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AVIATION SAFETY BULLETIN

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Inside this Issue:

PROGRESS OF SAFETY MANAGEMENT SYSTEM AND STATE SAFETY PROGRAM IMPLEMENTATION IN FIJI

The SMS implementation and the development of its corresponding safety culture is progressing slowly across industry. To continue to improve SMS awareness, CAAF hosted and conducted another SMS training for its staff and industry. This was followed by a detailed SMS implementation review within CAAF and industry.

The SMS Training and SMS implementation review were carried out by QSL expert Mr Jose Castellano. QSL is an IATA Strategic partner contracted to carry out consultancy in SMS, QMS and IMS and also does the IATA IOSA audits.

The Training was opened by the CAAF CE. In the opening address, it was emphasized that safety and safety improvements, were at the heart of civil aviation evolution and is the reason why air transport has become the safest mode of transport today. The focus of safety initiatives were targeted at:

- Reduce accidents;
- Minimise damages;
- Improve efficiency; and
- Reduce aviation impact on environment.

It was also highlighted that achieving safety outcomes largely depends on:

- the effectiveness and cohesion of the management team to implement change and continuous safety improvements;
- the systems and processes within an organisation to guide safety decisions and;
- the safety culture and values of the organisation and of those that directly manage safety and, make decisions that impact safety within the company.

The participants were reminded of the ICAO GASP and the ICAO target for States that have implemented SMS to achieve full SSP implementation. The training provided an opportunity:

- to review the progress on the SMS implementation in Fiji individually or collectively; and
- to explore ways to integrate the benefits of SMS in the SSP safety oversight strategies.

Ultimately, the CE reminded participants that Annex 19 has become effective and is required to be implemented by all ICAO contracting States. New PQ questions are being developed for States to respond to and Fiji will be required to provide responses to these questions.

The training was successfully completed and participants were challenged to:

- Progress and integrate full benefits of SMS implementation and performance based approach in our SSP safety oversight systems.
- Develop a strategy to facilitate the implementation of SSP by 2018 as per the ICAO Global Aviation Safety Plan.
- Accelerate the momentum to update Fiji's information on the USOAP CMA OLF and the compliance with the new Annex 19 SARPS.

The SMS implementation review by QSL expert highlighted a number of gaps which CAAF is now working to address.

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PROGRESS OF SAFETY MANAGEMENT SYSTEM AND STATE SAFETY PROGRAM IMPLEMENTATION IN FIJI cont...

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The areas requiring improvements identified by the Consultant were:

- Understanding of SMS terminology and purpose.
- Understanding of organizational context and nature of operations (processes, interested parties, service, etc.)
- Organizational description, processes or task analysis (including interfaces between internal processes and critical providers processes).
- Method for "management" (Example PDCA Cycle).
- SMS Roles and Responsibilities including definitions.
- Analysis on behalf of critical providers (suppliers).
- Training of Safety Managers in aviation safety management.
- Preparation of documents to promote and oversight aviation safety concerns inside their organizations.
- Organizational structure for management system and SMS.
- Method of establishing objectives, goals, strategies and measures (Example OGSM Method):
  - Management Indicators;
  - Use of only Lag Indicators (No Lead Indicators).
- Method of classifying and assessing risk on behalf of non-conformities/compliance.
- Method of identification of Hazards and correspondent Risk.
- Methodology to ensure clear and effective Reporting and feedback (Reporting general format).
- Method for Risk Management (Occurrence or Recurrence):
  - Reactive.- Investigations;
  - Proactive.- Risk management process;
  - Daily Work.- TEM (Threat and Error Management);
  - Change management (on behalf of new risk related to management system changes).
- Development of Safety Culture due to TEM not being practised on a daily basis.
- Method to determine root causes of undesired events (Example Cause-Effect Map – 5 Why´s).
- SMS Monitoring method related to their specific processes and results (outcomes).
- Method for SMS evaluation (Lag/Lead Indicators).
- Management for SMS Review (no decisions, no plans, no improvement actions).
- Safety information management method (data management).
- Safety training by levels and responsibilities on behalf of aviation safety (only prescribed training).
- Safety information and benchmarking deployment to personnel.

The CAAF team is committed to work with you to address the challenges above and will conduct further training and awareness to allow CAAF and industry to reach the desired outcomes in SMS and SSP implementation ▮

CAAF & INDUSTRY SMS TRAINING

WHAT TO DO WHEN PILOT IS UNCONSCIOUS

It's every passenger's worst nightmare. The flight is going smoothly and then, out of nowhere, the pilot convulses and passes out at the controls. Suddenly, the front-seat passenger is faced with the most daunting challenge he or she may likely ever face to control the airplane and land it safely in more or less one piece, and walk away with only a bad memory.

Most general aviation pilots have people they fly with regularly. Spouses, business associates and friends are often our most frequent flying companions, yet these passengers usually have little or no actual hands-on experience with an airplane. What pilots see as virtually instinctive control inputs are often totally foreign to our passengers, making a successful outcome in the event of an unconscious pilot often doubtful at best.

Fortunately, these incidents don't occur very often. In fact, pilot incapacitation accounts for only a tiny percentage of all accidents, but several recent news reports of pilots dying in crashes after losing consciousness while in flight remind us all that the risk, though small, is very real.

Nonpilots can, in the event of an emergency, take over the controls and bring an airplane down to a successful landing, but it's not easy. A little training, even informally, can greatly increase the odds of a happy outcome and should be considered by anybody who flies regularly with a pilot in a private plane.

Training frequent passengers to routinely serve as the radio operator makes the flight more interesting and relieves the mic fright often experienced by new pilots and passengers, taking the mystery out of talking to ATC.

Here are 10 things every frequent passenger should consider knowing how to do for greater peace of mind while flying:

1. PULL THE PILOT BACK AWAY FROM THE CONTROLS

Unconscious or incapacitated pilots often slump forward or move uncontrollably, pushing and pulling on the yoke and causing the airplane to go into an unusual attitude. Knowing how to move the pilot seat back quickly, without fumbling for the seat release, could be a lifesaver. So could reminding the pilot to keep his or her seat belt and harness fastened securely at all times.

2. STAY STRAIGHT AND LEVEL, AND MAKE TURNS AND DESCENTS

All frequent fliers should spend a couple of hours with a pilot or flight instructor to learn the basics of pitch, power, bank and trim. Keeping the airplane stable in the air will improve the confidence of the emergency pilot and let him move on to other tasks. Pilots should consider letting their interested passengers fly the airplane, at least a little, during every VFR flight.

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WHAT TO DO WHEN PILOT IS UNCONSCIOUS cont...

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3. USE THE RADIO AND AVIONICS IN THE AIRPLANE

Most of the time, the only lifeline for emergency pilots will be ATC. Frequent-flying nonpilots should know how to change frequencies on the radio, and how to activate the microphone from the passenger seat. They should know that 121.5 is the emergency frequency that they can turn to if all else fails. They should also know to just talk, to not worry about using the right lingo. They should also be able to turn the autopilot on and off and program the GPS to go "direct to" someplace close (preferably with a long runway). Many pilots have their passengers serve as navigators, and many front-seaters get very proficient with the GPS. This is a great practice and should be encouraged, not only for safety but also to ease the workload on the pilot and make flying more fun for all.

4. IDENTIFY AND INTERPRET KEY GAUGES ON THE PANEL

This will not only let the passenger fly the airplane better, but will also give emergency personnel the information they need in deciding on a course of recommended action. Like controlling the airplane, the ability to effectively read and interpret these instruments depends on frequent practice. Asking the passenger to point out the various instruments in flight and to identify what they're indicating can help keep him or her focused and bring the passenger closer to being a valued (though unofficial) crew member.

5. RECOGNIZE AN AIPORT FROM AN AERIAL PERSPECTIVE

Identifying airports from the air can be a challenge, even for some experienced pilots. For novices, it can be downright impossible if they haven't had some training and frequent practice. Pilots should have their passengers pick out airports along the route of flight, making it a game to see who can find the most airports. To make it even more fun, the passengers could read the chart and identify which airports they're seeing. They could learn to read the frequencies and learn how to tell controlled airports from uncontrolled. It's really not that difficult, and just a few minutes of training and an inflight game could make all the difference someday.

6. LINE UP ON A 2-MILE FINAL TO A RUNWAY

Getting the airplane positioned for a landing is critical, and a long final approach will provide more time to make adjustments to speed and altitude. A good CFI should teach non-pilots to fly a broad circle to the extended centerline of the runway (or better yet, make a long straight-in) and get the airplane set up for a glidepath. Nonpilots should learn to give themselves plenty of room to maneuver and make changes.

They don't need to learn the traffic pattern and all its complexities. The focus here should be on aircraft control and runway alignment, period.

7. CONTROL SPEED AND FLY A STABLE FINAL APPROACH

The nonpilot should be taught how pitch and power control speed and altitude, and should be shown how to keep the speed toward the middle of the green arc on the airspeed indicator. The instructor should teach the nonpilot how to set power to establish a gentle glidepath toward the runway and should point out the VASI or precision approach path indicator (PAPI) system and how it works. The nonpilot should be given plenty of hands-on practice in establishing a controlled glide, a critical component of any successful landing.

8. ESTABLISH A LEVEL FLIGHT ATTITUDE ABOVE THE RUNWAY

This is by far the hardest part for most nonpilots; even student pilots with 10 or more hours of training often find it difficult to tell just how high above a runway they are. Instructors should have the passenger call out altitudes during the final seconds of flight (20 feet ... 15 feet ... 5 feet) and let him get a feel for when to round out. Nonpilots should practice transitioning from final approach to round-out and should develop a feel for just how high to pull the nose up in order to fly level. Again, an hour or two of training can make this step much easier for the nonpilot to understand, and occasional recurrent practice will keep those skills as sharp as they need to be.

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WHAT TO DO WHEN PILOT IS UNCONSCIOUS cont...

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9. CUT THE POWER AND KEEP THE NOSE OF THE AIRPLANE LEVEL

Landing with a little power on is not a terrible thing, but if the emergency pilot can land with power off near stall speed, that's even better. The main point is to keep the nose as close to level as possible and let the airplane do its thing. The airplane will eventually touch down, and the important point is to make sure the wheels touch before the wing or prop. Again, occasional practice keeps these skills in tune.

10. STEER AND STOP THE AIRPLANE ON THE GROUND

Once the wheels are firmly planted on terra firma, brakes will get the airplane stopped. If the emergency pilot has been communicating on the radio, odds are that emergency personnel will be on hand to greet the aircraft and take care of the incapacitated pilot. If nobody on the ground is expecting the aircraft, the emergency pilot and passengers will be on their own to evacuate the aircraft and call for help. A critical point is for everybody to get out of the airplane as soon as it is stopped and let EMS personnel attend to the incapacitated pilot.

In the event of an emergency, nonpilot passengers should take the mic and tell ATC, "I'm flying somewhere near [location] and the pilot has passed out. I'm not a pilot. Please help me."

THE PASSENGER'S CHECKLIST

An emergency checklist written specifically for the trained nonpilot should be within reach of the front-seat passenger at all times, and its location should be part of every preflight briefing. This checklist should include basic procedures to remind the frazzled passengers-turned-pilots of the skills they learned during their training. A brief radio script that the pilot can simply read into the radio during an emergency situation could be a very valuable part of this checklist.

SIGNING UP FOR A PINCH HITTER COURSE

The Aircraft Owners and Pilots Association provides an informative and interactive online "Pinch Hitter" course through the Air Safety Institute (available at no charge at aopa.org/asf), and many flying clubs, flight schools and pilot groups provide periodic seminars and inflight training opportunities for nonpilot passengers. Check your local airport for details on what's available in your area and encourage your frequent fliers to take a course.

SAVING THE DAY

With good initial training and occasional recurrent practice, it should be possible for most people to fill in for the unconscious pilot and land an airplane successfully. Landing is not rocket science, and keeping the airplane in an acceptable attitude while speed and altitude bleed off over the runway is a fairly simple skill if taught properly. Pilots can do much of the passenger training themselves (such as using radios and finding airports), but a good CFI should be brought in to teach aircraft control and how to establish a good landing attitude.

These suggested skills are by no means the last word. Passengers should be encouraged to take as much flight and recurrent training as possible and to practice the skills they learn regularly. Pilots should be generous with the controls and should think of themselves as tour guides and teachers as well as aviators. ▮

(Article uplifted from Flyingmag.com, July 10, 2015, Story by William Woodbury)

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@caaf.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.

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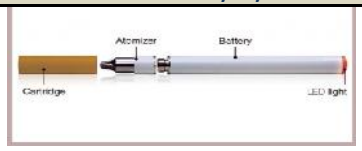
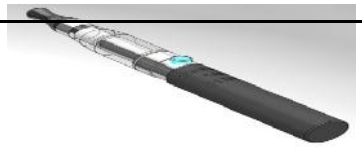
DANGEROUS GOODS CARRIED BY PASSENGERS AND CREW

Further to the CAAF NOTICE TO INDUSTRY ON 8TH APRIL 2015 ICAO issued Addendum No. 1 to Doc 9284-AN/905. The addendum is for Table 8-1 that lists the dangerous goods that may be carried by passengers and crew under listed conditions. Listed below are the conditions for Battery-powered portable electronic smoking devices (e.g. e-cigarettes, e-cigs, e-cigars, e-pipes, personal vaporizers, electronic nicotine delivery systems).

CARRIAGE OF BATTERY-POWDERED PORTABLE ELECTRONIC SMOKING DEVICES

TYPES OF ELECTRONIC SMOKING DEVICES	ALLOWED IN CARRY-ON BAGGAGE? IN EQUIPMENT	ALLOWED IN CHECKED –IN BAGGAGE ? IN EQUIPMENT	OTHER CONDITIONS		
e-cigarettes, e-cigs, e-cigars, e-pipes, personal vaporizers, electronic nicotine delivery systems			CARRIED ON THE PERSON	OPERATOR APPROVAL REQUIRED	PILOT-IN-COMMAND INFORMED
	YES ✓	NO ✗	YES ✓	NO ✗	NO ✗
	YES ✓	NO ✗	YES ✓	NO ✗	NO ✗
	YES ✓	NO ✗	YES ✓	NO ✗	NO ✗
	YES ✓	NO ✗	YES ✓	NO ✗	NO ✗

Other Conditions :

A). carried by passengers or crew for personal use;

B). Spare batteries must be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping overexposed terminals or placing each battery in a separate plastic bag or protective pouch);

C). each battery must not exceed the following:

- for lithium metal batteries, a lithium content of 2 grams; or
- for lithium ion batteries, a Watt-hour rating of 100 Wh;

D). each lithium battery must be of a type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3; and

E). Recharging of the devices and/or batteries on board the aircraft is not permitted.

(Article by Air Safety Department)

PRIVATE AERODROME AUXILIARY FIRE FIGHTERS TRAINING

The CAAF conducted an Auxiliary Fire Fighters course specifically designed for the private aerodrome operators from 29th June to the 10th of July 2015 at the CAAF Training room.

This 2 week course was well received by the 17 participants representing seven private aerodromes namely, Mago, Mana, Malololailai, Yasawa, Wakaya, Kaibu and Nanuku aerodromes and two helicopter landing sites namely, Denarau Pontoon HLS and Vunabaka HLS.

The ICAO places much emphasis on the importance of safe air transport which includes the safety of aerodrome operations. ICAO has published many documents pertaining to aerodrome operations, the main/parent document which is referred to as Annex 14, contains standards and recommended practices (SARPS) that we as a contracting state must comply with. These SARPS have been brought down from International level and is reflected in Fiji's own Standards document. In these and other supporting aerodrome documents, aerodromes are required to be adequately equipped with rescue and firefighting equipment and in addition, the personnel that operate this equipment must be adequately trained to ensure that they are competent enough to perform their duties in the event of an incident or accident on or in the vicinity of the aerodrome.

Previous CAAF aerodrome audits have highlighted the training of aerodrome/HLS rescue and fire fighting personnel as an area of non-compliance. This has been due to the limited availability of this type of training locally. To rectify this, the Auxiliary Fire Fighting course was facilitated by CAAF and developed to provide the Auxiliary Firefighter with the knowledge and skills to enable them to competently perform their role with the purpose of saving lives in the event of an aircraft accident or incident.

The aviation industry in Fiji plays a central role in Fiji's economy and contributes significantly to our development, especially in the Tourism sector. The growth in our tourism industry has resulted in a significant increase in air travel both internationally and locally.

The development of upmarket resorts with their own aerodromes to cater for their guests and staff, and the introduction of private and additional domestic aircraft to make these island resorts more accessible has had a big impact on air transportation in Fiji. Support services to ensure the safety of this air transportation system is therefore vital.

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Mrs. Molly Murphy (AFL) presenting on SMS

Mrs. Triza Deeptimala (AFL) presenting on Wildlife Management

PRIVATE AERODROME AUXILIARY FIRE FIGHTERS TRAINING cont...

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Over the course of the two weeks, the participants were provided with the skill and knowledge required to operate competently as a fire fighter at their respective aerodromes. In addition, the secondary functions of an auxiliary firemen, aerodrome maintenance, security and wildlife management and first aid were also covered.

The biggest advantage of this training was the unique opportunity for the participants to learn from the aerodrome connoisseurs that spoke on their respective areas of expertise, this not only included the subject matter experts from CAAF but also from Airports Fiji Limited.

The successful completion of the training not only ensures compliance with the Standards Aerodrome requirements but will assist private aerodromes with the maintenance of the aerodromes, to save lives in an event of an aircraft accident or incident and return the airport to normal operations as soon as possible. ■

(This course was conducted by GSD.)

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SIX WAYS TO REDUCE THE FEAR OF FLYING

Is your phobia of flying keeping you from your next holiday? Here are tips to ease your anxiety.

Most of us can't wait to go on our holidays -but for some travelers the very start of them can be a nightmare.

Research shows a quarter of us have some fear of flying, while one in 10 describe it as a phobia. But there are many ways to cope, from breathing techniques to teaching yourself about air travel. Here are a few that could help you take the next flight without aggravating your anxiety levels.

Breathe easy:

It's vital to be relaxed -and breathing deeply will help you stay calm. When you feel anxious, hold your breath, then take a long deep breath in followed by a long one out. Try to combine this deep breathing with a muscle contraction.

Clenching your buttocks is most effective, as it overrides other nervous signals going up and down your spinal cord. Visualization techniques also help control anxiety. Imagine yourself stepping off the aircraft into the arms of a loved one, or into a lovely warm climate.

Understand your aircraft:

Everyone knows that it is the engine and not the wings of an aircraft that make it fly. But getting to learn other facts about the aircraft can help ease the nerves. For instance, aircraft engines, which are unlikely to fail, can still glide for 100 miles, if the engine of a commercial plane flying at 30,000 feet were to fail.

Take small steps:

For those scared for flying, the best plan should be to break their flying time into half-hour segments. Plan to do things to keep yourself occupied and stick to the plan. For example, watch a film, eat a meal or read a book. One could also use this time to do things, one normally doesn't get around to doing, like writing a letter, which makes time pass quickly.

Trust the pilot:

Many people hate knowing that they need to relinquish control as soon as they get onto a flight, but remember pilots undergo a rigorous selection process and continue to have simulator tests every six months. One should remember that pilots are the most highly trained and tested professionals on earth.

Taking terror out of turbulence:

Without a doubt, the single-most shared common factor among fearful flyers is turbulence. Many different things may cause turbulence, but all of them are known and understood by pilots. Just like when driving to work, you'd expect the odd bump on the road. Remember turbulence is part of flying, and it is not to be feared. It's uncomfortable but never dangerous.

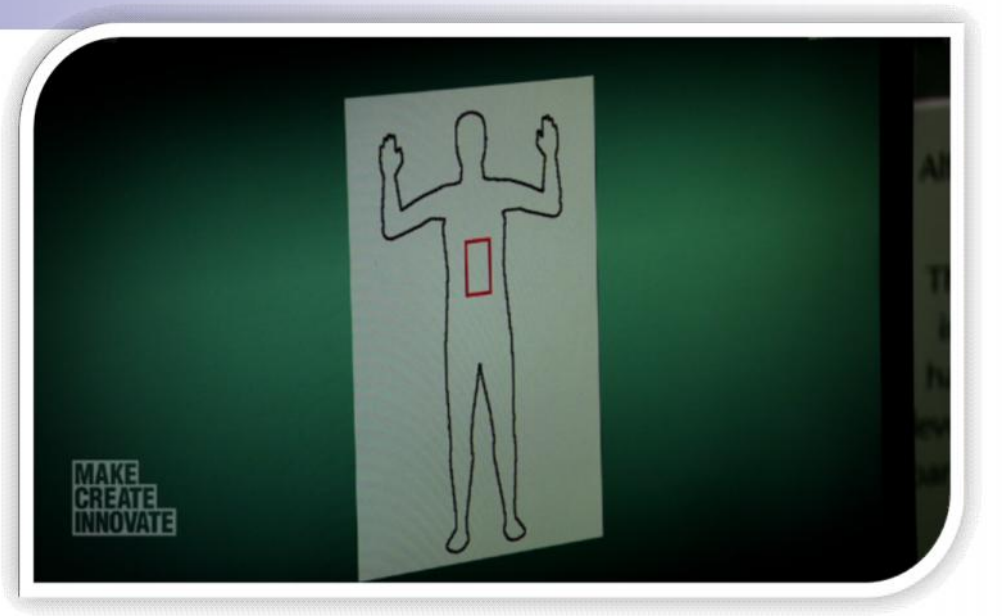
Know your engine noises:

A sudden noise can cause alarm for many passengers, but once you know the cause of common sounds on board it will alleviate the fear that something has gone wrong. Not long after take-off it sometimes feels like we are suddenly dropping again, which can be unsettling.

This is known as the noise abatement procedure, the point at which the pilot tries to reduce from the take-off power setting to a lesser climb setting. Our ears detect this as a deceleration and coupled with the reduction in engine noise it's understandable that people think they are descending.

NEW AIRPORT SCANNER COULD MAKE GOING THROUGH SECURITY A BREEZE

High-tech scanner detects non-body heat



Highlights

- The Alfa3 scanner is able to detect suspicious objects on walking people
- There is no need to stop or even collaborate to be scanned
- It can detect drugs, liquids, and other non-metallic objects
- Privacy is respected as no anatomical details are shown

-- Imagine if going through airport security was just a matter of walking past a stretch of wall. No pat-downs, no X-rays, no metal detectors, and no need to remove any clothing.

The harsh reality of today's air travel is at strong odds with such a fantasy, but a new type of body scanner bears the promise to make every frequent traveler's dream come true.

It's called "Alfa3" and it's based on the established technology of "millimeter wave imaging", which is used in hundreds of scanners currently deployed in airports the world over. But unlike those, Alfa3 does not require you to enter a chamber, raise your arms and stand still while the machine analyzes your body: it is able, instead, to do its job as you simply walk by.

"It's a type of thermal imaging", explains Dr. Naomi Alexander, the Madrid-based physicist who invented the Alfa3, "so we see the difference in temperature between the body and objects that aren't part of the body."

Current systems return a detailed image of the person being scanned -- passengers can in fact opt out and receive a pat-down instead -- but Alfa3 uses a passive technology that can detect objects underneath clothing without revealing any anatomical details. And compared to standard metal detectors, it has the ability to spot non-metallic objects as well, such as liquids and gels.

One of the problems with current scanners using the same technology is the high rate of false positives, sometimes greater than 50 percent. The Alfa3 uses a significantly higher resolution that promises excellent accuracy and automatic detection of threats, according to its inventor.

We see the difference in temperature between the body and objects that aren't part of the body Dr. Naomi Alexander.

Further advantages include the possibility to deploy the system outdoors and in a covert manner, which would make it an interesting option for military installations: Dr. Alexander has traveled to Kandahar, Afghanistan, to test one of the four prototypes in existence at a NATO military base.

But the main appeal of the scanner is surely its high throughput, over 400 people per hour. This could mean the end of security lines at the airport.

The problem is to now make potential customers aware of the new technology: "It's not like selling sunglasses," says Dr. Alexander, "somebody already knows they want sunglasses, so they go and buy them, whereas with this system you have to explain the advantages with respect to what else is available on the market."

"It takes some time to sort of educate, I guess, the customer in that respect. So, it's a process that needs to be gone through.

(Story Uplifted by AVSEC—Source: CJ Security Consulting Group)

TIPS ON AVOIDING UNSTABLE APPROACHES FOR PILOTS

AVOIDING UNSTABLE APPROACHES

Important Tips for PILOTS

"Keep it standard, Keep it simple, Keep it safe"

Maintain a mental picture of the required descent profile.

- Request distance updates from ATC if required.

Advise ATC as soon as possible if descent is required or additional track miles are needed to execute a stable approach.

- The sooner ATC knows, the greater is the probability that the request can be accommodated.

Be aware of published local ATC procedures/airspace restrictions that impact the approach

- Airspace constraints may result in route and altitude restrictions.

Make requests for operations requirements, not for convenience

- The earlier you tell ATC the easier it is to accommodate any request.
- Understand that you are part of a tightly integrated system with lots of arriving/departing aircraft and many operational variables (traffic patterns, airspace and airport design restrictions, noise restrictions, possible emergency operations on a different frequency), so ATC may not always be able to accommodate requests.

If you can't comply with an instruction, let ATC know early

- Don't accept clearances that could put you into a situation leading to an unstable approach. The worst thing to do is to accept an instruction and then not comply with it.
- It's OK to say "UNABLE": Better still, say "UNABLE" and suggest an alternative.
- Use extreme caution when accepting visual approaches at unfamiliar airports.

Be predictable

- As far as possible, minimise differences (ATC can't be aware of all the variables eg. Aircraft performance, airline, SOP's, etc).

When departing

- Tell ATC if you're likely to need further time on the runway, before accepting a clearance to enter the runway. ATC might be making their plans for the arriving aircraft around you starting your take-off roll without delay.

If you have an emergency situation

- Let ATC know as soon as is practicable, either by selecting the appropriate Mode A or using the standard phraseology. Once ATC are aware of your situation, they will **LEAVE YOU ALONE** and can start making preparations to accommodate whatever **YOU** may request, when **YOU** are ready.

According to IATA, a unstable approach was identified as a contributing factor for 17% of accidents between 2008 and 2012.

TIPS ON AVOIDING UNSTABLE APPROACHES ATCOS

AVOIDING UNSTABLE APPROACHES

Important Tips for ATCOS

There are many contributing factors that may lead to a landing incident/accident, but one that ATC can have a major influence on is the development of an unstable approach. In general terms, if an arriving aircraft is too high or too fast, the approach will most likely become unstable.

- **Allow the arrival/approach procedure to be flown as published**. If at all possible, minimise or avoid the use of tracking/ vectoring off the published approach.
- **Avoid routine tracking** of aircraft off an arrival course to shorten the flight path. Unexpected shortcuts may lead to insufficient time and distance remaining to maintain the desired descent profile, and cause the aircraft to be high on the approach. Avoid close-in turns to final.
- **When aircraft are being vectored, issue track miles to the airport** or approach fix in a timely manner, as appropriate.
- **Keep the pilot informed** regarding runway assignment, type of approach and descent/speed restrictions. That will allow for proper planning and execution of the approach. Stable approaches require predictability and planning. Avoid last minute changes and advise the pilot as early as possible when changes are anticipated.
- **Ensure the runway assignment is appropriate for the wind**. Wet or contaminated runways combined with cross/tail winds are often associated with runway excursions.
- **Issue accurate and timely information** related to changing weather, wind and airport/runway conditions.
- **Apply appropriate speed control restrictions**. Assigning unrealistic speeds (too fast or slow) may lead to unstable approaches.
- **Give preference to precision approaches** over non-precision approaches. Precision approaches have vertical guidance which assists the pilot in maintaining the proper descent profile, resulting in stable approaches.
- **Avoid instructions that combine a descent clearance and a speed reduction**. Many aircraft can't descend and slow down simultaneously.
- **Comply with operational flight requirements** related to capturing the glide slope from below. Vectoring for an approach that places an aircraft on the flight approach course above the glide slope is a leading cause of unstable approaches.
- **Avoid close-in, last second runway changes**. To comply with the company's operational procedures and requirements, the flight crew must have time to properly brief the approach and missed approach procedure to the runway being utilised. Even though a pilot may accept a runway change, the result may be an unstable approach.

HEALTH TIPS—TOP 10 SYMPTONS OF DIABETES

Diabetes, specifically type 2 diabetes, is a lifestyle disease that has invaded the modern day lifestyle. Lack of proper nutrition, absence of portion control, and failure to exercise adds up to this debilitating and life threatening condition that is taken far too lightly by far too many. Additionally, unawareness about diabetes symptoms and late detection make diabetes an even tougher prospect to beat. To help you understand diabetes symptoms and check them well in timethe following are the top 10 diabetes symptoms. If you suspect any of these symptoms for yourself or loved ones, consult a doctor today:

1. Disproportionate increase of thirst and urination:

Excessive thirst and frequent urination is one most commonly noticed symptom among diabetics. Due to high secretion of fluids by the kidney, the body becomes dehydrated and starts craving for the essential amount of fluid to function properly.

2. Excessive hunger:

As the insulin level in the blood is disproportionate, body cells do not get energy to perform day-to day activities. Thus, the body may react by trying to find more energy, resulting in unusual hunger.

3. Sudden weight loss:

Fluctuation in weight without any efforts like exercise or diet management could be a ringing alarm for diabetes. Due to the body's incapability to absorb glucose and frequent urination, the patient (usually of type I diabetes) loses weight at a faster rate.

4. Fatigue:

In diabetic patients, glucose is unable to enter into the cells of the body and due to decreased supply of energy in the body, the patient feels tired and irritated.

5. Slow-healing wounds:

For patients suffering from diabetes even a minor scratch or wound takes a long time to heal due to the impaired immune system of the body. In women, bladder and vaginal infections are especially common.

6. Blurred vision:

High levels of glucose damages blood vessels and pulls fluid from the lenses of eyes and affect the ability to see and if ignored for a long time can even cause blindness.

7. Dry skin:

Dry or itchy skin may result from peripheral neuropathy which affects circulation and proper functioning of sweat gland function.

8. Tingling hands and feet:

Excess blood sugar levels damages blood vessels and nerves. This leads to a loss of sensation in the hands and feet, as well as a burning pain in your arms, hands, legs and feet due to loss of motor nerve fiber.

9. More skin and/or yeast infections:

High glucose levels result in slower recover from infections. Women with diabetes find it especially difficult to recover from bladder and vaginal infections.

10. Headaches

"Diabetes is a serious condition that kills more people than other deadly diseases like AIDS and cancer. If the above mentioned symptoms are identified soon, then treatment can be started early. Thus, one is advised to follow an active lifestyle that includes adequate exercise, on a daily basis, as well as healthy eating habits." ■

(Source: Dr Sanjiv Bhambani-Consultant, Endocrinology and Diabetology-India)

HAND SIGNALS—MARSHALLING & EMERGENCY

HAND SIGNALS
MARSHALLING & EMERGENCY

MOVE UPWARDS

DISPATCH AIRCRAFT

OPEN/ CLOSE STAIRS
(TECHNICAL/SERVICING COMMUNICATION SIGNAL)

MOVE DOWNWARDS

DO NOT TOUCH CONTROLS
(TECHNICAL/SERVICING COMMUNICATION SIGNAL)

FIRE

CONNECT GROUND POWER
(TECHNICAL/SERVICING COMMUNICATION SIGNAL)

MOVE LEFT HORIZONTALLY
(FROM PILOTS POINT OF VIEW)

EMERGENCY

RECOMMEND EVACUATION

RECOMMENDED STOP

EMERGENCY CONTAINED

DISCONNECT POWER
(TECHNICAL/SERVICING COMMUNICATION SIGNAL)

MOVE RIGHT HORIZONTALLY
(FROM PILOTS POINT OF VIEW)

NEGATIVE
(TECHNICAL/SERVICING COMMUNICATION SIGNAL)

LAND

ESTABLISH COMMUNICATION VIA INTERPHONE
(TECHNICAL/SERVICING COMMUNICATION SIGNAL)

HOLD POSITION/ STAND BY

(Information sourced from ICAO ANNEX 2 Rules of the Air)

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