Air Niugini

Quarterly Safety Periodical

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Cutting Corners and Unsafe Practices, a recipe for disaster

On 8th April 2016, P2-ANM was on a scheduled flight PX 961 from Goroka to Port Moresby. On take-off, the Cabin Press caution/warning light on the annunciator assembly panel fell out.

Inspection carried out by Aircraft Maintenance noted 1x lens filter on the master caution annunciator panel was loose.

A new lens filter was fitted and operational checks carried out satisfactorily in-accordance with relevant Aircraft Maintenance Manual (AMM). The aircraft was then released to service on the same day.

On 11th April 2016, P2-ANM was on another scheduled flight PX 607 from Moro to Port Moresby, the Pilot in Command noted the Cabin Press caution/warning light of the annunciator panel fell out. This happened on two occasions.

Closer inspections, revealed a piece of paper was jammed (as shown in photo above) to stop the Cabin Press caution/warning light from falling out from the annunciator

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Air Niugini

SAFETY POLICY

Air Niugini recognises the importance of maintaining a high level of safety in all of its operations and is committed as an organisation to:

- Meeting all relevant national and international safety standards, and complying with all relevant national and international regulatory requirements.
- Providing the necessary human and financial resources, including facilities and systems required, for implementing and maintaining a Safety Management System that effectively identifies and manages risk in the Company's activities.
- Promoting and fostering the Safety Management System as the company's primary means of achieving operational safety and ensuring that the system's objectives and strategies and this Safety Policy are understood at all levels of the organisation.
- Communicating both the Safety Management System and relevant safety information throughout the organisation, to ensure personnel maintain an awareness of their role in the Safety Management System and of current operational safety issues
- Establishing, maintaining, reviewing and improving safety programs, safety procedures and individual safety responsibilities.
- Managing risks to either eliminate them or mitigate them to an acceptable level of safety.
- Ensuring externally supplied systems and services meet CASA PNG, applicable foreign regulatory, and Company safety standards.
- Providing our employees with all personal protective equipment (PPE) required for a task and ensuring that our employees wear the PPE when performing the task. Employees are required under the authority of this policy to refuse to carry out any task where required PPE is not available or is defective and shall be held responsible if they are not wearing PPE gear in circumstances that demand PPE gear will be worn and for any incident resulting from the non-wearing of the PPE.
- Developing and embedding a safety culture across the Company, as measured by:
  - A. Managing safety as a fundamental operational priority and having safety paramount in the actions and decisions of the Board, Management and Employees.
  - B. All operational staff having clear written definitions of their responsibilities with respect to safety performance and having been successfully trained in the meaning, extent and practical application of those responsibilities.
  - C. Establishing and maintaining a non-punitive "No Blame Culture" based on the principles of 'good faith' and 'reasonable care', that defines the line between acceptable and unacceptable actions and errors.
  - D. Maintaining records in the Safety Office that clearly demonstrate that safety is the airline's first priority and that on-time performance is a secondary priority.
  - E. Employees demonstrating their commitment to safety by actively reporting occurrences, hazards and opportunities for improvement.
  - F. Continuous improvement to the level of safety in the airline's operations and to the Company's management system.

The Chief Executive Officer has overall responsibility and accountability on behalf of the Company for the implementation, maintenance and continuous improvement of the Safety Management System (SMS) throughout the organisation. Air Niugini's senior managers are responsible for and committed to safety risk management, by using the programs and activities contained within the Company's Safety Management System, within their areas of operational activity.

Simon Foo
Chief Executive Officer
19 August 2014

assembly panel.

A similar event was also evident on P2-ANN during a scheduled flight 852/3 from POM-PNP-POM.

The aforementioned practices resulted in a Quality Alert Notice # 05/16, issued by the Quality Control Section of Aircraft Maintenance Department, advising all maintenance personnel that jamming panels with paper is an improper practice and will not be tolerated

Maintenance is essential to aviation safety, yet improper maintenance contributes to a significant proportion of aviation accidents and incidents. This is because a small percentage of maintenance tasks are performed incorrectly or are omitted due to human error. Examples include parts installed incorrectly, missing parts, and the omission of necessary checks. While precise statistics are unavailable, it is likely that the great majority of maintenance errors are inconsequential, however, a small proportion present significant safety threats.

Some of us are aware of the fateful Alaska Airline Flight 261, 31st January 2000. Flight 261 plunged into the pacific ocean during a routine flight from Puerto Vallarta, Mexico to Seattle-Tacoma airport. The cause of the accident was the loss of the airplane pitch control caused by thread failure on the jackscrew assembly controlling the horizontal stabilizer trim. The failure of these acme nut threads was the result of insufficient lubrication of the jackscrew assembly by Alaska Airlines during preventive maintenance schedules, despite airline paperwork indicating it had been. This was the result of Alaska's extended lubrication and maintenance inspection intervals.

In comparison to many other threats to aviation safety, the mistakes of maintenance personnel can be more difficult to detect, and have the potential to remain latent, affecting the safe operation of aircraft for longer periods of time.

While acknowledging that maintenance personnel are responsible for their actions, it must also be recognised that, in many cases, the errors of maintenance technicians are the visible manifestation of problems with roots deep in the organisation. A careful examination of each error, combined with a preparedness to inquire into why the error occurred, can help to identify underlying organisational problems. Effective countermeasures to maintenance error require a systemic approach, not only towards issues at the level of the technician and their work environment, but also to organisational factors such as procedures, task scheduling and training. Some countermeasures to the threat of maintenance error are directed at reducing the probability of error through improvements to training, equipment, the work environment and other conditions. A second, complementary, approach is to acknowledge that despite the best efforts, it is not possible to eliminate all maintenance errors, and countermeasures must be put in place to make systems more resilient to those residual maintenance errors that are not prevented. ■

Reference:

i) *An Overview of Human Factors in Aviation Maintenance, ATSB transport Safety Report, Aviation Research and Analysis Report, AR-2008-055*

ii) *wikipedia.org/wiki/Alaska_Airlines_Flight_261*

Trust and the New Safety Culture

Extract from Rotor magazine , by Stan Rose, HAI's director of safety

In the past, pilots and maintenance personnel who had a can-do attitude were the employees most highly valued by helicopter operators. They were the guys and gals who went the extra mile, got the mission done, and made revenue for the company. We recognized these people with praise, monetary rewards, and higher status as go-to employees, even though we knew that they were breaking the rules to get the job done. Procedural intentional non-compliance (PiNC) happens when an employee believes there is a valid reason to break the rules—that this time, the rules don't apply. In these situations, we typically see three common factors: the employee feels motivated or rewarded to break the rules, he or she feels they can probably get away with disregarding the rules, and there is an absence of peer pressure or peer reaction to the PiNC behaviours.

> *"Trust is a critical element of a safety culture, since it is the lubricant that enables free communication."*
>
> Robert .L. Helmreich, James R. Klinect, and John A. Wilhelm

However, research shows that once you start deviating from the rules, you are almost twice as likely to commit an error with serious consequence PiNC errors should trigger warning lights and klaxons for everyone who plays a safety role in the company. No organization can function safely for long with widespread disregard for its rules and procedures. Unaddressed PiNC violations result in a culture of complacency and disregard for rules, strong leadership and positive role models will be necessary to overturn that culture.

Underlying our current aviation safety model is the idea that "the rules and regulations were written in blood!" We have learned from others' fatal mistakes and have built a safety system that requires compliance by employees and operators.

When we look at current accident data however we see that there are still accidents each year that are the result of PiNC. We see accidents that we know how to prevent - and that could have been avoided - if we change the way we look at our operations.

First, we should trust what we already know, our standard operating procedures. We know that proper procedures produce known outcomes and that standards guarantee repeatable results. When we are confronted by a bad rule or faulty procedure, instead of getting around it or ignoring it, we need to change that rule or revise that procedure. Management should review their company culture and eliminate any ways in which employees are motivated to break the

rules. They should insist that everyone including management—do the right thing, for the right reasons, at the right time, every time. In the new safety culture, however, we are all responsible for the safe operation of the company. Each employee in the company should know that he or she has a part to play in keeping themselves, their co-workers, and customers safe. In a company where each person believes their co-workers are ensuring his or her safety each day, mutual trust develops.

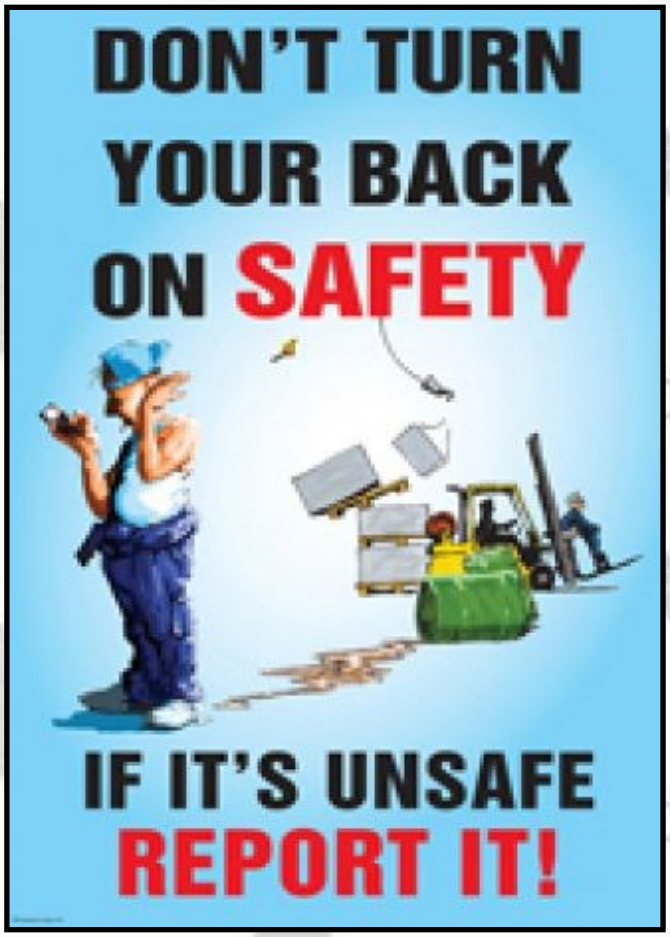
That mutual trust leads to an openness and willingness to act on safety issues. When you see the other guy dong something that is contrary to your safety culture, speak up. Your co-worker could be under pressure to break the rules—and you might be the one who can help him face up to that pressure and avoid an incidence of PiNC. Acknowledge that there are standards operating procedures, follow them, and do your job safely.

Always defer to the most conservative option of action. When you trust your management and co-worker to reinforce your safety culture, you can deal with competing pressures later. Managing aviation organizations requires overseeing many business processes, such s finance and human resources. We now recognize safety management as another core function in a successful business. The cost of an accident can devastate a company; it simply good business to keep your company operating as safely as possible.

The traditional approach to system safety concentrated on technical aspects of operations. Using a safety management system adds emphasis on assessing risk and adopting techniques to manage safety.

By adopting the new safety culture into our daily lives, we take personal responsibility for out actions and the action of our peers. By creating a "just culture" for our organizations, we live in an environment where acceptable and unacceptable behaviours are clearly defined and where hazards are not dissected to determine who to blame. Instead, everyone's focus is on the best way to mitigate the risks by revising policies or procedures.

Again we come back to trust. ***Voluntary reporting systems are the most viable tool to improve safety in our organizations.*** Trust—between and among employees and management—is the only way to make a just culture part of our safety culture. ■



Trust your instruments ?

By Captain Seamus Kiernan, Q400 Captain, Flight Safety Office

Air France 447, May 31st 2009. Airbus A330 - Two hundred and twenty eight killed.

Aero Peru 603, October 2nd 1996. Boeing 757 – Seventy killed.

Birgenair 301 (charter for the Dominican airline Alas Nacionales). February 6th 1996. Boeing 757 – One hundred and eighty nine killed.

The list goes on - lives lost, families destroyed and all for a situation that we as professional pilots should be ready for everyday - the loss of all or part of the pitot static system. But it's not just a jet issue, it can happen in a turboprop as well.

TC-GEN, the aircraft used for Birgenair Flight 301[A]

On the 11th of August 2003, Convair 580 freighter ZK-KFL lifted off New Zealand's Christchurch airport on a routine night freight run north to Auckland. The crew was experienced, rested and prepared for the second leg of a routine night. The captain was a 10-year veteran on type and the first officer (PF) had over 5000 hours total with 1300 hours on the aircraft.

On rotation into a low overcast and heavy rain, the PF noticed that at the usual pitch attitude of 7-8 degrees, the airspeed was not increasing as expected and was tending to drift down. He checked forward to 5 degrees and was concerned to see the speed still trending lower and rate of climb reducing.

He was about to reduce the pitch attitude further to regain airspeed, when the inconsistent readouts caused him to realize something was seriously amiss. He determined that the engines were operating normally and the A/H indications appeared normal and so abandoned the normal scan and reverted solely to power and attitude – the most basic of instrument scans. He expressed his immediate concern to the captain:

"Something is wrong here with our airspeed – I am going to fly power and attitude only".

The Captain (PM) had not noticed the discrepancy but quickly agreed with his F/O's assessment. Several very tense moments followed as the airspeed reduced towards where a stall would be expected *if the pitot static instruments were correct.*

The crew were betting their lives on instinct and experience, as low to the ground and in night IMC, a stall would have inevitably been fatal. Luckily, in this case, they were right.

Due to the age of the aircraft (1950's vintage) there was little help available from the EAC and the crew were left to their own devices to salvage what could have been yet another

in the long line of fatal accidents involving pitot static problems.

We can all chant the mantra (can't we?) of what happens to our instruments when an ASI suffers a static block in the climb, or a pitot is blocked on the descent, but have you ever considered, either as PIC or F/O just what it would actually be like to have your instruments lying to you at a critical moment of flight – because aren't we all taught to "trust your instruments no matter what?"

What would you do when reality bites with a vengeance, leaving the adrenaline pumping, the mind numbing fear of knowing that a mistake could see death only seconds away, all churning in your mind?

We rotate off the runway in "just another day at the office", raise the gear and settle into our routines, scanning the instruments and believing what we see – because the instruments never lie to you, do they? except when they do.

In the turboprop case mentioned above, the crew were no better or smarter than the others but they were able, thanks to a fortunate combination of circumstances, to fly away safely.

In this case as well as the others mentioned herein, the problems were pitot static related, but the gyro attitude instruments were functional. In the turboprop case at least, that was enough to save the crew. What happens when the A/H fails on you – or gives inconsistent information - well that's a story for another day. ■

Reference:

[A]: Alas Nacionales, wikipedia.org/wiki/Alas_Nacionales

AVIATION HUMOUR

One day, the pilot of a Cherokee 180 was told by the tower to hold short of the runway while a DC-8 landed. The DC-8 landed, rolled out, turned around, and taxied back past the Cherokee.

Some quick-witted comedian in the DC-8 crew got on the radio and said:

"What a cute little plane. Did you make it yourself?"

Our hero the Cherokee pilot, not about to let the insult go by, came back with a real zinger: "I made it out of DC-8 parts. Another landing like that and I'll have enough parts for another one."

On a flight with EasyJet back in 1997 the pilot made what can only be describes as an extremely heavy landing at Luton. It was very early in the morning and a number of passengers around me looked quite alarmed as, apart from the noise, a number of overhead lockers dropped open and several items of carry-on luggage were launched down the aisle.

After slowing up, the aircraft turned off the runway and turned towards the stand and over the PA came "Good morning ladies gentlemen, this is Captain Smith, welcome to Luton...and if any of you were asleep...I bet you're not now!"

ENGINEER: I don't quite know what to say about your aircraft Sir. Let's just put it this way.... If it was a horse, you would have to shoot it.

S.C.A.N. YOUR ZONE

SCAN. CHECK. ASK. NOTICE.

REMINDERS!!

- **DO** wear your Airport ID Badge on your outermost garment (with photo showing) while in a Security Sterile Area.
- **DO** challenge un-badged individuals or those who do not have the proper badge while in a Security Sterile Area.
- **DO** securely close any security door/gate opened by you, being sure that no unauthorized person(s) enters while the door/gate is open.
- **DO** immediately report lost or stolen Airport Security Identification Card (ASIC) to Airport Security.
- **DO** keep your ASIC in good working condition. If your badge becomes damaged, report to the ID Centre Office, NAC to have it replaced.
- **DO** report any suspicious activity or unattended items to Airport Police or Security immediately.

- **NEVER** assume that someone looks like they belong, always challenge anyone if you do not see an ASIC.
- **NEVER** prop open any security door/gate or otherwise interfere with any lock or closing mechanism.
- **NEVER** allow any individual departing on a flight access to the Sterile Area unscreened.
- **NEVER** take luggage or other articles for a passenger departing on a flight into the Sterile Area without first submitting to the screening process.
- **NEVER** allow access to the Security Sterile Area to any individual who is experiencing access issues with their Airport ID Badge.

NEVER, under any circumstances, allow piggybacking through the card access system unless escorting an individual with a valid ID Badge.

Authorised By:

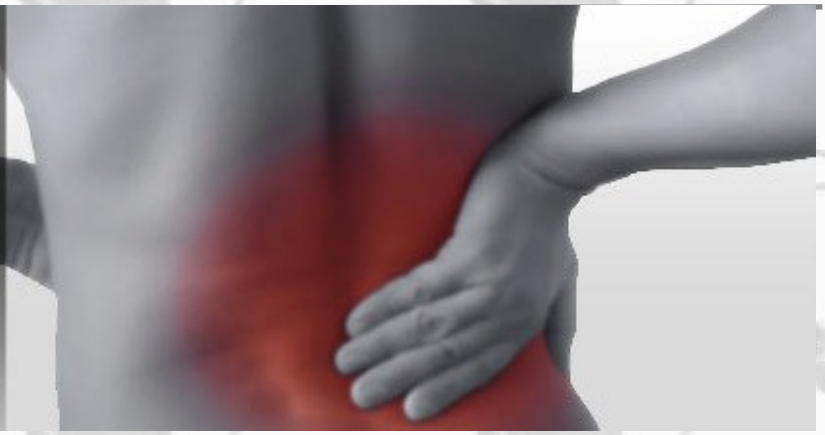
Executive Manager, PMIA
Stuart. Ainslie

Date: 02nd.03.2016

National Airports Corporation
PAPUA NEW GUINEA

SCAN. CHECK. ASK. NOTICE.

Preventing Flight Crew Back Injuries



By Paulo M. Alves, MD, MSc

Global Medical Director, Aviation Health, MedAire Worldwide

Lifting, bending, pushing and pulling – it's all part of the job for most crew members. Unfortunately, such repetitive movements often translate to back injury, one of the most incapacitating and common work-related injuries.

Why do back injuries occur?

It is no wonder that back injuries are common among people who perform repetitive lifting and bending, especially considering the fulcrum effect. The lower back basically functions as the center of a seesaw, with the upper body and the load being lifted as one end. The lumbar muscles, and ligaments applying traction on the back, are the other end. The lower back's musculoskeletal frame actually withstands nearly 10 times the actual weight of the object being lifted. As a result, disc injury and degeneration are common precipitants of back pain, along with bone spurs and the tearing of ligaments and muscles. Any process involving the anatomical components of the back – bones, discs, ligaments or muscles – may result in pressure on the nerve roots exiting the spinal cord and can create severe back pain.

Common causes of back injuries

The most common mechanisms of back injury can frequently be encountered in the aircraft environment: heavy lifting, twisting while lifting or holding a heavy load, reaching and lifting, lifting or carrying objects with odd shapes, working in awkward positions, sitting or standing for prolonged periods in one position, slipping on a wet floor and, occasionally, poor sleeping positions.

Preventing back injuries: proper techniques

Adaptation and improvisation of instinctive movements are the keys to minimizing and preventing back injuries in the aircraft environment.

When lifting a heavy object into the baggage storage area, crewmembers should:

- Keep feet shoulder-width apart and bend at the knees
- Squat down and hug the object to be lifted, keeping the spine straight when standing up
- Change directions by turning the entire body in the desired direction

Furthermore, when lifting carry-on bags, use only the arms while keeping the back straight. As the bag reaches the waist level, use one hand to hold the bottom and then use both arms to lift the bag.

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Safety Feedback

Landing Gear Failed to Retract

Link PNG Flight Standing Order No: 003/2016

During a recent event, the landing gear failed to retract when the landing gear handle was selected up after take-off from Port Moresby. Air traffic Control (ATC) personnel directed the flight crew to proceed to and operate within Danger Area 901. The flight crew subsequently identified that the overhead alternate release door was not properly closed. Once the door was positioned correctly, the gear retracted normally and the flight proceeded to its destination. It is most likely that the door was not closed properly during the ground servicing of the aircraft.

This is not the first time that the alternate release door has been left open during ground handling, either within Air Niugini's operations or at other airlines. Bombardier have issued and subsequently revised the ALL LANDING GEAR FAIL TO RETRACT checklist in response to these events, and there is another amendment to this checklist due to be published in a forthcoming amendment.

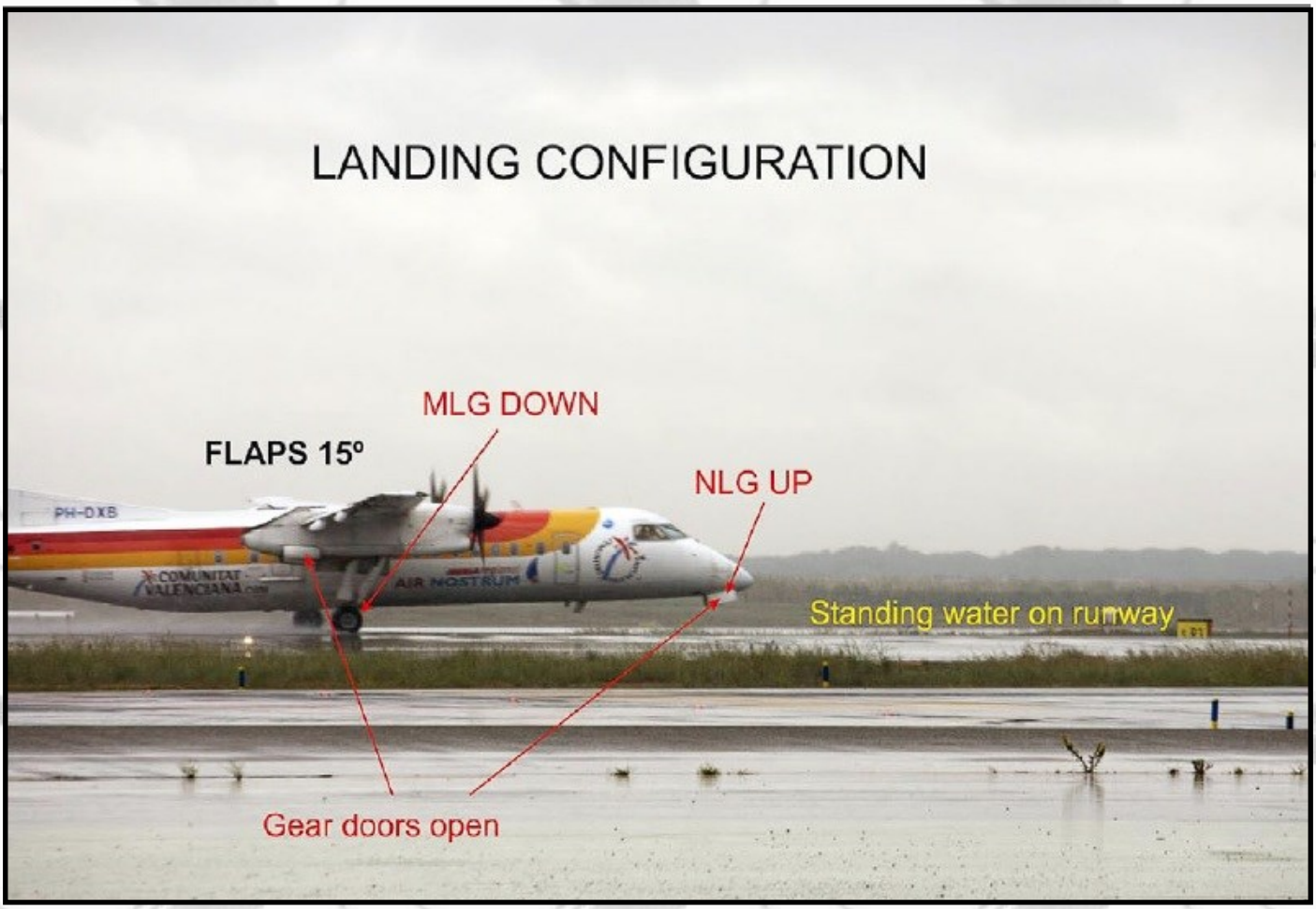
The most serious incident of "When a Landing Gear failed to Retract" event occurred in October 2009 and involved a Dutch registered Dash 8-300 being operated by a Spanish operator, which ultimately landed with the nose-gear retracted at Barcelona Airport.

A summary of the final report by the Spanish Investigation agency, the Comisión de Investigación de Accidentes e Incidentes de Aviación Civil (CIAIAC) was published on the Aviation Herald website and is reproduced below.

"The cause of the incident was the improper operation of the landing gear system by the crew that due to both a lack of knowledge of said system and to deficiencies in the use of the available procedures, was unable to identify or correct the abnormal configuration of the Landing Gear Alternate Release Door.

The captain (38, ATPL, 6,300 hours total, 5,000 hours on type) was pilot flying, the first officer (34, ATPL, 2,060 hours total, 2,300 hours on type) was pilot monitoring. The aircraft departed Barcelona's runway 25L, the crew had selected the gear up and were climbing and accelerating the aircraft when they noticed about 3 minutes after departure that all three gear indications were red. The flight attendant was asked to visually confirm the status of the main gear and reported back, that both main gear legs were still down.

The crew stopped the climb at 7500 feet advising ATC they wanted to return due to gear problems. The aircraft was vectored for landing as number 2, while the crew used the alternate gear extension method they noticed that gear alternate release door was open although its normal position was closed. The crew closed the released door which resulted in an alarming and deafening noise, so they opened the door again. The alternate gear extension procedure was



Photograph of the airplane during incident touchdown

continued by selecting the gear lever down, which resulted in both main gear showing green, the nose gear red, three amber lights because of open gear doors also illuminated. The crew declared emergency and advised the flight attendant who in turn informed the passengers. The approach was continued for a landing on runway 25R without nose gear about 21 minutes after departure.

The CIAIAC reported that about one hour after landing the nose of the aircraft was lifted with a crane, the alternate control in the cockpit for lowering the nose gear was actuated and the nose gear extended and locked properly. The CIAIAC stated: "The inhibit switch was found actuated in the cockpit and the overhead and floor doors were open. The PTU selector switch was in manual."

The alternate gear extension requires 8 steps to be taken:

1. *actuate the inhibit switch at the alternate main gear extension handle to prevent the hydraulic (main) system supplying hydraulic pressure to retract the gear*
2. *Select the (regular) gear handle down*
3. *Open the landing gear alternate release door, which opens a bypass valve isolating the hydraulic lines to actuate the gear*
4. *Fully pull the alternate T-handle for the main gear (overhead panel), which will deploy the main landing gear struts*
5. *Open the Landing gear Alternate Extension Door in the floor, which closed a valve to prevent pressurization of the auxiliary cylinder on each gear leg*
6. *Fully pull the T-handle for the nose gear (in the floor) to extend the nose gear*
7. *Use alternate indicating system to ensure all*

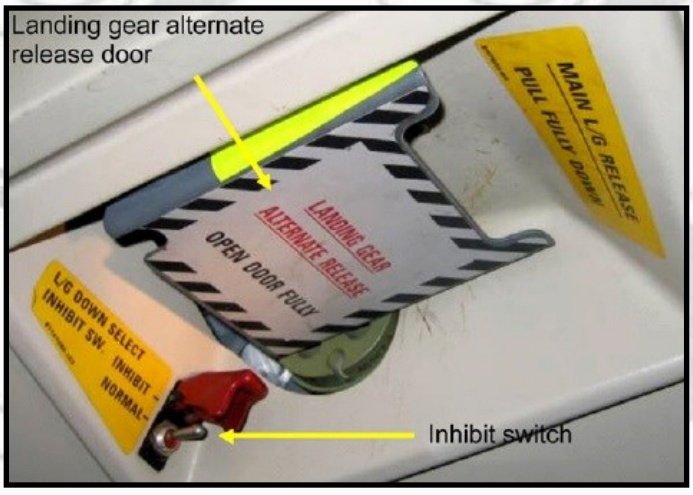
Gear Lever and lights

three struts are down and locked

8. *If the main legs are pushed back by the wind and do not lock, use the manual hydraulic pump to lock the main gear*

Tests by the CIAIAC revealed, that if a normal gear retraction is initiated with the overhead door open (but floor door closed) failed to retract the gear with all three gear indications indicating red. Closing the overhead door would initiate and complete the retraction of all gear resulting in a gear safe indication.

If a normal gear retraction is initiated with both overhead and floor doors open, the gear would not retract with all three legs indicating red. Closing the overhead door would retract the nose



Gear Inhibit Switch

gear leg however leave both main gear legs down, the main gear indication would continue to show two reds, the nose gear indication would extinguish , the alternate gear indication would show green for both main gear legs for being down and locked.

In these two cases, upon closing the overhead door, the power transfer unit motor pressurizing the hydraulic system #2 from hydraulic system #1, would activate.

The CIAIAC analysed: "The 'Landing Gear Alternate Release Door' , located in the overhead in the cockpit, was probably partially open when the crew reported to the airplane, but if so, this was not detected either by the CPT during her check of the cockpit or subsequently by either pilot at any time prior to take-off. The airplane thus took off with this condition uncorrected." This resulted in all three gears legs not retracting upon the gear being selected up.

After the flight attendant had reported back that the main gear legs were still down, the flight crew opened the floor door to check whether the three alternate green lights were illuminated, the crew however—by the testimony—was unable to determine whether this was a test indication. The floor door was not closed again leaving the hydraulic bypass valve activated. The crew determined that all gear struts were down and locked, however decided to carry out the alternate gear extension. At that point it is probably the PTU switch was brought to manual thus engaging the PTU, however as the pressures on #1 and #2 system were balanced the PTU would not start turning.

The crew started the alternate gear extension sequence looking for the inhibit switch, discovered that the overhead door was open and closed the door. This initiated the gear retraction prompting the PTU to start turning as well. The PTU thus created a deafening and alarming sound, the nose gear fully retraced, the nose gear

Top: Floor Door

Right: Overhead Door

doors closed again and the nose gear indication extinguished.

Due to the noise from the PTU the crew opened the overhead door again, which again activated the bypass valve. As the floor door had remained open, none of the auxiliary cylinders could move, the main gear therefore had not moved and actually remained in the locked position.

The CIAIAC analysed: "Had the crew not left the floor door open and had they not selected the PTU to manual, the landing gear would have fully retracted without making any abnormal noises. All of the gear lights would have gone out and they could have continued the flight." and continued: "At that time the aircraft was on final approach and had joined the airport's traffic pattern. The crew was preparing for the imminent landing but without having prepared the aircraft in accordance with the emergency landing procedure with the nose gear up."

Neither the aircraft manufacturer nor the operator had considered in the procedures that the overhead door could prevent gear retraction. "In the event of an unsafe gear indication, the crew was instructed to perform other emergency procedures, including the alternate extension of the landing gear. Had a procedure been available to the crew that included a check of the position of this door, the crew could have quickly ascertained its abnormal position, corrected it and retracted the gear, allowing them to continue with the flight normally." Another operator however had identified the issue and adjusted their procedures to have the crew verify the overhead door before continuing with other procedures. The CIAIAC therefore recommended to de Havilland/Bombardier and the operator to adjust their procedures accordingly.

The CIAIAC further analysed: "The procedures were constantly interrupted by operational considerations, by ATC communications and by the attention required by the weather situation. The crew's attention also drifted frequently due to emotional or secondary reasons, causing them to shift their focus away from the situation. "

The PTU switch should not have been operated as no loss of hydraulic pressure in system #2 occurred. The CIAIAC analysed: "The crew's reaction to the noise indicated a lack of knowledge of the system."

Had the crew shown more attention while reporting to the aircraft they would have detected the partially or fully open floor door and would have closed the door.

The CIAIAC continued the analysis: "Both pilots seemed to have insufficient knowledge of the alternate landing gear extension system, especially of the effect of the position of the "Landing Gear Alternate Release Door" and 'Landing Gear Alternate Extension Door'. Moreover, due to the way noted earlier in which they performed the emergency procedures, and due to the cockpit conversations recorded, it follows that neither pilot had in-depth knowledge of or familiarity with the QRH."

The CIAIAC went on analysing that the aircraft was carrying fuel for a round trip to San Sebastion and back, so that the crew would have had ample time to enter a hold and properly resolve the situation, the captain however repeatedly insisted to land as soon as possible. The CIAIAC went even more critical of the captain's performance analysing that the captain instead of sharing tasks in the cockpit began to read the checklists besides flying the aircraft, made decisions without listening to or taking into consideration the advise by the first officer. The first officer on the other hand showed hesitation to speak up with clarity and insistence to get hear, the lack of demanding a go-around is "highly indicative of a failure to use this cockpit resource management technique". The CIAIAC thus stated: " Defective team management and the ineffective tasks sharing resulted in the poor oversight of the flight and of the airplane's performance."

The CIAIAC analysed: "It is likely that the CPT was experiencing some kind of subtle incapacitation that could have affected her performance and that the FO did not detect it, despite having enough signs to warrant such suspicious." This analysis was contested by the Dutch Safety Board participating in the investigation representing the country of aircraft registration stating: "The Safety Board thinks that the matter of the so called 'subtle incapacitation' of the captain did not act as might expected but in the Board's opinion the behaviours could also be related to stress."

The events mentioned herein reinforces the need for Flight Crews to conduct a thorough cockpit inspection, and understand the way that aircraft systems work. In addition, it is important for flight crews to be aware of the prohibited, restricted and danger areas relevant to their operations, and other visual features that ATC personnel may use in their communications with crew members. (*Various charts and documents, including the Port Moresby VTC, are available from the Air Services Centre at Jacksons Tower.*)

HIGHLIGHT

Air Niugini has received an Air Operator's Certificate (AOC) from the CASA PNG on Wednesday 29th June 2016, to extend its operations for another five years.

This certificate confirms that Air Niugini has again successfully met all regulatory safety standards and requirements, set by CASA PNG and the Civil Aviation Act.

Cont. from page 9 - Preventing Flight Crew Back Injuries

When putting an object down, squat with a straight spine until reaching the floor with the load.

When pushing and pulling any luggage carts, crewmembers should:

- Push instead of pull since pulling can cause significant disc compression
- Maintain an erect posture with a straight spine when pushing or, when pulling is the only option, try not to bend or arch the lower back

When operating in an aircraft's tight spaces, remember this advice:

- If bending is necessary, face the desired direction before bending and bend at the waist, limiting any simultaneous turning
- To turn to the side, turn the entire body in the desired direction and bend again at the waist
- When reaching, find a stable anchoring point with one arm and hand while reaching with the other hand. Balancing with feet alone, while the trunk muscles are tightened and twisted, can result in a pulled lower back muscle.

Everyday prevention measures

Any crewmember can take steps to prevent back problems and to improve posture. When sitting, adopt an upright position without slouching and develop a habit of holding in the belly. A protruding belly places undue load on the spine. Core muscle strengthening, along with improved cardiovascular endurance, regular stretching and a good diet, will also help minimize back injuries and allow for a healthier lifestyle.

AVIATION HUMOUR

pilot and tower

Controller to aircraft that just landed: "Bear right, next intersection"

Pilot: "Roger, we have him in sight"

ATC: "Cessna G-ABCD What are your intentions? "

Cessna: "To get my Commercial Pilots Licence and Instrument Rating.

ATC: "I meant in the next five minutes not years."

Cessna: "Jones tower, Cessna 12345, student pilot, I am out of fuel."
Tower: "Roger Cessna 12345, reduce airspeed to best glide!! Do you have the airfield in sight?!?!!"
Cessna: "Uh...tower, I am on the south ramp; I just want to know where the fuel truck is."

Tower: "Eastern 702, cleared for takeoff"
Eastern 702: "Tower, Eastern 702 switching to departure...by the way as we lifted off we saw some kind of dead animal on the far end of the runway."
Tower: "National 63 cleared for takeoff...did you copy the report from Eastern?"
National 63: "Roger, Tower, cleared for takeoff... yes, we've already notified our caterers."

ANG Safety Systems Office

ANG Haus, Level 4,
Jacksons Parade, 7 Mile
National Capital District

327 3740 ph
327 3454 fax

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We welcome contributions from individuals who would like to share information relating to any Safety issues affecting Air Niugini.

We encourage sharing of information with fellow workers because the open exchange of safety information continuously improve aviation safety.