



## *re-dispatch*

**UNLIKE COMBAT flying where man and machine are often pushed to their very limits and beyond, airline flying is, by comparison, generally a piece of cake since safety is paramount and both man and machine are operated well within their respective capabilities.**

The essence of airline flying is to keep the mind sufficiently ahead of the aeroplane to preclude getting into a situation from which there is no recovery and to ensure that one always has several options in reserve.

On the rare occasion, however, and despite whatever foresight and perspicacity one may have developed through experience, elements and circumstances can gang up on one, forcing one to operate to those very limits, well beyond the normally stringently applied airline limits.

In the early 1970s, when South Africans and their aircraft were fast becoming the polecats of the world, shunned, scorned and refused entry into the air space of just about the entire continent north of the Zambezi in addition to many other parts of the planet, the national carrier was forced to operate to Europe and the United Kingdom “around the bulge” off the west coast of the continent via Ilha do Sal or Las Palmas, incurring enormous penalties in both time and fuel at a time when the latter was becoming a crucial commodity.

However, the powers that be still sought to operate the Boeing 707s non-stop from Johannesburg to Lisbon which had by then become the airline’s gateway to Europe. The only way in which this could be achieved was by means of “re-dispatch” – in effect simply a means of

“cooking the books” as it were in order to fly further without contravening flight planning policies with regard to diversionary fuel reserves.

Basically these dictate that an aircraft carry sufficient fuel to fly from departure point A to destination B, plus sufficient to divert to a suitable alternate C, plus 40 minutes holding at 15 000 feet in jet aircraft. When operating on re-dispatch, however, although the intention is to fly from A to C, the flight plan is filed from A to B, some convenient point en route, and then over B, should conditions be acceptable at C, the flight “diverts” or re-dispatches to C, arriving at C with no further diversion capability and only holding fuel.

Thus one sultry summer early evening, having filed a flight plan from Johannesburg to Las Palmas with a re-dispatch from there to Lisbon, I found myself impatiently kicking my heels on the ground waiting for the temperature to drop sufficiently for us to become airborne.

It was one of those evenings when, even though the sun had set, the high temperature of the day lingered on. It was a case of either reduce weight or wait for the temperature to drop and since the former was out of the question for even though we were re-dispatching, we still required every litre of fuel that we could carry, and so we waited.

Eventually, a couple of hours behind schedule, we became airborne right on maximum weight for the conditions with full water injection (This pumps copious amounts of water into the combustion chambers partially compensating for the loss of air density at hot and high fields).

Climbing out thereafter, I was aware of an inexplicable feeling of unease; my sixth sense developed over the years no doubt flashing warning signals for this was the worst time of the year for this type of operation. Hot and high in Johannesburg, restricts take-off weight while, in the northern winter, Lisbon was renowned for its capricious weather.

A wind change could bring in fog from the cold Atlantic in no time. I resolved to have no hesitation in going into Las Palmas should there be any doubt whatsoever regarding the Lisbon weather when we reached the former.

Nearing the Canaries, I listened in to the European weather broadcasts on H/F which, for a change, came through loud and clear. The entire northern Europe appeared to be either snow or fog bound, but Lisbon was fine with unlimited visibility.

Overhead Las Palmas, the situation remained unchanged, although Madrid, which would have been our alternate on a normal flight plan, was reporting low cloud and drizzle with reduced visibility.

But then there was always Faro, a combined civil and military field south-east of Lisbon. Reasoning that not much could change in the hour and a half it would take to reach Lisbon, I re-dispatched, but I was wrong!

Within VHF range of Lisbon at about 150 nautical miles, I was astounded to be informed that Lisbon was fog bound, as were Faro and Oporto to the north – either the earlier weather reports on H/F had not been updated or the fickle Lisbon weather had pulled another fast one and changed dramatically within the space of less than an hour! →

## NARROWING OPTIONS

We had only 40 minutes holding fuel at 15 000 feet plus enough for a missed approach, and I silently cursed the whole concept of re-dispatch.

For the uninitiated, "holding" is a procedure whereby the aircraft is flown at a minimum speed with flaps up, usually 220 knots in the 707, enabling it to remain airborne for the maximum time for a given amount of fuel.

I had to consider my rapidly narrowing options. These were: firstly, to stay in the holding pattern in the hopes of the fog clearing, but which meant that if it did not, I would be faced with only sufficient fuel for one approach. This I rejected, for in my experience that fog would only burn off well after sunrise.

Secondly, attempt to make Madrid, itself marginal, or, lastly, make an immediate approach and land in weather conditions well below normal limits, but at least with enough fuel to make more than one attempt.

Time was running out and so was fuel and a decision had to be made, but quickly. We were flying one of the latest 'QC' model 707s with state of the art instrumentation including radio altimeters.

My first officer, one Keet 'JK' van Zyl with whom I had flown many times on both 737s and 707s and whom I knew to be as solid as a brick, dictated the decision – we had the capability, if required, to land in fog regardless of normal limits, so why not and face the consequences later, certainly a far safer option than messing about with no fuel.

I looked at 'JK', reiterating verbally what had been going through my mind saying: "JK, it looks as though our best option is to go straight in and land below limits; that way we'll at least be able to make a couple of attempts. What say you?"

He grinned his school-boyish grin. "I was expecting that, Boss. Let's not eff around wasting fuel and go straight in. I take it we do Cat II; I fly down to 100 feet and overshoot if I hear nothing from you, or you take over when the approach lights appear and land?"

"Spot on," I replied. "Just delay our descent; try and time it so that we don't have to take power until intercepting the glide slope."

I was acutely aware that if I was taken to task for this approach I would not have a leg to stand on for, although both JK and I and the aircraft were Cat II certified, the Lisbon airfield was not, due largely to the undulating terrain on the approach which affected radio altimeter readings. But through the years, I had done so many ILS approaches there that I had every confidence in the equipment.

JK delayed his descent. Together we reviewed the approach and overshoot procedures and then passed over CP, the entry beacon south-east of the field in the region of 20 000 feet, very much higher than usual, for the ILS QDM was 190 degrees and we were approaching from the south, meaning that we would intercept the back beam of the ILS, overfly the outer marker outbound, do a procedure turn and then intercept the ILS inbound.

JK timed his descent to perfection for this was all achieved during the descent with the throttles closed. As we passed the outer marker outbound, it began to get light, and we could see for miles. But far below stretching to the horizon in all directions, lay our Nemesis; that layer of fog occupied only the last thousand feet or so of the atmosphere, but therein lay the crunch.

Re-crossing the outer marker inbound, I checked our altitude against the chart – spot on and JK appeared confident and relaxed, nailing those cross needles of the ILS like an automaton. As we entered the fog, a quick backward glance through the side window confirmed a fog so dense that the wing tip was scarcely discernible, and I requested the tower to turn the approach lights up to full intensity, thereafter concentrating on the greyness ahead so as to be focused when those lights appeared in the windscreen.

## DEMENTED ALTIMETERS

Meanwhile, the flight engineer reeled off altimeter readings at intervals on the pressure altimeters for the radio altimeters were leaping about as though demented over the undulating terrain.

We passed 200 feet and I saw nothing but greyness in the windscreen and then at 100 feet when I was about to yell, "Overshoot", that became: "I've got her," as first a couple of approach lights and then one or two runway lights emerged. We were bang on centre line and all I had to do was close the throttles and flare, as usual on a wet runway, touching down so smoothly that we weren't quite sure when the wheels actually made contact.

Raising the speed brake, I braked hard and applied full reverse thrust for it was not easy maintaining centre line at speed in that visibility. We slowed to a crawl, relieved when dimly flashing amber and blue lights emerged out of the fog to one side ahead which in turn became a Volkswagen beetle with the lights on the roof and an illuminated "Follow Me-Sigame" sign at the rear.

After parking and switching off, while gathering our paraphernalia prior to a welcome break at the Hotel Sheraton in the city, JK's only remark was a wry: "Boss, that was close."

The rocket I anticipated receiving on return to base was never launched, but had anything gone awry during that approach, as usual, another pilot in command would have felt the weight of the wrath of authority! →



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