



Confidential Human Factors Incident Reporting Programme

FEEDBACK

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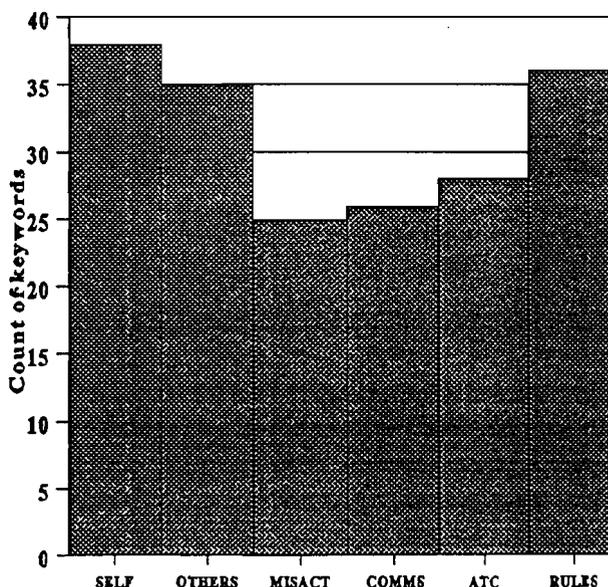
NOW YOU'RE TALKING

There have been nearly seventy reports since the last FEEDBACK, and many thanks to those of you who wrote in support at this somewhat difficult time. Now it can be told: the GAPAN Study has reported in favour of a CHIRP Scheme. A working party of the CHIRP Liaison Group is now preparing detailed recommendations and defining an invitation to tender for operation of CHIRP from October onwards. Rumours of a move to Gatwick have been categorically denied!

Meanwhile, we've caught up with applying our new improved keywords to the current aircrew reports. Back in '82 we had a different set, so it is not entirely straightforward to do a "compare and contrast" exercise. Nowadays though reports about OTHERS are catching up with those about SELF, RULES & REGULATIONS are still high on the agenda and COMMERCIAL PRESSURE has overtaken FATIGUE, always a very popular (we jest!) subject. And it's not just Captains who report.

The bar chart shows figures for the latest bunch of aircrew reports, and these are the most frequently used keywords. Use of a keyword signifies the theme, not a complaint. RULES (this includes SOPs, CHECKLISTS, CAP371 and their applications). MISACT = misactions (often linked to fatigue). COMMS = communications of any sort external to the cockpit.

As well as from the flight deck, we have reports from ATCOs and more than usual from the helicopter world. Now read on.....



Direct line (ansaphone out of office hrs):

01252 394375

Facsimile at CHIRP:

01252 376507

CHIRP, FREEPOST, CHS DRA, FARNBOROUGH, HANTS GU14 6BR

FATIGUE STRESS

CHIRP often has reports with opinion about fatigue and FTL issues; but here we have real incidents that are all fatigue related.

I and my F/O have just made a mistake that might, in poor weather, have resulted in the sort of approach from which accidents occur.

Well before Top of Descent point, in our Glass Cockpit, I set up the aids for the ILS approach; ADFs both to O/M, QDM in the window, correct ILS freq., speeds, DH etc. etc. and we briefed for the approach, P1 handling. At this time P2 checked the aids.

All went well and Director turned us onto a 30-degree intercept heading to establish on LOC. The standby AH, which also displays raw ILS info. was giving odd - indeed contradictory LOC information; and, by reference to ADF needles, ground observation, and a terse instruction from director, it was obvious that we had gone through the LOC. We rapidly turned right through 90 degrees to regain the LOC. This occurred far enough out for there to be no question of a GA at this stage.

Meanwhile, my alert F/O noticed that I had set 2 as the first digit instead of 0 when setting the inbound QDM. This rectified, the picture looked quite normal and a normal lock-on and landing took place.

It was my fault for setting wrong QDM but:-

1. When I set up aids, the sun was directly in my eyes and caused difficulty.
2. I was very fatigued - last day of a block of six days involving time zone changes of GMT + 2 for three days, 18 hrs off at home, then GMT -5. Also, in the United States, the hotel is impossibly noisy and my rest was

not constant or restful.

One of the principal cues to help retrieve the situation was observation of the ADF needles which helped to orientate us. So, why are ADF/OMs being removed? If it is useful, leave it!!

* * *

Another North Atlantic crossing

Aircraft arrived at the arrival hold at 0445G but not allowed to land, because of night restrictions, before 0500G. We went once round the hold to waste some time using the correct inbound heading. We then planned to execute a triple autoland. Weather was scattered at 400ft overcast at 700ft. Viz. I can't remember but was not a factor. The aircraft turned onto the localiser and captured the GS. ALL indications were normal, except that the aircraft would not capture the C/L. All three crew watched this and discussed the problem. The tower reported we were off the centre line and asked if there was a problem. We continued the descent still not on the centre line, waiting for the aircraft to turn on. At approx 1500ft tower said we were off centre line and diverging and told us to go around. On the go around we found we had set the autoland up using the QDM which we hadn't altered since the hold. The next autoland using runway QDM was better!

As an aside, interestingly enough, all three crew were then more concerned with what company management's reaction was going to be than with the possible accident.

* * *

On approach, autopilot engaged, radar vectored on low drag approach. PF called for F20 (normal sequence in SOPs require GR then F20) without gear. Being tired I selected F20 without questioning (04.55 CK

IN) his action, but having selected it I was aware we were in a non-normal configuration. PF call for F30 landing flap unaware of GR position. I asked if he wanted the gear and selected simultaneously with F30. Warning horn for 10 secs whilst gear ran. At no stage was the a/c safety endangered but this is one of numerous incidents my colleagues will come out with that have occurred this summer as my company has decided to operate to CAP371 with no thought to the preamble of that document. I had previously operated:

Long taxi ride to 3 IT night trips to Med.
2 days off
1 IT day trip to Med
4 days island hopping in the Caribbean, taxi at end.
2 days off
1 day standby
4 IT to Med.
1 day off (out of hours)
1 day standby
2 day weekend off (a rare event)
2 IT night trips to Med

* * *

This is a Flight Time Limitations report.

Normal max FDP for 3 sectors twelve and a half hours based on 0800 RPT. Enclosure is new addition to OPS manual, Level 2 - FDP Plus 1 Hour. Scheduled turnarounds at Mediterranean destinations taking 50 minutes are not realistic. In effect before the latest amendment the planned duty would have been in excess of the max allowed. Even with the extra hour we were still 20 mins into discretion. At both destinations on this trip there was intense thunderstorm activity requiring avoidance.

Voyage Report for trip in question shows aircrew duty period of 14.20hrs [cabin crew 14.50hrs x 6, 16.50hrs x 1].

At top of descent London gave me "descend at your discretion to FL240 to expect to be level at FL180; 35 miles west of Otringham". I simply did not assimilate this at first and had to have it read back. Pilot flying had missed part of xmission too. We were very tired. Days off prior to or after a duty period are immaterial if the actual FDP is too long.

* * *

BOTHERED BY BIG BROTHER?

Someone watching over your shoulder can provide enough stress to take the edge off your performance.

The a/c was carrying a full load of passengers, so by chance the jump seat was occupied by a more senior pilot with no cabin seat. Consequently, we both felt a little under pressure.

During descent we were given vectors for an ILS. A clearance was given to an altitude on QNH 979mb (NOTE: about 1000ft difference from 1013). Acting as P2, I had already set QNH, and the captain was about to, when we were interrupted by ATC who recleared us for a LLZ only approach. Having rebriefed, we were given further descent to 4000ft QNH and a new heading for base leg, number two to a B757.

Approaching 1000ft to cleared altitude, we broke cloud between two layers when I became distracted seeing the other traffic in our twelve o'clock. I was considering the vortex separation as the altitude alert sounded, and failed to notice that the response from my "altimeters" challenge was incorrect by 1000ft as the P1 was still on 1013mb.

I received a soft tap on the shoulder from the positioning pilot who kindly pointed out the rather large error. We landed without further incident both feeling decidedly sheepish!!

* * *

... GONE ASTRAY

Fatigue + time pressure = 2 difficult

Two incidents in one flight. The first concerns my belief that I had selected the correct pushbutton, and the second is my bewilderment that the pushbutton I knew to be deselected was or had become selected.

In misty, cloudy and drizzly conditions I was tasked to fly from a field I had landed in earlier the same day back to the Company helipad. The plan was to remain VFR until positive radar contact with GATWICK was established then IFR to my destination for a cloud break and a VFR landing. During the start-up phase I was not able to adjust the CONSOLE LIGHTS brightness using the associated rheostat control. The PANEL LIGHT rheostat control was now controlling both - the panel lights and the instrument lights as is normal should one system fail. The helicopter has a habit of a "Greeny Bug" appearing and I accepted this as a further avionics problem. I hadn't the time to close down and investigate the problem in depth. There was no difficulty controlling the brightness anyhow.

The second incident during this flight occurred when approaching the MIDHURST VOR under GATWICK RADAR INFORMATION in IMC (in cloud). The Strobe Lights suddenly started flashing of their own accord. I considered this most odd and looked up to the overhead pushbutton panel and sure enough the STROBE LIGHTS pushbutton was deselected (off). My immediate thought was

that the anti-col light (RED) had perhaps lost its red cover and was now flashing white. I deselected the ANTI-COL LIGHT, however the strobe lights continued to flash. What else could I do to stop the distracting light? I looked up again and was about to recycle the STROBE LIGHTS switch when I saw above me a large jet overflying on the same heading/track to the VOR. It looked very close in those conditions and what the separation was I do not know, but the strobes which were on that aircraft were illuminating the cloud as though they were my strobe lights. There was no word from the GATWICK Controller. Did he need to tell me as I was receiving RADAR INFORMATION?

The first incident was an error by me. In that I had failed to select the CONSOLE LIGHT pushbutton to the ON position. This dawned on me after I had checked the fuses on the overhead fuse panel and the two fuses in the light box under the cabin floor and an avionics technician had searched through the system for the fault.

Why in the first incident did I not check that I had the system switch properly selected, I guess I assumed it was, whereas in the second incident I double checked each and every switch in the belief that I had made a mistake - even though I knew I hadn't.

* * *

ROOM FOR A VIEW?

Looking skywards

Night-mail flights returning. Fog patches with IRVR fluctuating necessitating holding and runway changes. Inbound aircraft reports that he requires 550m IRVR. Other a/c with similar needs. Several increases in IRVR, approaches commenced, some landings some missed approaches. One

aircraft goes around due IRVR 450m. Holds again followed by another improvement. A different type ahead lands in 550m IRVR falling again. Aircraft at 6 miles IRVR falls to 450m. Pilot informed. He grunts acknowledgement. I ask him to report at 1000ft. At 1000ft IRVR is still 450m. He continues. IRVR passed again 450m. He continues. At less than half a mile final I see an aircraft in a descending right turn as he reports "good visual now, continuing". I clear him to land in IRVR 450m. Landing in IRVR below your previously stated minima puts us ATCOs in an unenviable position. We are not policemen of the skies. Come on pilots, play by the rules - we're on the same side.

* * *

My best profile

A situation which can occur when pilots are able to see conflicting aircraft, visually, or, as in this case, with reference to TCAS. Where pilots, possibly desperate to remain on the ideal descent profile, seem to be lacking in common sense.

In this case aircraft No2, a DC8 in level flight maintaining FL250 eastbound on UG1 approaching Compton VOR. Aircraft No1 a B757 was transferred to my frequency at FL280, westbound on UG1 and being inbound to a regional UK airfield was requesting descent. Aircraft No1 was cleared to FL260. General traffic situation, very busy. R/T loading high. Most aircraft on frequency requiring climbs or descents, what I would class as the ideal situation for a controller error to occur owing to a rushed decision.

Hence my annoyance therefore when aircraft No1 then stated "approaching FL260 for further". Was told - "maintain FL260 on reaching. Opposite direction one below will

pass by on your right hand side". The response - "yes we have him on TCAS".

The question has to be asked, if you have the aircraft on TCAS and are obviously aware of a conflict why ask for further descent? As qualified controllers we clear aircraft to intermediate flight levels normally for very good reasons - other aircraft.

I'm afraid I can see no logic in requesting continuous descent especially if aware of a conflict. We do try to give the best profiles we can, but when it's busy, sometimes this just isn't possible.

We should try to work together, at times like this you can use TCAS to assist. Please pilots - don't try to force us into rushed decisions that could end in that terrible seven letter word - AIRMISS.

* * *

... the other side?

Transitting a mainland European FIR, under radar control, when TCAS issued a climb command, which was followed, the conflicting traffic seen (underneath, very close) and, once the conflict had passed, ATC were questioned. After a long silence, the answer came back, roughly, "It was OK, we had you on radar!". The final responsibility for separation and safety rests with the pilot, and no one else, but without modern ATC, the volume of traffic today would be tiny, compared to the needs of business. When considering "improvements" to a/c or ATC systems, the limits of average human beings (pilots and ATCOs) must be borne in mind in the great rush to increase the number of a/c (and people) in the crowded skies of Europe and the USA. There is no point in packing the pilots environment with wonderful systems, designed to allow for reduced separation, if the potential is for overloading pilots, in

certain circumstances, or, even worse, producing conflicts between ATC information and on board information - which one is right? Such conflicts may increase ATC workload and so further degrade the service being provided! In order to allow the pilot to properly conduct the flight in the manner required of him, by law, any future changes, such as reduced radar separation, TCAS, etc, must be introduced as part of a major ICAO based review of the entire flight deck/ATC system, and not as "bolt on goodies" that may turn out to be "baddies".

* * *

CAA ON TCAS

Captain Tim Sindall, of the CAA, has asked us to publish the following comments on TCAS reports in FEEDBACK 33.

THE PROBLEM CAUSED BY NON ALTITUDE-REPORTING TRANSPONDER-EQUIPPED AIRCRAFT ("NUISANCE" TRAFFIC ADVISORIES) HAS BEEN RECOGNISED. THE OCTOBER GENERAL AVIATION SAFETY INFORMATION LEAFLET CARRIED AN ARTICLE DESIGNED TO ENCOURAGE THOSE WHO OWN AND / OR FLY AIRCRAFT THAT HAVE AN ALTITUDE REPORTING CAPABILITY TO USE IT, AND THOSE WHO DON'T TO INSTALL ONE. SINCE "SQUAWK ALTIMETER" IS GREATLY TO THE BENEFIT OF THE GA PILOT, WE HOPE THAT THE PROPORTION OF NON ALTITUDE-REPORTING TRANSPONDER-EQUIPPED AIRCRAFT WILL REDUCE. IN TURN, THIS SHOULD DIMINISH THE NUISANCE PERCEIVED BY PILOTS OF TCAS II-EQUIPPED AEROPLANES AND BY THE CONTROLLERS WHOSE WORKLOAD IS INCREASED BY ADDITIONAL QUERIES.

THE MAIN ARTICLE ALMOST CERTAINLY DESCRIBED AN INCIDENT THAT HAD BEEN FULLY AND CORRECTLY REPORTED AT THE TIME BY THE PILOTS AND CONTROLLERS WHO WERE INVOLVED. THERE WAS SOME CONFUSION AS TO WHAT HAD OCCURRED, AND IT WOULD SEEM THAT THE TCAS

RESOLUTION ADVISORY (RA) HAD BEEN GENERATED AGAINST A SPURIOUS TARGET. HOWEVER, THE PILOTS FOLLOWED THE RA CORRECTLY, AND PROMPT ACTION BY THE CONTROLLERS ENSURED THAT SEPARATION BETWEEN THE AIRCRAFT WAS NOT DEGRADED ONCE THE LOWER (TCAS-EQUIPPED) AIRCRAFT HAD LEFT ITS CLEARED LEVEL.

A NEW FORM OF SOFTWARE FOR TCAS II, KNOWN AS VERSION 6.04A¹, HAS BEEN PRODUCED WITH THE AIM OF CORRECTING MANY OF THE SHORTFALLS OBSERVED WITH EARLIER VERSIONS. AS THIS LATEST VERSION HAS NOW BEEN INCORPORATED IN VIRTUALLY ALL UK-REGISTERED AEROPLANES, AND PROBABLY IN MOST FOREIGN ONES TOO, THERE SHOULD BE FAR FEWER "NUISANCE" ALERTS IN FUTURE. IN ORDER THAT WE CAN EVALUATE THIS DEVELOPMENT, PILOTS AND CONTROLLERS ARE URGED TO CONTINUE TO SUBMIT TCAS REPORT FORMS WHEN RAS ARE EXPERIENCED.

* * *

Eye in the sky

Night-time, inbound to the holding VOR, level 120 to commence STAR, and as we passed the VOR were told to contact next sector. Called twice and got no reply, so returned to old frequency to check we had correct new frequency. We were told that frequency WAS correct, so in turn we told ATC that we had got no reply. "OK, Standby I'll call you back".

After about 20 seconds given another frequency and on making contact were immediately told - rather tersely - radar heading 050. As STAR called for track of about 330, this was rather odd and I commented to Captain that it sounded somewhat urgent and started taking an extra interest in the view out the window. About 30 seconds later we were asked to go further right 070. Captain also taking a big interest in the visual picture outside!

Finally ATC says they have an aircraft that's not talking to anyone and supposed to be at 5000 passing FL90 in the climb, which they suspect will be turning toward us and this is reason for avoiding action.

Finally this aircraft comes on frequency, gets a telling-off etc. and all is sorted. ATC advise us that no APHAZ will be filed - although other aircraft will be reported - as loss of separation didn't occur.

Thus we were left in busy TMA airspace with no cover - as far as we were aware - going quite fast, for the best part of 2 minutes and we were not advised of any conflict when we first re-established contact. This I realise is probably because there was no conflict at that time, nor any danger, just that ATC were doing their job and maintaining separation to avoid a potential conflict. However although we were VMC above cloud, and looking out, there are so many airborne lights in that area that the chances of picking out a conflicting aircraft - particularly one below your level and climbing, are virtually nil.

The point therefore is that had the unthinkable happened, and a mid-air occurred as a result of the loss of contact - which could just as easily have been for a different reason, such as radio failure etc. - we could no doubt have expected the blame to rest fairly and squarely on us for not maintaining proper lookout. Is that really fair I ask?

Although I don't "blame" ATC or think they did anything wrong, I think that when co-ordinating a transfer it might be useful if the accepting controller indicated to the releasing one any potential problem so that this could be advised to the aircraft - perhaps on the lines of: "Contact 123.45 immediately, if unable to establish contact at once return to me as they have potential

conflicting traffic" - or would that be too frightening for us?!

Unfortunately SLAVISH adherence to SOPs (or MATS perhaps) leaves little room for common sense to prevail. Common sense dictates that it would have been "prudent" for the ATSU to let us know there was an a/c climbing through his cleared level and not talking to anyone - just in case we lost comms etc. Reliance on radar separation between 2 a/c when only one of them is in contact seems less than ideal!

The wider issue I'm trying to address is that there seems to be a very prevalent attitude that SOPs are EVERYTHING you'll ever need. If that was true, we could do away with pilots and have computers instead. SOPs are a good FOUNDATION upon which to build with the bricks of common sense and airmanship.

* * *

"IT AIN'T WOT YOU SAY.....!"

This crew were really trying hard to apply all the lessons of CRM and Human Factors education, but, even then, the final score was CRM 0 Humans 2!

Although L/Haul A/C, we had flown many S/Haul sectors, "paired up" as Captain + Copilot in the previous few weeks, not a normal situation for the company. To counteract familiarity with each other's foibles, we had agreed to stick rigidly to SOPs, including proper briefings.

On this occasion the Copilot briefed me fully for "his" take-off including what he and I would do if either said "STOP!". Engine failures are rare on our type, but we had one this time. I said "STOP!" to which the only response was a puzzled "WHAT?".

Fortunately at 40Kts, the situation was easily recovered.

Obviously we discussed this afterwards, and he said that, in spite of his briefing, "STOP!" was not an expected input.

Is it possible to have too rigid a set of SOPs? Are repetitive standard briefings, even varied slightly, merely another "cockpit noise"? (Our briefings are part of the SOPs, their format on the checklist card.)

Does this sort of event now require a different response when identified as critical and urgent: a response to take, or at least initiate, the defined remedial action? There is no certification criterion, for example for a critical failure at V1, that allows time for discussion of what is meant by the incoherent shouting coming from the other seat. The noise and dazzle of the warning systems, possibly several operating together, adds confusion to the efforts to communicate in emergencies.

* * *

RAF UNDER FIRE

After a local flight in the morning from 0930 (Local) to 1050 (Local) in good VMC, visibility at least 40k outside of some isolated showers over the mountains and a cloud base of St Cu @ 5000ft, the aircraft was being refuelled on the airfield prior to another trip by another PPL(A) holder. During the refuelling an RAF Tornado GR1 (unit unknown) passed directly over the upwind end of the airfield, at low-level, judged at 250ft or less.

Any aircraft in the late stages of take-off - early stages of climbout at the moment the Tornado crossed overhead would have had a VERY "near miss" if not a collision. Not to mention be flying at quite low airspeed in

close proximity to the ground thus being fairly unable to take rapid avoiding action.

The overflying of this Aerodrome by military fast jets is quite a regular occurrence and although the local pilots flying from here are aware and briefed, it can only be a matter of time before a disaster occurs.

By giving this aerodrome a wider berth by even just a mile would allow any civilian traffic to be at or above 1000ft after take-off, and before landing thus greatly reducing the chances of a collision, as we all know the dangers of flying around below 1000ft outside controlled airspace!

I am an advocator of Military training at all levels including low level but overflight of airfields must be avoided for the most obvious of reasons. These airfields are, after all, marked on the aeronautical maps (ref: 1:500,000 scale).

The Royal Air Force are very sensitive to this type of low flying and do their best to ensure avoidance of conflicts through briefing and accurate navigation. This airfield was identified to them and a solution is being actively pursued.

* * *

Occasionally, Royal Air Force ATC can be too "user friendly".

CARELESS TALK COSTS LIVES

Second sector of short two sector day, transiting a RAF Station; executive jet ad hoc charter. Taxy clearance received from Tower "Taxy R/W 12, QFE" - acknowledged, and incorrectly read back QFE as QNH, because that was what I was expecting (who departs IFR on QFE?); ATCO smartly corrected that error, and we started taxiing and taxy checklist. Suddenly I received a call "xxx clear cross R/W 17,"

which I acknowledged.

After T/O I realised (as the emergency pressurisation system activated) that we had taken off with the cabin air off and, relating this to the taxi checks found it was left off when I received the unexpected clearance to cross R/W 17 during taxi. I say unexpected because we had ALREADY been cleared to the hold of R/W 12 - no further clearance needed, or expected.

More generally, RAF ATCOs do chat a great deal, as far as I can see quite unnecessarily. I am a moderately frequent visitor to RAF stations, and I never cease to be amazed (and distracted) by the amount of excess R/T chatter e.g. "check wheels," "what type of approach do you require?" (why, when inbound IFR?). "what type of service do you require?", and taxi clearance for after landing phase given in the landing flare!! - quite the opposite of what we might expect.

Perhaps a timely reminder to ALL R/T users (ATCOs AND PILOTS) that excess R/T chatter is potentially dangerous might be appropriate?

* * *

MORE ENLIGHTENMENT

Although this refers to a specific incident, it is the overall policy of lighting on airfield vehicles to which I refer. The weather during the week in question was high pressure, clear skies and fog. This required a "follow me" vehicle to be used on our arrival, probably due to airfield low vis procedures, the vehicle has a row of flashing beacons, and the intensity and flash rate made it, when combined with the fog, more difficult to see!

Airport vehicles are required to have yellow

rotating/flashing beacons, although some have more than one, in particular "follow me"/marshalling vehicles which employ these "police" style banks of lights. If you add rain drops on screens/windows, especially in areas which are not cleared, by wipers, the strobing effect causes glare which makes it more difficult to judge wingtip clearance etc from these vehicles.

The lights could be made to flash less frequently with less intensity bulbs, or have a night/dim setting plus only ONE per vehicle.

We've spoken to the Aerodrome Inspectorate and they are about to institute a new method of inspection using an audit. We have asked them to check the lighting of these vehicles and ensure that they do conform to current requirements. It seems that maybe these "police type" flashing units fitted to some vehicles are manufactured to conform to E.C. Regulation 65 Standard, where the peak intensity is 12,000 Candellas. The peak intensity for such lights allowed by the CAA is 400 Candellas.

* * *

RUNAWAY AUTHORITY GRADIENT DRILL?

CRM courses often refer to the Authority Gradient across the flight deck showing the ideal slope, as illustrated by Frank Hawkins in his book Human Factors for Pilots.

2nd long day/night. Fairly new and nervous copilot. I was flying manually to FL170 and we were cleared to FL250. Copilot acknowledged re-clearance, but did not put new cleared altitude in the Select Window. Shortly afterwards I put in the autopilot and reselected the height in the Select Window to 25,000. Copilot not happy and calls ATC "passing FL170". ATC rather ratty and tell

him he was not told to call passing FL170. Next thing I realise, we are descending down through FL200. Copilot has over-ruled my inputs into Autopilot and is going down to FL170 on his own. I never realised before how incompetent I must appear to some of these young copilots!! Is it MY fault he was not prepared to discuss it with me, or confirm with ATC??

* * *

ZURICH UPDATE

CHIRP has had an avalanche of enquiries and advice to assist in improving the operation at Zurich. They have included discussions about the controllers' problems with aircraft and airspace limitations; pilots' problems with the requested flight paths; technical problems associated with ILS emissions, with topographical and geological implications and, interfering radio transmissions; the review of the operators notes to their pilots on the subtleties of operating into ZRH; methods of improving the inter-controller communication at the unit; to name but a few. The latest news is that the situation is still being reviewed at both technical and diplomatic levels.

* * *

DÉJÀ VU

CHIRP has again been getting reports of problems associated with operating aircraft at airfields with work in progress:

Since work on the runway started several aircraft have been put in the ATC log as having landed in the sterile area. Several others have been rumoured to have done so. One aircraft overshot due to lining up on the wrong lights in error. These aircraft are freight operators with pilots who are working very long hours overnight and

prone to human errors.

While there are always notices published, procedures amended, lighting modifications and briefings given, there is always the danger that the information just doesn't get through to the pilots at a critical time. For those with short memories the classic accident is worth repeating.

The findings of the Investigation Board are summarised. On 31 October, 1979, a US Carrier's DC-10 crashed at Mexico City International Airport. Although the crew was cleared for a Tepexpan arrival and was advised that the landing runway was 23R, the crew continued the ILS approach on runway 23L, which was closed for repairs. The aircraft struck heavy equipment on runway 23L as the crew attempted to execute a missed approach. The crew was advised on at least four occasions by either Mexico City Air Route Traffic Control Centre or the Tower that they were to land on runway 23R. However, none of these ATC communications contained phraseology similar to that used in the USA regarding a sidestep manoeuvre. Both pilots knew that runway 23L was closed and had landed aircraft at the airport while the runway was closed. The probable causes included: non-compliance with the meteorological minima for the approach procedure, as cleared; failure to comply with the aircraft's operating procedures during the approach phase; and landing on a runway closed to traffic.

Anything familiar in that? If the airfield has to be open with work in progress controllers need to be even more meticulous in their use of phraseology and pilots need to alert each other to any non-standard elements in a familiar approach. Easy to say when you're only flying a desk!

HELO, HELO, HELO

Wot's this 'ere?

We were driving along the main road at about 1800 (well and truly night), cloud base about 200 feet in drizzle (strictly IMC weather) when to our amazement descending landing lights popped out of the scud and flashed across the road!

It transpired that we had just witnessed a helicopter landing at a local heliport with scheduled passengers.

Professional curiosity aroused I made some enquiries. It seems that helicopters operate in and out in all weathers. It would seem that they regularly fly without any ATC aerodrome protection and/or Approach. The nearest ATC units are a great distance away and all closed at the time. I understand that operations continued and regularly do so after the time of the one I witnessed.

It would seem that this heliport has no ATC unit, no official weather observer and in fact no one to give any official landing clearance or whatever. What protection, especially in IMC do these pax receive from other unknown aircraft in the FIR? We all know that these unknowns exist in very large numbers these days and increasingly so.

I understand that the crews use Decca and a local NDB (on the heliport?) as approach aids. Who - (qualified) monitor this aid? Further research shows that the fixed wing aircraft operating to local airfields are required to have an ATC unit by law.

Personnel with the relevant qualifications to pass ATC and Meteorological information are stationed at this heliport. There is an approved letdown procedure, with specific weather limits, that is only used when the approved combination of radio and radar

navigational aids are available. However, the FIR is the FIR and there is no procedural separation offered while operating there under IFR.

* * *

A Right Boob

It was a glorious day with no problems affecting the flight. Stopped at an en route airfield to refuel. Co-pilot called for taxi which was given to the helicopter runway. As I taxied out TWR gave us clearance to line up and was also talking to an SAR helicopter carrying out a practice low speed approach to the parallel runway. Having lined up I was looking over my right shoulder to the 4-5 o/c posn to see the SAR helicopter on short finals.

The pre T/O checks were being completed as the co-pilot answered back the T/O clearance. I carried out the take off and established a 180 degree climbing turn on track. Having been based here 12 years earlier it was a pleasantly familiar grove. The scenery was looking spectacular and my old house was still there in good order. All was well with the world! TWR put us over to approach and as a farewell pointed out that we had not been given T/O clearance. Shit! did I feel humble - my first reaction was that I had allowed myself to be lured into complacency by being so relaxed with the whole situation and feeling that I was back home. What I thought had been the T/O clearance had been the zone clearance. I had not listened to it clearly as whilst lined up I had subconsciously expected to hear a T/O clearance and had unnecessarily been looking for the SAR helicopter. My routine zone clearance is usually given before line up but no excuse, I boomed!

Don't we all?! And there were two of you in the cockpit.

* * *

The (one you just) Left Boob

I was the captain of a helicopter engaged on a flight to the North Sea oil field. I was the handling pilot as we set off on the next sector back to base and this was expected to take over two and a half hours. However, about fifteen minutes into the cruise phase we were contacted by the ground and asked if we could return and pick up an extra passenger. This was an unwelcome set back that would extend the total flight time to 7 hours or more, but as this would still be within the company FTL scheme, we turned around.

The cloud ceiling was about 1500 ft and the visibility was in excess of 10 km. But as we retraced our route, I sub-consciously latched on to the idea that we were returning to the last point of departure.

We approached the platforms each with an attendant flotel alongside, with the wind behind us. As I passed some half a nautical mile abeam of the first installations (our last point of departure), I made to commence a turn into wind.

"That's the flotel we just left," my co-pilot said.

This did not make any sense to me - what was he talking about?

"That's the flotel we just left," he said again.

Then I realised what he was saying, it was our point of LAST DEPARTURE, but of course we were supposed to be going to the previous stop, the destination was several nautical miles away.

Now, it must be said that we didn't turn into wind and we never got within half a nautical mile of the wrong rig. And in the normal run of things, when we completed the finals checks, I would surely have realised the

mistake long before we came to land ... or would I?

. . . .

One of the features of landings on the wrong helideck is that you have to set up the approach long before you can see the name on the rig. When you can see the name, you are quite close, probably 200 - 300 metres range, by which time you may be too engrossed in the landing manoeuvre to notice the name of the rig. Alternatively of course, you can concentrate on identifying the name of the rig and screw up the landing!

There is an eminently well qualified group of experts looking at the overall rig operations in the North Sea. As "a starter for 10" markings on the Brae A are being repainted, more improvements yet to come.

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SID SINS

Aircraft departed on SID. New SIDs not overly popular with crews - involve a left turn heading out for 25 miles before turning further left to the next radial.

Aircraft seen on radar to turn left at 1 mile onto a track to intercept the next radial. By saving himself 4 or 5 miles he put himself and other aircraft at potential risk. Fortunately no other a/c in the vicinity.

It is not the first time that aircraft have been seen to cut the corner. We base separations on aircraft following the same route. If this is continued an airmiss or worse will be the result.

Although the London Airports have had a Circular issued about accuracy of SID flying there still seems to be a problem at the provincial airports.

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