

CHIRP

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EDITORIAL

Two recent reports about different aspects of airport security have highlighted common issues. In the first incident an experienced aircraft Commander was intercepted by a member of the security staff while walking from their aircraft to the terminal building. Having strayed outside the cleared area due to temporary building works and unclear signage, they were subjected to rigorous questioning and an invasive search. By the time they were cleared to continue preparing for their next sector, the pilot was delayed and distracted.

The second report questioned the procedures for individual searches and the scanning of hand luggage. The reporter questioned the inflexibility of the staff and the repetitive nature of some of the procedures. The link between the two reports? - the need to make security procedures as simple as possible and adequately train staff in their application. That is the way to minimise errors, to reduce the possibility of staff being bantered or bamboozled into taking shortcuts and

therefore to maintain the same standards throughout.

Is airport security frustrating? Of course and from time to time it can be difficult to maintain one's composure. But if you think the security staff have acted incorrectly, make it known to a supervisor at the time and report it afterwards. In the first occurrence reported, the pilot submitted an ASR and their management wrote to the airport concerned. The airport accepted responsibility, recognised the flight safety implications of distraction and apologised. Reporting: it can produce results!

On a different note, thank you to all the engineers and ATCOs who answered our request in the last edition of FEEDBACK for volunteers to join the Air Transport Advisory Board. We had more volunteers than places available and are grateful to the successful and unsuccessful volunteers alike.

Finally, there is no Engineering Editorial in this edition of FEEDBACK but we are pleased to announce that we have recently obtained

the services of John Dunne as CHIRP Deputy Director (Engineering). John will be firmly in the saddle by the time we publish the next edition and will write an editorial highlighting current engineering issues.

Ian Dugmore
CE CHIRP

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LACK OF RADIO DISCIPLINE

Report Text: Over the last few years it has become apparent that the once well drilled R/T discipline we could expect from our flying colleagues has somewhat dropped away. The last 2 summers and this year, so far, have seen an increase in all London sectors so it is now that R/T discipline by both pilots and controllers needs to be tightened up.

I have flown on the jump seat and I realise that picking up your call sign on a busy or congested radio whilst you are carrying out your other flying duties is not always easy - likewise as a controller when I am coordinating on the phone or with a colleague we may occasionally miss calls. However, with greater regularity we are hearing cross transmissions especially when a/c are checking in which would indicate that a/c are not listening in to the frequency before making initial calls. We are also experiencing missed transmissions which are becoming increasing more frustrating. Every session there are multiple transmissions to a/c who are not maintaining a listening watch - every repeat instruction is rapidly increasing controller workload as they have to make that instruction again and wait for correct read back. I can imagine it would be quite frustrating in the cockpit if you had to make multiple repeated inputs before getting the expected response...

Obviously lapses do happen but I implore all pilots to not totally switch off attention especially when they are at cruise levels (the most likely time transmissions are missed).

Lessons Learned - I have informally inquired whether there have been any changes at the NATS radio sites that might make the transmission less audible or powerful but I have been told there have been no changes.

CHIRP Comment: The reporter's experience of missed transmissions, particularly by flight crew in the cruise, and transmissions being 'stepped on' were familiar to pilot and

controller members of the Air Transport Advisory Board alike.

CHIRP is grateful to NATS for researching the issue and advising that:

- Call blocking (stepped on transmissions) has been particularly high this year – 9 events so far, against 3 the year before
- Predominantly the events are in “Area Control”, followed by the LTMA
- The events have manifested themselves in the following way:
 - Overload
 - Level Bust
 - Loss of separation

These types of occurrence are not reported formally unless they lead to a reportable outcome and there are many more that were not reported. Monitoring a sample of LTMA frequencies during the summer revealed that there was at least one instance of instructions having to be repeated in every 30 minute period. The reasons for this were:

- Poor English from the pilot
- No response from the pilot
- Two pilots speaking at once (2 different aircraft)
- Pilot not understanding the clearance.

While there are many reasons why a call might be stepped on, a common example was pilots not waiting for clearances to another aircraft to be read back before transmitting their own messages. This is an avoidable error that increases the workload and fatigue for controllers and causes frustration for all.

There are other factors contributing to the difficulty of using frequencies effectively:

- Distraction caused by
 - The proper and improper use of 121.5

- The requirement for cabin crew to use the interphone to contact flight crew
- The use by some foreign operators of the flight deck loudspeaker rather than headsets (CHIRP will take up this issue with EASA and Eurocontrol)
- Similarity of call signs (There is a software application available from Eurocontrol to assist operators in addressing this problem)
- Undisciplined verbosity using up valuable time

How can we make the best use of the available RT frequencies? There are already technical means of preventing blocked transmissions but not many operators have introduced them. However, the introduction of Controller-Pilot Data Link Communications (CPDLC) in upper airspace, although patchy and immature in Europe, has relieved RT congestion in the sectors where it is used; Maastricht is a good example. There has been a noticeable increase in the number of

aircraft equipped with CPDLC this year but there still remains an element of uncertainty about response times/timeouts etc. that can discourage its use. This can lead to an unwelcoming frequency for pilots as strings of instructions are fired off with minimal noticeable breaks. However, within UK controlled airspace, aircraft that have been transferred are normally identified to the controller. In essence changing frequency to a congested one is like taking 'an RT queue ticket' and if the frequency is too busy to "get in" the controller will know you are there and can initiate the conversation. That said, it is recognised that frequency congestion remains a problem during busy times of the day and the opportunity to make RT calls can become critical when, for example, aircraft approach a clearance limit and require further descent. Whatever the circumstances, maximising the use of CPDLC and good RT discipline by controllers and pilots alike are vital.

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EXCESSIVE CABIN AND FLIGHT DECK TEMPERATURE

Report Text: The aircraft was dispatched from [UK] to [] with Pack 2 inoperative on the previous sector. The daytime temperatures in [] are currently in the region of 46 degrees C. The MEL says that dispatching with only one pack inoperative should only be done with caution due to the impact on passenger comfort.

We were operating the return flight to [UK] and were aware of the MEL item from the briefing pack that we had received en route to the airport. On arrival at check in at [] we queried whether the APU had been left on and ground air connected. We were assured both were on. When we arrived at the aircraft the APU was running but the ground air had in fact not been connected. The ground staff at the gate informed us that the ground air is never connected on cost grounds in [] (cost to the airport and not the airline) and that it would take 15 minutes to arrange at best. As departure was approaching we therefore declined this.

There was little we could do to fix the problem short of departing as quickly as possible.

Consideration was given to disembarking the aircraft but this was discounted due impending engine start. We reasoned that the only way to deal with this was to get airborne as soon as practicable. Consistently inaccurate information from ground staff about expected ETD did not assist in decision making. We were repeatedly told that we would be ready in 5 minutes but in fact left the gate 45 minutes late, despite asserting repeatedly that the temperature situation was causing a problem.

There is a recommended procedure for cooling the cabin in the most effective way, which we followed, but with an unserviceable pack it had no effect whatsoever.

The Captain walked around the cabin and decided that temperatures were acceptable for the time being. We made several PAs to the passengers explaining the situation and acknowledging their patience with us.

The worst temperatures were on the flight deck which reached a maximum of 35 degrees. We were both profusely sweating

and the temperature issue was a massive distraction from flight preparation.

After engine start (packs are required to be off for start) the temperatures increased to: 29/32/29/29/32/35/30. Temperatures did not return to acceptable levels until 1hr45 after take-off. The passengers were understanding but events such as this have strong potential to lead to medical issues and disruptive behaviour.

I would like to add that there is a general theme on this aircraft type of excessive cabin temperatures. They are completely avoidable with the use of effective pre-conditioned air and cabin pre-cooling with the APU and packs. However this is almost never done. Ground staff usually inform us that they are under instruction not to run the APU prior to our arrival on cost grounds. The ground pre-conditioned air, particularly at [our UK base], is by and large totally ineffective.

Lessons Learned - Firstly aircraft should not be dispatched to hot environments with a pack inoperative. Ground air must be arranged and the cabin should be pre-cooled before passengers' board. Next time I would give serious consideration to insisting that the holds are loaded, doors closed and the cabin allowed to reach a reasonable temperature before commencing boarding as operation with an unserviceable pack in this kind of environment is clearly an inadequate configuration to effect a reduction in temperature. In fact it is not even possible to maintain the existing temperature with a pack down, it is only going to get hotter.

CHIRP Comment: We regularly receive reports about crews and passengers enduring unpleasantly high temperatures on the ground. Frequently it appears that this is

caused by a known aircraft problem. In this reported occurrence Eng Ops at the aircraft's base should have notified the ground handling staff down route that the aircraft had been despatched with an unserviceable pack. The message was either not passed or not assimilated correctly. In 'days of old' liaising with the destination ground handling staff would have been the responsibility of the Captain who flew the aircraft outbound – perhaps a more reliable method of communication. However, no matter how a requirement is relayed, it will only produce results if the operator's contract with the service provider includes provision of the necessary services.

On this occasion when the home-bound Captain was presented with a hot aircraft without ground air, he faced a difficult decision. Inevitably such decisions are based on the information available at the time and other relevant factors: what were the practical options for cooling the aircraft; was there a possibility of heat stress affecting the crew's performance; what was the operator's policy; was it better/practical to delay the flight; if a delay had subsequently led to a cancellation what would be the implications and the potential for passenger disruption? Ultimately, it was a difficult judgement call.

On a note of caution, there are risks associated with opening cabin doors to aid ventilation as the straps that are hung across open doors will not prevent someone falling from the aircraft. Also, experience in hot climates has shown that opening the cabin doors is not effective in reducing cabin temperatures and can make things worse.

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SUSPECTED ACCOUNTING AND AUTHORISING (AAA) BREACH

Report Text: I was dispatching a flight where there were 4 pieces of company mail that had been screened and had the certificates attached. I noticed that on one piece the flight number was incorrect and refused it for travel. I informed the airlines Duty Manager who wanted it to travel. She then contacted my Duty Manager who came to investigate. I was then told that they would change the

flight numbers as it was a "known error" as the airline Duty Manager was the one who prepared them for travel.

I said that I did not think this was advisable and that the package should be screened for the correct flight. They said they would confer. When I returned to the gate and asked where the package was, I was informed that it had been corrected and

initialled by the Duty Managers and loaded onto the aircraft and that they would take responsibility for any issues and the AAA sign off.

My issue is with 15 years of experience in this role, I have never heard of this, especially for unaccompanied items. My company had stated this is grey area and that if a manager wishes to overrule with regards to AAA they can.

I am looking for clarification as they cannot show me anything in writing.

CHIRP Comment: If the security of the company mail had been maintained since the

screening process and a simple documentary error had occurred then, providing there is an audit trail proving this, it would be acceptable to load the mail. The audit trail must be kept for 30 days in any event. However, under EC Reg 2015 / 1998 6.1.2, if there is any reason to believe a consignment has been tampered with – it shall be screened. This is the acid test - the Dispatcher needs to decide if it has or might have been tampered with (as opposed to a documentary error).

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AIRCRAFT DEPARTED WITH ICE ON THE WING

Report Text: I was travelling as a passenger on [airline] from [UK to a destination in mainland Europe] one morning in April 2017. On taking my seat by the wing, I noticed that there was a thin film of ice on the upper surface of the wing. For the avoidance of doubt, I am as sure as I possibly can be that it was frozen from inside the cabin and saw it melt after take-off. The other wing also appeared to have ice on it, but I did not have such a good view. It appeared very different in area to the other wing.

I informed a member of the cabin crew about this as we were about to pushback as it was becoming apparent we were not going to de-ice.

She informed the flight crew and came back to tell me that the Captain had said it was ok as it was melting. I then told her that I was an airline pilot and it was never ok to have frozen deposits on the upper surface of any aeroplane I have flown before for my airline. (I have flown 4 Boeing aeroplanes, 747/57/67/77, but not the 737. I cannot be sure of [operator's] specific rules regarding this either.

The CC member returned to speak to the flight crew after our second encounter. The aeroplane continued to taxi out and take-off.

I did not see any member of the flight crew leave the flight deck at all during the turnaround, but I was not making a particular note to look until after I noticed the ice.

CHIRP Comment: Boeing B737NG models (-600, -700, -800 and -900) are permitted to despatch with Cold Soaked Fuel Frost (CSFF) on the upper wing surfaces under certain conditions. Operators are required to develop procedures that enable flight crew to identify CSFF and whether the contamination is within the limits prescribed in the Boeing Airplane Flight Manual. The operator investigated the report, which was supported by photographs taken by the reporter; it determined that the ice observed by the reporter was CSFF and that the aircraft Commander had complied with the relevant procedures. From the perspective of a concerned passenger, CSFF contamination must be confined to the area of the wing that is above the fuel tanks and outlined with a black line. The reporter might have been better reassured had he been informed that the aircraft was permitted to depart with frost on defined areas of the upper surface of the wing rather than simply that it was melting.

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DUTY AT THE BEHEST OF THE OPERATOR

Report Text: We have had notification of an upgrade of [tablets computers]. We use

them as a portable Electronic Flight Bag (EFB) and as such are required to keep them up to

date. I have just spent 3 hrs of my own time ensuring my new [tablet] is fully loaded and ready for my next duty. This is expected to be accomplished in our own time.

As I am required to have an updated company [tablet] when I report for work then I consider this upgrade program to be a duty at the behest of the operator and recorded as such. This has not happened.

Would you agree that a proper record of this should be kept and indeed is a legal requirement even though it is not a flying duty and was undertaken at home?

CHIRP Comment: Some operators using tablets as EFBs do not issue them to each pilot; rather they are retained as carry-on equipment that is kept and updated centrally. The reporter works for an operator that issues tablets to each pilot for dual use – company and personal. This policy took into account user feedback suggesting a preference for a single device allowing convenience and virtual unrestricted personal use. Nevertheless, issued tablets are regulated devices and the operator has approval for the content and testing regimes to ensure they are robust. The upgrade to new hardware was followed by the inevitable software loading that was expected to take around 3 hours for each device. On-line and telephone assistance was available for those who encountered trouble and individuals were also allowed to retain their old devices until ready and confident in the new ones. A CHIRP straw poll suggested that 3 hours was about right if everything went well but there were several examples of it taking much longer.

The issue is indicative of a trend of increasing work in flight crews' own time. There is great variation across the industry. For example

some operators require pilots to make themselves available the day before a tour of duty to prepare for the forthcoming duty; others regard periodic medical examinations as a professional duty to be completed in company time. CHIRP takes the view that work that was previously done in the classroom but is now carried out on line should be rostered; however, tasks such as updating manuals, which were more time-consuming before tablet devices existed, are part of a professional pilot's individual responsibility and need not be rostered.

The scale and scope of tasks that can be completed remotely continues to change while there is frequently less spare time within a working day to complete them, particularly as operators seek to maximise the number of hours achieved by each individual pilot. Therefore it is important to recognise and exploit to the fullest extent the operational and time management benefits of electronic working while protecting users from the potential downsides. Good practice requires IT departments to be accountable to Ops staff over the timing of updates; best practice involves the use of a quasi-Airac cycle to prevent a daily bombardment of software updates and operational and domestic notices. Failure to do this risks important operational information being lost in the noise. Furthermore, some individuals without access to reliable broadband would need to report early for duty in order to download updates and notices. Given their responsibility to manage flight crew fatigue, operators should be realistic about the total demand on each individual's time and account for it accurately.

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MISUNDERSTOOD TAXI INSTRUCTION

Report Text: Our aircraft was positioned on the west side of a larger ramp area facing east with a barrier approximately 100 feet long to our right side. Clearance for taxi was requested from ATC and read back with no corrections from the controller. The clearance as I heard it and then read back to ATC was 'cleared to taxi, turn right to holding point []'. At this point, we commenced our

taxi straight ahead east bound to avoid contact with the barricade on our right side. Once clear of the obstruction, a 90 degree right turn was made [onto south and the aircraft proceeded straight ahead]. Please keep in mind that this point of the ramp is the junction of [2 taxiways]. One taxiway travels north/south and the other east/west. Having made what we interpreted as the right turn

requested in the clearance, we proceeded southbound as we had done several hours earlier from the same ramp location. Almost as soon as we taxied we heard ATC clear another aircraft to proceed to the ramp via a north bound route on the same taxiway. Just as the controller finished issuing that clearance, we began to slow our taxi and the controller told the other aircraft to hold short of the taxiway. It was at this moment that [we realised that] the 'right turn' issued by the controller at the beginning of our taxi was intended to send us west down the east/west taxiway. We offered to make a 180 degree turn for the controller, but he said it was not necessary. ATC then cleared us to continue south and to enter the runway at a midfield intersection and back taxi our required length for departure.

Lessons Learned - Having left that same ramp position several hours earlier and

taxied to the same runway may have played a role in not questioning the ambiguity of the taxi clearance. Always verify the taxi routing assigned if there is any doubt in either pilot's mind.

CHIRP Comment: The crew assisted with an ATC investigation into the incident in which the RT recording revealed that the taxi clearance was specific but it was not read back in full; the incomplete read back was not challenged. The airport is a busy one and RT congestion may have precluded challenging an incomplete read back. Whilst anecdotal evidence suggests that the incident is unlikely to be repeated because the Unit is now being meticulous about verbatim read backs, it would be hard to overstate the importance of always reading back clearances accurately and in full.

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PITOT ICING

Report Text: Our Company operates 737-800s which have a known problem of partial pitot heating failure in flight. This has led to [several] incidents of loss of airspeed information due pitot icing and consequently erroneous stick shaker operation. This could obviously be a very serious and fatal occurrence. There is a Boeing fix which has been completed to half of the aircraft fleet but the other half are not protected. This is because engineering cannot 'fit' the aircraft in for upgrading during the busy summer period. I and my colleagues are astonished that this is not a top priority whatever consequences to the programme.

Lessons Learned - Safety is not a priority.

CHIRP Comment: The case of a single partial probe heat failure has been assessed by Boeing as 'acceptable'. Consequently the pitot modifications, which require 25 man hours per aircraft, are not subject to an Airworthiness Directive. The subject Operator has explored the risk of a 'simultaneous double' failure affecting two out of the three critical pitot probes (Capt, F/O, Aux) supplying airspeed data to the pilots. The impact of this risk would be high but the probability was low,

particularly during the summer months while awaiting full fleet embodiment of the modification.

Following the accident to AF447, loss of airspeed information is a particularly sensitive subject. In the issue reported to CHIRP, assuming the manufacturer's classification of risk for a single failure is correct, the overall risk would depend on other mitigations available and the component failure rate. Although a known weakness represents another hole in the 'Swiss Cheese', there is a procedure for crews to follow in the event of a loss of airspeed information. The Operator has also issued its own communication to alert pilots to this potential failure condition. On balance, CHIRP's view is that Operator deserves credit for implementing a modification that is not mandatory. Given that mandatory Airworthiness Directives normally allow a period of time for implementation, the Operator's decision to phase in this non-mandatory modification was appropriate.

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POSSIBLE INFRINGEMENT

Report Text: I called [] ATC asking for a Basic Service. I was given the QNH which I entered into my altimeter; Sky Demon and GPS confirmed the same altitude - 2400 ft. After approximately 4 minutes I was called by [] ATC warning me that I was about to enter their controlled airspace at 2600 ft. (controlled airspace minimum 2500 ft.) I informed them that my instruments confirmed that my altitude was 2400 ft. ATC asked to change to Mode A!!! Due to my relative low hours I had no idea how to change from Mode C to Mode A. I therefore switched off my transponder and immediately descended to 2000 ft.

On reaching [destination] I spoke to the avionics engineer about my recent experience. "Ha," he said, "your encoder is transmitting the wrong reading!!!" Now I know more detail about my transponder, which at the time was reading 200 ft. out. On my next local flight I called [] ATC for an altitude check which now confirmed a 100 ft. error (Understand the maximum acceptable error is 200 ft.)

I wonder how many other GA pilots have Infringed / Not Infringed due to their transponder error?

Lessons Learned: Having completed my flight training and gaining my PPL in [] hours I had no idea how to change to Mode A (Lesson Learnt).

Never fly close to Controlled Airspace.

Periodically ask ATC to confirm your transponder altitude reading.

Would I have really infringed or not?

CHIRP Comment: This report was previously published in GA FEEDBACK Edition 72 with the advice to GA pilots that, when at liberty to choose their altitude and/or route, they should allow a comfortable margin from Controlled Airspace. The report is reproduced here to remind controllers (many of whom are on the distribution list for Air Transport FEEDBACK) that GA pilots may be unaware of the terminology 'Modes A & C'. In many GA aircraft the transponder switches are labelled 'Altitude on/off' and there is no requirement for pilots to be aware of Modes A & C. Therefore it is vital to stick to standard terminology from CAP 413:

"Squawk Altitude" - means select the altitude reporting feature.

"Stop squawk Altitude" - means deselect altitude reporting.

"Stop squawk Altitude, wrong indication" - means stop altitude report, incorrect level readout.

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CONTROLLED REST (A CABIN CREW REPORT)

Report Text: Three flight crew operating with one flight crew member in the bunks. The other two informed me that they were taking controlled rest. At the end of the controlled rest period, I entered the flight deck and saw the mattress from the spare bunk had been taken off and was on the floor in the flight deck behind the flight crew seats, along with pillows and blankets.

I did not witness anyone laying/sleeping on it but it appeared that it had been used during the controlled rest period. Therefore, one flight crew member was in the bunks and possibly a second flight crew member on the floor on the mattress on the flight deck with

one flight crew member in the seat operating the flight.

Lessons Learned - If this practice was the case, it needs to be made clear whether this is acceptable re: safety of the aircraft and passengers and crew. If not, communication should be sent to all flight crew to be advised. A message to all cabin crew to monitor and report such practice.

CHIRP Comment: Controlled rest appears to be being required increasingly by flight crew to cope with the tiredness induced by rosters. However, it should not be taken in the manner reported - which is not believed to be a widespread practice. It is difficult for CHIRP

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to report specific examples of failures to follow procedures to operators without compromising the identities of the people involved. However, operators need to be made aware of the problems in order to ensure that operations are conducted in accordance with their operations manual. They should also review the nature of specific routes that cause flight crew to need controlled rest and produce rosters such that there is little or no requirement for it.

The report will be published in Cabin Crew FEEDBACK with the advice that cabin crew who suspect that procedures are not being followed should discuss their concerns with the Captain. Cabin crew expect flight crew to behave in accordance with published procedures and it is important that they should be confident in their understanding of those procedures.

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