## 15. Focus Safety & Security

September 2017

Driving behaviour at Zurich Airport

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The Focus Safety & Security Newsletter provides regular information and updates on safety issues at and around Zurich Airport. If you have any contributions or suggestions of your own, the Safety Office will be pleased to hear from you at safetyoffice@zurich-airport.com

Contributor to this issue:
Thomas Lehmann

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Editorial

Dear Reader

I am very pleased to present the latest issue of Focus Safety & Security.

This edition focuses primarily on driving behaviour. Read on to learn about which behaviour can lead to incidents and accidents and how you can contribute to safety at Zurich Airport, for instance by adopting a defensive driving style.

In addition, the approach of autumn once more presents us with new challenges. In this issue you can find out what you should do when the airport is affected by fog, as well as how to dress correctly for autumn and winter – and not only if you work outdoors.

I am very pleased to report that the Airport Authority has now successfully moved office. From August 23rd onwards, you will find the Airport Manager and Ramp Safety personnel in the new Building O95, directly adjacent to gate 101 airside.

Following the departure in June of Marc Keusch as Flughafen Zürich AG’s Head of Safety Office, I am delighted to welcome Reta Lusser, who will head up the Safety Office from September 1st. She previously worked in Safety and Quality at Swiss Federal Railways (SBB). Prior to that, she was head of safety controlling in the Leibstadt nuclear power station for many years. The Safety & Security department extends her a warm welcome to the team.

We will again be holding Safety & Security Days this year in order to inform you of various important safety issues at Zurich Airport. So please put the dates October 4th and 5th in your diaries. As well as the information session, you can again look forward to a free snack and a competition with attractive prizes.

It now only remains for me to wish you an enjoyable read. Best regards,

Peter Frei
Head Safety & Security
Flughafen Zürich AG
Incidents at Zurich Airport

Van drives into passenger loading bridge
In February a van driver wanted to drive from stand B32 to his next job. On reversing he collided with the passenger loading bridge. He said he had not paying enough attention when carrying out the manoeuvre. There was considerable damage to both the vehicle and the passenger loading bridge. The driver was not injured.

Collision between electric tow tractor and car
In April there was a serious collision between an electric tow tractor and a car. The tractor driver was driving along the service road south of Dock A in the direction of the local unloading point. He saw the car approaching from the right, but misjudged the distance to it and its speed. The car driver was distracted as she was looking at her computer and consequently drove into the tractor without applying the brakes at all. While the tractor suffered only a few scratches, the car was very badly damaged. The driver was injured and had to be taken to hospital.

Electric tow tractor collides with passenger bus
End of April a passenger bus was driving along the Frachtstrasse in the direction of Dock A. The driver of an electric tow tractor was driving on the Dock A North service road in the direction of the Airside Centre. The bus driver saw the approaching tractor, but it was still approximately 5 m away from the “no right of way” marking. The bus driver therefore continued on as normal. The tractor driver was paying too little attention and drove into the side of the passenger bus more or less without braking. Fortunately there were no passengers in the bus at the time. The vehicles were damaged but the two drivers were not injured.

Tips from the Safety Office
› Even when things are hectic, take your time and stick to a considerate and defensive driving style.
› Do not allow yourself to become distracted while driving. Do not use any electronic devices and do not make phone calls while driving a vehicle.
› Always be alert and ready to brake, even if you are on a roadway which has the right of way.
06.08.2013 – Ground crew falls from aircraft
A member of ground staff fell from an aircraft at a height of around 3.5 m at Karlovy Vary Airport. The front door had been closed by an unauthorized person, but not locked. Due to a misunderstanding, the stairs were also removed, so that when the ground crew opened the aircraft door she fell and suffered serious injuries.

This incident demonstrates how misunderstandings and insufficient training can lead to serious accidents. Only operate equipment if you have been trained to do so.

20.09.2015 – Ground equipment taken on flight
A Tunisair Airbus A320-200 flew from Marseille to Tunis with a cable that had not been disconnected and so was ripped apart. Following a safe landing in Tunis, ground staff noticed the trailing cable and the open service door.

When working on aircraft it is essential to pay attention and do a professional job. Always check that you have all your tools and equipment such as headsets, screwdrivers, etc. and that you have not left anything in or on the aircraft after work. Always follow the procedures as you have been trained to do.

07.01.2017 – Wake turbulence encounter
A Bombardier CL604 lost control over the Arabian Sea (Indian Ocean) shortly after an Airbus A380 flying in the opposite direction had passed approximately 300 metres above it. The Bombardier rolled several times, lost about 2700 metres in height and one engine suffered a flameout. Four of the six passengers in the cabin were not wearing seat belts. The flight attendant was busy preparing for food service. The passengers who were not wearing seat belts were thrown against the ceiling and the seats and in some cases suffered broken bones. The aircraft landed safely at Muscat Airport.

This incident shows how important it is to always keep your safety belt fastened. A sudden emergency can lead to serious injury.

05.05.2017 – UPS cargo plane veers down bank after landing
A Short 300 operated by Air Cargo Carriers crashed on landing at Charleston Airport in West Virginia. It appears that the left wing tip hit the runway, causing the aircraft to veer left, impact trees and go down a bank. Both crew members were killed. The aircraft was destroyed.
**Driving behaviour**

To ensure smooth ground operations at Zurich Airport, movements of vehicles and pedestrians within the non-public areas of the airport are subject to the Ground Traffic Regulations (BVO).

At Zürich Airport there is an average of 735 flight movements each day. It is only natural that vehicle drivers are required to carefully focus on traffic and drive in a correct and disciplined way.

“I consider my driving style to be safe and correct”

Most people rate their own driving style as exemplary, but often criticize the habits of other road users. There is often a big difference between how we see ourselves as drivers and how others rate us. For instance, if we ourselves disregard someone else’s right of way, we do not think it is particularly bad. If another road user does it, however, we get very annoyed. Do not allow stress and negative emotions to influence how you drive. Drive defensively so as not to endanger either yourself or other people.

**Time pressure**

Drivers frequently claim being short of time as the reason for their incorrect behaviour, tempting them to drive too fast and take shortcuts. Drivers do not realise that in doing so they are taking much greater risks – and will not get to their destination any quicker. Drivers also tend to copy the behaviour of their colleagues. If one person drives in an undisciplined way, this can influence other drivers too.

“Off-roadway” driving

The Ground Traffic Regulations forbid taking shortcuts across stands. An aircraft stand is an area on which people and aircraft are present for the purpose of ground handling operations. Driving on aircraft stands is only allowed for service reasons or if there is no other option. In the latter case, extra care must be taken and drivers must look out for people and ground handling equipment. When driving on stands in such situations, the Safety Office recommends walking speed only.

**30 km/h is too fast**

Unless signs indicate otherwise, a general speed limit of 30 km/h applies at Zurich Airport. Often drivers do not look at the speedometer and just think they are complying with the speed limit. In addition, vehicle drivers should not blindly follow the speed limit specified. For example, if a vehicle is crossing a stand when coming from or going to a parking spot, 30 km/h is already too fast in this situation. Attached loads also greatly increase the risk for people on a stand. If a vehicle driver is pulling a trailer, e.g. a baggage cart, over a stand, carts that become detached and/or flip over can injure people in the vicinity.

**Reversing**

Reversing is an extremely dangerous manoeuvre that requires particular care! A lot of people and equipment are present on aircraft stands to perform aircraft ground handling. Ever-changing situations, such as vehicles driving back and forth, additionally increase the risk when performing such a manoeuvre. You should always check what is going on behind the vehicle and enlist assistance. Reversing without assistance is forbidden for trucks and buses that do not have visual reversing aids fitted!

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**Did you know that ...**

- 7800 driving permits have been issued for the airside?
- 5000 vehicles are authorised to drive on the airside?
- 112 point penalties were issued in 2016 for taking shortcuts or for ignoring signals and markings?
- In 11 cases in 2016, permits were withdrawn from people who exceeded the signposted or general speed limit by 16–20 km/h?
Pushback

The following rules are binding and are intended to help prevent right-of-way violations with respect to aircraft, and so avoid collisions during pushback:

As long as permission for pushback has not yet been given, vehicles may continue to pass behind the aircraft.

As soon as the beacons (red lights) at the top and bottom of the aircraft’s fuselage begin to flash, extra care must be taken when passing behind it. (Note: These beacons will not flash if the aircraft is being repositioned.)

As soon as the flashing hazard lights on the pushback tractor are switched on, no vehicle may pass behind the aircraft! The vehicle driver must stop at the red stand safety line.

“Aircraft always have the right of way over all other traffic. This also applies to motor vehicles towing or guiding aircraft.”

Article 30 Ground Traffic Regulations

Observe the following:

Crossing taxiways
› Always look out for aircraft and other right-of-way vehicles. If possible, look twice!

Where might a taxiing aircraft turn off onto a stand?
› Look out for ground handling staff waiting for an aircraft
› In the case of gate parking stands, the fact that the docking guidance system is switched on is a further indication.

N.B.: Your view of the docking guidance system might be impeded by the passenger loading bridge!

How can you tell if an aircraft is pushing back?
› Flashing hazard lights on the pushback tractor means the same as a red light at a crossing.
Safety & Security Days 2017

Besuchen Sie unseren Bus an den unten angegebenen Haltestellen.


Mittwoch, 4. Oktober 2017
1. 9.00–10.00 Uhr Tor 130
2. 10.30–11.30 Uhr Lager ISS («AWA»)
3. 12.00–14.00 Uhr Airport Authority

Donnerstag, 5. Oktober 2017
5. 9.00–10.00 Uhr Werkhof «W7»
6. 10.30–11.30 Uhr GAC Sector 1
7. 12.00–14.00 Uhr Airport Authority
8. 14.30–15.30 Uhr Hangarstrasse
Dangerous situations for marshallers

Richard Ehrensperger has been working at Zurich Airport since 1992 and is one of two Apron Service team leaders. Each team has ten people.

Richi, what does your team do at Zurich Airport?
We guide taxiing aircraft safely (follow-me) and usher them to the correct stands.

So you’re very close to flight operations – that sounds exciting.
Are you ever confronted with dangerous situations while doing your job?
Oh yes, we experience dangerous situations almost on a daily basis. For example, drivers ignoring our right of way and cut between the follow-me vehicle and the aircraft. This can cause the aircraft to brake suddenly, and possibly even cause injuries to passengers or crew. We also experience other dangerous situations when we are guiding aircraft on to open stands (i.e. marshalling). In particular, when we are marshalling at Charlie stands and at H81 and H82, we have to position ourselves on the roadway so that the pilot can see us from the aircraft. It is not unusual for vehicle drivers, or even pedestrians, to go between us and the aircraft. These situations can also arise at Dock E if the docking guidance system fails and we need to position ourselves on the roadway for marshalling.

So what should airport drivers do to prevent these dangerous situations arising?
Drivers should never ever drive between a follow-me vehicle and an aircraft. If aircraft are being guided to open stands and the local situation or the size of the aircraft is such that the marshaller has to take up a position on the roadway, the presence of the marshaller’s vehicle indicates that the road is closed off. While it is there, no-one may walk or drive between the marshaller and the aircraft. Going around by driving on taxiways, for example, is also dangerous and is not permitted either. A vehicle may only continue once the marshaller has completed guiding the aircraft in and the marshaller’s vehicle has moved away. You must be aware of flight operations at all times as an aircraft could arrive at any time. Ramp Safety also penalises anyone who fails to observe a right of way or drives on a taxiway – penalty points are given according to the Ground Traffic Regulations (BVO).

Thank you very much, Richi, for this interesting interview.
The arrival of autumn also means fog. There can be fog at any time during the year, but it is more prevalent during the "dark" months from September through to March. Fog can make things tricky for vehicle drivers at the airport. Driving too fast in poor visibility and not paying enough attention are the main causes of right-of-way violations during foggy conditions.

Take your foot off the accelerator pedal
In fog you can often barely see the stand opposite. It is therefore better to come to a complete stop at a "stop for taxiing aircraft" point so that you are able to spot aircraft on the taxiway in timely manner. A pinpoint of light in the fog can quickly grow into a large jumbo jet. Personnel may also be walking or cycling on the airfield.

Listen out!
While we can never rely 100% on our eyes in fog, our hearing can be a big help too. An open window, even only a little way, will enable us to detect an approaching aircraft earlier. If you become disorientated, you shall phone to the Airport Authority (+41 43 816 21 11) and ask for assistance. You should never drive around on the airfield just trusting to luck!

Protective clothing
With very few exceptions, it is mandatory to wear a high visibility fluorescent waistcoat/jacket on the airfield - this is an essential item of personal protective equipment. If you are not wearing suitable clothing, you could easily not be seen, especially during twilight or the hours of darkness, or if it is raining or foggy. Reflective clothing helps to ensure you can be seen more quickly, even when visibility is poor.
Appropriate clothing for autumn and winter

It is not just personnel who work outdoors who should ensure they are appropriately dressed, especially in autumn and winter. Although autumn often bathes everywhere in a golden light and temperatures can sometimes even rise again, you should still make sure you have the right clothing ready for the coming months.

Once you start to feel cold, your mood can very quickly worsen and you have less energy for your job and other activities in your private life. People who work outdoors in particular know what it feels like to be exposed to inclement weather, and their clothes are really the only way they can protect themselves from it.

The layer principle is very simple and straightforward: wear one layer over another and make sure the layers function together. When working outdoors it is also important to wear technical underwear that wicks moisture away from the skin through to the outside. Even the best clothing is useless if it is damaged or not cared for properly. If you choose a quality product and follow the manufacturer’s instructions, you will be able to enjoy the benefits of the clothing for a long time.

It is important to protect yourself from wind and damp so that the body does not cool down too much. When outside temperatures fall to minus degrees Celsius, it is advisable to wear thermal clothing. For getting through those cold days, it is also important that clothing is comfortable to wear.

If you need to work in poor light, outdoors during twilight or the hours of darkness, it is important that the clothing also performs a warning function. High visibility colours and reflective applications ensure you will be easily seen.

Your footwear should also meet the same requirements as your clothing, and in addition should provide good grip on wet or slippery surfaces. A hat and gloves will also keep your head and hands warm. Equipped with the right clothing, you can look forward to the coming autumn and winter.
SMS training (Safety Management System)

To be in compliance with international requirements, the airport operator must ensure that personnel who are involved in aerodrome operation, maintenance and management have received appropriate training. The training must be repeated at regular intervals. SMS web-based training (WBT) is needed to obtaining an airport ID card (badge) and is repeated every five years.

The supplementary SMS training for more in-depth SMS knowledge has been offered at FZAG since 2012. Since the content is revised every three years, there will be a new version of SMS training in 2018. It will continue to be offered as face-to-face instruction (classroom training), and be passed on to personnel using the train-the-trainer principle.

From 2018, SMS training will focus primarily on the topics of “Swiss cheese”, “risk matrix” and “safety recommendation”. The “Swiss cheese” model used to analyse the causes of incidents will be familiar to most personnel. During the training it will be applied with reference to examples from real life with the active involvement of participants.

The training dates for 2018 will be announced on the intranet in November 2017 for FZAG employees, and in the partner newsletter for employees of our partner companies.

### Frequency Risk matrix with acceptance categories

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<tr>
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#### Severity

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Contact for SMS training
Thierry Andreoli
Safety Expert
Flughafen Zürich AG
thierry.andreoli@zurich-airport.com