



Powder in the Sky

“... the most superb exhibition of flying skill and crew co-operation that I had ever witnessed.”



IN WHAT, to the modern generation, must appear as antediluvian times, the very early 1960s in fact, not long after the introduction of the Boeing 707 in South Africa, I was treated to a superb display of innovative airmanship that I have never forgotten, nor am I ever likely to.

This new aircraft, twice the size, and flying at twice the speed, of the fastest piston engine type in service, was held in such awe by the SA Airways administration of the time that it was crewed by not one but two captains in addition to a senior first officer who acted as third pilot, of which genus I was a member.

On the flight in question, we departed London Heathrow one wet, cold and miserable February late afternoon, bound for Las Palmas, in the Canaries, shortly after South African-registered aircraft had been banned from over-flying Africa. Our departure clearance route took us over Land's End and as we broke cloud at in the region of 5 000 feet head-

ing westwards, became some of the privileged few to witness the sun rising in the west as we climbed out of the murk!

This four hour leg down to the Canaries was normally a piece of cake despite the night landing on the Las Palmas runway which was so narrow in those days that the outboard engines overhung the verges of the tarmac, precluding the use of reverse thrust on those motors. As usual, the departure from Heathrow had been a pleasure with the highly efficient and skilled standards of air traffic control, marred only by a complete communication black-out with Las Palmas or even Tenerife.

Nevertheless, we set course without an updated weather report; all we had being an outdated version many hours old which simply stated the more or less standard 'CAVOK', but with strong northerly surface winds gusting up to 30 knots.

Shortly after reaching top of climb I diligently attempted to contact 'Canarias Control'

on H/F without success, thanks to the vagaries of the 'Heaviside Layer' (from which such radio waves are reflected) in addition to sun spot activity. This despite the fact that I could read stations as far a field as Athens loud and clear. After two hours or so of being totally in the dark as regards communication, I received a faint, garbled reply in broken English which I interpreted as, "Visibility down and powder in sky."

In all my met lectures and subsequent experience, I had never encountered terminology remotely resembling this, but on receiving the message a second time, conveyed it to the captain who dismissed it, muttering something like: "One never knows what the hell they are trying to say."

At top of descent, in the absence of VHF communication which had also gone on the blink, we obtained another garbled, scarcely decipherable message on H/F clearing us to descend to "Papa" beacon, the main and only beacon then serving Las Palmas, to the north of the field, at 12 000 feet. On a clear, moonlit night, descending into Grand Canaria from the north, it is possible to make out the mountain on Tenerife over to the west, but on that evening, despite an almost full but hazy moon, nothing was to be seen.

Subsequently, approaching Papa, not even the lights of Las Palmas, normally visible for miles, were discernible. Arriving over the beacon, all radio communication was again lost, and so we entered the holding pattern at 12 000 feet, our last assigned clearance.

Being on an IFR flight plan, we could only proceed with the let-down on instructions, except, that is, in exceptional circumstances such as radio failure. Sitting behind the cap-

tain, I awaited his decision with interest and some concern for those gas guzzling straight jet JT-4 engines were doing just that, swallowing our "island holding" reserve, based on two hour's holding at 15 000 feet, at an alarming rate.

The captain asked me to obtain the Tenerife weather on VHF, which I duly did, passing it on with growing consternation, for they reported surface winds gusting up to 30 knots from the north and visibility down to 400 metres due to dust in suspension, clarifying the earlier, "powder in sky" report received from Las Palmas – obviously a literal translation from Spanish!

This eliminated any possibility of diverting to Tenerife, so I contacted El Aauin, some 100 miles to the east in Western Sahara, but they also reported similarly reduced visibility.

We had encountered a rare phenomenon, called "Blood Rain". Under certain conditions, probably associated with either the 'Harmattan' or 'Khamsin', desert winds caused by a pressure system which lifts red dust from the Sahara and which subsequently can be deposited as far a field as Ireland, Blood Rain occurs when the airborne dust discolours subsequent precipitation.

This time, however, it descended on the Canaries and environs, putting us in a pickle – not only was our destination below limits but so, too, were our possible alternates and we had insufficient fuel to make Lisbon or even Faro south of that city!

WHAT TO DO?

The captain, outwardly unruffled, then calmly briefed the co-captain saying, "Right Bill,

even though we don't have an ILS, we'll have to treat this as a Category II approach (Decision height 100 feet and RVR or runway visual range 400 metres). So you will do the approach, letting down to 100 feet. If you hear nothing from me, overshoot. If I see the runway, I'll take over and land."

By this time we had regained VHF communication. Turning to me, he said: "See if you can get through to these numskulls that we want a Jeep with flare pistols positioned at the end of the runway."

Quite amazingly, the control tower immediately grasped what was required, replying, "*Jeep is position. Visibilite quatro unnert metre. Windi, zero tre zero guste tre zero,*" which we interpreted as: "Jeep in position. Visibility four hundred metres. Wind 030 gusting 30 knots."

"Hell," I thought, "Four hundred metres is way below what we should have for an NDB let-down let alone for an ILS." As fate would have it, we had no sooner departed 'Papa' outbound, tracking away from the beacon when it, too, went off the air.

Still maintaining his outwardly unruffled demeanour, the captain said to the man on his right, "Don't worry about that Bill. Continue descending outbound. When we turn inbound, I'll position you on radar – we have a pretty good picture of the coast line here, and John, you keep your eyes peeled for those flares from the Jeep and keep monitoring 'Papa' just in case it comes back on.

"Bill, just follow my instructions; I'll position you at 4 000 feet at 20 miles and then 1 500 feet at eight miles. After that, just keep descending at six to seven hundred feet per

minute while I keep you on centre line."

For the uninitiated, weather radar of the early 1960s was not designed for mapping and even less as an approach aid, but it did show coast lines clearly and this was what the captain was using to keep his co-pilot lined up with the projected position of the extended runway centre line. Much as would a ground-based radar controller, he continually read out headings, heights and distance from the runway.

Passing 1 500 feet, we ran into heavy turbulence requiring Bill's full concentration to maintain heading, speed and rate of descent. With the landing gear and flaps confirmed down, I read out the final landing check-list to myself since the captain was concentrating on the green glow of the radar screen, then set to its largest scale while I strained my eyes through the windshield, hoping to detect the flares.

The atmosphere was tense as we passed 500 feet with Bill wrestling the turbulence and the captain's calm voice reading out headings and distances. At 200 feet, still with nothing in sight, Bill called for landing lights, which he promptly cancelled as the reflection from the dust particles became almost blinding.

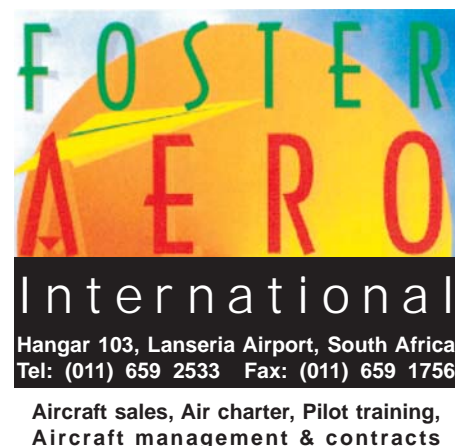
Gazing ahead, I checked the captain's pressure altimeter out of the corner of my eye (No radio altimeters on the early 707s) and then, at 100 feet, a white flare came arcing towards us out of the gloom, slightly to the left. I yelled, "*Flare ahead. Eleven o'clock.*"

The captain looked up for the first time on that final approach and as another flare came arcing towards us, said, "I've got her," and headed for the source of the flare. Shortly thereafter, a couple of "goose necks" (paraffin fired flares which formed the flarepath), miraculously still burning in that wind, loomed out of the murk.

The captain put her down between those to the almost audible relief of tension on the flight deck, while I marvelled at this, the most superb exhibition of flying skill and crew cooperation that I had ever witnessed. →



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