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AVIATION SAFETY BULLETIN

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Message from Chief Executive-CAAF

Introduction

A lot has changed in Fiji's aviation environment since the beginning of the year but most significant, are our friends who have left us. To them we say thank you and we farewell you with all our best wishes. Many have also joined us and we welcome you on board.

We look forward to your support. In this Aviation Safety Bulletin, the Authority would like to give you an update on the progress of some of the projects and issues that would interest you.

Harmonisation of ANR

We embarked this year with the plan to complete the drafting of the Fiji Air Navigation Regulation Parts that will be proposed to government to replace the existing Air Navigation Regulations 1981 (ANR). We are pleased to report that in August, the Authority's Harmonisation Consultant, in consultation with the Authority team, has completed the first draft of the 38 ANR Parts and related Standard Document's that were identified as relevant to Fiji. The Consultant has been retained to conduct an education briefing of each of the 38 ANR Parts and Standard Documents. All stakeholders are urged to take advantage of this opportunity to seek clarity on any of the Parts and their contents. Comments made during these briefing will also be noted.

Consultation on ANR and Standards

In 2010, we improved our consultation process and made it more inclusive to include industry participation. The CASA system was adapted for our use to suit Fiji's context. Twelve of the new ANR Parts developed under the harmonisation project and associated Standards Documents (SD) including an existing SD were submitted for consultation with specific timelines. There were some delays given that the process is still new and many of you are busy and require time to adjustment to the new process. As a result, the combined consultation deadline for all the 12 Parts and SD's were extended to the end of December this year. Additionally, the consultation suffered a setback due to the non availability of industry personnel to take up IASC and IGSC chairman roles. In the absence of IASC and IGSC Chairmen, industry and stakeholders are urged to submit your comments on the proposed ANR Parts to the CAAF LEM and /or relevant Controller.

Safety Management System (SMS)

It has been 5 years now since we first introduced the SMS across our industry and progress has been slow. This is part of ICAO's efforts to shift safety oversight towards a performance based approach. Under the new approach, safety is managed and owned where the risk occurs. One major observation, contributing to the slow progress is the delay in implementation of an appropriate system for free reporting, sharing and analysis of safety data. As a result, the on-going process of hazard identification, risk assessment, risk mitigation or proactive resolutions of safety deficiencies to support business decisions is slow to mature across industry. Ultimately, the aim of the SMS is for each organisation to establish its Acceptable Level of Safety (ALoS) and safety targets, suitable for its size, complexity and nature of operation. Until this is achieved, the CAAF will continue with existing compliance audit and controls.

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Industry Feedback

I wish to take this opportunity to thank the nine organisations and aviation document holders that responded to our survey. We appreciate your positive and constructive feedback to improve our services. Our team is reviewing your comments and appropriate improvement will be taken to address those gaps that you have identified.

Certification of Aviation Training Institution

The Authority is pleased to announce that shortly we will issue the Fiji National University (FNU) Aircraft Maintenance Engineering (AME) School with a ANR 145 B Certificate. The Fiji standards to support the ANR 145 B Certificate for AME schools is an adaptation of the EASA Part 147 and the core curriculum is measured against the ICAO standards and, the Fiji AME Licensing modules to bridge the students to the Fiji AME licensing system. Under the FNU certification, the students graduating from the FNU AME School qualify to get for the Authority's Aircraft Maintenance Certificate (AMC) modular exams.

Universal Safety Oversight Audit (USOAP)

The Authority on behalf of Fiji has recently signed the MOU with ICAO to participate in the Universal Safety Oversight Audit (USOAP) Continuous Monitoring Approach (CMA). This is part of our ongoing efforts to fulfil our international obligation which in this case is arising out of the ICAO Assembly Resolution A37-5.

Under this arrangement, States are required to update State's compliance requirements with ICAO electronically. ICAO will also review the progress made to close the ICAO Audit findings of Fiji in 2006. A team has been established within the CAAF to update Fiji's compliance status with the ICAO standards, and checklists. ICAO will review Fiji's updated data on line and determine whether another visit to Fiji would be required.

Fiji's rating for implementation of ICAO standards and practices at the time of the audit in 2006 was 62% compliance compared to the global average of 59% as of August 2010 after 165 contracting States were audited. Fiji since 2006 has closed 97% of the audit findings and we anticipate an improved rating once the updated data is reviewed by ICAO under the USOAP CMA.

Universal Security Audit Programme (USAP)

The ICAO USAP audit of Fiji will take place in January 2012 and the Authority is working to respond to all the ICAO questions by the end of this month. The responses to these questions will be sent to ICAO to prepare them for the Audit. The audit will review Fiji's compliance with ICAO Annex 17 and the security provisions of Annex 9 standards and recommended practices respectively under the critical elements of ICAO.

Accident trend

Accident rate is universally adopted as the all encompassing measurement of States, Region and Global civil aviation system effectiveness. As of today, based on last 10 years data, the accident rate for Fiji is averaging around 7.14 accidents/million flight movement. Improving this rate to below the global rate of 4.03 accidents/million flights or Asia Pacific 1.81/million flights will require our combined effort.

Thank you for your continued support as we face the safety and security challenges that lies ahead. We are confident that together we can secure a safe aviation environment that compares to international air transport bench mark and support the promotion of Fiji as a safe holiday destination.

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Fatigue Risk Management Systems (FRMS)

Reduce fatigue risk – increase productivity.

Prescriptive flight duty and rest time regulations had been the traditional strategy to manage shift work and time zone crossings for most airlines. This traditional approach has been increasingly questioned since it is based on a simplified concept of managing risk. Compliance to duty time limitations was assumed to provide safe operations. But often these regulations are not risk-assessed, not based on scientific evidence nor tailored to the specific demands of the individual operator.

ICAO, IATA and IFALPA, the three largest institutions in civil aviation worldwide, have recently proposed FRMS as the future strategy to manage fatigue, based on a new global standard.

What is a Fatigue Risk Management System?

ICAO has defined fatigue as:

A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety related duties.

Fatigue is a major human factors hazard because it affects most aspects of a crewmember's ability to do their job. It therefore has implications for safety.

ICAO defines Fatigue Risk Management System (FRMS) as : "A data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge that ensures relevant personnel are performing at adequate levels of alertness."

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Why is it important to implement?

An FRMS aims to ensure that flight and cabin crew members are sufficiently alert so they can operate to a satisfactory level of performance. It applies principles and processes from Safety Management Systems (SMS) to manage the risks associated with crewmember fatigue. Like SMS, FRMS seeks to achieve a realistic balance between safety, productivity, and costs. It seeks to proactively identify opportunities to improve operational processes and reduce risk, as well as identifying deficiencies after adverse events. The structure of an FRMS as described here is modelled on the SMS framework. The core activities are safety risk management (described in the SARPS as FRM processes) and safety assurance (described in the SARPs as FRMS safety assurance processes). These core activities are governed by an FRMS policy and supported by FRMS promotion processes. The entire system must be documented to the satisfaction of the State of the Operator.

Both SMS and FRMS rely on the concept of an 'effective safety reporting culture, where personnel have been trained and are constantly encouraged to report hazards whenever observed in the operating environment. To encourage the reporting of fatigue hazards by all personnel involved in an FRMS, an operator must clearly distinguish between:

- unintentional human errors, which are accepted as a normal part of human behaviour and are recognized and managed within the FRMS; and
- deliberate violations of rules and established procedures. An operator should have processes independent of the FRMS to deal with intentional non-compliance.

To encourage an ongoing commitment by personnel to reporting fatigue hazards, the organization must take appropriate action in response to those reports. When an effective safety reporting system exists, a large percentage of safety reports from operational personnel relate to identified or perceived hazards, instead of errors or adverse events.

Why should an Airline implement an FRMS?

Operators are increasingly made responsible for providing schedules that allows crew members to perform at adequate levels of alertness, with or without an FRMS.

With increasing crew productivity requirements, whether due to staff shortages or for business demands, new strategies are needed. Increased productivity at reduced fatigue risk is a promising advantage of a data driven FRMS.

In addition to that, upcoming regulations would include major elements of an ICAO FRMS standard. The step from a compliance-based approach to a performance driven FRMS is therefore a valuable option.

Why the Aviation Industry is Introducing FRMS

The traditional regulatory approach to managing crewmember fatigue has been to prescribe limits on maximum daily, monthly, and yearly flight and duty hours, and require minimum breaks within and between duty periods. This approach comes from a long history of limits on working hours dating back to the industrial revolution. It entered the transportation sector in the early 20th century in a series of regulations that limited working hours in rail, road and aviation operations. The approach reflects early understanding that long unbroken periods of work could produce fatigue (now known as 'time-on-task' fatigue), and that sufficient time is needed to recover from work demands and to attend to non-work aspects of life.

In the second half of the 20th century, scientific evidence began accumulating that implicated other causes of fatigue in addition to time-on-task, particularly in 24/7 operations. The most significant new understanding concerns:

- the vital importance of adequate sleep (not just rest) for restoring and maintaining all aspects of waking function; and
- daily rhythms in the ability to perform mental and physical work, and in sleep propensity (the ability to fall asleep and stay asleep), that are driven by the daily cycle of the circadian biological clock in the brain.

This new knowledge is particularly relevant in the aviation industry which is unique in combining 24/7 operations with trans-meridian flight.

In parallel, understanding of human error and its role in accident causation has increased. Typically, accidents and incidents result from interactions between organizational processes (i.e. workplace conditions that lead crewmembers to commit active failures), and latent conditions that can penetrate current defenses and have adverse effects on safety. The FRMS approach is designed to apply this new knowledge from fatigue science and safety science. It is intended to provide an equivalent, or enhanced level of safety while also offering greater operational flexibility.

Prescriptive flight and duty time limits represent a somewhat simplistic view of safety – being inside the limits is safe while being outside the limits is unsafe – and they represent a single defensive strategy. While they are adequate for some types of operations, they are a one-size-fits-all approach that does not take into account operational differences or differences among crewmembers.

In contrast, an FRMS employs multi-layered defensive strategies to manage fatigue-related risks regardless of their source. It includes data-driven, ongoing adaptive processes that can identify fatigue hazards and then develop, implement and evaluate controls and mitigation strategies. These include both organizational and personal mitigation strategies.

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While an FRMS is based on scientific principles, its application within various aviation contexts requires operational experience and knowledge. An FRMS should not be provided to an operator by a consultant; it needs to be developed, understood and managed by people who have comprehensive experience in the complex operational environment to which it will apply. In this way, meaningful interpretations can be made of what various data analyses may mean in particular contexts, and workable operational strategies can be developed.

The cost and complexity of an FRMS may not be justified for operations that remain inside the flight and duty time limits and where fatigue-related risk is low. Some operators may therefore choose to place only certain parts of their operations under an FRMS or not implement an FRMS at all. Nonetheless, where an FRMS is not implemented, it remains the operator's responsibility to manage fatigue risks through their existing safety management processes. It would be a misconception to think of an operator with an FRMS as having no flight and duty time limitations. In fact, an operator continues to have flight and duty time limitations but these are identified through their own FRMS processes, specific to a defined operational context, and are continually evaluated and updated in response to their own risk assessments and the data the operator is collecting. It is up to the regulator to assess whether the risk assessments, mitigations and the data collected are appropriate, and that the flight and duty time limitations identified are reasonable responses as evidenced in safety performance indicators. This means that FRMS necessitates performance-based regulation.

In essence, FRMS regulations will define a process for operators and regulators to manage fatigue risk, rather than prescribing limits that cannot consider aspects specific to the organization or operating environment.

ICAO Standards and Recommended Practices for Fatigue Management

These SARPs provide a high-level regulatory framework for both prescriptive flight and duty limitations and FRMS as methods for managing fatigue risk. Both methods share two important basic features:

1 They are required to take into consideration the dynamics of transient and cumulative sleep loss and recovery, the circadian biological clock, and the impact of workload on fatigue, along with operational requirements.

2. Because fatigue is affected by all waking activities not only work demands, regulations for both are necessarily predicated on the need for shared responsibility between the operator and individual crewmembers for its management. So, whether complying with prescriptive flight and duty limitations or using and FRMS, operators are responsible for providing schedules that allow crewmembers to perform at adequate levels of alertness and crewmembers are responsible for using that time to start work well-rested.

3. FRMS also shares the building blocks of SMS. This means that an FRMS is predicated on: effective safety reporting; senior management commitment; a process of continuous monitoring; a process for investigation of safety occurrences that aims to identify safety deficiencies rather than apportioning blame; the sharing of information and best practices; integrated training for operational personnel; effective implementation of standard operating procedures (SOPs); and a commitment to continuous improvement. So, together, the foundations of prescriptive flight and duty time limitations and SMS form the building blocks of FRMS .

Prescriptive flight and duty time limitations	• Addresses transient and cumulative fatigue • Shared operator-individual responsibility
SMS	• Effective safety reporting • Senior management commiment • Continuous monitoring process • Investigation of safety occurences • Sharing of information • Integrated training • Effective implementation of SOPs • Continuous improvement

Symptoms & Effects of Fatigue

Conditions which contribute to fatigue include the time since awake, the amount of time doing the task, sleep debt, and circadian rhythm disruption. As fatigue progresses it is responsible for increased errors of omission, followed by errors of commission, and microsleeps. "Microsleeps" is characterized by involuntary sleep lapses lasting from a few seconds to a few minutes (3). For obvious reasons, errors or "short absences" can have significant hazardous consequences in the aviation environment.

Many of the unique characteristics of the flight deck environment make pilots particularly susceptible to fatigue. Contributing aircraft environmental factors include movement restriction, variable airflow, low barometric pressure and humidity, noise, and vibration.

Fatigue and sleepiness may be less evident to a pilot due to stimuli such as noise, physical activity, caffeine, nicotine, thirst, hunger, excitement, and interesting conversation. Sleep-deprived pilots may not notice sleepiness or other fatigue symptoms during preflight and departure flight operations. However once underway and established on altitude and heading, sleepiness and other fatigue symptoms tend to manifest themselves.

When extreme, fatigue can cause uncontrolled and involuntary shutdown of the brain. That is, regardless of motivation, professionalism, or training, an individual who is extremely sleepy can lapse into sleep at any time, despite the potential consequences of inattention. Transportation incidents and accidents of any sort can be the cause of this.

Warning Signs of Fatigue

When flight crewmembers find themselves flying when fatigued several warning signals should alert them of a dangerous situation. These include:

- Eyes going in and out of focus
- Head bobs involuntarily
- Persistent yawning
- Wandering or poorly organized thoughts
- Spotty near term memory
- Missed or erroneous performance of routine procedures
- Degradation of control accuracy

Counter Measures

Several countermeasures for fatigue are effective in improving alertness and performance. Long naps, 3-4 hours, can significantly restore alertness for 12-15 hours. Short or "power" naps of 10-30 minutes can help restore alertness for 3 -4 hours. Allow 15-20 minutes after awakening to become fully alert before assuming aircrew duties.

Other countermeasures include:

- Eat high protein meals (avoid high fat and high carbohydrate foods)
- Drink plenty of fluids especially water
- Caffeine can help counteract noticeable fatigue symptoms if awake for 18 hours or less
- Rotate flight tasks and converse with other crewmembers
- Keep the flight deck temperature cool
- Move / stretch in the seat, and periodically get up to walk around the aircraft if possible
- Gradually shift times for sleep, meals, and exercise to adjust to a new time zone.

(Source: Pilot Fatigue—www.airline safety.com www.aeromedical.org)

Tips on How To prevent ATC Infringements

1. Navigation is a skill, and needs to be practised regularly, both planning a flight and conducting it.
2. Where possible, avoid planning to fly close to controlled airspace boundaries. If you do need to do so, be very careful. A small navigational error or distraction of any sort can lead to an infringement – and it doesn't take much to ruin your day!
3. Pilot workload rises rapidly in less than ideal weather - and so do infringements. If the weather starts to deteriorate, consider your options early and if necessary divert or turn back in good time.
4. f you wish to enter or transit controlled airspace, think about what you need to ask for in advance and call the appropriate Air Traffic Control (ATC) unit at least 10 nautical miles or five minutes flying time from the airspace boundary. This gives the controller time to plan ahead.
5. Thinking before you press the transmit switch and using the correct radio phraseology helps air traffic control to help you - and sounds more professional!
6. Be aware that ATC may be busy when you call them – just because the frequency doesn't sound busy doesn't mean that the controller isn't busy on another frequency or on landlines.
7. Remember - the instruction 'Standby' means just that; it is not an ATC clearance and not even a precursor to a clearance. The controller is probably busy so continue to plan to fly around the airspace. Only enter controlled airspace if the controller issues a clearance.
8. Your planned route through controlled airspace may appear simple on your chart but the traffic patterns within that airspace may make it unrealistic in practice. Be prepared for a clearance that does not exactly match your planned route but will allow you to transit safely.
9. Don't be afraid to call ATC when lost or uncertain of your position - overcoming your embarrassment may prevent an infringement which may in turn prevent a reportable occurrence (or worse).

Never aim Laser Pointers at Aircraft!

You should **NEVER aim a laser pointer at or near an airplane or helicopter**. It is unsafe, you may be arrested, and you may help get laser pointers banned. Here is more information about these three aspects:

It is unsafe -

The beam CAN hit an aircraft

If you aim a laser beam into the sky, it may seem to end, as shown in this unretouched photo:

However, this is a visual illusion, and this is a dangerous illusion. A person can think their laser beam can't reach an aircraft, since the beam looks "short". They are of course mistaken.

Light from a laser does not stop in mid-air, but continues going. A pilot at the other end can clearly see the light from even a relatively low powered 5 mW green laser, at a distance well over 2 miles.The beam actually continues even if the light is no longer scattered back to your eyes. Some people have been arrested aboard because they thought the beam could not reach an aircraft -- but it definitely can! From the air, the beam can look like this:

Obviously, seeing such a beam is distracting to pilots. This is one reason you should **never aim at <u>or near</u> an aircraft.**

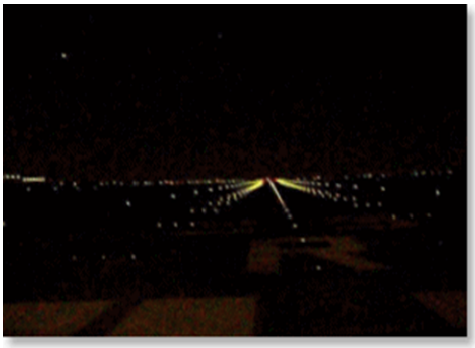
Distracting or flashblinding pilots is dangerous

Another problem is that the beam is much larger at long distances than you might think. Even though the laser projects a small, millimeter-sized dot close up, at longer distances the beam can be many inches across. When the beam hits the windscreen of a cockpit, or the bubble of a helicopter, imperfections in and on the glass spread the light out even more:

The light often is spread so much that

the pilot cannot avoid it:

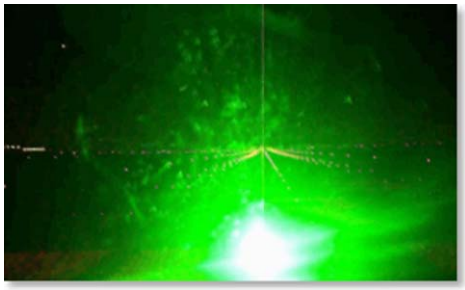
Laser light in the pilot's eyes causes **glare** (inability to see past the light). At higher power levels, it can also cause **temporary flashblindness and afterimages** (like when you look at a bright camera flash, and cannot see for a many seconds afterwards). Since the beam can't be held completely steady on the cockpit, pilots experience one or more of these bright flashes:



Glare -- the pilot cannot see past the light as long as the laser is on the cockpit windscreen.

Flash blindness and afterimage -- the pilot cannot see until the afterimage has faded.

To make things even worse, a pilot being targeted may also be worried about **eye damage** and **eye injuries,** and the possibility of the laser being an **aiming device** on a weapon. A worried pilot is a distracted pilot -- not a good thing during critical flight phases such as landings, takeoffs and emergency maneuvers.



For all these reasons -- and especially due to the **distraction, glare and flashblindness effects** -- you should NEVER point a laser towards an aircraft. (It is not even smart to aim directly at stars, since a slow-moving far-away aircraft could look like a star.

(Source: Laserpointersafety.com)

FREE CALL
SAFETY MESSAGE LINE
Phone your safety concerns to CAAF – 0800 6725 799

Medical Training For AFL & Other Organisation Workers

ONE could be rest assured that in the event of a medical emergency at the airport, help would be readily available from working team at the airport.

At least 1000 staff including AFL, CAAF and other organisations were trained by Doctor Peter Wirth, an emergency medical specialist based in Canberra, Australia, on cardiopulmonary resuscitation (CPR) and the use of defibrillators in cases of cardiac arrest (heart attack).

Due to the interest shown in attending the training, two sessions were conducted to cater for the numbers from fire services, customs, immigration, security, the duty free shops, Air Pacific.

Dr Wirth, with five other emergency physicians from Australia, was in Fiji to discuss specialist services across the Pacific with AusAID.

"This is our passion," explained Doctor Wirth. "We're very keen to offer our services to Pacific nations, either working through the Fiji School of Medicine and/or working with ministries, hospitals, local doctors and nurses, and potentially having Fiji's doctors and nurses visiting our hospitals in Australia."

Dr Wirth's connection with Fiji goes years back when he worked with local medical personnel. In 2001, this association became formalised through the AusAID-sponsored Fiji Health Sector Improvement Programme (FHSIP), where Dr Wirth's involvement continued until 2006.

During that time, with the assistance of Mr David Rak, Regional Operations Manager of Laerdal, a defibrillator supply company, Dr Wirth organised the donation of two defibrillators and training mannequins to AFL.

"Because I was coming to Fiji, I contacted AFL and asked if there was any interest in our resuming training. I received an enthusiastic reply from AFL's Mr Lawrence Liew, General Manager Airports. The existing equipment only needed new batteries and pads, and was used in these training sessions.

"Another time, I would like to organise training on both sides of the country. These sessions took place at very short notice, but they should give the country, AFL, tourism, immigration, everyone involved greater confidence in dealing with medical emergencies," said Dr Wirth.

This medical training was conducted on 17th August 2011 at CAAF Training Room.

CAAF's Standards section 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 Quality Assurance Manager on 6727429, dropping it in the feedback box in the foyer of CAAF HQ, or emailing to standards@caafi.org.fj.

Your suggestions for improvements to this publication are also invited. CAAF also invites you to submit valuable information or articles that you would like to have published through this bulletin for the benefit of readers. Your name will be appropriately acknowledged. Please use the email address stated above.

10 Years after 9/11

It is now ten years since the world was left shocked and horrified by the deadliest and most photographed terrorist attack in history of mankind. Around the world and especially in America they commemorate the day that changed the aviation world. The birth of a new tactic came as a surprise to most people around the world especially Americans, including U.S. intelligence operatives when the craft used to bring people together suddenly became a weapon of horrific and mass destruction. The world aviation security system had been penetrated with embarrassing ease and to devastating effect.

Some have forgotten this terror attack but most still feel the pain and agony. The wounds of September 11 will never fully heal for those who lost loved ones on that day and nothing will ever bring them back.

Here's a list of events that occurred after September 2001:

Dec. 22, 2001: British-born Al Qaeda agent Richard Reid fails to detonate plastic explosives hidden in his shoes while on board a flight from Paris to Miami.

Aug. 24, 2004: Chechen female suicide bombers blow up two aircraft departing Moscow's Domodedovo Airport for Volgograd and Sochi, Russia. A government investigation blames a failure to follow authorized security procedures.

Aug. 10, 2006: British authorities arrest 25 suspects after uncovering a plot to simultaneously blow up several aircraft over the Atlantic Ocean.

Dec. 25, 2009: Al Qaeda-trained Umar Abdulmuttallab fails to detonate plastic explosives hidden in his underwear on a flight from Amsterdam to Detroit.

Oct. 29, 2010: Saudi intelligence alerts the CIA about a plot to set off plastic explosives hidden in printer cartridges being sent by air from Yemen to Chicago. Authorities intercept the packages in Dubai and at East Midlands, U.K.

The Incident

On that Tuesday morning, 19 terrorists from the Islamist militant group Al-Qaeda hijacked four passenger jets. The hijackers intentionally crashed two planes, American Airlines Flight 11 and United Airlines Flight 175, into the Twin Towers of the World Trade Center in New York City; both towers collapsed within two hours. Hijackers crashed American Airlines Flight 77 into the Pentagon in Arlington, Virginia. The fourth jet, United Airlines Flight 93, crashed into a field near Shanksville, Pennsylvania, after passengers attempted to take control before it could reach the hijacker's intended target in Washington, D.C.

Casualties

There were a total of 2,996 deaths from the attacks, including the 19 hijackers and 2,977 victims. The victims included 246 on the four planes (from which there were no survivors), 2,606 in New York City in the towers and on the ground, and 125 at the Pentagon. Nearly all of the victims were civilians; 55 military personnel were among those killed at the Pentagon and a total of 411 emergency workers died as they tried to rescue people and fight fires.
There were 1122 people unaccounted for until the end of last month by simply vanished, atomised by aircraft impacts, immolated by burning jet fuel or pulverised in the collapse of one and a half million tons of concrete and steel.

Effects of 911 to Air travelers

Prior to 911, boarding an airplane was simple. However, it has changed dramatically through the years as airport security increased. In the decade since Sept. 11, 2001, passengers have learned to submit themselves to vigorous screening, put their less than 100ml bottles of liquids, aerosols and gels in a clear Zip-lock plastic bag and in some instance they have to take off their shoes. Thus just getting to the plane has added time, inconvenience and anxiety to passengers with the ultimate goal of being protected against terrorism.

Lesson Learnt

The event of 911 has really changed the world and the mindset of people globally. It created a desire that we would never again be unprepared for such an event.

Since then, security experts and intelligence operations have focused on detecting new strategies that might be employed by terrorists in their goal to attack civil aviation, and in finding ways to ensure they are not successful.

As airport security has increased since the September 11 2001 terror attacks, so has the terrorists' creativity in developing methods to circumvent it. Aviation continues to be a special target, and evidence from reports earlier this year that terrorists are now looking at implanting explosives inside people so they can create human bombs.

It is important that we not dismiss terrorist plans simply because they seem so unbelievable. We will need to focus our efforts and strengthen our capacity on early identification of people with suspicious behavior. In order to stay one step ahead of the terrorists, we must use our available technology intelligently and apply it to passengers that present the greatest risk. An intelligent security system uses a combination of profiling to identify the likely threat and advanced technology to clear that threat.

(Article by Aviation Security & Facilitation Department)

FCAIR

FIJI CONFIDENTIAL AVIATION INCIDENT REPORTING FORMS AVAILABLE ON WEBSITE

www.caafi.org.fj

OR FRONT DESK, CAAF HQ

AM I FIT TO FLY?

I - No Illness

M - No Medication

S - No Stress

A - No Alcohol

F - No Fatigue

E - Eaten and Nourished

Civil Aviation Authority of Fiji

Promoting effective aviation safety in the Fiji Islands and the region

ASD-SP06/11

ICAO Study Reveals strong demand for qualified aviation personnel up to 2030

More than two million jobs are projected for pilots, maintenance personnel and air traffic controllers as a result of the retirement of qualified professionals and the anticipated growth of commercial air transport to the year 2030.

According to a study just published by the International Civil Aviation Organization (ICAO) - Global and Regional 20-year Forecasts – Pilots, Maintenance Personnel and Air Traffic Controllers, ICAO estimates the number of commercially-operated aircraft will have jumped from 61,833 in 2010 to 151,565 between 2010 and 2030, and the number of departures from around 26 million to almost 52 million. This would more than double the current number of pilots, maintenance personnel and air traffic controllers worldwide.

The ICAO study compares the average number of professionals worldwide that will need to be trained annually with the training capacity of existing facilities. This reveals a shortfall of training capacity equivalent to 160,000 pilots, 360,000 maintenance personnel, and 40,000 air traffic controllers.

Personnel category	Current population (2010)	Population needed (2030)	Training needs *	Training capacity *	Shortage *
Pilots	463,386	980,799	52,506	44,360	8,146
Maintenance	580,926	1,164,969	70,331	52,260	18,071
Controllers	67,024	139,796	8,718	6,740	1,978

- estimated on an average annual basis

'If no action to increase training capacity is initiated early, shortages in qualified aviation personnel are likely. Thanks to this latest ICAO study, the extent and locations of such shortages can now be better identified and effectively addressed by Member States, industry and other concerned stakeholders,' said Raymond Benjamin, ICAO Secretary General.

As part of its mission to maintain the safety of the global air transport system, ICAO is providing leadership in the development of solutions aimed at ensuring that sufficient competent personnel are available. A Next Generation of Aviation Professionals (NGAP) Symposium convened last year by ICAO outlined a strategy for the recruitment, education, training and retention of aviation professionals. A follow up event is planned for April 2012.

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