



Confidential Human Factors Incident Reporting Programme

# FEEDBACK

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NUMBER 36

## CHIRP - A NEW ERA .....

Feedback readers will be aware that during 1994 the CHIRP Liaison Group decided that a review of CHIRP would be timely. The Master and Immediate Past Master of the Guild of Air Pilots and Air Navigators were invited to prepare a report for the way ahead. Their report was well received and a Working Group was set up to review the findings and implement new policy including the main recommendation that a full-time Director CHIRP be appointed reporting to the Chairman and Members of a newly constituted Management Board. The Working Group then set about selecting the new Director.

From over 40 applications 6 were selected for final interview. The Selection Committee was chaired by myself together with Mr Ken Smart, Chief Inspector Air Accidents Investigation Branch; Captain David Fleming nominated by the Flight Operation Directors' Liaison Group; Captain Chris Hodgkinson nominated by the Guild of Air Pilots and Air Navigators and Captain Colin Rule nominated by the British Air Line Pilots Association. The unanimous decision was immediately endorsed by the CHIRP Liaison Group. The new Director is Mr Peter Tait who will gradually take over the reins from 1 October 1995 and be completely responsible to the Board from 2 January 1996.

Peter Tait completed the Empire Test Pilot School course in 1973 and was then assigned to A&AEF Boscombe Down with project test pilot responsibilities for Nimrod, Jetstream, Victor and Vulcan. He then undertook a USAF Exchange Test Pilot assignment at Edwards Air Force Base and on completion was awarded the Queen's commendation. From 1980 to 1989 he was involved with BAe 146 and 125 flight testing and sales. Since then he has been Director Flight Operations for all major BAe commercial aircraft flight development activities. He was the Deputy Chairman of the SBAC Flight Operations Committee and the SBAC nominated representative on the Operations Advisory committee to the CAA. The function of the latter is to provide advice for all sectors of the UK aviation industry on major issues including proposed and enacted EC Aviation Policy and IAA regulation. He is well known in the aviation industry having, since 1992, been Vice-President, Customer Support and Flight Operations, Avro International Aerospace - a division of British Aerospace Regional Aircraft. He is a highly experienced CAA approved test pilot with extensive military and commercial development, and certification flight test experience, plus expertise in the design and development of mechanical, electrical and digital avionic systems and components.

The Members of the new Management Board will be: myself as Chairman; Chief Inspector AAIB; Chief Medical Officer CAA, Director of Safety NATS and nominees from: Technical Committee British Air Line Pilots Association, Flight Operations Directors Liaison Group, UK Flight Safety Committee, General Aviation Manufacturers and Traders Association, Guild of Air Pilots and Air Navigators, Guild of Air Traffic Control Officers, British Helicopter Advisory Board and the Society of British Aerospace Companies. The Board may co-opt other Members, as necessary, from time to time. Funds for CHIRP are being provided by the Air Carriers through the Charging Scheme. The financial aspects of the programme will be through the Contracts Branch of the CAA. In this context it is essential that the legal and financial aspects of the appointments of the Director and his staff are handled appropriately, the Board is indebted to the CAA for providing these facilities. The CAA's input to the programme is limited to this aspect, the Board will decide on all matters concerning the work of the Director and the policies subject, of course, to financial probity. As Chairman I have been concerned with these negotiations and I am personally content with arrangements. Discussions are now in progress to relocate the programme to Fair Oaks Airport near to the Flight Safety Committee. Mr Tait is meeting the CHIRP Management Board on 19 October 1995 and will be establishing his working contacts over the next few months. We all, therefore, wish Peter Tait every success in his new venture.

And so, a new era of CHIRP is launched, and it is very appropriate for me to thank Captain Paul Wilson for his unstinted contribution to the Programme over many years. CHIRP enjoys an international reputation as a confidential reporting system. He has ensured this most difficult aspect of the programme throughout his tenure and his diplomatic and discreet approach in many contentious areas has been most valuable. The experience of Paul Wilson will continue to be made available to the Director CHIRP but it is his intention to move into a wider sphere of influence with the development of the European EUCARE and the current developments of confidential reporting in Germany. **On behalf of the Management Board we wish him every success in his new ventures, and our appreciation for his many years with us.**

Air Commodore Tony Nicholson, Chairman CHIRP Liaison Group

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## READ THIS, OR ELSE...!

*CHIRP has noticed that "bullying" was a feature of some recent reports. Before we go further we need to define the term as in the dictionary: a bully is someone who hurts, persecutes or intimidates weaker people.*

*The following examples involve psychological intimidation:*

... The air/ground operator refuses to answer some radio calls - even when they are correct. This animosity between pilots and a/g causes an environment for an accident. Valuable air time is taken up by pilots repeating their message - not realising the controller is refusing to answer them. The atmosphere is tense which is destroying the airport for both visiting and home based pilots.

\*

... To cut a long story short, he [*the Chief Pilot*] browbeat us to ignore the DDM.

.... I had heard of similar situations arising with the Chief Pilot, but this was my first personal experience of such.

\*

... Captains have been instructed to interview crews one at a time and advise the crew member that their decision not to go into discretion will result in a meeting with their manager to justify their decision. (The inference being to intimidate the crew member into discrediting.)

\*

... I enclose correspondence sent to me by a manager and my response to him as a result of a freight sector largely due to my carrying minimum fuel; a result of implied criticism. I feel this subtle pressure is dangerous.

*and now physical intimidation*

... In simulator one day I wound up the

altimeter too quickly when setting the airfield QFE. As a result I received a blow to the head and neck - delivered by Training Capt. .... I recently learned that another pilot in the simulator was struck hard on the shoulder by the Fleet Manager.

These incidents obviously occur but they are not talked about as they are like child molesting, they are incestuous, too close to home, no one wants to admit to it!

*Remember, everything in normal text is reporters' words, ours are in italics - now read on.....*

\* \* \* \*

## FROM OUR OWN CORRESPONDENCE!

*We have been in correspondence with several manufacturers recently. The communication with Airbus has discussed the indications of flap settings and the associated warnings. Of several airlines contacted, some had found that a change in the manufacturer's checklist and procedures had helped to overcome the problem - taking off with an incorrect flap setting. There are indications of the setting and a specific colour showing that any one of the takeoff settings is extended. However, the colour discrimination does not identify differences between the available take off settings when the particular degree of take off flap set is incorrect. The checklist does call for a check of indications but under time pressure it can be easily reduced to just a colour check on line up.*

*Like this ...*

My take off, and everything appeared normal during rotation and initial climb except the F speed was not displayed on my PFD speed display. The F speed is the first

stage of flap retraction but I was not unduly concerned as so many avionic "bugs" on this airplane. In the absence of the F speed I called for Flap1 using a speed from memory. The F/O alerted me to the fact that the Flaps were already set at Flap1. My heart sank as I realised we had taken off with the incorrect flap setting, my first such event in over 20 years of flying. The rest of the climb out and flap retraction was uneventful except for two very subdued pilots.

\*

*We have responded to a Boeing request for information about jet upsets with a set of reports on undemanded roll due to asymmetric thrust, including this most recent example:*

We were cruising parallel to and north of the Alps in clear air - autopilot and autothrottle engaged when No 1 throttle advanced and No 2 retreated giving a rapid but (VMC) obvious asymmetry. We were puzzled rather than alarmed at this and noted that both EPR gauges read the same despite throttle positions being very different and asymmetry being obvious. We switched on engine antice and the problem rapidly cleared.

Our conclusion was that the No 2 engine EPR pitot head had iced causing that throttle to falsely close whilst the consequent loss of speed caused the No 1 to advance to maintain airspeed. In cloud we may have been in greater difficulty. We were merely amused by this "one off" occurrence and filed no report but it keeps coming back to mind whenever a 737 has an unexplained crash.

\*

*A GPWS Manufacturer asked for CFTT information. We sent a copy of the report published in FEEDBACK 20 about the difficulties of approaching Katmandu, some two years, before the two crashes that*

*occurred there. We also included information from reports showing that when a VOR/DME has to be overflowed on the approach to a runway, aircraft are more likely to make an approach below the flight path. The plates for the vertical profile are sometimes difficult to interpret. Pilots may then resort to mental arithmetic. This can cause a lapse back into a standard profile to the VOR/DME instead of to the airfield.*

\* \* \* \*

## UP YOURS!

*There have been a number of reports that agree with the complaint, published in the last FEEDBACK, that the rears of aircraft which have backward navigation lights on the wingtips only are not always seen when approached from behind on the ground.*

*Let's hope the CAA now seizes the problem*

I too have been surprised to find that I have not identified an aircraft taxiing ahead of me until quite late because its white wing tip "nav" lights have been "lost" among the other airport lights.

\*

Braked suddenly about 20 meters from an A300. It apparently had no lights!! We quickly recovered from the shock, then we saw white wing tip lights at about 40 degrees right and left.

\*

... became aware of dark mass ahead on taxiway, at the same time noticed green centre line lights some way ahead appeared to be out.

\*

I too nearly collided with the tail of a Boeing 727. It was many years ago on a wet dark night at Dusseldorf. Can you imagine the consequences of stuffing one's radome up the tail pipe of a JT8D even if it is only

running at idle power! I think it was the smell that stopped me.

\*

When close up behind the lights go outboard and merge with the taxiway edge lighting

\*

I operate 747s and the added problem of increased eye height over the wing tip tail lights of say a 737 makes them very difficult to pick out from an array of other A/C and airfield lights.

\*

it's happened to me a lot.

\*

Catching up with the preceding aeroplane, you need to see its tail clearly.

\*

I've usually put it down to the Captain being in a hurry to get home, but maybe it's something to do with reduced ability to accommodate between short and long focal distances (inside and outside cockpit)

\*

Brakes sharply on. It was the unilluminated rear end of a DC10. The white navigation lights on his wingtips were now clearly visible - we were that close - but they had given us no cue that we were about to encounter an aircraft on the taxiway.

\*

On many occasions I've taxied close behind another a/c whose rear lights are lost in the mass of edge lights etc. It might be legal - but a light actually on the back of the a/c would be safer.

\*

I was taxiing one night and an aircraft had stopped on the taxiway in front of us. Tower, who knew this, had not informed us because they assumed that we would be able to see it. The problem is usually compounded, as it was in this case, by the inability to see the red anti-collision light. The top one is obscured by the fin, being perfectly centred for aesthetic rather than practical reasons, and the lower one well out

of sight from our position.

\*

- exactly as described, with additional factor that the leading aircraft - a B676 - towered above our cockpit and its wings coincided exactly with the horizon from our eye level.

\*

This problem is particularly noticeable, when under the conditions described, the preceding a/c is smaller than the following a/c.

\*

... on occasions in the past a preceding aircraft has only been picked up from pools of lights from its own taxi lights

\*

... this is something I have experienced on several occasions. It would be very helpful to have a white light on the extremity of every aircraft!

\*

... similar problems to those reported experienced

*and from the ATC perspective:*

I agree. I have to pinch myself to tell No.2 taxiing, if he can't instantly see No.1 - that No.2 at HOLD for fear of the very same reason!! He might hit it! But as you say it will take an accident to get something done - it usually does!!

\*

*Why are these events reported in confidence? Well, and we quote.....*

*I complained to my airline to no effect only "animosity".*

*(CHIRP gets to those parts.....)*

\* \* \* \*

## TCAS

*We sent the next report to the CAA experts for comment, as promised in FEEDBACK No. 35.*

1. I - and possibly others - have been puzzled by several ATC reports in CHIRP and elsewhere intimating that pilots who have "bust" clearances because they were following TCAS RAs are being naughty. My own company - REQUIRES the following of an RA demand unless it is confirmed to be inappropriate by visual means. Is this the CAA's and the Law's - interpretation? - because if it IS, the ATC fraternity should be aware of it.

2. Most of us have found TCAS especially useful in the subcontinent, Africa and suchlike places, to keep tabs on other a/c and see when to get climbs etc. It would be very useful if the range could be increased to, say 100nm by pressing a button. (Rather like the relative/absolute Alt Button) so as to give a scan further afield. It would increase the transponder congestion but would only be "on" for a second or two at a time.

3. We are invited to select the picture on the ND "OFF" in congested areas like LAX. (I have, personally, been unable to find the Santa Monica VOR on the ND due to its being buried in a blizzard of orange diamonds ... with speakers blaring "TRAFFIC" every second or two!) Why cannot the TCAS display automatically come up on the lower EICAS screen below, say, 10,000ft unless the screen is being used for something else? It would then be a very useful monitor but would not overload the primary N/D display.

*This erudite reply was from Captain Tim Sindall at the CAA:*

That this pilot's operator requires RAs to be followed is in line with the guidance contained in CAP 579, ie;

"RAs may be disregarded *only* when pilots *visually identify* the potentially

conflicting traffic and decide that no deviation from the current flight path is needed."

For an aircraft being operated in compliance with the Rules of the Air Regulations, AIC 17/1995 (Yellow 176) specifies, in paragraph 8.1 (in relation to the UK air traffic control environment);

"ATC is aware that pilots are expected to respond immediately to an RA."

With regard to the legality of following an RA, the AIC contains the following text;

"Therefore, to the extent that the action in response to an RA is taken **"for the purpose of avoiding immediate danger"** and provided that the TCAS II equipment and its installation are certificated by the state of registry and that its operation by flight crew is in accordance with instructions for the use of this equipment specified in their Company's operations manual, **Acting in accordance with an RA will be lawful.**"

If the UK air traffic controllers have been conscientiously noting every occasion when an aircraft has departed without clearance from assigned altitudes or flight levels, then they have been following correctly the instruction given in Supplementary Instruction No. 1 of 1994 to the Manual of Air Traffic Services Part 1. This gave notice of a trial, the aim of which was to gather information on "altitude busts" so that meaningful conclusions could be drawn. In any event, recording details of all notified "TCAS RA events" remains a requirement for ATC personnel just as much as it does for the pilots of the

aircraft involved: AIC 17/1995 contains guidance.

Although pilots' situational awareness is undoubtedly assisted by having proximate traffic shown as symbols on the TCAS display, the designers never intended that the latter should be used for any purpose other than to help flight deck crew visually acquire intruders that subsequently might have to be avoided. With this in mind, there was (and is, still,) little point in TCAS displaying aircraft that are much further away than can be seen when looking through the windscreens. TCAS, it should be remembered, is only a **collision avoidance** device, and has no other approved role.

Automatic, and manually controlled displays of TCAS information currently in use are those that have been thought most appropriate to meet pilots' needs. These displays have undergone change as the equipment has matured, and manufacturers have a variety of control panel options already available. All ideas for correcting "nuisance" functions are welcome, and could lead to the development of standards or options on future marques of TCAS. However, it should be remembered that all such modifications will have to be paid for, and will need compelling cases to support them if they are ever to result in change to existing designs."

*If you have a simple, inexpensive, modification that you think would improve the safety benefits of TCAS contact the CAA direct.*

**STOP PRESS.** *The CAA has issued TCAS Bulletin No.2 which we recommend to you. In a very brief summary it brings to your attention that the TCAS equipment on board*

*the aircraft is not designed to be a "DIY" ATC radar nor an ECM "threat acquiring" system: it should only be used as approved and certificated.*

\* \* \* \*

## F R E N E T I C PHRASEOLOGY

During landing roll at a groundspeed approx 50 kts. reverse idle being called for, usual preoccupation with bringing the a/c smoothly and safely to taxi speed. A string of taxi instructions issued from Munich tower controller - most distracting and totally unnecessary at this phase of landing.

The airport is relatively quiet even at "rush hour", and tower controllers get most upset if their instructions are not followed precisely.

The above never seems to occur in the UK: however in Chicago...?

\*

Yet another near runway intrusion caused by poor RT.

TWR to an American a/c (DC8): "Taxi to holding position 32"

American a/c: "Taxi into position and hold 32".

Fortunately they sorted it out - but we hear this sort of thing constantly.

\*

None of us is particularly keen to be rostered for a Greek Island flight, as we usually experience indifferent ATC, slow turnrounds and long delays.

On this occasion, we had to join the hold at

the airfield beacon for 15 minutes before being cleared for the approach and handed over to the tower frequency. The tower controller was clearly busy and fully stretched: it took a couple of calls to identify ourselves and our position, which was then outbound on the letdown procedure.

We turned inbound to pick up the (considerably offset) inbound and started our descent in accordance with the Aerad plate. Although the approach and subsequent landing were normal, and flown in good weather, the first officer and I had great difficulty in concentrating, and even hearing each others' calls because of the continuous chatter on the local frequency.

It wasn't the normal ATC interchange but whingeing from the aircraft waiting to start. It wasn't even professional R/T but of the "I was here first and he's starting before me" kind of childishness.

Everyone knows the problems down in Greece. Hectoring an already harassed controller serves no useful purpose but frays tempers and irritates those who are trying to fly an accurate approach or departure.

\*

ATC: "SPADE 280, DESCEND 260, RADAR HDG 280 CALL LONDON 132x4"

AIRCRAFT : "DESCEND 280, HDG 260 AND LONDON 132x4 - BUCKET 260"

ATC: "NEGATIVE! BUCKET 260 MAINTAIN 310 TO MAYFIELD!"

ATC : "BUCKET 260 LONDON?"

How many times has this sort of ambiguity occurred?

I'll bet there is hardly an airline pilot amongst us that hasn't heard something similar. Is it not about time that three number call signs ending in zero were banned?

\* \* \* \*

## **ADMONISHMENTS ALL ROUND**

On CDG departure frequency controller issued a frequency change instruction, another aircraft with a "similar" callsign to ours responded clearly and correctly. Both the Captain and I thought that the instruction might have been for us but the clear acknowledgement and its acceptance by the departure controller persuaded us otherwise. Shortly afterwards the controller called the other aircraft, now realising what had happened we informed her, changed frequencies and called the other aircraft who reverted to his previous frequency. Not an unusual incident and no apparent harm done. Later, on changing to London frequency, we heard the controller ask an aircraft whether he was maintaining level. The aircraft replied that he was descending, this was followed by a terse instruction to maintain the next flight level and a series of urgent calls to a second aircraft. Three calls were required before any response was forthcoming and then an instruction was issued to commence an immediate descent along with an admonition to maintain a better radio watch. The second aircraft was quickly handed to another sector and the controller then proceeded to admonish the first aircraft for taking the other aircraft's descent clearance. The pilot of the aircraft involved replied in a polite and restrained manner that "I read back the clearance and used my full callsign and you did not correct me". Once again both aircraft involved had "similar" callsigns.

It appears to me there are three issues involved here:

a. The old familiar bogey of similar sounding callsigns e.g. ALT (spoken A-L-T) and Alitalia. It is the first part of the transmission which alerts the recipient, add a couple of similar digits now and you have callsign confusion. Mix in three different nationalities and you could have cahos (sic)!

b. Fast talking controllers and pilots. This was certainly an element in the initial incident described above. The pilot responded very quickly and was gone, once again there was a language/nationality mix: two nationalities speaking a third language. Pilots are probably the worst offenders as far as talking too fast, although controllers are by no means immune. When I hear native English speaking pilots and controllers come out with rapid fire transmissions to non-native English speakers I cringe. It is neither slick nor professional, the best controllers always maintain a steady pace of delivery and stick to clear standard instructions. All pilots should copy their example.

c. The habit of controllers not monitoring the callsign of the acknowledging aircraft used to be confined to Southern Europe and beyond. With increasing traffic density and controller workload the "acknowledgement deafness syndrome" now appears to be spreading northwards. Since neither quarantine or vaccination are likely to be effective the only possible cure is education. What form should this education take? Well, this being the 90's I propose that the aviation community should embrace the concept of Political Correctness. We must think PC calls:

PACE - CONTENT - CALLSIGN

### **CDs**

*Add callsign confusion to language mix and there's a problem, compound with a pinch of*

*nationality Cultural Difference and it is a much more serious problem. To date these variations have been, for the most part, contained by ATC and Flight Deck Crew. However, with the Licensing barriers coming down in Europe, the cultural contrasts are becoming more visible and consequently being widely debated by, amongst others, the RAsS, and bodies in Europe itself. Over the years we've received reports which highlighted this issue; it won't disappear, it will occur more often. It is always a sensitive topic.*

\* \* \* \*

### **NEED TO KNOW.....**

*Absolutely everyone is listening - media, spotters, ghouls, et al - to radio calls on their little scanners, but safety should come first. Perhaps this next report will help to identify ways of safer communication.*

A recent incident highlighted the reporting of crews' problems to ATC. "We have a configuration problem, request long final approach". This helps ATC little, so we then have to start pestering an already stressed crew for further details at a time when they could probably do without it. ATC really need to know 3 facts:

1. exactly what problem is
  2. where you want to land
  3. how you want to get there, if known
- "souls-on-board" is very useful too.

The best transfer of communication of a problem example, would be the aircraft rotating and a voice saying "engine failure". Nothing else! But from that I was able to warn radar, organise emergency services, tell CO, all before a/c was 4 miles from runway departing!

But to return to "configuration problem" - now is that "gear", flaps, only one half of a/c works, eng fail???? No hydraulics therefore