FINALLY IT WAS SNOWING

By Bengt Collin

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THE CONTROLLER

He was sitting resting, with a cup of coffee in front of him. The last hour in the tower had been hectic; finally the winter had arrived with heavy snowfall and reduced visibility. Until recently the temperature had been well above average; whether it was due to global warming or not, he did not really care; he was more interested in planning for next weekend in Paris. He loved Paris, and the French ladies have a special style and class. There are more of them in Paris than at home, perhaps because Paris is in France? It was time to return to the tower; outside it was all white. He knew the next hour would be intense even in good weather.

THE OPERATIONS MANAGER

The Operations Manager was in a bad mood; he was normally a very positive person (in any case that's how he saw himself). The new Controller Surface Movement Radar HMI[3] was creating problems. A combination of lack of training and technical support for tuning the system resulted in label-swapping and false tracks. Anyway, they had to live with it and hopefully solve the problem later. They called it A-SMGCS[4]; he was not sure about the correct definition, but since no one else knew either, he stuck to it. He looked out of the window, the snowfall was increasing; he did not like the snow.

THE PILOT

The aircraft was de-iced. The snow was still falling. He tried to calm down after the stress of check-in. Since the staff car-park had been moved half-way to the nearest town, this was always a hot topic for debate. If you wanted to find some common ground, you could always complain about that. He instructed his first officer to ask for an intersection departure; although it was snowing the braking action was good. The other pilot requested push-back plus intersection departure. The push-back started; "call you back for departure via XX". They started taxiing and half way out towards the holding point they were sent over to the runway controller. They could see several other aircraft and hear them on the frequency too; at least two aircraft were ahead of them and probably several behind. Just when they expected they would have to wait in the queue, they received clearance to line up. With two aircraft ahead, they assumed the controller wanted them to use the requested intersection for line up; otherwise how could they overtake the others? He turned left for the intersection; the red stop bar was still on so he slowed down to stop.

THE TOWER

The design in the tower made it difficult to coordinate properly; the distance between the controllers was a limiting factor. This was a problem even with low traffic but now it was a very obvious stress factor. The traffic was increasing, his frequency was very busy. The ground controller sent him three aircraft in one go, of course this resulted in blocked transmissions and more frequency congestion (when would pilots learn to listen before transmitting, he thought without any kind of self-criticism). He looked on his HMI, outside he could not see anything. Following a departure clearance to an aircraft already on the runway, he instructed number one on the taxiway to line up. Suddenly number three in the line turned towards the runway, towards the departing aircraft.

WHY?

A labelled SMR[5] is **NOT** an A-SMGCS. It could be an excellent tool but it is only permitted to be used to assist the controller's outside visual view, never to replace it. This is especially important in high workload situations when label-swapping can bring fatal consequences.

In addition to the SMR, A-SMGCS requires a cooperative system, normally Mode S Multilateration. This provides the controllers with accurate safe labelling. Procedures allowing the controllers to replace the outside visual view with the HMI when appropriate were delivered and accepted by ICAO EANPG (European Air Navigation Planning Group) in December 2006 for incorporation in ICAO Doc. 7030.

[3] Human Machine Interface
[4] Advanced Surface Movement Guidance and Control Systems
[5] Surface Movement Radar