furthermore, I believe only with these frequent medical examinations will doctors be able to choose the best strategy to diagnose and treat any ailments at the early stages. Additionally, these visits include a battery of psychological and physical exams to make sure your health is on track. By doing this, your doctor will be able to identify any potential threats and prevent you from contracting any diseases, which in our line of work in Aviation is very crucial■

NOTICE TO STAKEHOLDERS

CLOSURE OF CAAF PERSONNEL LICENSING (PEL) OFFICE

The Civil Aviation Authority (CAA) of Fiji's Personnel Licensing Office (PEL) will be closed during the holiday season from the 28th to 30th December 2022.

Please note the following important dates and ensure that necessary arrangements are made in advance.

Last dates for:

Flight Test Booking	Fri 09th Dec 2022	**PEXO Exams**	Fri 16th Dec 2022
Engineering Exams	Mon 12th Dec 2022	**Acceptance of License applications**	Fri 16th Dec 2022
Acceptance of PEXO examination applications	Wed 14th Dec 2022	**Flight Test**	Fri 16th Dec 2022
Air Law & Type Rating Exams	Wed 14th Dec 2022	**Collection of KDR's & Licenses**	Fri 23rd Dec 2022

AVIATION MEDICAL

Approved Medical Authority (AMA) is a medical doctor appointed by the Civil Aviation Authority of Fiji under Air Navigation Regulation 56 for the purpose of conducting medical examinations or investigations for grant or renewal of Licence's and ratings issued under Regulation 53 (2).

Further to the provisions of section 56 of the Air Navigation Regulations, an applicant for a Licence shall, when applicable, hold a Medical Assessment and certificate issued in accordance with the provisions of chapter 6 of this standards document and the provisions of SD - Medical Standards, Test and Certification.

Medical Assessment is the evidence issued by a Contracting State that the Licence holder meets specific requirements of medical fitness.

It is recommended that the Authority should, as far as practicable, ensure that Licence holders do not exercise the privileges of their Licence's and related ratings during any period in which their medical fitness has, from any cause, decreased to an extent that would have prevented the issue or renewal of their Medical Assessment.

Further to the provisions of section 56 of the Air Navigation Regulations, the period of validity of a Medical Certificate shall begin on the day the medical examination is performed. The duration of the period of validity shall be in accordance with the provisions of 1.2.5.2

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Positive Security Culture

What lessons and best practices can we take from the experience of aviation safety

Aviation safety has been a fundamental component in aviation and the work that aviation safety practitioners have done provides aviation security practitioners with the opportunity to adopt best practices from safety into the aviation security culture. Whilst safety and security risks are fundamentally different, there are sufficient similarities for Safety Management System (SMS) best practices and principles to be adopted into the effective delivery of aviation security. The effective implementation of aviation security can be derived on the key components of a Security Management System (SeMS) as taken from the UK CAA SeMS framework which is:

1. Communication;
2. Education and security culture;
3. Continuous improvement;
4. Management of change;
5. Incident response;
6. Performance monitoring, assessment and reporting;
7. Resources
8. Accountability and responsibilities
9. Threat and risk management
10. Management commitment.

To measure the UK CAA SeMS it is important to understand the three key stages of approach for safety which are transferrable to developing and enhancing security culture:

1. UNDERSTAND

In this stage it is important to first define and understand the term 'security culture'. The ICAO Security Culture Toolkit describes security culture as "*a set of norms, beliefs, values, attitudes and assumptions that are inherent in the daily operation of an organisation, and are reflected by the actions and behaviours of all entities and personnel within the organization".*

The toolkit goes onto describe the key components and outcomes of an effective security culture, to enable practitioners to understand both what a positive security culture is and the constituent parts. The UK CAA summarises these components as:

1. Positive Work Environment
2. Training
3. Leadership
4. Understanding the Threat
5. Vigilance
6. Reporting Systems
7. Incident Response
8. Information Security
9. Measures of Effectiveness

The security components as summarized above may be also useful when considering other aspects such as psychological (How people feel), behavioral (What people do) and situational (What an organisation has).

2. ASSESS

The critical component in this phase is to evaluate the indicators within an organisation. This indicator may include employee observation, conducting employee interviews and surveys about the security culture in the workplace. The results of the observation, interviews and surveys can be assessed to plot and measure the level or maturity of the security culture in a workplace. The assessment will point out the level of insider threats and the counter measures that security practitioners will need to implement.

3. ENHANCE

Having undertaken the assessment each organisation will be in a better position to identify areas which needs improvement and prioritize their efforts in vulnerable areas to counter new and emerging threats. Just as for safety, effective security has to become part of the DNA of civil aviation, and developing a mindset that 'security is the way we do things around here'.

CONCLUSION

Having an effective security culture will tackle emerging and new threats. *'Threats against aviation change constantly in this interminable war against terrorism. Countermeasures developed to combat emergent threats will become obsolete as new threats appear. Therefore, it is imperative for security practitioners to stay ahead of their enemies by identifying potential threats—a task that requires imagination'.* Daniel H. Siao ■

Source: Article sourced from UKCAA

Fiji Awarded "ICAO Council President Certificate"

Fiji's Head of Delegation receiving the ICAO Council President Certificate at the special ceremony held at ICAO Headquarters in Montréal, Canada.

Fiji delegation to the ICAO 41st Assembly, Montréal, Canada.

Fiji was awarded the International Civil Aviation Organisation (ICAO) Council President Certificate in a special ceremony at the 41st Session of the ICAO Assembly held in Montreal, Canada.

The ICAO Council President Certificate (Certificate) was established in 2015 to support the ICAO's "*No Country Left Behind*" initiative. This Certificate is awarded to Member States based on results determined through the Universal Safety Oversight Audit Programme (USOAP) to recognise Member States that have made significant progress in resolving their safety oversight deficiencies and improving the effective implementation (EI) of their safety oversight systems in compliance with ICAO Standard and Recommended Practices (SARPs).

The eligibility criteria used for this recognition certificate are based on the results of USOAP Continuous Monitoring Approach (CMA) activities and include:

(i) improvement in the EI of the critical elements (CEs) of a State's aviation safety oversight system above 15 per cent;

(ii) meeting the Global Aviation Safety Plan target of at least 75 per cent EI; and

(iii) the absence of a Significant Safety Concern.

In 2019, following the ICAO In-Country Validation Mission, Fiji improved its EI from 60.55% to 76.3% sitting above the Asia Pacific average of 64.6% and the Global average of 67.5%.

The 41st Session of the Assembly of the ICAO was held from the 27th September to 07th October 2022■

Meet CAA Fiji's New Executives

Controller Standards


Ms. Sereima Bolanavatu

Ms. Sereima Bolanavatu was appointed to the role of Controller Standards (CS) with effect from the 18th August 2022. Prior to her appointment, Ms. Bolanavatu was responsible for CAAF's oversight of the Communications, Navigations and Surveillance systems, used to provide air navigation services in Fijian airspace. She brings with her a wealth of technical experience of over 30 years.

As the head of the newly established Standards Department, the CS is responsible for the strategic leadership of the department. The Standards Department will ensure that Fiji establishes and implements the applicable ICAO Standards and Recommend Practices (SARPS) and Procedures for Air Navigation Services (PANS) and, that differences from the SARPS are filed with ICAO.

The Standards Department will take a lead role in improving the State's safety oversight capability. The safety oversight capability of the State is determined by the effective implementation (EI) of ICAO's safety oversight system and is expressed as a percentage - Fiji's EI currently stands at 76.25 percent (adjusted from the 2019 ICVM of 78.72 percent).

The Authority is committed to improving the State's oversight capability to at least over 80 percent in all audit areas by 2023.

The CS will engage with the industry to ensure appropriate consultation and awareness are conducted and looks forward to industry's support and contribution■

Manager Corporate Services


Mr. Niroshana Perera

CAAF appointed **Mr. Niroshana Perera** as its Manager Cooperate Services (MCS) with effect from 4th July 2022. MCS leads the cooperate services department, which includes Finance, Human Resources, Information Technology and Quality sections.

As a highly skilled and experienced professional, Mr. Perera brings a unique blend of technical and innovative talents of significant value. His background encompasses 20 years' experience in Senior Management Roles covering wide range of areas in management.

His experience in manifold operations and related industry challenges has been leveraged to create innovative solutions to develop and implement strategies for the delivery of enhanced benefits. Capitalising on his aptitude for effective communication and active listening, Mr. Perera has collaborated effectively across different organisational levels, functions, businesses, and stakeholders to realise strategic goals and objectives.

Mr. Perera holds a Master of Business Administration (specialised in Marketing) from the Australian Institute of Business.

As Manager Corporate Services, his main objectives would be strategic planning and implementation, effective leadership, good corporate governance and enhancement of corporate services strategies to meet operational objectives.

He will be looking at bringing in an effective approach to change management to support cultural/ behavioral development in the organisation through innovation, a commitment to quality services and high productivity. In addition, he will work on effective development, implementation and co-ordination of CAAF's risk management framework and strategy to ensure better control over our finances and the overall performance of CAAF.

Mr. Perera believes in making safety our priority and calls everyone to work collaboratively to ensure good relationships horizontally and vertically across the organisation and industry to help keep our skies safe■

ICAO Aviation Security Supervisor's Course

The Civil Aviation Authority of Fiji, through the AVSEC Department hosted the first session of the ICAO Supervisor's Course on the 12th to the 21st July, 2022. The Authority was honored to receive the New Zealand High Commissioner H.E Ms. Charlotte Darlow in opening the second session of the course which was hosted from the 26th July to the 04th of August 2022. The course was generously sponsored by the New Zealand Government and conducted by AVSEC New Zealand as part of capacity development in Fiji. The New Zealand government have been instrumental in assisting Fiji develop capacity building in the aviation sector.

This course aims to ensure that relevant personnel at airports can supervise and monitor the implementation of aviation security preventive measures by applying the relevant competencies required for security supervisors. The participants of this course will be prepared to plan, coordinate and conduct quality control measures utilizing Annex 17 and ICAO methodology in accordance with approved programmes.

In order to receive a certificate of successful completion, participants were required to pass an end of course exam based on the presentations and materials used during the course. AVSEC New Zealand recorded a 99.5% pass rate for Fiji at the end of the exams.

On this note we acknowledge the hard work of the course facilitators, the course coordinators and the support from the staff of AVSEC department in successfully facilitating the course■

Training In Auditing Techniques & Best Practices

From the 15th to 19th August 2022, the Civil Aviation Authority of Singapore, as part of its Special Aviation Program through the Singapore Aviation Academy (SAA), conducted customized training on Auditing Techniques and Bests Practices at the CAAF HQ for Pacific Island States regulators.

The training consisted of an online component followed by on site face-to-face training and included participants from CASA PNG, CAA Vanuatu and CAAF. SAA's Principle Training Specialist, Mr. Allan Tang, was the course facilitator for the 5 days on-site training.

This training provided participants with a foundation on the principles and procedures for the conduct of safety audits on an aviation organisation.

The objective of the training was to ensure that participants would be able to participate effectively as an audit team member, write an audit finding accurately, assess the root cause(s) of a finding, determine acceptance of corrective actions in addressing findings, develop audit questionnaires, resolve audit findings and develop good communication skills for auditing.

The training consisted of 9 interactive modules: -

Module 1	Safety Oversight and the 8 Critical Elements
Module 2	Audit Principles and Auditor Attributes
Module 3	Responsibilities of Audit Team Members
Module 4	Effective Communication
Module 5	Pre-Audit Phase
Module 6	Audit Phase
Module 7	Post Audit and Follow Up
Module 8	Resolution of Safety Issues
Module 9	Organization Risk Profile (ORP) and Risk-Based Surveillance

One of the key takeaways from this training was the 10 commandments of "writing a finding".

- Do Not Overstate facts
- Distinguish between performance documentation
- Avoid generalities
- Do not draw legal opinions
- Give regulatory or organizational policy references
- Avoid using extreme language
- Use familiar terminology
- Do not focus criticism on an individual or their mistakes
- Avoid contradictory messages
- Group similar findings

Participants went away from the training with valuable information and techniques that would enable better auditing practices are implemented in the daily activities.

CAAF acknowledges and thanks the Civil Aviation Authority of Singapore for their continued assistance to Pacific Small Island State's capacity building initiatives■

Make your broadcasts count

When it comes to ensuring your radio call is effective, attention to detail is essential. Following this list will help make sure all your broadcasts are clear and can be understood by other pilots.

1. Listen before you broadcast.
2. Check the volume, squelch and **frequency** are correct.
3. Pause at the beginning and end of a transmission to avoid 'clipping' transmissions.
4. Use standard phraseology and speak slowly and clearly. However, plain language is better than jargon or incorrect phraseology.
5. Avoid clutter: make only appropriate calls. There is usually no need for 'downwind', 'base' and 'finals' unless other aircraft or aerodrome works are affecting your flight and you need to alert them to your position.

Standard format and phraseology

When making a broadcast, it's important to use the standard format and phraseology to ensure your intentions are clear and to help keep radio congestion to a minimum.

The standard broadcast format you should follow for all radio calls is:

[Location traffic] (e.g. 'Matei traffic').

[Aircraft type] (e.g. 'Cessna 208').

[Call sign] (e.g. 'Zulu Tango Zulu').

[Position/level/intentions] (e.g. 'One zero miles north inbound on descent through 4200, estimating circuit at three six').

[Location] (e.g. Vatudamu point).

When you must make a broadcast

The one time you must make a broadcast is in a situation where you recognise a potential conflict between your aircraft and another in the vicinity of a non-controlled aerodrome. In this case, it is your responsibility to acknowledge the situation by transmitting your callsign and, as appropriate, your aircraft type, position, level and intentions.

When you should make a broadcast

In any non-controlled airspace, when departing, arriving or overflying an aerodrome or switching frequency, you should always let other traffic know you are there by making the recommended calls on the next page■

Celebrating The International Day of the Air Traffic Controller

Every year on October 20th, International Day of the Air Traffic Controller is celebrated to honor the lives of men and women who work hard to keep air travel safe. It is also a day to learn more about the profession of Air Traffic Control and the work that they do.

ICAO's preliminary compilation of annual global statistics show that the total number of passengers carried on scheduled services rose to 4.5 billion in 2019. With so many planes in the air, it's amazing that flying by plane is as safe as it is. The safety of air travel is largely attributed to air traffic controllers. These unseen, elite professionals direct air traffic on the ground at airport runways and taxiways. Air traffic controllers also monitor and direct the movement of planes through airspace. Additionally, they issue landing and take-off clearance to pilots.

The job of air traffic controllers is extremely difficult. Their job requires intense concentration. Sometimes the plane is only a blip in a sea of darkness. No wonder it's one of the 5 most stressful professions. There is never a time when the skies are not monitored by air traffic controllers. They work day and night, including weekends and holidays, to keep pilots and their passengers safe. They must also direct planes during inclement weather and a variety of emergency situations.

In Fiji, Air traffic controllers must be at least 21 years old and like their counterparts from around the world, they undergo rigorous training to attain their ATC licenses and become qualified Air Traffic Controllers. In addition to this, they must pass a thorough periodic medical check and a theoretic examination annually in order to maintain their ATC licenses.

A BRIEF HISTORY OF ATC

The air age arrived on December 17th, 1903 when the Wright Brothers succeeded in a 120 Foot flight in a heavier-than-air craft. Following this success, the earliest common uses of aviation were by the military and the civilian postal service. With infrequent flights and virtually no carriage of passengers, the primary concern was for the integrity of the aircraft and the management of safe takeoffs and landings. However, when air travel began to increase after World War 1 in the 1920s, it became clear that a systematic set of air traffic control principles were needed to handle the increasing volumes at several critical airports.

While mid-air collisions have occurred away from airports, the scenario most feared by safety analysts is a mid-air collision near or at an airport because of a traffic control misunderstanding. These concerns led to the evolution of the present air traffic control system.

THE WORLDS FIRST AIR TRAFFIC CONTROLLER

English was established as the international language of air traffic control, but even within this context, there was a need for precise use of phrases and strings of words. These common practices have their conceptual roots in the same issues of uniformity that are directly applied to highways. The operator needs to be given clear and simple information that meets a direct need. In road transportation, this is conveyed through verbal or symbolic visual images; in aviation, it is achieved through the spoken word, supplemented by aircraft instrumentation.

Image: Google

This 1929 photo shows Archie League at St. Louis with his communication flags.

The first air traffic controller, Archie League of St. Louis, Missouri, in the United States, began working in 1929, where the airport operator employed him to prevent collisions between aircraft. His communication tools were simple: a red flag for "hold" and a checkered one for "go."

As years went by, a simple red and checkered flag was not enough to control the continuous increase in air traffic.

INTERNATIONAL DAY OF THE AIR TRAFFIC CONTROLLER IS BORN

On October 20th 1961, the International Federation of Air Traffic Controllers' Association (IFATCA) was formed, 32 years after Archie League first lifted his ATC flags to control air traffic. To mark the IFATCA's anniversary, the International Day of the Air Traffic Controller is held every year on October 20th.

This year on the 20th of October, 61 years after the registration of IFATCA, we join the hundreds of men and women around the globe, who are fortunate enough to be part of this elite group of people, who call themselves Air Traffic Controllers, to celebrate their commitment and dedication, in ensuring the safe passage of aircrafts in todays even busier skies. We also pay tribute ATC Officers of yesteryears who paved the way, and dedicated their lives in the development and advancement of this profession.

ATC Collage

So, the next time you travel by air, watching aircrafts from the Airside fence or simply hearing an aircraft passing overhead, know that there is an unspoken hero, guiding and controlling those aircrafts to ensure that they reach their destinations safely■

Wishing all Air Traffic Controllers here in Fiji and around the world a happy International Day of the Air Traffic Controller.

Source: https://www.faa.gov https://www.britannica.com

OBESITY

Introduction

Some of our Fijian aviators still struggle with this modern-day challenge of Obesity resulting in mandated grounding, extra tests and time off work. We realise this puts a lot of mental and financial stress on our aviators but excessive weight carries negative health and operational implications and has to be tackled at all cost to foster a Culture of Safety.

Those that have some success in losing weight first have to accept the seriousness of the problem and then give their complete dedication to the work required in dietary restrictions and exercise. After losing weight, the next challenge is keeping that weight off, as many regain it and essentially return to square one after a few months. This calls for a complete lifestyle change where the behavioural and dietary changes incurred are made a permanent part of one's lifestyle.

Obesity is a complex, chronic disease with several causes that results in excessive body fat. When your body is obese it results in physiological changes that are progressive, can worsen over time, and can lead to disease.

Measuring Obesity: 2 methods

1. Body Mass Index (BMI) = Weight in Kg/Height (meters)^2.
   BMI categories
   Normal - 18.5 - 24.9
   Overweight - 25-29.9
   Obesity I 30-34.9
   Obesity II 35-39.9
   Obesity III 40 +
2. Waist Circumference
   Females: 35 inches
   Males: 40 inches

Limitations of BMI are seen in bodybuilders and athletes, who have more muscle and may have higher BMI scores even though their fat levels are low. It's also possible to have obesity at a "normal" weight. If your body weight is average but your body fat percentage is high, you may have the same health risks as somebody with a higher BMI.

There are also ethnic differences in how much extra weight different people can carry before it affects their health. For example, people of Asian descent are more likely to have health risks at a lower BMI, and Black people are more likely to have health risks at a higher BMI.

Obesity and Disease

When your body has more calories than it can use, it converts the extra calories into lipids and stores them in your adipose tissue (body fat). When you run out of tissue to store lipids in, the fat cells themselves become enlarged. Enlarged fat cells secrete hormones and other chemicals that produce an inflammatory response.

Chronic inflammation has many adverse health effects. One way that it affects your metabolism is by contributing to insulin resistance. This means your body can no longer use insulin to efficiently lower blood glucose and lipid levels. High blood sugar and blood lipids also contribute to high blood pressure. Together, these combined risk factors are known as **Metabolic Syndrome**. They are grouped together because they all tend to reinforce each other. They also reinforce further weight gain and make it harder to lose weight and sustain weight loss. Metabolic syndrome is a common factor in obesity and contributes to many related diseases, including:

- **Type 2 Diabetes**

Obesity specifically raises the risk of Type 2 diabetes seven-fold in males and 12-fold in females. The risk increases by 20% for every additional point you gain on the BMI scale. It also diminishes with weight loss.

- **Cardiovascular Disease**

High blood pressure, high cholesterol, high blood sugar and inflammation are all risk factors for cardiovascular diseases, including coronary artery disease , congestive heart failure , heart attack and stroke . These risks increase hand-in-hand with your BMI. Cardiovascular disease is the leading cause of preventable death worldwide and in the U.S.

- **Fatty Liver Disease**

Excess fats circulating in your blood make their way to your liver, which is responsible for filtering your blood. When your liver begins storing excess fat, it can lead to chronic liver inflammation (hepatitis) and long-term liver damage (cirrhosis).

- **Kidney Disease**

High blood pressure, diabetes and liver disease are among the most common contributors to chronic kidney disease.

- **Gallstones**

Higher blood cholesterol levels can cause cholesterol to accumulate in your gallbladder, leading to cholesterol gallstones and potential gallbladder diseases.

Excess body fat can crowd the organs of your respiratory system and put stress and strain on your musculoskeletal system.

This contributes to:

- Asthma
- Sleep Apnea (Contributes to fatigue and daytime sleepiness)
- Obesity hypoventilation syndrome.
- Osteoarthritis
- Back pain
- Gout

According to the U.S. Centers for Disease Control and Prevention, 1 in 3 adults with obesity also has arthritis. Studies have shown that for every 5 kg in weight gain, your risk of knee arthritis increases by 36%. The good news is that, together with exercise, weight loss of 10% can significantly reduce arthritis-related pain and improve your quality of life.

Obesity is also associated indirectly with:

- Memory and cognition, including a heightened risk of Alzheimer's disease and dementia.
- Female infertility and pregnancy complications.
- Depression and mood disorders.
- Certain cancers - (esophageal , pancreatic, colorectal, breast, uterine and ovarian).

Managing Obesity

Dietary changes

Diet modifications will be individual to you. Some people may benefit from cutting portion sizes or snacks between meals. For others, it may be more about changing what they eat than how much. Almost everyone can benefit from eating more plant-based foods . Fruits, vegetables, whole grains and legumes tend to be lower in fat and higher in fiber and micronutrients. They are more nutritious and can make you feel fuller and more satisfied sooner.

Start by removing the following from your diet;

1) Table sugar (Glucose) and everything sugared (Soft drinks, desserts, pastries, snacks etc. Read the food contents of everything you buy as a guide.

2) Carbohydrates (Flour, Rice, Potatoes from the Supermarket , and root crops and starchy foods from the market) Carbohydrates are converted to Glucose during digestion.

3) Sucrose or sweet fruits sugar. Even though this is of a superior biologic quality then glucose, excessive amounts also contribute to obesity. The fad of consuming fruit smoothies is counterproductive as this easily leads to excessive intake. It is better to consume individual fruits as one can determine portions consumed with ease.

Proteins (Meat, fish, poultry) and vegetables contribute very little to obesity and many dietary plans (Ketogenic diet, Atkins diet) include only these foods and completely eliminates sugars and carbohydrates.

It is imperative to watch and document your body's response to these diets and work closely with your DAME or GP to monitor. Excessive dieting could lead to dizziness, moodiness and brain fog that imperils safety in the aviation environment .

Increased activity

Everyone has heard that diet and exercise are both important to weight loss and weight maintenance. But exercise doesn't have to mean a gym membership. Just walking at a moderate pace is one of the most efficient types of exercise for weight loss. Just 30 minutes, five days a week goes a long way. A daily walk at lunchtime or before or after work can make a real difference.

Behavioral therapies

Counseling, support groups and methods such as cognitive behavioral therapy may have a role to play in supporting your weight loss journey. These methods can help rewire your brain to support positive changes. They can also help you manage stress and address emotional and psychological factors that may be working against you. Weight and weight loss efforts affect us on many levels, so it can be helpful to have support on the human side as well as on the practical side.

Medication

Medications aren't the whole answer to weight loss, but they can help tackle it from another angle. For example, appetite suppressants can intercept some of the pathways to your brain that affect your hunger.

Common FDA-approved drugs for treating obesity include:

- **Orlistat (Xenical®, Alli®):** Reduces absorption of fat from your gut.
- **Phentermine (Adipex-P®, Lomaira®, Suprenza®):** Decreases your appetite. It's approved for use for three months at a time.
- **Benzphetamine (Didrex®, Regimex®):** Decreases your appetite.
- **Diethylpropion (Depletite # 2®, Radtue®, Tenuate®):** Decreases your appetite.
- **Phendimetrazine (Bontril®, Melfiat®):** Decreases your appetite.
- **Bupropion-naltrexone (Contrave®):** May reduce cravings and food intake.
- **Liraglutide (Saxenda®):** Reduces appetite and slows digestion.
- **Semaglutide (Wegovy®):** Suppresses appetite.
- **Cellulose and citric acid (Plenity®):** Makes you feel full.
- **Lisdexamfetamine dimesylate (Vyvanse®):** Helps manages symptoms of binge eating disorder.
- **Phentermine-topiramate (Qsymia®):** Makes you less hungry.
- Combination of newer Anti-Diabetic medications (SGLT2 inhibitors and glucagon-like-1 receptor agonists).

Many of these may be contraindicated in aviators so consult your DAME for further information.

Weight loss surgery

If you have been diagnosed with class III obesity, bariatric surgery may be an option for you. Surgery is highly effective solution to long-term, significant weight loss. It works by changing your biology instead of just your mind or your habits. All bariatric surgery procedures alter your digestive system in some way. They restrict the number of calories you can consume and absorb. They also change hormonal factors in your digestive system that affect your metabolism and hunger.

Bariatric surgery procedures include:

- Gastric sleeve (sleeve gastrectomy).
- Gastric band (LAP band).
- Gastric bypass (Roux-en-Y).
- Duodenal switch.

OBESITY cont...

What is intermittent fasting?

Many diets focus on *what* to eat, but intermittent fasting is all about *when* you eat.

With intermittent fasting, you only eat during a specific time. Fasting for a certain number of hours each day or eating just one meal a couple days a week, can help your body burn fat.
And scientific evidence points to some health benefits, as well.

There are several different ways to do intermittent fasting, but they are all based on choosing regular time periods to eat and fast. For instance, you might try eating only during an eight-hour period each day and fast for the remainder. Or you might choose to eat only one meal a day two days a week. There are many different intermittent fasting schedules. After hours without food, the body exhausts its sugar stores and starts burning fat. This is known as *metabolic switching*. Intermittent fasting works by prolonging the period when your body has burned through the calories consumed during your last meal and begins burning fat.

Intermittent Fasting Plans

It's important to check with your doctor before starting intermittent fasting. Once you get his or her go-ahead, the actual practice is simple. You can pick a **daily approach**, which restricts daily eating to one six- to eight-hour period each day. For instance, you may choose to try 16/8 fasting: eating for eight hours and fasting for 16.

Another, known as the **5:2 approach**, involves eating regularly five days a week. For the other two days, you limit yourself to one 500 –600 calorie meal. An example would be if you chose to eat normally on every day of the week except Mondays and Thursdays, which would be your one-meal days.

Longer periods without food, such as 24, 36, 48 and 72-hour fasting periods, are not necessarily better for you and may be dangerous. Going too long without eating might actually encourage your body to start storing more fat in response to starvation.

It can take two to four weeks before the body becomes accustomed to intermittent fasting. You might feel hungry or cranky while you're getting used to the new routine. Those who make it through the adjustment period tend to stick with the plan, because they notice they feel better.

What can I eat while intermittent fasting?

During the times when you're not eating, water and zero-calorie beverages such as black coffee and tea are permitted. And during your eating periods, "eating normally" does not mean going crazy. You're not likely to lose weight or get healthier if you pack your feeding times with high-calorie junk food, super-sized fried items and treats.

Be mindful and take pleasure in eating good, nutritious food. The Mediterranean diet is a good blueprint of what to eat, whether you're trying intermittent fasting or not. You can hardly go wrong when you pick complex, unrefined carbohydrates such as whole grains, leafy greens, healthy fats and lean protein.

Intermittent Fasting Benefits

Intermittent fasting periods do more than burn fat. When changes occur with this metabolic switch, it affects the body and brain. These include a longer life, a leaner body and a sharper mind. Many things happen during intermittent fasting that can protect organs against chronic diseases like type 2 diabetes, heart disease, age-related neurodegenerative disorders, even inflammatory bowel disease and many cancers.

Here are some intermittent fasting benefits research has revealed so far:

- **Thinking and memory**. Studies discovered that intermittent fasting boosts working memory in animals and verbal memory in adult humans.
- **Heart health**. Intermittent fasting improved blood pressure and resting heart rates as well as other heart-related measurements.
- **Physical performance**. Young men who fasted for 16 hours showed fat loss while maintaining muscle mass. Mice who were fed on alternate days showed better endurance in running.
- **Diabetes and obesity**. In animal studies, intermittent fasting prevented obesity. And in six brief studies, obese adult humans lost weight through intermittent fasting.

Is intermittent fasting safe?

Some people try intermitting fasting for weight management, and others use the method to address chronic conditions such as irritable bowel syndrome, high cholesterol or arthritis. But intermittent fasting isn't for everyone. Before you try intermittent fasting you should check in with your primary care practitioner first.

Some people should steer clear of trying intermittent fasting:

- Children and teens under age 18.
- Women who are pregnant or breastfeeding.
- People with diabetes or blood sugar problems.
- Those with a history of eating disorders.

People not in these categories who can do intermittent fasting safely can continue the regimen indefinitely. It can be a lifestyle change ■

Author: Dr Isireli Biumaitotoya
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Effects of Excessive Use of Gadgets on your eyes

It is common to kick off the day by reading emails in bed before heading off to work for eight hours (or more) sitting in front of a computer screen or other gadgets such as in aviation industry. Even the evenings are spent in front of gadgets big and small. Before bedtime we often read books, with e-books now replacing the traditional paper versions. In other words, using and watching screens (gadgets) has become increasingly dominant in our everyday lives.

The gadget in itself is not damaging but the prolonged exposure by using your gadgets may deteriorate your eyes due to the blue rays your gadgets produce. This is just like the concept of the sun, the longer you are under the sun, your risk from getting skin diseases such as skin cancer, increases.

Effects of Excessive Use of Gadgets

1. Computer Vision Syndrome (CVS).

   CVS was made for office workers who sit for long hours in front of a screen, but now, regardless if you're an office worker or not, you are at risk of getting CVS. Symptoms of CVS include: Dry eyes, eye strain, itchy and/or watery eyes, and light sensitivity.

2. Headaches, Migraines, and Eye Strain.

Headaches are among the most significant side effects of spending too much time staring at technological devices and screens. This is because of the link between both the eyes and the brain. When you look at a screen for a lengthy amount of time, you may experience eye strain, which can contribute to a terrible severe migraine.

The contrast between the brightness of the screen and the blackness of the text might cause eye strain and headaches. As a result, our eyes have to work harder to concentrate, which can produce muscular spasms around your temples.

Sometimes eye strain could also cause migraines, which may be excruciatingly painful. Migraines, in addition to pulsating and throbbing pain, can lead to nausea and vision problems such as flashes, sensitivity to light and even brief blindness.

What Can You Do?

Here are 10 preventative measures that can help protect your eyes from damage

1. Avoiding glare helps prevent eye strain, so use an anti-glare screen or coating on devices that you use often in the office or outside of office including aviation sector.
2. Follow the "20-20-20" rule – look away from the screen every 20 minutes (or earlier), at something 20 feet away, for 20 seconds. This is also to allow the blinking of the eyes to occur since we do not blink regularly when focusing at the screen.
3. Keep your phone far from your eyes, but at a distance where you can still comfortably read without straining.
4. Adjust the brightness on your digital display so it matches the brightness of the area around it.
5. Position yourself at an arm's length from the computer screen, with the screen just below your eye level.
6. Take frequent breaks to rest your eyes. Stretch, go outside or take a nap (if possible) – whatever works for you!
7. Get an eye exam regularly to help nip any eyesight or eye health issues in the bud, before they get worse.
8. Make a conscious effort to blink more frequently, since this keeps your eyes clean and lubricated.
9. Place a light source behind you instead of behind the device, so your eyes don't have to work so hard to adjust.
10. Wear glasses with an anti-reflective coating while using any digital device for prolonged periods of time or use a protective screen on top of the gadgets.

You can always make an appointment and get seen by your eye doctor for a checkup and advice■

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