AVIATION SAFETY BULLETIN

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ELT

FOR

DISTRESS TRACKING

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

MONTREAL CONVENTION
A BRIEF HISTORY OF PASSENGER RIGHTS

AVIATION RESCUE FIRE FIGHTNG SERVICE

GOOD INTENTION WRONG REPAIR

CARRIAGE OF ALCOHOL BASED SANITIZER IN PASSENGER & CREW BAGGAGE

Cover Pic: ICAO

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AVIATION SAFETY BULLETIN

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From the Acting Chief Executive

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

As we close off the first half of the year, we find ourselves well and truly in the midst of our aviation recovery. The ramping up of operations and manpower has seen the need to safely balance priorities to ensure that our aviation safety management system remains robust and able to capture and mitigate any hazards to ensure that any risk is maintained at a level that is as low as reasonably practicable.

This bulletin provides an informative writeup on pages 8-9 explaining the Montreal Convention and as CAAF approaches the annual licence renewal period for Air Navigation Service Licence holders, pages 10 and 23 provides important information on this.

An interesting article titled 'Good intentions: Wrong repair' on pages 14-15 looks at the dilemma faced by aircraft maintenance engineers when pressured by the need for on time departures.

Operating in the new normal means that aircraft operators must ensure that the health and safety measures they have implemented continue to reflect international best practice. The article on page 16 provides operational recommendations on enhanced cleaning and disinfection of aircraft surfaces.

This edition also addresses an important mental health issue; STRESS. With the return of aviation professionals to the workforce following reduced working hours and furloughs, a return to business as usual, but, with a reduced or new workforce has seen many workers coming under pressure to deliver, resulting in a high stressed workforce. The article on pages 20-22 identifies the effects of stress and how stress can be better managed.

We hope that the articles in this Issue 2 of 2022 will keep you informed on what is happening in the aviation industry. Furthermore, to ensure we publish information of interest to you, CAAF is seeking your input. We are requesting your suggestions on the types of articles you wish to see published in the future and we welcome your feedback.

Stay Safe ■

Vinaka,

Ms Theresa Levestam
Acting Chief Executive

STRESS

...are you coping??

See page 20-22...

SAFETY FIRST!

Mistakes are inevitable in aviation,
especially when one is still learning new things.
The trick is to not make the mistake that will kill you.

~ *Stephen Coonts*

ELT for Distress Tracking

Global Aeronautical Distress and Safety System (GADSS)

ICAO has developed GADSS Concept of Operations and was released in June 2017. The release of GADSS will enhance aviation safety for crew and passengers of commercial aircraft and SAR responders. The idea is to not lose anymore aircraft out at sea and able to locate the aircraft.

The 2019 edition of the IAMSAR Manual contains general guidance regarding GADSS that applies to certain aircraft. The first phase, commenced 1st January 2018 with Underwater Locating device (ULD) on frequency 37.5 kHz attached to the aircraft flight recorder; and, a ULD on frequency 8.8 kHz attached to the aircraft frame.

The second phase commenced 8th November 2018 for the aircraft tracking function of automated reporting of position at least every 15 minutes. The next phase commences 1st January 2021 for the autonomous distress tracking (ADT) function of reporting position updates at least once every minute.

A key aspect of GADSS is autonomous distress tracking (ADT),1 applicable for most commercial aircraft (those over 27,000 kg maximum take-off mass), which is to:

- ensure timely detection of aircraft in distress, to facilitate confirmation of the distress condition and timely preparation for SAR action,
- ensure tracking of aircraft in distress and timely and accurate location of end of flight, to accurately direct SAR actions,
- enable efficient and effective SAR operations,
- ensure timely retrieval of Flight Recorder Data..

The GADSS is comprised of four main functions:

- Aircraft Tracking
- Aircraft in Distress Localization,
- Post Flight Localisation,

The main objectives

- Ensure timely detection of aircraft in distress (timely initiation of SAR actions).
- Ensure tracking of aircraft in distress and timely accurate location of end of flight (accurate direction of SAR actions).
- Enable efficient and effective SAR operations.
- Ensure timely retrieval of flight recorder data.

The three main functions of the GADSS:

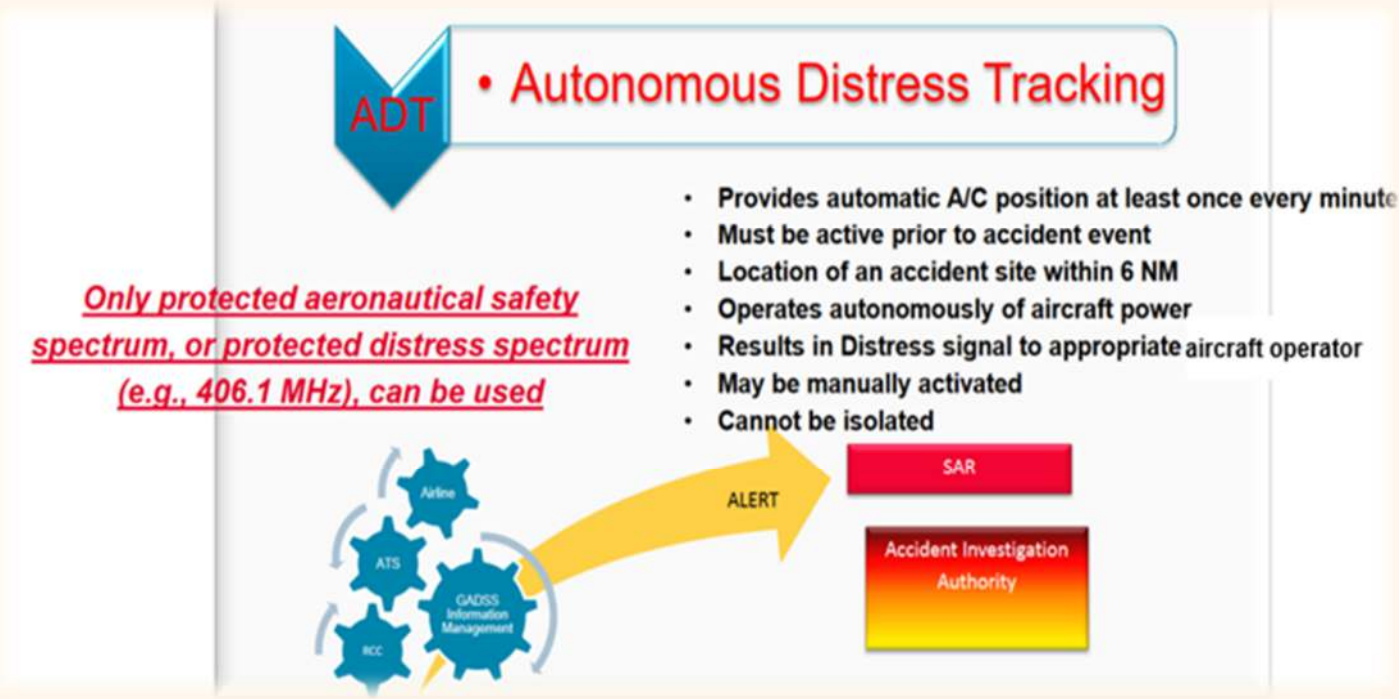
- Aircraft Tracking
- Autonomous Distress Tracking (ADT)
- Post flight localization and recovery .

ADT Function:

The ADT function would be used to identify the location of an aircraft in distress with the aim of establishing, to a reasonable extent, the location of an accident site within a 6 NM radius. The accuracy of position information shall, as a minimum, meet the position accuracy requirements established for Emergency Locator Transmitters (ELTs).

There are two high-level functional objectives for an ADT system. These are to:

- receive timely notice of an airplane in a distress condition to facilitate timely SAR operations, and
- locate an accident site with high probability after a crash based on last known position of the aircraft.



ELT for Distress Tracking (ELT(DT))

From a SAR perspective, an ELT(DT) alert differs from that of a legacy ELT (an ELT that is not an ELT(DT)) in that it originates from an aircraft that may possibly still be in flight. However, the ED-237 parameters used to automatically activate the ELT(DT) statistically indicate that in the case of a real (not false) alert, the aircraft would crash within approximately six minutes, making the data of immediate interest to the SAR authorities.

An ELT(DT) can be based on “first-generation beacon” (FGB) technology (using narrowband modulation for its transmissions per document C/S T.001) or “second-generation beacon” (SGB) technology (using spread-spectrum modulation for its transmissions per document C/S T.018).

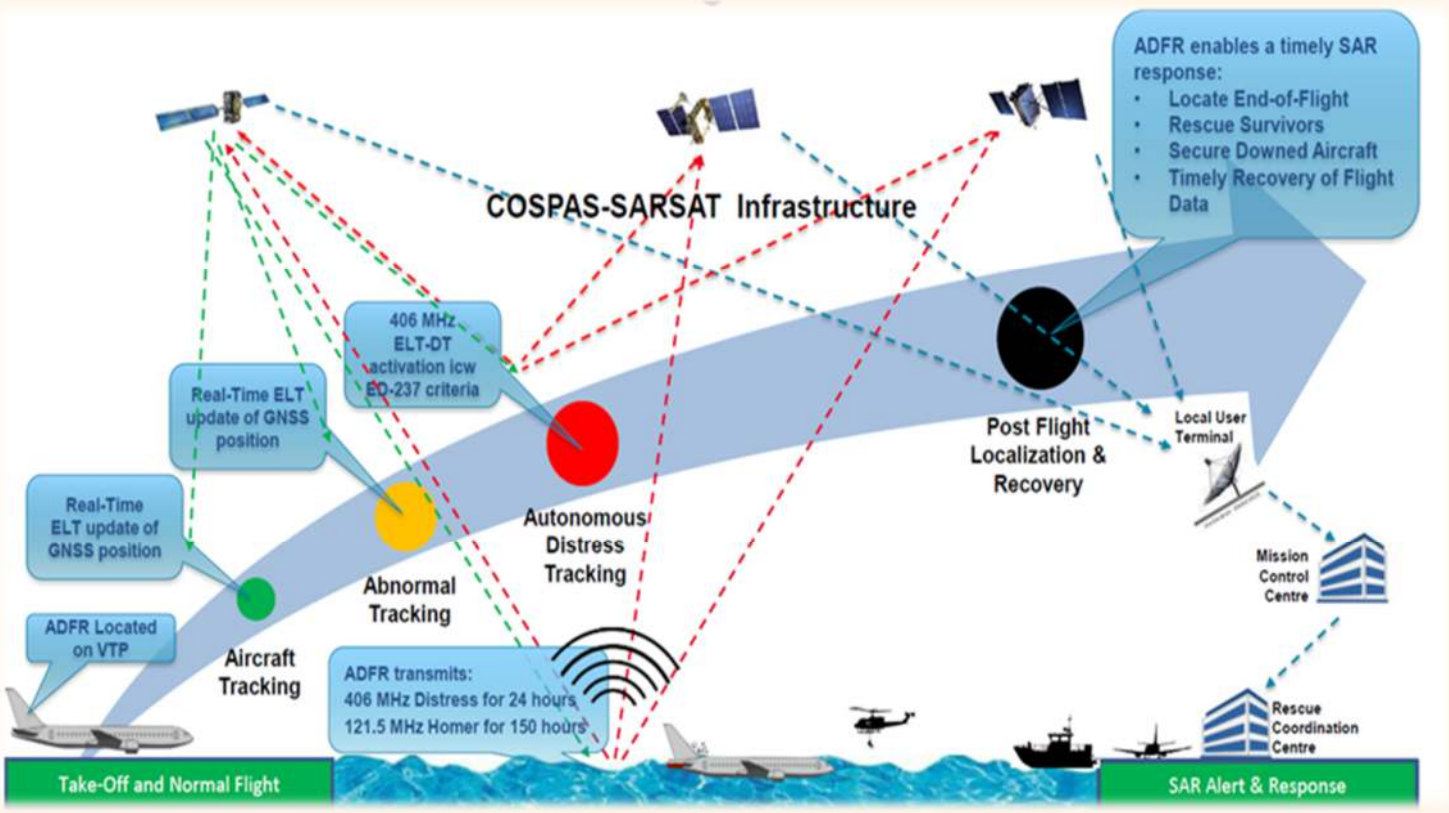
ELT for Distress Tracking

Global Aeronautical Distress and Safety System (GADSS) cont….

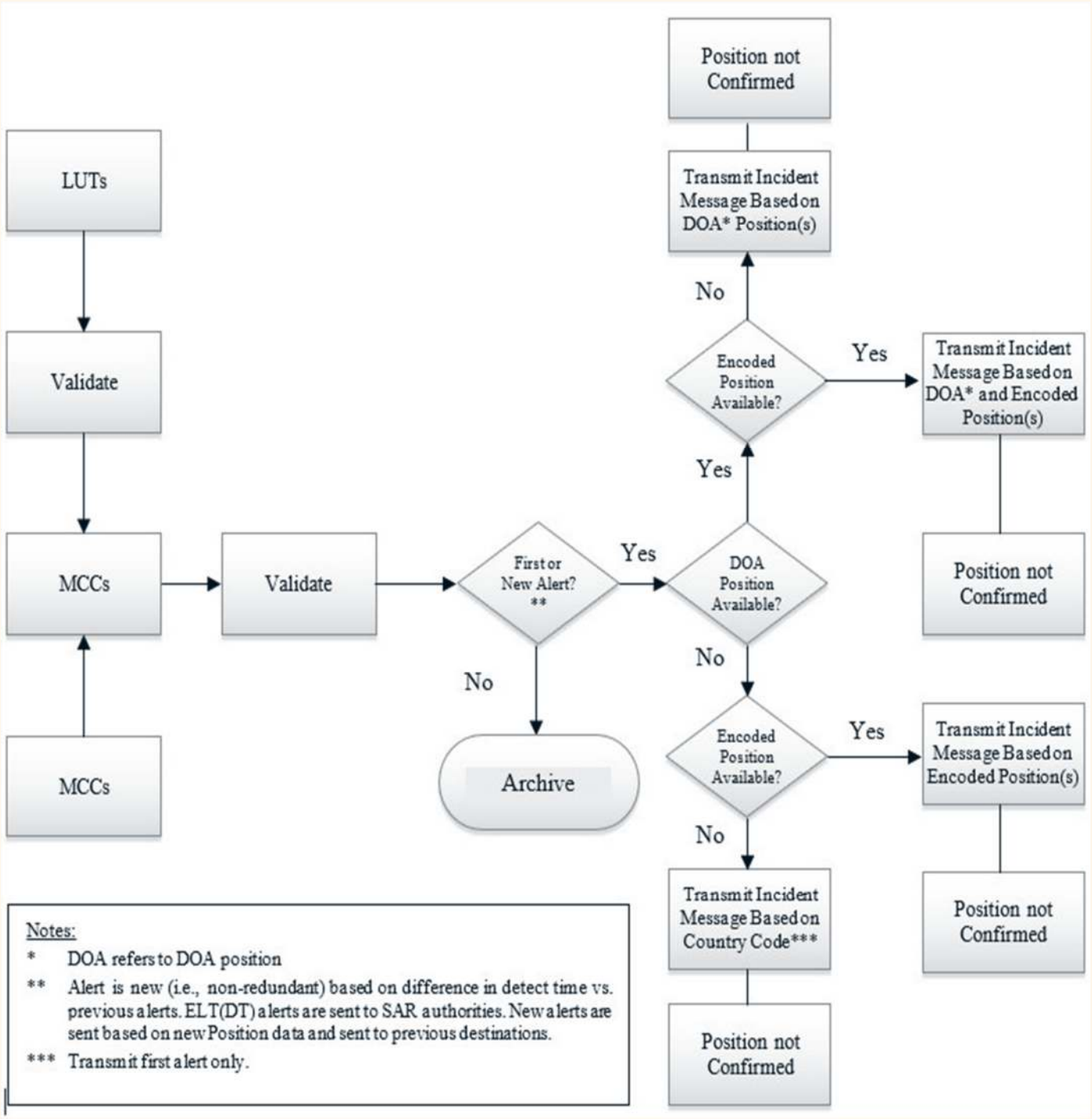
All ELT(DT)s:

- must be capable of providing a GNSS4 location,
- start transmitting after a maximum of 5 seconds after its activation,
- transmit as frequently as once every 5 seconds, therefore the seconds of the minute should be provided in the SPOC message, to allow SAR authorities to properly sequence the messages,
- will provide the Aircraft Operator 3-letter designator (3LD), to allow nodal MCCs to meet ICAO requirements for inputting ELT(DT) data into the ICAO LADR, and to allow SAR authorities to identify and communicate with the aircraft's operator, possibly while the aircraft is still in flight,
- will include a user cancellation function whereby activation of an ELT(DT) can be cancelled by the same means by which it was initiated; cancellation messages are only sent to SAR authorities after verification by the MCC (SIT 185 with Beacon Message Type = DISTRESS TRACKING and Alert Status = USER CANCELLATION ALERT),
- are capable of providing data in rotating fields; this data will be available in only some beacon transmissions (per document C/S A.002, SIT 185 with Beacon Message Type = DISTRESS TRACKING and Alert Status = ROTATING FIELD UPDATE ALERT),
- will provide GNSS position, altitude and how current this information is.

ELT(DT) data will be automatically distributed to SAR authorities in a SIT 185 message clearly identifying the source of the data as an ELT(DT). Sample ELT(DT) SIT 185 messages can be found at Attachment 1 to this document and in document C/S A.002 (Issue 8, March 2022). By design, not all ELT(DT) data will be sent to SAR authorities because of the large data volume provided by this beacon type. In parallel, nodal MCCs will also automatically distribute *all* ELT(DT) data to the ICAO Location of an aircraft in distress repository (LADR) ■



ELT(DT) Processing and Data Distribution



Source: Article uplifted from ICAO-GADSS Workshop (May 23-2022)

A brief History of Passenger Rights

The Montreal Convention, also known as MC99, is an important piece of the puzzle in the aviation industry. Although the concept of passenger rights seems relatively new, the first convention regulating international air traffic is almost a century old.

Background

Back in 1919, the first daily flight was presented to the world. A short flight between London and Paris. 10 years later, **in 1929, the Warsaw Convention came to be**. This old document, originally signed by 156 parties would lay the foundation for international air travel. Its influence includes mandatory tickets, boarding passes, receipts for checked luggage, among other things. Liability in the event of injury or death was also introduced by the Warsaw Convention.

The treaty was modified on several occasions in order to accommodate changes that were happening inside the ever-growing aviation industry. Safety being of the utmost concern for everyone involved. The changes were made in the Hague in 1955 and then again in Guatemala City almost 20 years later. Trying to catch-up with the pace of the industry, signatory States and airlines decided that the document itself was outdated. In an effort to standardize air travel around the globe, the parties involved, decided to draft a completely new treaty. As a result, **the Montreal Convention was drafted and signed in 1999, replacing the already existing Warsaw Convention.**

What changed in 1991 with the signing of the Montreal Convention

The legislation contains a lot of new things when compared to its predecessor. One of the most important aspects is the transition to the concept of **Strict Liability**. Making clear that air carriers are strictly liable for what happens during their flights and the results of their operations meant that the burden of proof when claiming damages was not on the passengers anymore. **This resulted in the fact that airlines are the ones that need to prove that they've tried their best to avoid disruptions and accidents** in order to avoid being held liable for damages.

The new convention also modernised other aspects of air travel. For example, e-tickets and other travel documents were now allowed to be delivered digitally.

What are Passenger rights under the Montreal Convention

As stated above, all international flights are covered under the treaty and it gives you the following rights:

Flight delays and cancellations: care and reimbursement of expenses

Thanks to the Montreal Convention, **if your flight is delayed or cancelled the airline is obliged to take care of you and your co-passengers.** If you wait exceeds two hours, they need to provide you with food and beverages. If the disruption of your flight means that you'll have to spend the night, even when caused by bad weather, the airline will have to pay your hotel stay as well as the transport to and from the airport. Finally, if you've incurred expenses due to the lack of care offered by the carrier, they are obliged to reimburse you. Take into account that you will have to provide itemised receipts for the expenses you intend to claim back.

So, in short, you are entitled to be cared for when your flight is delayed or cancelled and this includes:

- Food and drink
- Hotel accommodations (when necessary)
- Transportation to and from the airport
- Two means of communication (phone calls or emails)
- Reimbursement of incurred costs

Is there a limit? Yes! The airline can only be held liable for around a certain amount. Please remember to always keep a copy of your travel documents as well as the receipts of your expenses as otherwise the airline may not be obliged to reimburse you.

Compensation for delayed, loss or destruction of baggage

According to the treaty, you'll be entitled to compensation if the airline loses, destroys or delays your luggage. The rules apply for both checked and hand luggage but they are a bit different. Time is of the essence here as **you must submit your claim up to 7 days after your flight if you wish to be compensated for the problems.**

One important thing to note is that if your luggage is delayed and, therefore, **you've had to buy basic necessities, you have the right to be reimbursed for such expenses.** Keep the receipt/invoice of your expenses as you must submit them as soon as possible to the airline.

How much money can I get in compensation for delayed, lost or destroyed luggage?

It depends on what you had in your luggage, the price of your piece of baggage and what has happened. As stipulated by the convention**, the compensation may not exceed a certain limit.** If you are travelling with expensive items, you should inform the airline and perhaps purchase insurance as you'll have to declare the value of the item and fill out a form if you'd like the airline to be held liable if they lose your luggage.

The most important thing if your luggage is delayed, lost or destroyed

Of utmost importance is that **you do not leave the airport without filling out the corresponding forms and reports.** As stated above, you only have 7 days to inform the airline about the problems with your luggage. Therefore, make sure that you've filled out a Property Irregularity Report (PIR) with all the relevant information regarding your incident and that you've submitted to the airline. **You can do this at the baggage claim desk or at the check-in counter.** The more detailed the better. Also, keep a copy (or a picture) of the report and the PIR's reference number, this might be crucial later on.

Compensation in case of injury or death of a passenger

If a passenger has suffered an injury due to an accident, the airline will have to cover his or her medical costs associated with treatment. The total amount the airline would pay would be as stipulated by the convention. This is also the sum the airline will have to pay to the family of a passenger that passes away due to an accident.

How long can I wait to claim my compensation or receive a refund?

When it comes to delayed, lost or destroyed luggage, **you have only 7 days to fill out a PIR and let the airline know that there's been a problem.** Once they have acknowledged that they've lost or destroyed your luggage, you'll be able to request the compensation you may be entitled to. So contact the airline before you leave the airport. **Regarding compensation for injuries and reimbursement of expenses, you have up to 2 years after the date of your flight**■

Source: ICAO

AIR NAVIGATION SERVICES

THE FOUR TYPES OF ANS LICENCES ARE:

Air Traffic Controller Licence (ATCL)

The holder of an ATCL may provide an air traffic control service within Fiji's designated airspace under the authority of an air traffic service provider certificate issued under Air Navigation Regulation 145A in accordance with Licence issued by the Authority.

Aeronautical Facility Technicians Licence (AFTL)

The holder of an AFTL may, subject to the validity of the endorsements included in the licence, certify fitness for use with respect to aeronautical facilities and remove and install operational facilities for the purpose of inspection, repairs, replacement and modification so approved.

ANS LICENCES

Aeronautical Station Operators Licence (ASOL)

The holder of an aeronautical station operator license may operate in an aeronautical station specified in the licence issued by the Authority.

Flight Information Service Officers Licence (FISOL)

The holder of an aerodrome flight information service officer license provides guidance and information for the safe and efficient conduct of flight at the location specified in the license issued by the Authority.

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Civil Aviation Authority of Fiji

Contact CAAF
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Accountable Security Manager

Security is critically important to the success of an organizations business and should be given appropriate commitment and resource. Each organization should have an accountable security manager who would be from the management level, with the authority to allocate necessary resources for the protection of the public, staff, assets and the business itself. The role of the accountable security manager is to foster security as a core organizational value.

Definition

The term 'Accountable Security Manager' used in this context describes the single individual who is designated as the person responsible to the appropriate authority in respect of the functions which are subject to the security legislations, and carried out by an aircraft operator, an airport operator, catering service provider, aviation security service organization, ground handling service provider or a regulated agent. The accountable security manager may be the person who has corporate authority for ensuring that all security operation activities can be financed and carried out to the standard required by the appropriate authority or someone in a position of management who is responsible for implementing all the requirements of the approved security programme or exposition. Consistent with the ICAO AVSEC methodology, the Accountable Security Manager is the point of contact (PoC) between the organization and the Authority on all matters pertaining to aviation security.

Eligibility and Due Process

An accountable security manager may be the person with overall executive responsibility for the operation of the organization who will ultimately be responsible for implementing his/her approved security programme or exposition. In a large organization, the accountable security manager can designate his day to day responsibility to the middle management but s/he will remain as the point of contact with the appropriate authority.

When an organization has appointed an accountable security manager within its organization, or when the accountable security manager has delegated his role(s) to someone in the middle management they are required to make a formal submission to the authority by the use of the application form CA 107B and CA 107C. The security and facilitation department of the authority shall vet the application and notify the applicant/ organization of the outcome and due process that shall follow.

Responsibility

The role of the accountable security manager is to foster security as a core organizational value in an organization. In large organization's which cover various security operation, the accountable security manager is likely to rely heavily upon a small number of senior managers with subordinate executive responsibilities for each area of operations of regulated technical specialization in their organization.

Some of the responsibility which needs to be undertaken and fulfilled by the accountable security manager are:

- To establish, maintain, monitor and review the organizations security programme/ expositions and ensure it remains consistent with the state's requirements;
- Responsible to oversight the implementation of the security operation as per the organization's approved security programme or exposition.
- Responsible for determining the level of risk that the entity can tolerate;
- Ensure that sufficient funding is provided to enable the company to appropriately meet the state requirements and finance its aviation security operations;
- Responsible to ensure that all staff understand the organization's security policy and implement accordingly;
- Responsible to fully support and engender a security culture throughout the organization; and
- Final accountability for all security issues.

Frequently Asked Questions

1. Where does the security manager fit into the organizational hierarchy?

Accountable security managers are often considered and preferred to serve in a management capacity. The important tasks of developing standard operating procedures, training staffs, and monitoring implementation require that the accountable security manager be vested with substantial authority. If the accountable security manager is not able to confidently address security miscues at even the highest levels of the organizational hierarchy, protecting system resources adequately becomes difficult.

2. Can there be two or more accountable security managers in an organization?

No, the accountable security manager is a single individual who shall be the focal point of contact between the organization and the appropriate authority in relation to any security matters/ issues. However, in large organizations, the accountable security manager may delegate his/ her security responsibilities to other senior managers, however, the final decision is still made by the accountable security manager.

3. What is the frequency of the oversight for the accountable security manager?

The accountable security manager needs to oversight his/her own operation apart from the update s/he receives from the managers and quality control personnel. The frequency of oversight recommended is on a monthly basis to oversee that the staff carry out their security responsibilities as documented and approved in the security programme/exposition■

Source: Uplifted and edited from ICAO website; security-security culture

Aviation Rescue Fire Fighting Service

Aviation Fire fighting is more than just a job; it's an exciting, challenging role that contributes to the vital layer of safety we provide to the travelling public.

Description

Rescue and Fire Fighting Services (RFFS) is also commonly referred to as Aircraft Rescue and Fire Fighting (ARFF) .In all cases, these terms refer to the rescue and fire fighting services provided at an aerodrome which are specifically dedicated to the support of safety in aircraft operation. This special category of fire-fighting involves incident response, hazard mitigation, evacuation and possible rescue of passengers and crew of an aircraft involved in an aerodrome (or potentially off aerodrome) ground emergency.

Background

The International Civil Aviation Organization (ICAO) defines the requirements for aerodrome Rescue and Fire Fighting Service (RFFS) in Annex 14, Volume 1 - Aerodrome Design and Operations. In accordance with this Annex, it is a requirement for Member States to provide rescue and fire-fighting services and equipment at airports under their jurisdiction. The Civil Aviation Authority of each State in turn publishes the corresponding regulations and guidance for their operators.

Effects

Modern commercial aircraft can have the capacity to carry several hundred passengers and crew. Therefore, due to the mass casualty potential of an aviation emergency, it is critical that emergency response equipment and personnel arrive at the scene within the minimum possible time. The maximum response time from initial notification until the first vehicle is on scene and spraying fire retardant is defined by State regulation and generally ranges from three to four minutes under conditions of good visibility and uncontaminated surfaces.

Capacity

Although there is some disparity among the Member States in the designation of the RFFS capacity of a given aerodrome, the basic premise for determining the normally -declared RFFS requirement is the size of the largest aircraft that it is intended to accept. In most cases, the size determination is based on both the length of the aircraft and the maximum fuselage diameter.

To meet the requirements of the Aircraft Category for Fire Fighting, it is necessary for the aerodrome to have a declared minimum fire fighting capacity measured on the basis of the number of available vehicles and their foam production capability.

Fire Fighting Apparatus

The number and type of firefighting vehicles / appliances based at an airport will be determined by the normally declared category of the airport. Specialized fire vehicles are required for the RFFS function. The design of these vehicles is predicated on many factors but primarily on speed, water-carrying capacity, off-road performance and agent discharge rates. Since an accident could occur anywhere on airport property, sufficient water and other agents must be carried to contain any fire. This will allow for the maximum possibility of a successful evacuation and the best probability of extinguishing or suppressing any post crash fire until additional resources arrive on the scene.

Most airport fire vehicles are equipped with a roof-mounted cannon or nozzle which can shoot fire extinguishing agents large distances. This allows an approaching fire appliance to begin extinguishing flames as it approaches the scene of the fire. Newer vehicles often are equipped with the nozzle mounted on an extendable boom and are also often fitted with a spike that can pierce the fuselage of an aircraft. This allows delivery of water or foam to the interior of an aircraft which can sometimes reduce the risk of flashover.

Personnel Protective Equipment

Burning fuels generate intense radiant heat. Firefighters wear a protective ensemble referred to as a 'fire proximity suit' that is coated with a silvered material designed to reflect heat away from their bodies. They must also wear self-contained breathing apparatus to provide a source of breathable air allowing them to work in an environment of smoke and other super-heated gases.

Training

ICAO Annex 14 directs that *"All rescue and fire fighting personnel shall be properly trained to perform their duties in an efficient manner and shall participate in live fire drills commensurate with the types of aircraft and type of firefighting equipment in use at their aerodrome, including pressure-fed fuel fires"*.

FOD removal, and runway inspection

Many airport firefighters have also cross-trained as first aiders. Beyond those stemming from actual aircraft, airport firefighters, not surprisingly, also deal with potential fires in the airport's structure itself. They also deal with hazardous spills that may occur throughout operations, as well as monitor refuelling. They often assist in FOD removal services with getting rid of FOD and deal with any traffic collisions on the airport's property.

Working in overnight shifts, airport firefighter crews provide security for the premises after midnight. They also perform the first runway checks of the morning.

Wildlife and water rescue

At some airports, ARRF units are also involved in wildlife management. More specifically, they handle bird dispersal exercise before landing and before aircraft departures.

If an airport is located near a body of water, the airport firefighting crew must also operate a water rescue service.

If you live in a big city, chances are you are quite used to hearing sirens blaring close by or seeing big red trucks shoot past on a daily basis. Thankfully, airport firefighting services are rarely noticed to the same extent■

Source: skybrary.aero

Good Intentions: Wrong Repair

Most mechanics have repair manuals that help us deal with the problem of what to do with a dent.

Every line mechanic has seen it, and has had to decide what to do about it. They come in every size from small and immaterial to large enough to put the airplane out of service for days. Of course, that is one of our problems, whether it is from **F**oreign **O**bject **D**ebris or bird strikes, I am referring to the common problem of "dents".

Most of us have repair manuals that help us deal with the problem of what to do with a dent. Whether it is a must fix or we can just leave it alone. That however is where the problem comes in, what to do in the mind of a mechanic.

After years of working on an aircraft, an Aircraft Maintenance Engineer (AME) can decide within a glance whether to deal with a dent or leave it alone. However, it does turn into a problem when it is a quick turn jet aircraft, full of passengers and you have to make a decision on what to do. Your decision could mean taking the aircraft out of service, inconveniencing passengers, and playing havoc with schedules.

Take for example a recent dent to a Boeing 737-300 #1 engine nose cowl. The aircraft came into the gate; the mechanic walked around the airplane and noticed the dent to the nose cowl. Taking measurements, he records it and then heads off to check records to see if it was previously written down and deferred out. Finding nothing previously in the records, the AME implements a write-up recording it in the history.

Pulling out the repair manual, the AME checks the manual and finds that the dent is outside of legal limits and will need to be repaired before further flight. Contacting a supervisor, the AME advises him of the problem.

Now the problem is in the hands of the supervisor. Unable to defer the dent out due to the must fix under the repair manual the supervisor heads to the airplane to see for himself.

The AME meets the supervisor at the airplane and shows him the dent, providing the manual to the supervisor which allows him to see for himself the legal limits. Obviously out of the limits that are showed in the manual for a dent in the leading edge of the nose cowl, the supervisor has to do some quick thinking. He knows the airplane is due to leave within the hour, looking up he can see that they are already boarding the plane.

Broaching an idea to the AME, the supervisor shows that the dent is deep not wide and that that is what is going to cause the problem. The supervisor then suggests that if the dent was wider; it would be legal to fly before a repair is needed. The supervisor makes his idea known to the AMT, then makes the suggestion to the AME to enlarge the dent.

Now here is a problem, for the AME, who is dedicated to fixing problems and not to harming an aircraft. Does this then go against his honor, the Federal Aviation Regulations? The mechanic politely refuses to do what the supervisor requests.

The supervisor, time running out, hurriedly obtains a rubber mallet and a 2x4 piece of wood. Aligning the 2x4 over the dent, he commences pounding with the mallet on the piece of wood. After several hits, the dent is now larger than deeper, and measuring it, he decides that it is now in a legal to defer size.

While this is going on, passengers have been watching this impromptu repair. Also watching are several AMEs and other supervisors. Proceeding back into the building, the supervisor signs off on the AME's write-up stating that the dent is actually within legal limits.

Now did the supervisor consider hidden damage on the inside of the nose cowl? No! Did he consider, that he was deliberately causing further damage? No! Did he consider, what his actions showed to the people watching, both on the ground and on the plane? No! Did he endanger the lives of the passengers? Well the plane left and no further incidents were noted, but does this mean that AMEs should damage aircraft to get out of work? No!

The supervisor did what he thought was best, his intensions were honorable, but the repair or fix was not. We, the AMEs of the world are dedicated technicians working to keep the aircraft of the world in top-notch flight condition. This is our creed and what we are sworn to do under our licenses. To further damage an aircraft is beyond our scope of thought. Let alone to do it in front of others.

In times of uncertainty, it is easy to find a quick fix, but you must think, is it the right repair at the right time for the right job? If you answer "no" to any of those thoughts, you may not only be going against your honor, but those wrong ideas may cause the death or injury of someone onboard that aircraft that you just "repaired."■

Source: aviationpros.com

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

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FIJI CONFIDENTIAL AVIATION INCIDENT REPORTING

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www.caaf.org.fj

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

Enhanced Cleaning And Disinfection of Aircraft Surfaces

Operational Recommendations

EASA recommends the following:

1) Aircraft operators should assess the risk of transmission of COVID-19 via contaminated surfaces on board their operated aircraft. In their risk assessment, operators could consider aspects like incidence levels of COVID-19 in the states/areas where they operate, the impact on health of the prevailing virus variant in that state/area, any additional mitigations required by the relevant public health authorities, for example pre-flight testing, wearing of masks or vaccination rates in the states/areas where they operate.

2) Based on the risk assessment, aircraft operators should implement enhanced cleaning policies focusing on the frequently touched areas and other possibly contaminated surfaces.

3) In their enhanced cleaning policies, aircraft operators should consider the principles detailed in the latest update of the EASA Guidance on aircraft cleaning and disinfection, the EASA-ECDC Aviation Health Safety Protocol, local requirements and international best practices.

4) Aircraft operators, when having a confirmed case during a flight or when receiving information, within maximum 48 hours after the flight has ended, that a person (passenger or crew member) that has travelled in their aircraft was confirmed positive for COVID-19, should perform a disinfection of the respective surfaces of the aircraft, unless disinfection has been performed prior to notification and post the affected flight. Disinfection should be performed following best practices, as soon as operationally possible and, preferably, no later than 24 hours after receiving the information■

Source: EASA SIB No.: 2022-03

Dangerous Goods

Carriage Of Alcohol-Based Hand Sanitizer In Passenger And Crew Baggage

The use of hand sanitizers to help prevent the spread of COVID-19 has led to questions on restrictions that may apply when carried on board aircraft by passengers and crew. Alcohol-based hand sanitizers, also known as alcohol-based hand rubs, are dangerous goods subject to Annex 18 — The Safe Transport of Dangerous Goods by Air. Annex 18 excepts articles and substances carried by passengers or crew from its provisions to the extent specified in the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284, "Technical Instructions").

The Technical Instructions restrict dangerous goods carried by passengers and crew in carry-on baggage, checked baggage or on one's person to those for personal use. The Technical Instruction describes alcohol-based hand sanitizers/alcohol based hand rubs as "Non-radioactive medicinal articles (including aerosols), toiletry articles (including aerosols) and aerosols with no subsidiary hazard". Under ANR 29(4) the Technical Instructions for the Safe Transport of Dangerous Goods by Air (as amended from time to time) shall be the prescribed standards approved by the Authority ■

Source: ICAO

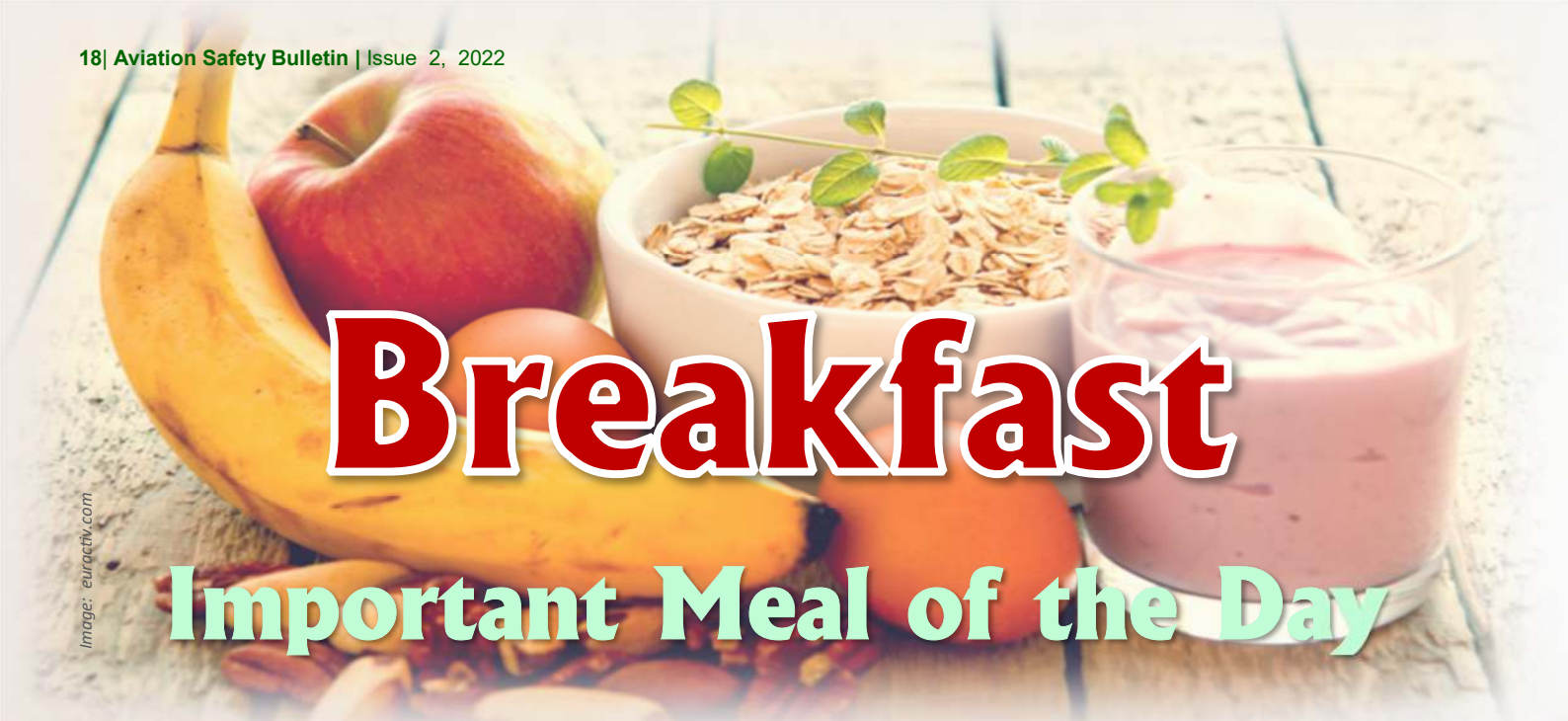


Image: euractiv.com

Breakfast

Important Meal of the Day

Breakfast is often called 'the most important meal of the day', and for good reason. As the name suggests, breakfast breaks the overnight fasting period.

It replenishes your supply of glucose to boost your energy levels and alertness, while also providing other essential nutrients required for good health.

The last 20-30 years have seen great strides in the development of technology, for example computers and mobile telephones, which are all suppose to make life easier. One could question this and argue that in fact the only change which has occurred is the increased pace of life and as Gandhi once said "there is more to life than making it go faster".

Pilots are also subjected to the quickening pace of life in that airline departure schedules require them to wake up early and prepare for a possible 12-hour duty day facing all the challenges that arise from irate passengers, weather and commercial demands.

As the human being experiences the most restful part of sleep at around 4-5am there is probably reluctance on the part of some people to get out of bed at an early hour, the desire being to catch another 10-15 minutes of sleep.

However, extra time spent sleeping means less time to prepare at home for the day's activities and if any item is dispensed with during the preparation it is usually the breakfast.

According to the medical research, a lot is happening in the human body around 4-5am and after a number of hours sleeping in the horizontal position a person's blood pressure rises as does the sugar level. After getting up from bed and physically preparing for the day the blood pressure decreases however, the rise in the sugar level continues until food is consumed.

Office workers and administrators are good everyday examples of what happens if breakfast is not consumed before starting work. From 8am as the pressure of work mounts, employees appear to become more argumentative and short tempered until 10am when a tea break is taken. Food is normally consumed at the tea break.

After the tea break the employees are found to be jovial and generally of good humor so what happened? Well, the consumption of food lowered the body sugar level.

Another factor associated with a high body sugar level is the sensation of light-headedness and the difficulty in mentally focusing on a particular task with this becoming more prevalent as the morning progresses. A reduction in mental performance is of particular concern to pilots who may be required to engage in concentrated mental activity to address an in-flight emergency or marginal weather conditions at a destination airport.

Despite the benefits of breakfast for your health and wellbeing, many people often skip it, for a variety of reasons. The good news is there are plenty of ways to make it easier to fit breakfast into your day. Breakfast replenishes the stores of energy and nutrients in your body.

The body's energy source is glucose. Glucose is broken down and absorbed from the carbohydrates you eat. The body stores most of its energy as fat. But your body also stores some glucose as glycogen, most of it in your liver, with smaller amounts in your muscles.

During times of fasting (not eating), such as overnight, the liver breaks down glycogen and releases it into your bloodstream as glucose to keep your blood sugar levels stable. This is especially important for your brain, which relies almost entirely on glucose for energy.

Eating breakfast boosts your energy levels and restores your glycogen levels ready to keep your metabolism up for the day.

Skipping breakfast may seem like a good way to reduce overall energy intake. But research shows that even with a higher intake of energy, breakfast eaters tend to be more physically active in the morning than those who don't eat until later in the day.

Agricultural aviation boomed in New Zealand during the 60's and 70's and this required pilots to fly laden aircraft in close proximity to the ground, over undulating terrain and at a normal operational speed. Light-headedness associated with high body sugar levels was found by accident investigators to be a major factor in agricultural aircraft accidents which occurred at around 10am.

Pilots begin their day by carrying out preparatory duties before commencing flying and this is done by way of an aircraft pre-flight inspection. As part of good aviation practice pilots should ensure they do the same for their bodies before leaving home for work and this is done by eating breakfast. It improves your energy levels and ability to concentrate in the short term, and can help with better weight management, reduced risk of type 2 diabetes and heart disease in the long term.

Essential vitamins, minerals and nutrients

Breakfast foods are rich in key nutrients such as folate, calcium, iron, B vitamins and fiber. Breakfast provides a lot of your day's total nutrient intake. In fact, people who eat breakfast are more likely to meet their recommended daily intakes of vitamins and minerals than people who don't.

Essential vitamins, minerals and other nutrients can only be gained from food, so even though your body can usually find enough energy to make it to the next meal, you still need to top up your vitamin and mineral levels to maintain health and vitality.

Breakfast helps you control your weight

People who regularly eat breakfast are less likely to be overweight or obese. It is thought that eating breakfast may help you control your weight because:

- it prevents large fluctuations in your blood glucose levels, helping you to control your appetite
- breakfast fills you up before you become really hungry, so you're less likely to just grab whatever foods are nearby when hunger really strikes (for example high energy, high fat foods with added sugars or salt).

Breakfast boosts brainpower

If you don't have breakfast, you might find you feel a bit sluggish and struggle to focus on things. This is because your brain hasn't received the energy (glucose) it needs to get going. Studies suggest that not having breakfast affects your mental performance, including your attention, ability to concentrate and memory. This can make some tasks feel harder than they normally would.

A healthy breakfast may reduce the risk of illness

Compared with people who don't have breakfast, those who regularly eat breakfast tend to have a lower risk of both obesity and type 2 diabetes. There is also some evidence that people who don't have breakfast may be at a higher risk of cardiovascular disease.

While skipping breakfast is not recommended, good nutrition is not just about the number of meals you have each day. If you don't have breakfast, aim to make up for the nutritional content you missed at breakfast with your lunch and dinner.

Although this article is aimed at pilots the principles also apply to workers in all works of life■

STRESS

..are you coping?

Introduction

According to the World Health Organisation (WHO), stress has been classified as the health epidemic of the 21st century.

The Covid-19 Pandemic in the past 2 years have literally "stressed" the world population in immeasurable proportions. The downturn in economies and lockdown of national borders resulted in shutdown of businesses and job losses. In addition, the loss of basic freedoms of choice and freedoms of movement with vaccine mandates/vaccine passports have forced a "new normal" into hesitant, fearful and deeply stressed populations.

In Fiji's Aviation Sector the closure of borders resulted in the total shutdown of our airports, and pilots, crew and affiliated aviation workers lost jobs and livelihoods. Stories abound of the hardship and stress faced by affected families and individuals over the ensuing two years, and many are still in financial strife today.

We all know what stress feels like at an individual level, but it is difficult to define, let alone difficult to manage. Part of the problem with stress and mental health woes is the lack of management protocols from health care providers to assist people in recognising, defining and coping with stressors in their lives.

In addition to this is the lack of standardised workplace protocols/staff resource management procedures, proposed and supported by employers to prevent and manage work-related stressors in their employees.

Fear of Mental Health stigmatisation also drives workers to hide their stress issues from their employers and colleagues forcing the issue under the radar. Pilots are typically of a type-A personality and would hate to appear un-coping and weak to their employer, colleagues, family and friends. The Germain Wings tragedy is testament to how unaddressed stress and mental strife can explode into dire consequences.

What is Stress?

Stress could be immediate /short term arising within hours or chronic/long term festering over months to years. Both types of stress could be detrimental to a pilot's performance on the flight deck.

Stress is our body's response to pressures from a situation or life event (stressor). A stressor can vary hugely from person to person and dependent on our social and economic circumstances, our environment, genetic makeup and physiology.

When we encounter a stressor the body's "hypothalamic-pituitary -adrenal axis" (HPA axis) produce stress-hormones (cortisol and catecholamines) that trigger a fight or flight response. This process helps us respond quickly to dangerous situations and once the situation is resolved our body processes quickly return to normal (homeostatic baseline).

When stressors become too frequent and too intense to deal with our stress response is activated repeatedly or becomes chronic without recovery periods. This results in cumulative wear and tear of the body and a permanent state of fight and flight that make us feel overwhelmed and unable to cope. While stress is not a mental health problem per-se, experiencing long term stress can impact on both physical and mental health.

Sources Of Stress

1) Physiological Stressors eg. Physical illness, diseases, drugs
2) Psychological Stressors eg. Depression, Anxiety
3) Environmental Stressors eg. Pandemics, weather, malfunctioning equipment

Work Related Stress

This occurs when an employee's work demands and pressures are not matched to their knowledge and abilities. This is made worse when employees feel they have little support from their bosses and colleagues as well as little control over work processes. It is incumbent on employers to create stress -management protocols to assist their employees tackle this modern scourge.

Being a pilot can be an extremely stressful job due to the workload, responsibilities and safety of the thousands of passengers they transport around the world. Chronic levels of stress can negatively impact one's health, job performance and cognitive functioning. Mild stress can motivate people to improve and adapt to a new environment.

Accidents start to occur when a pilot is under excessive stress that affects his/her physical, emotional and mental conditions. Stress jeopardises decision making relevance and cognitive functioning and it is a prominent cause of pilot error.

Aviation Accidents Caused by Stress

1) *Asiana Airlines Flight 214.*
It occurred on July 6, 2013 on the aircraft's final approach to San Francisco International Airport from Incheon. The plane hit the edge of the runway with its tail followed by the fuselage, bursting into flames. The pilot was stressed with an unfamiliar airport and forgot about the auto-throttle and the jet came in too slow and too low. He was also unfamiliar with his instruments thinking that the auto -throttle, which maintains speed, was always on but it was off. His insufficient knowledge of the flight deck automation and an unfamiliar airport caused excessive stress with disastrous aftermath killing three passengers and injuring hundreds more.

2) *American Airlines Flight 1420*
On Jun 1 ,1999 an experienced pilot was landing in Arkansas that had a thunderstorm occurring in the area. Due to the high crosswind and rapid changes in wind direction the pilot decided to change runways. The pilots were overcome with tasks and the stress of the difficult landing forgetting to arm the automatic ground spoiler and ground braking systems. The aircraft slid off the runway and collided with ground structures resulting in the death of the Captain and ten passengers.

3) *Polish Air Force Tu-154*
This April 2010 flight was carrying the Polish President had difficulty landing due to heavily foggy conditions. The stress of the weather, the number of high-status passengers, coupled with the pressure of arriving to the destination on time pushed the pilot onwards instead of landing at another destination. He brought the aircraft down through the clouds at too low an altitude resulting in a controlled flight into terrain, killing all on board. Investigations revealed that though there was no direct command for the pilot to go through with the landing, he was under a series of stress filled moments much of it emanating from his powerful passengers.

Effects on Memory

There are three components of memory:

1) Long Term Memory ;
2) Short Term Memory ;
3) Working Memory.

Stress impairs a pilot's working memory limiting the amount of resources that can be accessed or the time these resources could be accessed. There would be a rise in heart rate, blood pressure, muscle tension, anxiety and fatigue. These physiological stress symptoms interrupt cognitive functions by reducing memory capacity and cue samples. Researchers found that stress affects flight performances like smoothness and accuracy of landing, ability to multitask and being ahead of the plane. High stress also forces the pilot to make the same decision he/she had previously made even though it had led to negative consequences in the past.

Plan Continuation Error (PCE)

This is a type of decision-making error a pilot makes when under high stress. It is the failure to revise a flight plan despite emerging evidence that suggests it is no longer safe. 41.5% of casualties in general aviation happened when a pilot intends to land, no matter what it takes. A go-around decision further increases stress and mental workload.

A pilot feels pressured and stressed by the obligation to get passengers to their destination at the right time and to continue the flight as planned. American Airlines Flight 1420 accident was caused by PCE – the pilot continued on with the fight despite the knowledge that it was dangerous to do so.

Physical Effects of Chronic Stress

- Problems with sleep and memory (insomnia, hypersomnia, brain fog, forgetfulness)
- Affects eating habits (under/over-eating, unhealthy eating or binges)
- Malaise, loss of energy, less inclined to exercise
- Increase in smoking, alcohol or drug use (attempt to self-medicate stress)
- Irritable Bowel Syndrome / Gastric ulcers
- Myocardial infarction (Heart Attack)
- High Blood Pressure, Diabetes Mellitus
- Lowered Immunity and frequent infections
- Anxiety and Depression
- Suicidal thoughts and self-harm (Germain Wings case)

STRESS ..are you coping?

Managing Stress

1) Recognise that stress is a problem for you, identify causes and rectify things that are within your control.

2) Are you taking on too much, could you delegate some of the load to others? Prioritise and organise your life so that you are not trying to do things all at once. Is your lifestyle worsening your stress (partying, late night outs, excessive drinking of grog or alcohol, too much use of technology (phones).

3) Connect with people, build supportive relationships and social networks. Join a social club to expand your social network and volunteer to charity as a diversion from your own problems.

4) Adopt a healthy diet and a healthy lifestyle (exercise, lose weight, stop smoking and drinking) as it will improve your physical and mental health and mood.

5) Take time out to relax or a me-time to do something enjoyable everyday – only 30 minutes of joy everyday goes a long way. Reconnect with a childhood hobby.

6) Yoga and meditation. Go out on a limb, learn it or join a social group that practice it.

7) Get restful sleep.

8) Don't be too hard on yourself and take things into perspective. There is more to your life then the things you are stressing about.

9) Seek professional help sooner rather than later.

Societal Recommendations

1) DAME's and Health Providers should assess and address the psychological and other stressors experienced by aviators living with long term health conditions eg. Diabetes mellitus, hypertension, coronary artery disease, chronic kidney disease, cancer. It is well documented that the vast majority of people are not given psychological support for chronic health conditions despite the fact that they are 2-3 times more likely to have to have mental health problems like depression and anxiety.

2) People presenting in distress should receive a compassionate and trauma informed response with an emphasis on confidentiality and a clear pathway/ referral system to specialists when needed. A Stress Survey in the UK showed 16% of stressed adults have reported acts of self-harm and 32% experienced suicidal thoughts.

3) Regulators and Government agencies (Health and Safety Regulations) must ensure that employers recognise and treat physical and psychological hazards in the workplace equally.

4) More research is needed on the prevalence of stress in the population and how the experience of stress could be reduced at the community and societal levels■

Author: Dr Isireli Biumaitotoya AMA, DAME, MFCGP.

AIR NAVIGATION SERVICES

ANS FORMS

Exam Application

PL101L

Applicants must submit form with supporting documents and pay relevant fees.

RENEWAL FORMS

PL110A—ATS

ASOL Licenses expires every YEAR - candidates are required to sit an ASOL Exam before their licenses can be renewed.

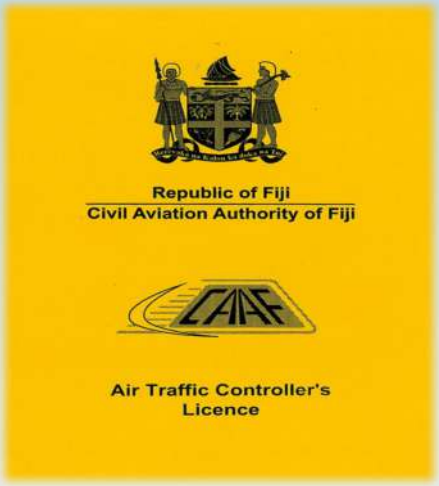
PL110C—ASOL

ASOL Licenses expires every YEAR - candidates are required to sit an ASOL Exam before their licenses can be

PL103H-AFTL

AFTL Licenses expires every YEAR - Candidates must sit Required exams before their licenses are renewed.

Types Of Licence Books



ISO 9001:2015 CERTIFIED
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Website: www.caaf.org.fj

ISO 9001:2015 CERTIFIED

Civil Aviation Authority of Fiji

Be a safety hero score an accident zero

More info @ www.caaf.org.fj