



CONFIDENTIAL HUMAN FACTORS INCIDENT REPORTING PROGRAMME

FEEDBACK

Number 19

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ATC Study

Given the flak it gets from pilots about CAP371, you'd think that the last thing the CAA would want to do would be to open itself up to more of the same from controllers - it has, nevertheless, decided to introduce duty time limits for them. To be fair, the CAA seems to be trying hard to gauge the duty time problems that controllers are presented with, and the committee considering the problem would be interested in your opinion to supplement the studies that it has asked the IAM to carry out. If you would like to make your voice heard in this regard, write to Roy Staley, Committee on Regulation of Air Traffic Controllers' Hours, CAA Aviation House, Gatwick RH6 0YR. If you'd like your say, but confidentially, use CHIRP.

Long-Haul, Two-Crew

We've received a number of reports recently (see page 4) worrying about what the rules for long-haul, two-crew operations are. We asked the CAA for a quick clarification . . . "There seems to be some confusion on how to interpret the limitations on long-range, two-crew operations. From para 7.1.4 of NTAOCH 9/88 it can be seen that when over 7 hours, a sector is counted as more than one sector depending on the planned chock to chock times. By looking at Tables A or B in para 7.1.1 along the sector column, the FDP will be decided by the local start time. If it is apparent that long-range, two-crew operations will be impossible, then a third suitably qualified pilot can be carried. In this case the maximum FDP will be calculated by reverting to Tables A or B and will be based on the actual number of sectors planned. If the duty period is required to exceed the duty times then permitted by Tables A or B, an in-flight relief pilot will be necessary. Since he will be required to relieve both pilots during flight, he will have to be fully qualified in both left and right seats and therefore will have to be a commander. The flight cannot be extended beyond the limits imposed by Tables A or B if only a relief co-pilot is carried. The commander's discretion to extend an FDP due to delay remains unchanged."

Well that seems to clear that up. Next question please.

Flight Deck Sleep Monitors

Another thing that the CAA has asked the IAM to have a look at is the problem of sleep monitors for the flight deck. This may sound like a crazy idea, but trains have always had dead man's handles (if that's the correct plural), and it seems reasonable to have a look at head tilt, eye closure, physiological, and activity monitors for aviation. We'll probably kick off with a meeting at the IAM at which anybody with a point of view, idea, or gadget to sell will be welcome. We haven't fixed a date yet, but if you're interested, do let us know. (Call Melanie James, 0252 24461 x4363.)

Sleep Study

The data analysis for the sleep study is almost complete, and it supports many of the points made in CHIRP reports over the years (yes, we know, we could have believed them in the first place), including some of the points made on page 4 of this FEEDBACK. We will be sending a copy of the report of this study to all the participating pilots as soon as it's available. If you too would like a copy, give us a buzz (the number's on the back). We might also mention that some time ago we wrote an article for The Log that summarized the CHIRP fatigue reports; we'd be happy to send you a copy of this if you are interested.

What the Papers Say

Most of the trouble that we get in here arises from the bits of FEEDBACK that find their way into the press. There seem only three possible solutions to this: scrap FEEDBACK altogether (stand up the boy who said 'Good'), or make it even more boring than it already is, or grin and bear it. We think it'll have to be the last of these. We hope you'll understand.

NB

In this issue: -

☞ This is what we say . . .

● . . . and this is what you say. Have fun.

RISKY SHIFT REVISITED

☞ Some of you may remember that in the last issue we published two reports under the heading 'Risky Shift'. One of these concerned a helicopter crew that went low flying because they were fed up with not being able to see the surface, and the second concerned a jet crew that landed at night without the benefit of any airfield lighting. We feel obliged to advise those of you who wrote to say that landing at night without lights is not illegal, that this interpretation of the law is not shared by the CAA. In fact the CAA is liable to have a major sense of humour failure if it catches people landing at night without lights, barrel rolling 747s, or doing anything else that is obviously a bit iffy.

We also received a couple of letters about the low flying helicopter, the more pungent of which is printed below.

● I refer to the first article under the heading "Risky Shift". If this is intended as a joke, it is in extremely poor taste, and you should not have published it. If however it is in fact true, then I see no good reason why confidentiality should not be ignored, and the crew concerned have their licences revoked immediately. It has to be the finest example of stupid, dangerous and completely non professional flying that I have ever heard of, and is made worse by the fact that, even in confidence, the crew were prepared to admit to it! In this case "Risky Shift" must be a gross understatement. I can only hope that air passengers never get to read it.

☞ Well, everyone has a right to a point of view, but this isn't one that we can agree with.

Doing the right thing against the social pressure exerted by the rest of the crew is a problem that has caused many incidents and accidents, and trying to get crews to make better joint decisions is what Line Oriented (sic) Flying Training, Cockpit Resource Management, and Flight Deck Management courses are all about. Perhaps the classic problem in this regard is that associated with the submissive first officer being reluctant to take control until too late. We hope that the following report (not completely unrelated to two recent helicopter losses) will be of assistance to anybody running an assertiveness course for shrinking violet co-pilots.

● Flying from Aberdeen, the rig was reporting 200 feet cloudbase and half a mile visibility. I was copilot having about 50 hours on type. Previously I was a senior captain and IRE on another helicopter type

and had around 4000 hours. The seniority rules of the company prevented my obtaining a command. My captain was a well-experienced ex-military helicopter pilot.

We commenced an en-route let down to 200 feet, the Captain flying while I called altitudes and watched the radar. At 200 feet we were IMC so we set the radar altimeter for 100 feet. At 100 feet we had intermittent surface contact and no forward visibility. We descended further and the Captain slowed the aircraft to compensate for the reduced forward vision. At about 60 feet, we were progressing at 50-60 knots, in sight of the surface, no discernible forward visibility but with a few hundred yards slant range visibility.

I continued to monitor the radar when I noticed that we were descending below 50 feet at 400 FPM, with zero airspeed! I glanced across at the Captain and saw from his erratic movements that he had lost control while trying to keep a visual reference. I came on the controls with a firm "I have it". I applied power, dropped the nose and called for the undercarriage to be raised and for the overshoot checks. Had I simply called "Overshoot", I feel that valuable seconds would have been lost while the Captain re-orientated himself.

I still wonder what might have happened had I been less experienced. Would the Captain have taken the risk in the first place? Would I have identified the situation so readily? Would I have taken control from the Captain? There should never be the need for these questions to be asked, let alone answered, if we keep to the procedures. No one likes to hear that XY has just landed when you have just overshoot but swallowed pride is good for your health.

DAH DIT DAH DAH or DIT DAH DIT DIT?

● In the Amsterdam area there are two VOR/DMEs only about 15 miles apart with identifers SPY and SPL. With 26 letters in the alphabet there are over 17,000 possible three combinations so why have two so closely spaced VORs with only the third letter being different? More particularly when those third letters are Y and L, which together with F and Q are the Morse letters which I and some others I've spoken to have most difficulty identifying.

- Our Flight Manual states, "When the aircraft is lined up on the runway, the Operating Pilot will advance the thrust levers to about 70% N1 (levers vertical). Both pilots will observe that the engine instrumentation shows stabilised and normal. The Operating Pilot will press the TOGA switch.".

On lining up on the runway and well before 70% N1 I pressed the TOGA switch. The No 2 engine spooled up quicker than No 1 and the aircraft started to yaw to the left. I had to stop the takeoff.

I cannot explain why I pressed TOGA at such an early stage. How could I have made such a careless error? The F/O was very new to the type and anyway was unable to stop me pressing TOGA on the thrust levers in the time that it took to do so. I was not tired but I did have a lot on my mind.

That error ruined my whole day. Thanks for listening.

⇒ Everybody knows that there are things that we can do automatically (pulling the stick back to make it go up), things for which we have established procedures (close throttle, shut start lever, fire extinguisher), and things we have to think about (is it yawing because an engine's dropped off or because

the fin's bent?).

Unfortunately, we need to use conscious attention to think about the automatic bits sometimes. If the conscious bit gets too busy to do this, the automatic behaviours will often take the wrong path, execute the next bit in the sequence too soon (as in the TOGA switch example above), or fail to appreciate salient differences between the actual and habitual environments. The next report provides an example of the last of these errors.

- With a greater than normal degree of domestic and work worries I arrived at the airfield to begin an unfamiliar task.

I was being pressed by Ops to leave, while trying to

obtain a briefing from my Observer when I was informed of the need to ground run the aircraft before departure. The helicopter had a totally different panel and switch layout to the aircraft that I usually fly although it was the same type. After a normal start I decided to switch off the Control Boost to immobilize the controls as the run was to last for 5 minutes to check for leaks on newly installed components. I switched off what I thought was the CONTROL BOOST - moments later the engine stopped.

I had switched off the FUEL VALVE by mistake!

My Mistake

SNIPPETS

- Cure worse than illness! CAA require SOP for radalt bug settings which in turn activates voice alert. "Check height" which is repeated after short pause if still below bugged height. In addition there is a "one hundred feet" alert. No discretion is given for bug setting which for offshore shuttling is 200ft (Company SOP at CAA behest). The result is the lady's demanding tone blocking intercom and radio reception on every approach causing extreme irritation to crews flying up to 35 sectors at a time. Not a contribution to flight safety! Setting should be at the discretion of Captain.

- I am at a loss to understand why we have so many "conditional" line-up clearances. They serve no useful purpose save the obvious that one has not been forgotten. They are undoubtedly potentially dangerous and should be discouraged. Gatwick is, to my mind, an airport where they should not be used as the system is now a ritual. One never seems to arrive at "ALPHA" north or south without the news that there is a "SHED" or a "BANDIT" to go ahead from some point down the runway. Similar clearances are given at Heathrow. If our friends in the Tower want to help out then I would suggest they say on the first contact something like "four to go ahead" or "three to land and four to go ahead" and only later give us the OK to enter and hold.

- The Notams ex LHR stated that RWY 22L at JFK closed., but JFK ATIS LDG RWY VOR 22L. This caused some confusion, we all then checked that the LDG RWY was VOR 22L. A normal JFK descent + approach was carried out after the TOD briefing for VOR 22L. The co-pilot called he could see the runway appearing out of the haze. The instrument picture looked correct but the VOR on this RWY is quite offset. At 1000ft looked out, to see the RWY dead ahead and another RWY over on the left!! I had a quick look at the overall airfield layout to ensure I was not mistaken. "I thought we were told to land on 22L not 22R". The Captain then tried to look at the RWY on the airfield plate but due to the way the Co has the book stapled together it's VERY easy to obscure vital info in the fold. The F/O asked the Tower if we were cleared to land on 22R! "Negative Fastoiseau, 22L can you make it!". The ensuing go around, approach, and LDG were normal.

To Fly, Perchance To Dream

● Having read FEEDBACK for the last year or two, I feel total dismay at the attitude of my company regarding rostering and duty flying periods. We have a standard Crew Duty Day of 16 hours, regardless of start time, extendable by company operations to 17 hours. We do a lot of night sectors (last month 50hrs night and 20hrs day), and when questioned as to why our company does not comply with CAA rules we are told that without the flexibility of the 16hr CDD we could not complete the tasking.

I do not wish to worry you guys operating out of LHR or LGW, just remember that the next time that you hear an ASCOT callsign in the London FIR, those pilots don't get tired! - or do they?

P.S. Just confirm that FEEDBACK is published by the RAF INSTITUTE OF AVIATION MEDICINE. How about we get our own house in order? P.P.S. Bet you don't publish this one

● This was my second consecutive night flight, previous one FDP ten and a half hours. F/O was on third consecutive night flight. I had had four hours sleep between flights with aid of a sleeping pill. F/O was handling pilot after four hour flight. Visual with R/W so went downwind RH for circuit. Airfield elevation was 120ft. I forgot to ask for QFE. It never got picked up on Landing Checks or on passing 500ft Check when QFE/QNH should show up. As we were visual with VASIS (though no approach lights) there was never any danger.

F/O complained of feeling "knackered" before flight. I did not feel too bright either. What concerns me is because of fatigue, I failed to notice anything amiss. Would I have made the same mistake under IFR conditions to an airfield with a big QFE difference? Something is not right with the way we can do a twelve and a half hour FDP night after night coming on duty just before 2200 local. CAA only seem concerned to see we do not exceed twelve and a quarter hours + 2 hour extensions!

● We are now flying 3 day trips to Texas which I feel are compromising flight safety. On arriving at LGW most of the crews have had 6-7 hours sleep during the previous 48-50 hours, not safe. The last time I came back from IAH the F/O asked for the slats to be extended. I thought "Slats, what are slats" and promptly pulled the spoilers. Not in itself a major problem but my total lack of understanding of the situation was. Many of the crews feel the same way

about the dangers of this slip pattern and unless something is done to correct it an incident is not far away.

Cannot give my name to this account as I feel it would jeopardize my career but please take it in the spirit in which it was given.

● LGW-DFW-IAH-LGW trips have been reduced from 4 to 3 days i.e. one local night. . . This is my personal experience in IAH. On the stopover I only managed about 6 hours of interrupted sleep, the usual thing constantly waking up during the night. IAH-LGW we all felt more tired than usual and despite organised cat naps we started to fall asleep. During the approach the F/E was asked for descent checks, he was asleep. Small mistakes started to creep in despite a concentrated effort to "get it right".

We were cleared to FL90 all the appropriate altitude calls were made. Then I noticed we were passing FL86! We had set FL90 on the Alt pre-select but failed to arm it. The approach continued, I called for 22 degrees flap. On the ILS I asked for 35 degrees flap. The aircraft started to balloon, strange, not however when the 22 degrees flap was only 15 degrees. . . . Most of my colleagues and I feel that this slip pattern compromises flight safety.

☞ BA is considering the problems with this trip; we're advised that presently it's being operated over four days because of winds. We'll see what happens in future.

● Fortunately on the normal three crew 747 we all take it in turns to have a sleep especially if bunks are fitted and this greatly enhances the safety of the operation. I know of Captains who keep to the law and do not allow this. I pity their crews on some flights. If and when I fly a two crew 747 and it is 6am my local body time I shall have a nap. I am not superhuman or specially trained to stay awake. If the CAA are so daft as to allow all night flights without relief crew on board then as far as I am concerned it is they who are compromising the safety of the aircraft.

● Two more recent examples of the necessity of flight relief on overnight operations. On both occasions the three crew members found it impossible to

- The correct vibration-absorbing ergonomic manufacturer's seat has yet to be fitted. Sun visors as fitted to all cars/lorries/aeroplanes are not fitted. The ventilation system - to provide cooling air for pilots who are now required by law to wear survival suits at all times is not improved. The pilots who wish to wear noise attenuating (40db+) lightweight helmets and visors are informed that the passengers might object. Apparently it's "macho" to wear a headset on a civil registered helicopter even if it is a derivative of the military PUMA helicopter. The military worldwide provide lightweight helmets to all their helicopter crews - because the machine is noisy.

No Sun-visor, No Cool, No Helmet, No Autopilot.

⇒ Good noise attenuation from the headset is important for two main reasons: the noise itself can be damaging and fatiguing, and it can increase workload by making the RT more difficult to decipher even if intelligibility isn't obviously degraded. Attenuation is determined by the mass and volume of the ear cups, and the quality of their seal to the head. It's actually easier to achieve high attenuation with a good headset than by trying to squeeze large ear cups under a helmet (the helmet shell contributing next to nothing to attenuation). Duff autopilots are a more obvious source of increased workload . . .

- The aircraft was offered for service with a totally unserviceable autopilot (first reported 2 days ago). No alternative aircraft was available, nor were the appropriate spares. The minimum equipment list allows operation of the aircraft without a functioning autopilot. However the preamble to the MEL indicates that "B" defects are to enable the aircraft to return to base for rectification. There are several references in the Company Manuals indicating that the autopilot should be engaged (e/g. turbulence, incapacitation). I question the wisdom of operating a fast public transport aircraft in busy controlled airspace without a functioning autopilot - one can pay little attention to anything else but "poling" the machine. I accepted the aircraft for service solely because last year I was formally disciplined by my Fleet Manager for refusing to accept an aircraft under similar circumstances.

Some years ago I was involved in an airmiss in controlled airspace. Both pilots of both aircraft were criticised for failing to keep sufficient lookout. Operating without a working autopilot virtually prevents ANY lookout. I really think that the CAA should look very carefully indeed at "B" defects and ensure that unserviceable aircraft are operated ONLY on one homeward sector for rectification.

stay awake after about 5am in the morning, body time. With each of us taking in turns to have catnaps the operation was safely continued. The reason I write is because I am very concerned about the safety of two crew operation on night flights. I find it totally impossible to stay awake all night in spite of over twenty years of long haul flying experience. In order to reasonably guarantee some sleep before a night flight it is necessary to have a scheduled departure after 4am body time. Most of us can stay alert until about 4am. Any scheduled departure or arrival after 4am should be done with in-flight relief so that each crew member can have a short sleep. Note that length of duty is not the critical factor although extra sectors do increase fatigue.

With the introduction of the 400 series 747 many services will be operated overnight from the USA to UK with only two crew. If and when I start flying the 400 series I very much doubt that my body will change. This means that I will be asleep at some stage of the flight leaving only the copilot on duty. If

the CAA feel I should transfer to short haul daylight operation I would like to point out that I find it easier to stay awake than 90% of the copilots I presently fly with. With two crew the rules must be changed.

- . . . The take-off from JFK was uneventful at about 10pm local time (0300GMT). After a few hours over the Atlantic the FO was having a "nap" break of half an hour, leaving just myself and the captain. I suddenly felt myself waking up in my seat. The captain said I'd been asleep about 10 minutes. To say I was shaken is an understatement. For ten minutes, only one of us had been awake. In over 6000 hours this has never happened to me before, where I have just "nodded off" spontaneously. I feel that the sleep pattern generated by the long duty day to the States, 20 odd hours off, followed by a two sector 11 hour night duty, back across the Atlantic is a breeding ground for fatigue in the long term, and exhaustion (with possibly dangerous consequences) in the short term.

Up The Pole Hill

• my trainee and I took over as sector radar controllers on the Irish Sea sector. The traffic level was moderate, but there were no weather or other problems. There was also a trainee controller working alongside us on the Pole Hill sector who was undergoing a routine check with a member of the training section. Traffic loading on the Pole Hill sector was high, and, from the amount of flight progress strips displayed on the board, was increasing. The ocean tracks were decidedly north-easterly, and virtually all traffic was high level and northbound on airway UB4, with only a small amount of traffic flying southbound. Most traffic was flying between FL260 and FL350 with, in many cases, several aircraft at each level, while others were either climbing or descending through all levels. It was exceedingly busy.

Splitting the Pole Hill sector involves the separation of the sector into the Barton sector and the Pole Hill sector, with the former working traffic on the route Dean Cross-Manchester-Honiley/Westcott, and the latter working traffic on UB4 flying Brookman's Park-Pole Hill-Margo. The combined sector's frequency of 131.05 becomes the Barton sector frequency when split, and the Pole Hill sector controller then opens up a new frequency of 129.1. Thus, with virtually all the sector's traffic northbound for the ocean, there would have been little point in splitting the sector as the "new" Pole Hill sector controller a) would still have taken the vast majority of the loading, b) would have had to open a new frequency to take all the traffic, and c) would then have sat in the R4 position on the suite which entails sitting at a very uncomfortable angle to the radar display and which in no way eases his workload. In desperation, the trainee and training section member worked as a "man and boy" team in order to cope with the situation, with the trainee undertaking the R/T and the other person providing a second pair of eyes and ears.

Very quickly the traffic level increased. The chief sector controller appeared to be at a loss to know exactly what course of action to take. With a trainee controller on the Pole Hill sector, and with a member of the training section present, he was naturally reluctant to upset the controller's concentration by suggesting a sector split that would not achieve anything substantial, and would probably cause more disruption than was worthwhile. However, he was aware that the situation was deteriorating fast and that the sector was becoming grossly overloaded very quickly. With flight progress strips

on yet more traffic continuously arriving on the Pole Hill board, it was impossible to insert all these in their correct positions in the display due to time and space limitations, thereby leading to potential conflicts not being apparent on the strip display.

As Irish Sea sector controllers, my trainee and I could do little other than watch the situation and try to assist without interfering at a level that would cause the Pole Hill controller to "go under". However, one of our aircraft, an F-28 from Aldergrove to Amsterdam had filed to fly Isle of Man-Pole Hill-Ottringham at FL330. Strips were on the board in good time, and the Pole Hill sector controller asked us to ensure that he was at FL330 before entering his sector. This was of no problem to us, and the aircraft was cleared to that level. However, a little later the Pole Hill sector controller decided that FL330 was no longer available, and requested that the aircraft transit to Pole Hill airspace at FL270. We complied with this request, and the aircraft was level at FL270 upon entering Pole Hill airspace at Fleetwood. Due to the high loading on the Pole Hill frequency, we retained control of the F-28 on the Irish Sea frequency of 128.05. By this stage, both the Pole Hill sector controller and the training section member were standing up, and it was evident that the situation on Pole Hill was getting totally out of hand. With this in mind we decided to check for any likely conflicts to our F-28 in the Pole Hill area. We could see a Pan American B747 climbing out from London towards Pole Hill, and, as the standard agreed level between the Daventry sector and the Pole Hill sector is climbing to FL280, it seemed likely that this could be a conflict with our F-28 at FL270. On checking the strips the 747 was indeed climbing to FL280 and working the Pole Hill sector controller.

The tracks of both aircraft suggested that they would be adjacent in the Pole Hill area. However, we had been given FL270 to transit this airspace, and yet we were fully aware that our F-28 had been forgotten in relation to the 747. If we pointed out this conflict to the Pole Hill sector controller, then it seemed likely that this might cause the collapse of the situation. If we did not point it out, then an airmiss might very well occur. The solution to this unfortunate dilemma appeared to be the placing of the F-28 on a radar heading to take him out of Pole Hill and across airway UB4 as quickly as possible to get him out of the way of this busy airway in the shortest possible time. This course of action proved successful, and no airmiss occurred.

However, on reflection it seems that if an airmiss had occurred between the Pan American B747 and the F-28, as Irish Sea sector controllers we had been aware of the impending situation for some time before the confliction point, and yet we took no action to inform the controller of the 747 of this situation due to his excessive workload. Another result of this high workload on the Pole Hill sector was that we were distracted from our own work on the Irish Sea sector, and although traffic had built up on the Irish Sea, our concentration on our own situation was lacking as we were naturally concerned for the survival of our colleagues on Pole Hill.

The situation on the Pole Hill sector was the most frightening I have ever seen as a controller. It was without a doubt unsafe, and in my opinion dangerous. Something positive needs to be done now in order to ease this ridiculous level of traffic which falls upon the shoulders of individual controllers. There are conflicting reports as to what flow control was in operation, but whatever the restrictions they were not severe enough to contain the sector at anything like a safe traffic level.

Golden Oldie

- Last year British Airways 757 and 737s changed from using QFE to QNH. 1-11s still use QFE. Highland Division 748s use QFE. The latest BA a/c, the ATP, uses QNH. Remembering which a/c use which setting requires concentration at some awkward moments.

At Aberdeen we have all of the above types operating schedules. Frequently a/c types are changed and the information does not always reach ATC. We are often faced with indignant pilots when we fail to give a QFE. Give them a QFE when they don't use it and you would think we had just invited them to join the Labour Party. Time this airline sorted itself out.

☞ BA tells us that it is now a basically QNH operation, but since safety considerations dictate that QNH approaches can be made only in aircraft with two rad alts, they can't, yet, be totally uniform. The socialists on 1-11s and 748s still require QFEs. Seems reasonable.

Keeping Up To Speed

- I have noticed over recent months a number of instances of aircraft reducing speed from that they have been instructed to fly without first advising or requesting the reduction from the radar controller.

These instances usually take place on intermediate approach and most commonly involve reducing speed from 210 knots to 170 knots or less at ranges in excess of 18 to 20 miles from touchdown. Other problems occur when speed is reduced below 160 knots when still outside the outermarker. Either of the above can seriously compromise separation in a busy terminal/final approach area. I know that radar controllers sometimes ask pilots to keep speed higher than they would prefer sometimes, but if you do want to reduce speed please advise the controller first and in the majority of occasions he/she will be able to accommodate your request. If you reduce speed arbitrarily chances are someone else is going to have to be broken off final approach or re-positioned on intermediate approach.

☞ We've spoken to a few pilots about this report, and they suggest that because of busy RT in terminal areas, there can be difficulty in getting a word in edgeways just when they need to get the speed back before the outer marker or capturing the glide slope.

Goodbye Roy

In May, Roy Skinner, who has been the mainstay of CHIRP for the last seven years, reaches the end of a long and varied career in aviation. Thunderbolt operations during the war were followed by flying all of the early jet fighters, and one of the Vampires which made the first jet crossing of the Atlantic.

Roy has personally replied to just about every one of the 1500 or so CHIRP reports, and has followed them up assiduously. He leaves with our appreciation, our thanks, and our wishes for the happiest and most active of retirements.

What Comes In

Flight Deck	42
Fatigue, Commercial Pressure, CAP371	20
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RT	3
Conditional Clearances	4

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CREW POSITION	DATE	TIME (PLEASE STATE LOCAL/GMT)
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HOURS ON TYPE	TO :-	LOCATION
	IFR/VFR	PHASE OF FLIGHT
THE AIRCRAFT	TYPE OF OPERATION	WEATHER (IMC/VMC)
TYPE		
No. OF CREW		

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