

Fresh Air Matters... with Capt. Yaw

When it comes to maintenance, aviation is right up there, aware and alert, and that enables all of us to fly with more confidence. Despite the yuletide news of attempted attacks on an aircraft across the pond, aviation is a safe means of transport and one that we almost take for granted for its international reputation of 'staying safely and securely in the sky'.

Over the recent holiday we carried out a five-hundred hour check on one of our aircraft and enjoyed the moment, as always – in fact we were all keen to see the machine loved and cared for. Die-hard aircraft engineers are a funny bunch – we have an almost romantic relationship with the metal, cloth, rubber and essential fluids that make up the flying machine. It is the pure distillation of synergy between human and flying creation that makes watching aircraft maintenance operation look like a love-story or a chick-flick – something special, mesmerising, enchanting, absorbing and attractive in a unique and almost sensual manner. Watch the polishing of the rocker covers and the smile that shines back from the near mirror finish at the loving engineer during the final stages of the caring, I mean maintenance, process!

Recently clients came to visit during servicing on one of the flying school machines - and stayed for ninety minutes because it drew them in and intrigued their inquisitiveness. The gentleman, of American origin, kept on chuckling as one of our female engineers explained in loving detail each activity. Not laughing at her, simply smiling aloud with pleasure at the detail and intimacy she had with the machine. He later confided that he had not seen servicing carried out so seriously before. His Ghanaian wife initially wondered why they were watching dirty oil being drained from an aircraft, until she too was mesmerised, drawn closer and became a helper; holding the odd gasket and tool as she joined the actors around the 'patient' in the operating-theatre-type environment. Of course, our West African engineers are outstanding, and they do need to take maintenance even more seriously than their counterparts in the higher latitudes, for a number of reasons.

Our climate is harsh. I mean really harsh. No, more than that – we live in an environment that has a declared death wish for all that is mechanical. I am sure that you have noticed it too. Plastics become brittle with the sun. Clear plastic becomes opaque in a fraction of the time it happens elsewhere. Cloth and threads seem to thin, tear and disintegrate as if in a time-accelerometer. Joints become dry within minutes of oiling them. Grease nipples clog as if some grease nipple gremlin works overtime *every* night. Dirt from the Harmattan seems able to enter every instrument with ease, and disgust for the purpose of the equipment.

Just think about it – if you have driven a car in Europe, there is a very good chance that you never had to change the shock absorbers – which is, in Ghana, an annual task for most of us! What about the steering wheel in your car? I used to drive a pretty old car in the UK – it was as new, and the steering wheel smooth without bits falling off it. On the other hand... cars in Ghana (especially taxis) seem to have defined the disorder of 'steering-wheel-disintegration-itis' and 'seat-upholstery-collapse-and-dissolve'. It is as if we live in another world – another planet; but no, we are still on Mother Earth, just in a very special place.

The problem is that almost everything mechanical that we have on offer here is simply not designed for our environment. People design solutions for the environment they are in. North American cars are designed for North Americans

and Japanese cars for the Japanese environment. I recently drove a Chinese car and quickly realised that the ergonomics were based around the needs of the people who designed the car. There is nothing wrong with this, it is normal. There is a growing effort to 'tropical-ise' and 'West African-ise' the cars and other devices here; but it is generally not a 'designed for West Africa' solution.

Although aircraft engines are, by default, designed for tough environments, we still change the oil on our aircraft twice as often as would be done in Europe; the same with the spark plugs. We change the rubber parts every five years – even if they still look good. The reason is simple: we need to be more maintenance-aware, because we are more environmentally-aware of the effects on our machines. By doing so, we ensure a high level of serviceability, safety and efficiency. We need to be in love with our machines and dedicated to them, driving us inexorably towards ensuring their integrity, safety and serviceability.

I do believe that the 2010's will see many more machines and devices being designed and built in West Africa – designed for West Africa – not adapted to West Africa. That will, I believe, provide greater reliability, serviceability and dependability in many areas. But there is a problem – a problem that is not possible to design out of the equation, even with vast amounts of dollars, yen and pounds of research and development funding.

You see, it is fairly common that those in West Africa tend to lack belief in, and place financial confidence in, West Africa and West African engineering. This is a mistake, but it is very hard to overcome. I promise you that, if you take a top-notch motor mechanic from Europe, and provide him the very same resources as our average bush mechanics in rural West Africa he/she could not shine even a flickering light to our 'man (or woman) in the bush'. On the same scale, our average 'fitter' would be at a loss with the equipment at the heart of a high-level engineering environment in Europe. This is all about exposure, education, literacy, opportunities and [non-financial] motivation.

As we gain belief in ourselves, increase our awareness of the need for local solutions to local problems and understand better the need for maintenance schedules more appropriate to our particular needs, we will gain in all sectors the reliability that aviation has already reached through its high standards – and invest in ourselves.

Take a look around your garage, home and office and ask yourself if the reliability problems you have with some items are because of the approach taken to maintenance and repair? Perhaps it is because somebody mistakenly believed that, as it was designed for another continent (adapted somehow to this environment), and is being treated as if it should be self-sustaining.... Is this a waste of resources..!?

In aviation we are focused on maintenance and safety and as such we are very aware that 'a stitch in time saves nine', meaning that - if you can see where your trousers may be about to tear - a solitary, appropriate and timely stitch today will stop you 'exposing yourself' tomorrow and needing a major repair!

Have a 'preventative maintenance' orientated, safe and productive week!

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