



BSA or Triumph?

By Bengt Collin

The releasing controller

Six o'clock in the evening they passed the last turn. The sound from the engines formed a distinct contrast to the peaceful village they entered, a typical small northern highland village with a church, a B&B plus two pubs.

A man was standing on a small open area behind the bed and breakfast, obviously he was the landlord but he made no effort to welcome them.

Perhaps he hasn't noticed them; hard to believe he missed the sound from the motorcycles.



Bengt Collin

works at EUROCONTROL HQ as an Senior Expert involved in operational ATC safety activities.

Bengt has a long background as Tower and Approach controller at Stockholm-Arlanda Airport, Sweden

They opened the gate and walked towards the man. "Hello!"

The man looked up, slowly inspecting them from left to right, from top to toe. They felt like the Vikings might have felt – but this was 1,100 years later. He answered with a loud voice:

- *Hi there, how ye daein'.*

- *Äääähhh...yes, the weather is nice, is it possible to park our motorcycles behind your house, they are more protected there? it was more of a formality, but they did not like to drive in without permission.*

- *Aye, ye cun park them roon the back, nae borra. Whit dae ye huv, BSA or Triumph?*

- *Äääähhh...we have Yamaha.*

- *Ah well, ye can lea' that jap crap oot in the street!*

The operational manager described the results from the recently finished safety case on a new departure procedure, everything being safe as usual he understood – he would pay more attention at the next briefing.

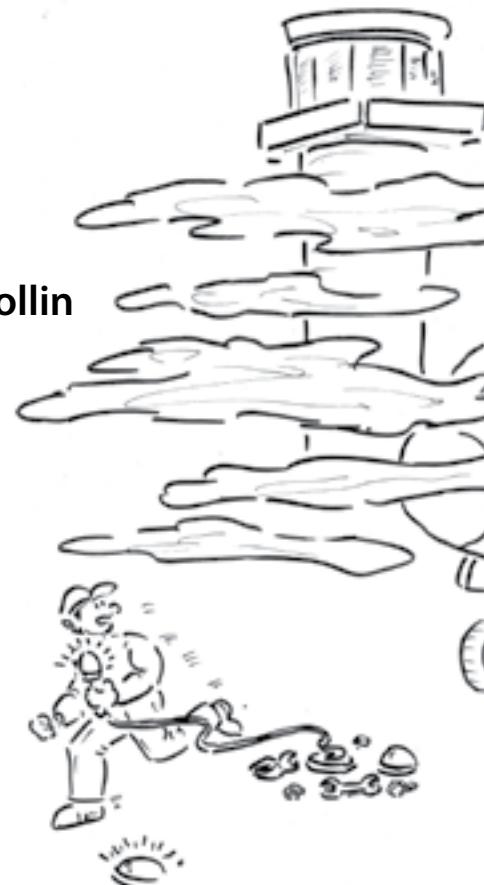
He used the elevator together with the other controllers on the afternoon shift to go up to the tower. He should release one of the runway controllers.

The vehicle driver

He got the phone call from the tower supervisor at five past two. The pilots on a recently landed aircraft had reported "something lying on the right side of the runway just where we vacated". The supervisor added with a laugh "the pilots said it looked like a little horse". Of course the fog was increasing. The LVP rules stated that no vehicle was allowed on the runway except under exceptional operational circumstances. This was such a case.

The controller being released

He did not like the ground controller next to him, who was relatively old in the game. He kept it to himself. After all, this ground controller was an exception. His daily complaints about everything, especially the management, created a negative feeling. He remembered him once on an extremely hot and humid day complaining about the air conditioning system saying that it was too ef-



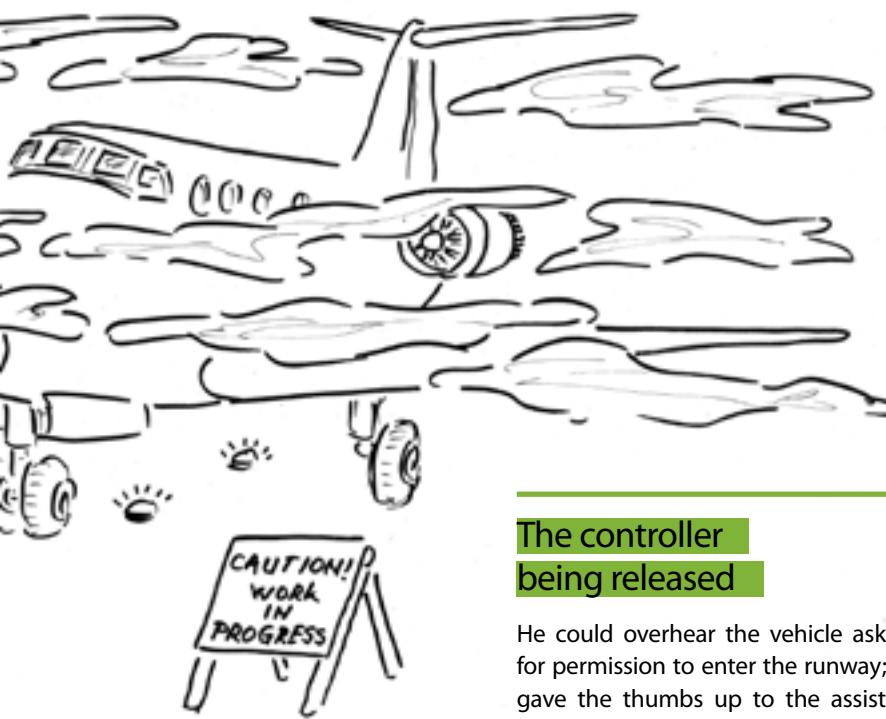
fective...But worse was the way he tried to "teach" pilots how to taxi and use the frequency. Embarrassing! Himself, he loved the job.

Outside the fog was gathering and for the moment almost everything was at a temporary standstill. They needed to locate suspected FOD on the runway and besides that, the traffic was always slow at this time of the day. He quickly returned to reality when he overheard the vehicle "Environment 42" calling. This was the "humorous" nickname given to the vehicle by the ground personnel, but being equipped with a four litre V8 engine, it was not at all as environmentally friendly as the call sign indicated. The vehicle traffic was handled by an assistant controller on a separate frequency.

The supervisor

The afternoon supervisor supposed to release him had phoned at a quarter to two saying that he had overslept. How can you oversleep at two o'clock in the afternoon? He had to leave as soon as possible, he had promised to advise his wife on buying a new dress which was an important job and impossible to can-

Tower... looks like one of the RWY lights is moving...
But maybe it's just the fog...



The controller being released

He could overhear the vehicle asking for permission to enter the runway; he gave the thumbs up to the assistant controller just as she was about to ask him for permission, instead she smiled at him giving the vehicle the clearance. He liked it when she smiled. She was blond, tall and very attractive and for a moment he thought about asking her out, but he knew that she already had someone else. It was a nice thought anyway. The controller taking over approached him from the right.

The releasing controller

He walked towards the runway controller. Nothing much going on. He quickly looked at the flight progress board and then looked out of the window. This endless foggy weather would never end. The ground controller to the left instructed an aircraft to taxi out for departure. The young controller he was to release started to say "nothing on the frequency...." he interrupted him. I have the situation, you can leave now. Drive carefully and remember full speed saves time! The other controller did not answer, he simply unplugged his head set and started talking to the blond assistant controller who was also about to leave.

He had no strips, nothing so he temporarily left the position to grab a cup of coffee. As he returned to his working

position, the ground controller handed over the departing flight, "Wind calm, runway xx cleared for take off".

The vehicle driver

He entered the runway, the fog was really thick. He started at the far end of runway xx driving towards the intersection; better to inspect all of the runway he thought as he looked out of the window for "small horses" He saw something dark lying to the right. He stopped his car at the side of the runway, opened up in the back, and walked towards the FOD. The outside loudspeakers would alert him if the Tower called him.

The controller being released

He drove his car carefully, trying to keep to the speed limit. He planned to stop to buy spaghetti and ketchup, his favourite standard dinner. Perhaps I should vary my dinner more he thought, perhaps replace the standard white spaghetti with the full grain version? He felt suddenly very warm, his heart started beating. The vehicle – he had forgotten to mark it as on the runway. He grabbed his mobile phone and dialled the number to the tower. Seconds became hours. Answer, please answer...

The vehicle driver

Instinctively he turned his eyes towards the sound, although he couldn't see anything in the fog. The noise was becoming louder, it was definitely an aircraft. He started running towards the vehicle, fast. The aircraft passed invisible, like a ghost aircraft that did not exist, somewhere in the fog above him. He looked at the vehicle still standing in front of him, solid and reliable. Better call the Tower he thought and jumped into the driver's seat. ■

cel. Why do women always need such advice? Giving an opinion different from hers guaranteed a conflict. Over the years he had become smarter, always asking for her opinion first, but now she had adopted the same strategy. He knew she loved controlling the situation just quietly smiling at him, waiting for his first move; he hated it. He could hear the new shift approaching from downstairs.

The releasing controller

Check the new incident reports before you release anybody, the supervisor instructed them. I need to leave, XXXX is coming in an hour or so, he's overslept. The supervisor said the last part of the sentence slowly and very distinctly; no one could mistake his sarcasm. I will wait downstairs for him, the supervisor added, at least for a while.

He looked at the new incident reports, airspace infringement, handover take-over, runway incursion; he ticked his signature at the front of them, he could read them later he thought; he knew this was not true but he was an experienced controller, he did not need all this paperwork.



Comment on the Case Study by Dragan Milanovski

"I developed mixed feelings as I was reading this story.
Another unbelievable chain of events and at the same time
it felt so common and realistic, as if I was there when it happened."

One can say that the direct cause of this incident is rather poor handover/takeover of position that took place during the morning/afternoon shift change in the tower and it will not be too far from the truth. As usual, everybody involved could have altered the unbelievable chain of events, but no one did. Why? Were they acting strange?



**Dragan
Milanovski**

is ATC training expert
at the EUROCONTROL

Institute of Air Navigation Services
in Luxembourg.

Most of his operational experience comes from Skopje ACC where he worked for a number of years on different operational posts.

Now, his day-to-day work involves ATC training design as well as Initial Training delivery for Maastricht UAC.

Here comes the scary part: No, they were probably acting just as they did normally. They made a few mistakes, but nothing out of the ordinary. This kind of mistake happens all the time, but they are always corrected well before it is too late.

The controller being released was anxiously waiting for the afternoon shift,

he was not busy at all, and he had plenty of time to think of other things. He was sitting next to a guy he did not like (the ground controller), but he was still able to work efficiently with him. He kept the dislike to himself. Sounds familiar so far? Those of you who have spent a few years in operations will remember that this happens to everyone. Then, there was the beautiful assistant with a smile (I hope this still sounds familiar to you too!) and the supervisor who had other "important" thoughts on his mind.

The releasing controller was a typical "old school" experienced controller who likes speed and does not need all the paperwork and the boring stuff. After all he's been doing this job for a while and he knows it inside out. He did not show interest in the safety case ("we did not have them in the past and we were still safe"), nor did he show any interest in, or take time to read, the incident reports. Nothing unusual so far, every place has a few controllers acting in the same way. Some of them are good colleagues and even friends. Others are popular and people enjoy working with them.

All set, here we go...

The first "small" mistake happened when the controller being released overheard the vehicle asking for permission to enter the runway; and he gave the thumb up to the assistant controller just as she was about to ask him for permission. Most of you are

probably thinking "What is wrong with that? We do it all the time". Yes, we do it, and most of the time we have a clear picture of something we overhear, but not all the time. Did he really understand the request? We can only guess.

Then the next important moment was when he did not use a strip on the flight progress board to indicate the vehicle presence on the runway. Again, you might be thinking "Oh, common... this is okay; he had nothing else on the frequency". The mistake was not getting ready for a handover, where you try to put everything in a simple order and stick to official procedures so that it is easier for the next controller to understand.

The experienced releasing controller cut the long story short. He could see what was going on and he certainly did not need the boring "blah, blah..." from the young controller being released. In the heat of the moment the controller being released forgot that there was an item that needed to be mentioned or maybe assumed the releasing controller knew about it.

In the end the phone called back to the tower... sounds so realistic and familiar. I have witnessed a few after similar handover takeovers, luckily without similar outcomes. Why do we keep thinking about the situation after leaving a position? Is it our conscience?

What could have altered the outcome? Well...

The supervisor could have remained in his position until the handover takeover process was completed. After all it is his job to ensure the process is done properly and without unnecessary distractions.

The controller being released could have used a strip for the vehicle on the flight progress board. Its presence on the runway was not an ordinary situation and therefore deserved extra attention, no matter how quiet the traffic was. He failed to prepare a "clean" situation before handover. When his handover briefing was interrupted, he could have insisted on continuing and passing on all the details. Finally, he did not make sure the releasing controller was completely in control before leaving. He simply left the tower too fast.

The releasing controller did not take enough time to familiarise himself with the traffic situation. He could have listened to the young guy's briefing or he could have asked questions. Instead, he underestimated the situation and the time it takes to settle in a position and advised the controller being released that "full speed saves time". Unfortunately this does not apply to handovers/takeovers.

MY RECOMMENDATION... hmm... it goes back to training. In most places it is only late on during the on-the-job training that student controllers are trained to do handovers/takeovers; and in some cases this topic is not explicitly addressed in the training at all. The organization in question needs to look back and analyse whether awareness of the handover/takeover process

needs to be raised and maybe introduced earlier in the training, or included in the refresher training. Also, consider the use of checklists to structure the briefings during handovers/takeovers and ensure items are not forgotten.

No matter how familiar you are with the unit, position and airspace, and no matter how experienced you are in your job, appreciate the importance of the handover/takeover process. Follow the recommendations and good practices, use a checklist if required or if you think you are forgetting things. Remain focused until the end, allow sufficient time for it, and do not leave until the next controller is completely in control.

"Ye wanna bet" the releasing controller will read the incident reports next time. After all, he is starring in one of them. ■

Comment on the Case Study by Captain Ed Pooley

"For once no flight crew role in this scenario! But plenty of food for thought. The vehicle driver? Just a victim? I think so...."

But turning to the ATC team, we can see how the overall effect of many individuals in the extended team not actively 'thinking safety' as they go about their routines really can build the perfect foundations for precipitating an error by one of them.

Of course, we all recognise the leading 'villain' here – the controller about to be released. He has some personal 'baggage' which he keeps to himself – he really doesn't appreciate the 'style' of his colleague at the ground control position. In contrast, he is considerably more 'at ease' with the attractive female who is at the assistant ground

controller position and responsible for running vehicle movements. In fact, he's so at ease with her that he'd like to come across as a 'cool guy' for whom a thumbs-up rather than the required (and recorded) exchange on intercom is enough. And what about getting the strip for the vehicle? Completely overlooked? Then, before he has time to think twice, his afternoon shift replacement arrives alongside him. His attempt at a handover of his position is at best uninspired and at worst unprofessional. Instead of starting with the interesting bits – the fog and especially the recent FOD report due to be investigated, he encour-

Captain Ed Pooley



is an experienced airline pilot who for many years also held the post of Head of Safety for a large short haul airline operation.

He now works as an independent air safety adviser for a range of clients and is currently acting as Validation Manager for SKYbrary.

ages the similarly uninspired/unprofessional style of the older and much more experienced releasing controller.



Comment on the Case Study By Captain Ed Pooley (cont'd)

ler by beginning with "nothing on the frequency".....

The releasing controller appears to be a little complacent in his role – the effect being perhaps similar to the effect of distraction on the performance of the released controller. Time to go and get that coffee I should have collected on the way in...even though he knows there's an aircraft taxiing out for departure. And what about making the time to read the paperwork before taking his seat? Signed as read when not is a poor show of responsibility for safety awareness.

What about the ground control team? At least they weren't both on handover. But the controller in charge apparently has a rather 'clever' attitude to his radio communications. That isn't likely to go down too well with some of the pilots. But perhaps even more importantly, it isn't likely to support an ideal professional relationship with his probably younger and less experienced assistant controller. He should have been at least aware of the vehicle movement – that could have added another layer of protection which might have helped stop the releasing controller accepting the departing aircraft onto the runway. As for the assistant controller, she couldn't really do much about the 'informal' verbal acceptance of the vehicle by the departing TWR controller, but she should have made sure the vehicle 'strip' was passed on to complete the transfer of control.

Time to consider the example being set to the team. Unfortunately, the supervisor doesn't come across as remotely inspirational..... He's made a domestic arrangement straight after the official finishing time for his duty and certainly doesn't intend to stay

upstairs to keep a supervisory eye on things until his overdue colleague arrives whether LVP are in force or not. He seems to have virtually 'signed off' as the scheduled end of his shift approaches – arguably the very time he needs to oversee a series of handovers.

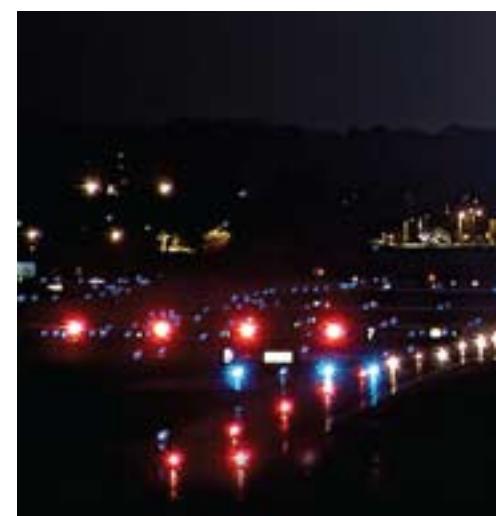
Which brings us to the one of the two key activities which seems to figure routinely in ATC incident reports – handover and OJT. At least there wasn't any OJT taking place. But everything was wrong as the handover took place. **Nobody** involved was really interested in a safety-first approach. For the most part, the older and more experienced people were **complacent** and the younger and less experienced ones were **distracted**.

By the way, we haven't mentioned the unseen managers who organise the way ATS is provided, sign off the procedures and stay aware of what they manage. A couple of obvious points arise. Firstly, had an adequate risk assessment been carried out for vehicles on runways in LVP? What exactly were 'exceptional operational circumstances' and how had the additional risk in LVP been mitigated? Secondly, was this a routine 'style' of handover for this unit which just happened, co-incidentally, to involve an incident? Managers too need to be aware of their own responsibility for safety. Most of us would say that this includes both providing the right framework and making sure that they stay in touch with what actually routinely goes on so that they can help fix it if necessary – preferably before an incident like this occurs.

I hope it is easy to see how widely responsibility for this safety lapse was shared. And also how the chances of

this incident could have been greatly reduced if everyone had put safety first – proactive safety. Ultimately, none of us want to be a part, even a small shared part, of the accident outcome which can so easily follow on quickly from any operational human error. But as we certainly can't prevent all such errors, we need to work collectively on their context. That way we reduce their number and 'trap' the remainder.

A SINGLE RECOMMENDATION? It has to be to the 'unseen managers' who have responsibility for providing a system of, in this case, procedures, which work and ensuring that they are properly applied. I don't know if the handover process which lies at the heart of this incident had the benefit of effective procedures so my recommendation comes in two parts. Were existing handover procedures followed? If not, the first action is to rectify that. If they were (or are now) being followed, then the second action is to look carefully at them to see if they are adequate. Those on any 'front line' need to be working within a framework which supports safety if they are to deliver it. ■



Comment on the Case Study by Ulrika Svensson

"This case study raises two questions which need to be answered."

First, can this be identified as a runway incursion since the vehicle had clearance to be on the runway? The ICAO definition is "Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take off of aircraft", but since there was a vehicle on the runway without the releasing controller's knowledge, this could well be a runway incursion.

Secondly, could this have been avoided and if so, how? If you compare the situation in the tower with a crew on board an aircraft you would probably start to think about crew resource management, CRM. In the "old days" CRM stood for cockpit resource management and only involved the pilots and possibly an engineer or a navigator. The definition expanded, since communication with the cabin crew was necessary for a safe flight. Today, CRM involves everyone who is working with the aircraft. For instance, cor-

rect fuelling procedures and dispatch are vital parts of a safe flight.

The recurrent training for transport pilots involves both CRM and an evaluation of non-technical skills during the proficiency checks that take place twice a year. This means that three times a year pilots will be evaluating and discussing their abilities to interact with both people and systems.

When the controller being released did not make any note about the clearance to the vehicle driver it is easy to blame the controller as the cause of the incident. But there will always be errors, since we are human. A system that is prepared for mishaps will be able to deal with them. The releasing controller and the controller being released had a few seconds of interaction where the issue could have been identified.

However, was this system thinking about safety or just about ticking

Ulrika Svensson

is an engineer and a pilot with experience from regional jet carrier operations as well as aerial work. Today she works as a senior flight safety analyst at the Swedish Transport Agency.



the boxes? The controllers were both skilled and experienced, but as they were not communicating they missed the advantage of the other person's observations.

Every now and then we need to look to ourselves and think about our ability to communicate with our colleagues. This is something we all need to do, reminding ourselves about the advantages of reliable communication. In aviation there are regulated intervals for training in CRM or human factors so that everyone will be able to stay in the loop. However, if a person is a leader, his or her responsibility goes further. A leader who signals the importance of communications will be implementing a base line for everyone else to follow. The safety culture needs to be set from above, both in management and in personal skills.

RECOMMENDATION – In this case, shorter intervals between human factors recurrent training would benefit this organisation. A suitable interval would be annual training combined with an evaluation regarding the non-technical skills needed in each position at training or assessment sessions. ■



Comment on the Case Study by Bert Ruitenberg

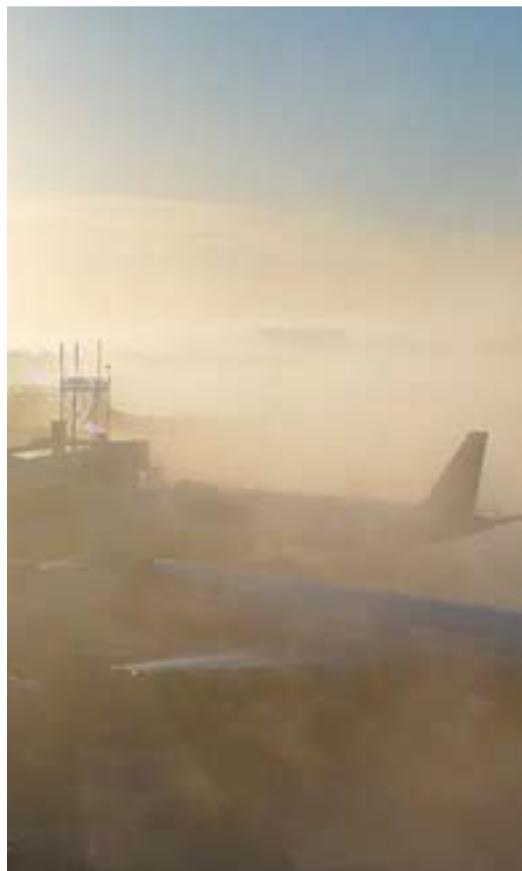
Twenty-five years ago a foggy morning at the airport where I work meant there was little to do for ATC. We kept a deck of playing cards in the Tower for just such days, to keep ourselves entertained until the fog would clear up...



Bert Ruitenberg

is a TWR/APP controller,
supervisor and ATC safety
officer at Schiphol Airport,
Amsterdam, The Netherlands.

He is the Human Factors Specialist for IFATCA
and also a consultant to the ICAO Flight Safety
and Human Factors Programme.



Twenty-five years ago a foggy morning at the airport where I work meant there was little to do for ATC. We kept a deck of playing cards in the Tower for just such days, to keep ourselves entertained until the fog would clear up. The only traffic that would interrupt our card game was the odd British Airways Trident, or sometimes a Swissair DC-9, that somehow miraculously was able to land despite the fog. In my memory there wasn't any maintenance or other activity at the airport during periods of low visibility, but I could be wrong about that.

Nowadays however Low Visibility Operations have become widely accepted. Most operators routinely perform Cat II landings, and quite a few of them are able to make Cat III approaches too. This in fact has become so common that people working in the aerodrome environment have perhaps become a bit too comfortable with it. Operations at the airport continue almost as normal, even though the weather conditions are not normal at all. This often includes construction and/or maintenance work on runways, taxiways or aprons that is ongoing at nearly every airport in Europe.

The controllers in the case study appear to consider the low visibility situation as a nuisance rather than a critical condition. They are casual about the staffing in the Tower, just like they're casual about the position handover. Furthermore they are VERY casual about keeping track of

runway occupancy by a vehicle at a time when they can't visually ascertain the status of the runway surface.

The vehicle driver seems to have some awareness about the risks of runway operations during low visibility: he knew no vehicle was allowed on the runway except under exceptional operational circumstances. Yet after he had convinced himself that FOD removal was such an exceptional operational circumstance, he continued business as usual. He apparently had no second thoughts about leaving his vehicle unattended on the runway while working on foot, and not informing the Tower about this. Just a little too comfortable with working like normal during foggy conditions...

People at the airport in the case study were lucky. The incident did not cause any damage or injury, so it can be used as a "free lesson" or a wake-up call for all parties involved. Low Visibility Operations are safety-critical operations that deserve full concentration and dedication from the airlines, air traffic control, the airport authorities and any other airside operator in order to prevent accidents. If it's foggy outside and you think everything is going well at your airport, you're obviously overlooking something!

**EDITORIAL COMMENT:
BERT PROVIDES A GOOD REMINDER
THAT IN LVP, THE TWR IS NOT RUN
FROM A REAL 'VCR'! ■**