FEEDBACK

Issue No: 68 Autumn 2003

EDITORIAL

The following item was published in the most recent issue of CABIN CREW FEEDBACK, and on the recommendation of the Air Transport Advisory Board has been included for the information of flight crew members.

ADHERENCE WITH SOP'S

In recent months, CHIRP has received a number of cabin crew and flight crew reports detailing incidents in which flight crew members have instructed cabin crew members not to comply with company SOPs. Some reporters have questioned whether aircraft commanders can issue such instructions.

Aircraft commanders retain the ultimate responsibility for the safety of the aircraft and can issue such an instruction in an emergency, if they consider that the safety of the aircraft would be otherwise compromised. This of course would be specified in the Operations Manual.

In all other instances, compliance with Company SOP's is what crew members will expect.

Should cabin crew encounter deviations from SOP's, particularly in relation to the secured flight deck door, other than in emergency situations, the issue should be addressed through the normal company reporting system as the first option, unless the matter is resolved at the time.

Whenever possible, confidential reports of this type, after disidentification, are made available to the operator concerned, and are also passed to the Civil Aviation Authority (Safety Regulation Group).

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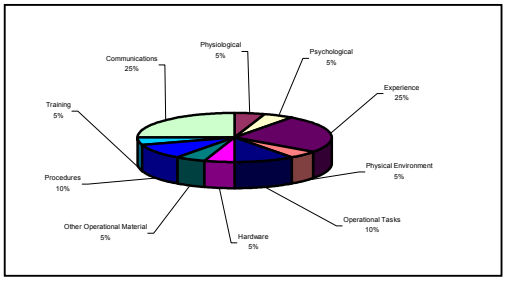
ATC REPORTS

ATC Reports received in Period: 7

Key Areas:



THE COST OF SAVING?

I feel duty bound to highlight an issue that I believe is having a major impact on the safety of the service we provide. Until a year ago, all of the Unit's ATCOs had their own copies of MATS Pt 1 and MATS Pt 2. In a cost cutting measure, management decided the ATCOs would have to "opt-in" if they wanted to retain their own personal copies and receive amendments. Much to management's surprise, the vast majority of staff DID opt-in. In order to achieve the required savings management then decided to withdraw ALL personal copies, and replace them with one copy per watch and copies of amendments held in a folder in the briefing area.

Since the introduction of this system I have observed a very significant reduction in the currency of knowledge of most of our ATCOs. It is not unusual now for a trainee to elicit major surprise in the Ops Room when he/she talks about a MATS Pt 1 change, which may have been introduced six months previously! The simple fact is that the sheer size of MATS amendments means that there is no way anyone can take onboard all the changes whilst reading the amendment in isolation, standing in the briefing area. I have always prided myself on my level of knowledge but without my personal copies even I

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~OOO~

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CHANGE OF ADDRESS?

If you receive FEEDBACK as a licensed pilot/ATCO/maintenance engineer you will need to notify the department that issues your licence of your change of address and not CHIRP, please write to (including your licence number) to Personnel Licensing, CAA (SRG), Aviation House, Gatwick Airport South, West Sussex RH6 0YR:

Flight Crew..... Post - as above
Fax: + 44 (0) 1293 573996
E-mail: fclweb@srg.caa.co.uk

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Fax: + 44 (0) 1293 573974
E-mail: maggie.marshall@srg.caa.co.uk

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Fax: + 44 (0) 1293 573779
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REPRODUCTION OF FEEDBACK

FEEDBACK is published quarterly and is circulated to UK licensed pilots, air traffic control officers and maintenance engineers, if you are not already on our circulation, and would like to be, please send your application in writing to Kirsty at the above address.

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now have to admit that the past three MATS Pt 1 amendments have completely passed me by ... I hope they don't contain anything important!

As is normal these days, our company always begins every statement with "safety is our highest priority" but, from what I can see, it should also say "so long as it doesn't cost money", as the levels of knowledge continue to drop, so the dangers of a major error increase massively.

The reporter's concern was forwarded to the operational management and also to CAA (SRG) Air Traffic Services Standards Department; the latter provided the following response:

In accordance with the Manual of Air Traffic Services (MATS) Part 1 Section 8, Chapter 1, Paragraph 7, MATS Part 1 and MATS Part 2 are two of the documents that are required to be available for immediate reference at operational control positions. Currently the documents are to be correctly amended and, unless otherwise approved by the CAA, are to be in conventional printed form. At units where electronic media complement the circulation of MATS Part 1 and MATS Part 2 and their respective amendments, processes and procedures need to be in place to support easy and reliable access by controllers in addition to printed copies. MATS Part 1 quarterly amendments are published at least two weeks before the effective date of the amendment in order to facilitate proper briefing and familiarisation with the content. The unit's Local Competency Certification (LCC) scheme or the annual certificate of competence check by Regional Inspectors of ATS ensures that controller knowledge is up to date.

In cases where the CAA has approved the use of electronic media to support hard copy, it would seem to be appropriate for the processes and procedures adopted by Unit management to be reviewed with respect to 'best practice' during subsequent routine inspections.

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MANNING PROBLEMS

The manpower plan for this Unit has not proved to be adequate in the recruitment and retention of staff. Consequently, there have been a number of occasions where operational positions have been closed due to staff shortages and other positions have been 'bandboxed' *(combined)*. The most critical of these is combining air arrivals and air departures. When these tasks are combined after 2200 hrs, inbound spacing is restricted to 6nm, but during the daytime, management refuse to impose similar restrictions. As a result, some controllers are working at or close to the limits of their capacity, with professional pride being the driver to 'shift the traffic' at normal rates. If there were to be an emergency under these circumstances, there are real concerns over

the ability of some controllers to cope safely with the situation, without becoming overloaded.

The staff shortages have been ameliorated by the introduction of AAVA's (ATCO additional voluntary attendances), however, there is a risk that by doing extra duties controllers will become over tired and stressed, leading to even greater levels of sickness than at present and a vicious circle will ensue.

Sometimes, ATCOs are their own worse enemies and need to be protected from themselves!

The CHIRP Air Transport Advisory Board concluded that Unit management should ensure that staff shortages do not prejudice safety and the appropriate traffic management measures are in place to allow the reduced controller team to handle the traffic safely and efficiently.

The Board was advised of the circumstances behind this report, and was assured that appropriate procedures to restrict either departures or arrivals in such circumstances were in place to ensure 'best practice'.

As regards AAVA (additional voluntary attendance) NATS advise that these hours are strictly controlled by the ATCO duty limitations (SRATCOH).

ATC COMMENTS

More Callsign Confusion

I read with interest the reports in FEEDBACK Summer 2003 concerning Callsign Confusion. I am an ATCO providing Approach Control for ###. I have no doubt the report concerned this sector, as the problem has increased significantly in the recent past, following airline takeovers. Daily, confusing callsigns continue to appear.

Examples - Airline A

ABC2255, ABC 2455, ABC 3255; all inbound at the same time.

ABC282 inbound; ABC283 outbound

ABC8475, ABC8575; both inbound at the same time following each other on final approach!

Examples - Airline B

XYZ5AX, XYZ6AX; both inbound on frequency at the same time.

XYZ3NK, XYZ3NE; both outbound on frequency at the same time.

The airspace in this sector is becoming more and more busy. For ATC and flight crews to have to put up with such potential confusion is without doubt detrimental to safety.

Despite reporting action by my colleagues and myself nothing seems to get done. Positive action by these airlines is needed now to sort this problem out.

This is one of several additional reports received from ATCOs regarding this particular problem.

Currently, there would not appear to be any mechanism for resolving callsign confusion issues other than on an individual basis; the reporters' concerns have been represented to the two airlines concerned.

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More on Stand Designators

Following the publication of the item "Who am I? Where am I?" in the last issue of FEEDBACK, we received a significant number of additional comments on the same topic from both ATCOs and pilots (see Page 6); the following is typical of the views expressed:

After reading the article "Who Am I, Where am I?' in Feedback 67 I felt I should write to you. I am an air traffic controller at Heathrow and felt the need to give details of my experiences of the stand re-numbering.

When the idea of stand re-numbering was originally voiced I was a little sceptical as to how it would work. We were given a full simulator training programme but this did not fully prepare us for actually using them during busy sessions of GMC, particularly when bandboxed (*two tasks undertaken by one controller*).

As the author of the article notes some of us still use "the old tangos" etc. as there simply isn't the time to use the phraseology recommended by our OPS department. I simply do not know every block on the airfield, and to find out which ones people need to hold in takes time in looking at the map, during which time another R/T call is made. The stand numbering system that was chosen was taken from 3 options, the end result was the cheapest - no surprise in today's climate. But I really do not think that it is the best.

There is definitely a loss of situational awareness, no longer can I automatically respond to a request for push-back in Terminal 1, the old Bravos and Charlie's was easy to use but now I have to look at the map sometimes to check if it is safe to push. My main problem occurs with stands 117, 118, 119, 120 & 121, formerly B17, C18, B19, C20 & B21. I have on a number of occasions given a wrong direction of turn when landing 27L or told someone to wait for an outbound before pushing simply due to the fact that a series of numbers is not as easy to recall instantly.

A further problem arises with the increased amount of numbers used. This is more with pilots, the stand numbers are often accidentally used when the initial push request is made, the most common airline to do this a UK airline - so it cannot be a language problem.

A recent minor incident highlighted problems with the change in stand numbers. A non-UK 747 had been towed onto stand 331. Shortly after parking the tug caught fire and my colleagues (ATC) alerted the aerodrome fire service. As they watched from the tower they saw the fire service initially head for the incorrect stand. There used to be 2 stands that were 31 in terminal 3, L31 & M31. These became 331 & 351 respectively, the fire service had made the simple error of going to what they thought was stand 31 in Terminal 3, the resolution to this error was a quick R/T call to say that the stand they needed to go to was the "old Lima 31 ". I do not need to say any more on this!

The removal of the stand letters has added more numbers to the already high amount used, not only the aircraft callsign, but stand number and taxi route are all numeric now, which means that instructions to taxi have to be issued in more than one part to allow pilots to write them down and then look at the map to work them out, which can admittedly cause annoyance for both parties.

Early next year the taxiways will be brought up to ICAO standards and these will be lettered, however we will lose the ability to hold people in a specific place as these blocks will no longer exist.

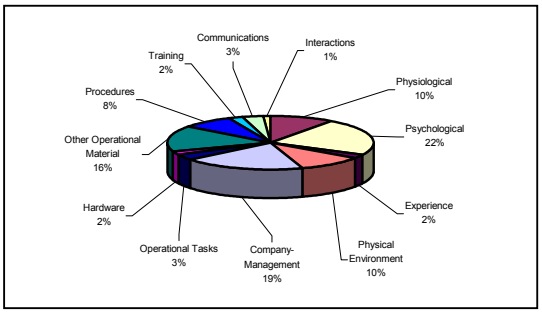
The adherence to ICAO standards has made what was a particularly complex GMC environment even more difficult for both the ATCO and Pilot to understand.

All of the reports/comments received on this topic have been forwarded to the Airport Authority and to CAA (SRG) Aerodrome Standards Department.

FLIGHT CREW REPORTS

Flight Crew Reports received in Period: 52

Key Areas:



Some of the reports that we receive involve situations encountered in non-UK airspace:

THUNDERSTORM AVOIDANCE

I feel that ### ATC *(A Southern European FIR)* isn't fully aware of the hazards posed by thunderstorms and Cb clouds. Here are three events that occurred in ### FIR to our company: Events One and Two indicate that in addition to the numerous accident causes in which Cb's are a factor present, loss of separation or collision could be another.

EVENT ONE - Departing AAA

Prior to departure Cb's were observed north and west of the field. The SID from RWY 29 calls for a left turn at 2 DME to intercept the XXX VOR (on the field) 166°R until 12 DME, then turn left onto a north-westerly track. The crew believed that this SID would keep them clear of the Cb's and a suitable northbound track could then be requested. During the left turn after the 2 DME point, ATC gave a radar heading of 250°. The flight then passed through a Cb with intense hail. The noise was so loud they couldn't hear and an ATC instruction to maintain FL 120 on reaching was missed.

Both radio altimeters decreased to zero (presumably due to the intensity of the hail) and the, GPWS 'PULL UP' terrain warning activated. The crew responded correctly by increasing attitude and climb rate rapidly and turning left onto heading 210° away from high ground. At FL 120 the aircraft was struck by lightning.

During turns, the radar picture may be difficult to interpret. Intense hail doesn't always show red on the radar, which prefers water. It would be helpful if ATC did not vector aircraft into Cb's.

EVENT TWO - Arriving AAA

Approaching AAA, minor deviations were made, with clearance, to avoid Cb's. The aircraft was cleared to XXX VOR (on the airfield) at FL 100 to hold. In the hold, a left turn was given onto heading 120° to intercept the 15 DME arc, then turn left on the arc to pick up the ILS procedure to RWY 29. Weather over the airfield was night, CAVOK but a north/south line of Cb's existed about 15 miles east of the field. Non Handling Pilot (NHP) advised ATC they may not be able to go out as far as 15 DME due Cb's, which had been behind the aircraft at time of transmission.

Established on heading 120° NHP again advised ATC that they could not continue to 15 DME due Cb's, but could go as far as 12 DME. ATC replied 'Anyway, pick up the 15 DME arc, cleared ILS Papa runway 29. aircraft commenced the left turn at 12 DME due Cb's and advised ATC. Another aircraft was then seen, visually and on TCAS emerging from the Cb's on the centreline for 29. It had previously been invisible in the red area on the display. The flight continued the left turn, paralleling the inbound track of the aircraft on the ILS and was vectored around for another approach, again being cleared to intercept the 15 DME arc and again advising that this was not possible due Cb's. Ascertaining that there was no traffic ahead, the turn was again commenced at 12 DME and an uneventful approach and landing made in CAVOK conditions.

A day or two later, another aircraft was substantially damaged by a heavy landing at AAA in a thunderstorm.

EVENT THREE - Arriving BBB

Prior to departure, forecast and actual weather at destination (BBB) indicated RVR 300 to 600m, cloud overcast 200ft. A Cat 2 approach was briefed for. In flight actual weather passed by ATC indicated similar. No mention of Cb's was given in any of these reports or the TAF. Established LOC at about 15 DME for straight in RWY 12 a large red Cb was observed on radar over the airfield and the Cb then avoided. The intention was stated to hold until Cb's were clear of the field. (Fuel endurance about 3 hrs 15 mins). Manoeuvring during this period involved frequent Cb encounters. When the radar picture looked better in the area of the field, vectors for another approach were requested. On an intercept heading ATC advised that this would give a 3 mile final, was that sufficient? It was not, so after some more circling in or close to Cb's, vectors were given for an approach and the aircraft established on the ILS 12 about 10 miles out. ATC then passed the wind as 280/14, was that OK? It was not, so ATC cleared the aircraft for a circling approach RWY 30. Asked what the weather was, ATC gave 600m ceiling 200ft. A go-around was made in IMC. Later the weather passed and a normal approach and landing was made with wind calm and near CAVOK conditions.

Perhaps ### ATC aren't fully aware of all the dangers posed by thunderstorms. Their effects are diverse and every year there are accidents in which Cb's or similar storms were a factor present. Their effects have led to structural failure, loss of control, CRT, severe hail damage, undershoot due to intense rain and refraction, overrun, hard landings, severe damage or loss of aircraft due lightening strike, severe icing, diversion with fuel exhaustion, diversion to an unusual airfield with an inadequately marked runway and a landing accident, as well as wind shear.

In 2002, Cb's were a factor in 3 jet hull losses (2 fatal) and 3 fatal turbo-prop accidents, plus many other less serious events.

Most en route and area ATC radars are weather suppressed. Moreover, even without suppression, 23cm radars are not ideal for depicting adverse weather, in comparison to airborne weather radars. Consequently, pilot interpretation of severe weather patterns is the principal means of avoidance in many areas. If you are unable to accept an ATC vector in such circumstances, remember, you are not obliged to comply with the instruction, but advise ATC as soon as this becomes apparent.

It is perhaps worth noting that investigations into recent encounters with severe weather suggests an increasing incidence of positive strikes with energy levels in excess of certification protection levels; this has been particularly the case in Northern Europe.

This report has been passed to Air Safety Support International, the CAA subsidiary whose responsibilities include liaison with other National Authorities.

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A VERY QUIET DEPARTURE

Departing AAA *(A Southern European Airport),* after take off, approaching the 2 DME turn point, which also coincides with flap retraction and acceleration, TWR said change departure 126.65. NHP acknowledges correctly. No reply on 126.65, NHP returns to TWR and says no reply on 126.65. TWR says OK, change to 126.75 or 132.7, which would you like? Contact then made when the aircraft was about 12 miles out on the SID.

That's a long time for a departing aircraft to be out of RTF contact. and emphasises the need to advise or publish the departure frequency prior to take-off.

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CHAOS CORNER

Isn't it about time ICAO banged some heads together and sorted the petty politics endangering air traffic in the North-East Mediterranean area?

For as long as I've flown longhaul (20 years) this area has been known as 'chaos corner' as crews juggle radios to talk to Turkey, Nicosia, Latakia, Damascus and maybe Beirut too. (We used to talk to the RAF too who seemed to be the only unit who knew who was where - but now we must also monitor 121.5 for the hostile US Navy).

There are 1½ pages of small print in the ### En route Guide and a paragraph in our company briefing notes detailing procedures in this area. The bullet point is "Don't request level changes here". Now the RVSM boundary has been put there!

I recently overheard two aircraft getting mutual TCAS RA's *(Resolution Advisories)* between MUT and VESAR (presumably reported through appropriate channels). The southbound aircraft was descending from RVSM FL390 to non-RVSM FL370 - the northbound already at RVSM FL380. Thank goodness for TCAS.

In the meantime, shouldn't the ### En route supplement be re-written to more accurately reflect what really happens here? Or move the RVSM boundary away to a less political ATC environment?

As the reporter notes, some of the problems associated with this area are relatively long-standing. Notwithstanding this, the concerns regarding RVSM

have been represented to Air Safety Support International and to the European office of ICAO.

In the event of a Resolution Advisory being received, are you fully conversant with the relevant instructions in your Operations Manual?

The reporter's comments regarding the accuracy of the en route documentation has been passed to the chart manufacturer.

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CONSECUTIVE NIGHTS

I am curious on a question which I hope you may be able to explain.

The Company Ops Manual concerning Flight Time Limitations follows almost verbatim Cap 371 - Third edition but elaborates on a roster for two consecutive nights (spanning the 0200-0459):

"Should any duties be scheduled to be carried out within any part of the period 0200-0459 local for two consecutive nights then crew members will finish the duty preceding this series by 2359 local before covering a block of two consecutive night duties.
Note: In the event of 2359 being exceeded then only the first of the duties which impinge on 0200-0459 may be undertaken."

One of my colleagues was rostered from days off into an afternoon standby to finish (if I remember correctly) at 2100 local, Monday. His following roster was Tuesday night into Wednesday morning and Wednesday night into Thursday morning, two nights spanning the 0200-0459.

His actual duty was a call out on the Monday operating Monday evening into Tuesday morning going off duty at 0155 local. He then flew the two scheduled night flights.

My contention was that having passed the 2359 on Monday evening he should have been taken off the second scheduled night flight. To me and to everyone else who has read it this is quite clear. After the panic died down, crewing and rostering took great pains to explain to me that the manual did not mean what it said and the fact that he finished before 0200 on the Tuesday morning meant that all was OK and this did not apply, and CAA agreed on this as it had been raised before.

I have long let the dust settle but I still do not see it. I can conceive a contention that as he started from days off then by moving the finish by 2359 hours local backwards into that period that one can obfuscate the matter but the reality to me was that he exceeded the 2359 pumpkin hour duty cut off going into two consecutive nights.

Any comment you have would be appreciated.

The extract from the Company FTL Scheme quoted above was published in Notice to AOC Holders (NTAOCH) No.3/96 Para. 1.2, and provided clarification to operators on the regulation of FTLs in relation to consecutive night duties.

If the circumstances detailed in this report are correct, the operator would appear to have interpreted the provisions of the NTAOCH incorrectly.

CAA (SRG) has recently conducted a further review of the NTAOCH text related to consecutive night duties; it is planned that further advice on this particular aspect will be promulgated in the near future.

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SUMMER SCHEDULING

We now have in my company blocks of Standby. On this day I received a call-out, to come in to ensure that an afternoon flight could be operated. The operating crew had told crewing they would not be willing to go into Discretion, having previously operated two sectors. While driving to work I was informed that I was now positioning on the outbound flight and operating the return flight. This would mean that the other pilot would operate there and position back. When I queried why he could not be replaced prior to the outbound flight and I operate two sectors, the answer was that this was the new crewing policy for the summer schedule. "Just go to the check-in desk". A few minutes later the next call came to inform me to go back home on Standby, as the crew was willing to operate both sectors.

Surely Discretion has nothing to do with willingness but only ability. It is the Commander's right to exercise Discretion when crew is rested enough, but when faced with being replaced on the last sector only, knowing that another crew member is positioning on outbound sector, Crewing is hoping flight crew will give in to operate into Discretion rather than position back to Base.

Please look into this method of operation as it may well be legal but reduces morale below the already lowest level so far experienced in my time in the company. Legality is one thing but taking care of crews and wasting resources another.

Although the practice of positioning as described in this report is within the CAP 371 Guidelines, it does not reflect good rostering policy and might be perceived as applying subtle pressure on individual crewmembers to agree to operate into Discretion, as the reporter suggests.

As we have previously noted, an operator may not schedule a crew into Discretion; the decision to exercise Discretion is that of the aircraft commander alone, after taking note of the circumstances of the rest of the crew.

It is the practice of CAA Flight Operations Inspectors to monitor Discretion Reports as a key indicator of viable scheduling during routine inspections.

FLIGHT CREW COMMENTS

STAND DESIGNATORS

I have been operating into Heathrow for almost three decades, so I am reasonably familiar with this airfield. I have waited a few weeks before expressing an opinion on these changes.

I also agree with your correspondent that the new stand numbering system, which is in accordance with ICAO standards, has been a retrograde step. It lacks clarity and does nothing to aid situational awareness. Stand numbers and taxiway block numbers are at the moment easily muddled. Standby for further head scratching, in the not too distant future, when all LHR taxiway block numbers change to letters!

My view is that any change in aviation should increase safety and/or efficiency. These changes accomplish neither. To use the argument that the UK authorities have to abide by ICAO regulations is really not good enough! A better use of CAA time and effort would be to return to ICAO and suggest an alteration/suspension of this particular policy on the grounds of safety and common sense! I wonder how many airline pilots have been directly involved with these significant changes?

Similarly, in my opinion, the most confusing taxiway lettering system in the World is none other than at Manchester. This relatively new layout also conforms to these ICAO standards, and many colleagues have expressed opinions about how easy it is to get lost and confused! Another justification to return to ICAO for a total rethink?!

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GEAR PINS - A COMMENT

My employer often tows aircraft onto stand with the nose-gear pin in. Often the pin is still in when the walk round check is carried out. Most pilots deal with this by writing "NOSE GEAR PIN" on their flight log next to the place where one notes the block-out time, not releasing the man on the headset until he has confirmed that the pin has been removed, and finally, not taxiing until both pilots have seen the pin held up by the headset man; so far this has been successful!

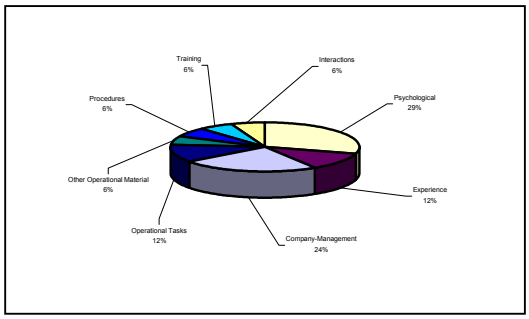
I realise that the problem in the report 'Rushed Departure - Delayed Arrival' was caused by a rush, but that's what SOPs are for, to prevent this type of error.

See Page 9 for an Engineering perspective on this topic.

ENGINEERING REPORTS

Engineering Reports received in Period: 6

Key Areas:



PRE-FLIGHT CHECKS

Whilst awaiting a delayed flight from a small airport in the departures lounge, I observed a pilot completing a "Pre-Flight check" on a twin engine, regional turbo-prop type aircraft, shortly before start and taxi. I estimate the check to have taken 30 seconds. The check was completed at a brisk walk with no stooping or stopping. A few cursory glances were as close to a check as he got.

Is it any wonder that significant defects, missing panels, covered pitot static ports, control locks and gear pins are missed, (reference issue 67, Rushed Departure - Delayed Arrival).

To refer to the pre-flight as a walk round is to degrade the significant purpose of the check, to detect obvious signs of damage, to ensure the aircraft is fit for the intended flight and to act as the final safety net for the maintenance system. After all, the check is defined in the maintenance programme.

How many times have we read reports and thought "the pre-flight should have detected that" or "the crew did well to find that on a pre-flight".

The downgrading to a "walk round" is almost certainly due to complacency bred by years of benign experience, but the nature of the maintenance programme inspections/checks is that inspections are required at appropriate levels (including the pre-flight) and frequencies to detect both anticipated and random defects. The programme builds in safety margins and considers human factors, but cannot be expected to be effective if inspection standards are routinely degraded.

Whilst it is accepted that it is often not possible to complete the pre-flight just prior to start and taxi, the operator remains responsible for ensuring its aircraft are fit for flight. Standard practices and procedures should surely be implemented to cater for towing, delayed door closure, de-icing and the like.

Some years ago I was unfortunate enough to be involved in an aborted take-off when the pilot realised he had not removed the locks from the (aircraft) elevators. On a different day...?

As the reporter notes, the Pre-flight External Checks conducted by a flight crew member should include all of the items in the manufacturer's checklist. However, in the case where the check is conducted as part of a turn-around by a crew that had previously conducted an External Check and had operated the previous sector, the check might reasonably be abbreviated.

It is not clear from this report whether this might have been the case.

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A HOT TOPIC

The aircraft was carrying an ADD to inform the crew that an engine was EGT limited in climb.

On the night in question this particular aircraft was night stopping at my base, Line Maintenance control were consulted to request what action was being planned to rectify this defect, the engineer concerned made it quite clear that he was not happy to see this defect in an ADD.

He had the assurance from Line Maintenance Control that they had that evening e-mailed the relevant departments to get immediate action with regard to this defect.

During a subsequent defect investigation/rectification of an engine starting problem on the subject engine, sometime later, the Tech Log was reviewed for possible history. On reviewing the Tech Log it was noted that the ADD for this engine being EGT limited in climb was still in the Log as a current ADD. Line Maintenance was immediately informed of the engineer's concerns and the possible relationship between the current starting defect and the on-going ADD. LMC were informed that the aircraft would be AOG until both defects were further investigated.

The appropriate diagnostic computer was downloaded to check for any possible exceedences. The exceedences, noted were suspected not to be starting exceedences, but occurrences which could possibly have occurred in flight. All exceedences noted were for the subject engine; there were several exceedences over the previous 3 days since the last download was carried out. In accordance with the Maintenance Manual *(MM)* the exceedences noted meant a Hot Section Inspection *(HIS)* by disassembly before next flight. LMC were informed of this discovery.

The engineers were advised that they should ignore the read-out as it is not used as a source of information for maintenance action, and if the crew had not noted the exceedence then we should disregard the computer. It was reiterated by the engineer that the MM action for the computer recorded information was a HSI disassembly, and that previously the computer was used as a reliable source of information for maintenance, so why wasn't it a reliable source on this occasion? It was advised that the engine manufacturer would confirm the advice to ignore the computer data.

A short time later, the engine manufacturer advised that the computer is not used as a basis for maintenance action unless the crew confirm the exceedence.

During this time Engineering replaced another component on the engine and cured the hot starting problem. During the checks post this change a Full Power Assurance check was carried out on the engine and confirmed to be within MM limits with enough EGT margin remaining to continue in operation. The only defect remaining was the EGT exceedence on the computer.

Following further exchanges the engine was eventually replaced.

How much should we rely on the computer read-out now doubt has been cast on its integrity? We rely on it to such an extent that if for example a particular limit was exceeded for nine seconds there is no inspection required, but if the record shows 10 seconds or more then a boroscope inspection is required. The computer is either reliable or its not. The MM does state that, "The (reference) system is not certified for the practice of using the LCF (Low Cycle Fatigue) totals to calculate engine cycles for maintenance purposes." It does not state that information supplied may be inaccurate.

Both the engine manufacturer and the company on this occasion thought they had the authority to overrule the Maintenance Manual. Both companies did not recommend ANY inspections to be carried out as a precaution, even if the information was to be suspected, they could have called for at least a boroscope inspection and an op. check or replacement of the computer.

The information contained in a Maintenance Manual is Approved as part of the Certification process of the aircraft. As such only the Design Authority, normally the airframe manufacturer, can issue a concession to deviate from it or amend it.

A licensed Engineer is not empowered to deviate from the manual, neither is the Quality Department nor the Technical Support Section. It is within the remit of a licensed Engineer to require additional checks to be made on an engine (or other component), such as a boroscope check, high power run etc, if they believe that such checks can assist in determining its continued serviceability. It is therefore important that flight crews accurately report any parameter exceedence in order that Engineering can take appropriate action.

The Trend Monitoring programme, required on all engines as part of the Approved Maintenance Programme, is there to detect and highlight this type of on-going problem where there may be a gradual but progressive deterioration in engine performance. However, some of the equipment installed on the aircraft or used externally for such programmes may not be sufficiently accurate or sensitive to use in diagnosing one-off events, only longer-term trends. This, it is advised, is the case with the computer used on this particular aircraft type.

ENGINEERING COMMENTS

We have had several responses from engineers concerning the report in the last issue about failure to remove the nose-gear pin before flight, this is one of them.

RUSHED DEPARTURE - DELAYED ARRIVAL (FB67)

I read with great interest your report in issue No. 67 "Rushed Departure - Delayed Arrival".

I would like to add my point of view from an engineering perspective. Firstly I admire the Captain's report being full and frank and him admitting to the incident.

However, as a Licensed Engineer for the last 12 years, I would like to add that this type of incident has never happened to me once and hope that it never will, although I have seen it happen to some of my colleagues.

I feel that although the Captain takes overall responsibility for the aircraft and its safety, on this occasion he has been badly let down by the engineering staff handling the aircraft.

Invariably these gear pins and their flags, although stowed in the flight deck, or electronics bay, are normally covered in grease from installation in the gear and contact with the gear from the wind etc. it is therefore good courtesy for the engineer to remove these pins rather than the flight deck.

It is not only good engineering practice but also in most cases company practice that when the landing gear locks are installed, a Tech Log entry MUST be made for their removal prior to flight... a practice which I have always adhered to!

Had this entry been made then the captain would have not been able to sign the Tech Log prior to departure and the pins would not have been left in.

Whilst the Captain here feels that rightly it was a flight that he was not proud of, I feel that he and the company he works for has been badly let down by poor engineering practice and common sense on behalf of the ground crew.

Most of the comments received made reference to the need to make an entry in the Technical Log, as a matter of routine, so that pins are not forgotten, particularly where an aircraft off maintenance may have pins used from a source other then the aircraft set.

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FIRE EXTINGUISHER COLOURS

During a recent safety and emergency procedures refresher we were shown fire extinguishers. It appears that they now come in two "colours" either red or chrome irrespective of type. Immediate dissent but reassurance, "you can tell by the nozzle shape". A plea to the SEP instructor produced "it's the same in the airport buildings, so they look nice", from the airport fire officer conducting the lecture. So beware folks you could find yourself fighting a fire in electrical equipment with a water extinguisher and deadly results.

There is an ICAO colour code; this is not being complied with.

This report refers to a non-UK operator, but raises an interesting point.

All containers of fire extinguishants must now be red in colour to comply with EU policy, however fire extinguishers that were in place before the directive become effective do not have to be replaced until they become redundant.

In the UK, red fire extinguishers may have labels of different colours and shapes to assist in identifying with their contents. (Black = CO2; Green = BCF/Halon; Blue = Powder.)

CAA (SRG) ATS INFORMATION NOTICES (ATSINS)

The following CAA (SRG) ATS Standards Department ATSINS have been issued since July 2003:

CAA (SRG) ATS Information Notices are published on the CAA (SRG) website -

www.caa.co.uk/publications/publications.asp?action=sercat&id=2

Number 32 - Issued 26 September 2003

Runway Incursion Management - Advice to providers of air traffic control services and flight information services of further information that may assist in reducing the frequency of incursions.

Number 33 - Issued 26 September 2003

Runway Incursion Risks - Advice to air/ground communication service providers and air/ground communication radio station operators of one approach to assist in reducing the frequency of incursions.

Number 34 - Issued 14 October 2003

The Provision of Approach Radar Control Services by Controllers Who Do Not Hold an Approach Control Rating

Number 35 - Issued 14 October 2003

Changes to Operational Status of Radar Systems

CAA (SRG) FLIGHT OPERATIONS DEPARTMENT COMMUNICATIONS (FODCOMS)

The following CAA (SRG) FODCOMS have been issued since July 2003:

CAA (SRG) Flight Operations Department Communications are published on the CAA (SRG) website - www.srg.caa.co.uk

20/2003 - Issued 12 September 2003

1. Second Letter of Consultation: Proposal to Amend Articles 50, 51 and 129 of The Air Navigation Order 2000 to Reflect Current International Practice in Relation to Area Navigation, Required Navigation Performance and Operational Approval

21/2003 - Issued 12 September 2003

1. Minimum Equipment List (MEL) Approval/Permission Procedure - outlines changes to the MEL Compliance Document that are to be introduced in the near future.

22/2003 - Issued 12 September 2003

1. Lithium Battery Fires - Research into the most appropriate means and procedures to deal with an in-flight fire involving an item of passenger carry-on equipment or portable electronic devices containing a lithium battery has been published in CAA Paper 2003/4
2. CAP 739 - Flight Data Monitoring: A Guide to Good Practice - has now been published.

CAP 455 AIRWORTHINESS NOTICES

Issue 132 dated 18 March 2003 amended the following Notices:-

No 6, No 6 App. 3, No 10, No 12 App. 16, No 12 App. 65, No 25, No 29 App. 3, No 36, No 36A, No 46 and App1, No 55 and App. 2, No 58, No 98 Sch. 2.

Note:-

From 28 September 2003 the European Aviation Safety Agency (EASA) became responsible for the airworthiness standards for the majority of the civil aircraft registered in the Member States of the EU.

The following Notices have been notified to EASA as remaining mandatory for UK registered aircraft:-

AN 33 Unprotected Starter Circuits

AN 64 Minimum Space for Seated Passengers

AN 79 Access to and Opening of Type III/IV Emergency Exits

AN 82 Electrical Generator Systems - Multi-Engined Aircraft

AN 84 FM Interference Immunity Standards

AN 88 Electrical Generator Systems - Bus-Bar Low Voltage Warning Single-Engined Aircraft with a UK C of A

AN 89 Continuing Structural Integrity of Transport Aeroplanes

For further information on applicability of Airworthiness Notices see the CAA website www.caa.co.uk/publications.

The October 2003 amendment of CAP 455 will include information on the EASA position in AN 1 and delete Airworthiness Notices that are no longer applicable.