

General information and main topics

#### General information "Refresher Apron driver's license"



If you have not driven on the apron for more than 3 months, you must participate in a refresher training according to EASA regulations ADR.OR.D.017.

This document serves to refresh your knowledge on the subject of the apron driver's license.

On the following pages you will find all the important information about the apron driver's license and what you need to know when driving on the apron.

The validity of your driving authorization "F" remains unaffected by this instruction.

#### Main topics



- 1. Basic rules for driving on the apron
- 2. Speed rules and right of way
- 3. Airport specific signs
- 4. Street types and airport specific markings
- 5. Recognizing taxiways and safety distances
- 6. Aircraft positions
- 7. F.O.D.
- 8. Refueling
- 9. Problems in daily life and new features

#### - General requirements



#### General requirements for possession of the apron driver's license:

#### You need to:

- be in possession of a valid official driver's license of at least class "B"
- be at least 18 years old
- have successfully participated in the apron driver's license course

# - Loss of driving authorization "F"



The driving authorization "F" is no longer valid if:

- you have not driven on the apron from 3 months.
  - If you have not driven on the apron between 3 and 12 months, you will need to go through a refresher (this document).
  - If you have not driven on the apron for more than 12 months, you are required to take the basic apron driver's course again.
- you are no longer in an employment relationship for which you need the driving authorization "F".
- You no longer meet the medical requirements to drive on the apron.
- you lose your official driver's license (revocation of driver's license).





- Every driver must behave in such a way that he does not endanger himself or others.
- Safe and expeditious handling of vehicular traffic must be ensured and obstructions to aircraft operations, especially taxiing traffic, must be avoided.
- Every driver has to keep to the roads of any kind.
- Seat belts must be worn at any time.
- Warning vests must be worn on the flight operation areas and in the "basement traffic lanes".





- When driving, dipped headlights or daytime running lights must be switched on.
  In the event of twilight, darkness or if visibility conditions require it, the dipped headlights must be switched on!
- Alcohol and intoxicants ban!
  - No alcohol or drugs may be consumed during working hours or for a reasonable period of time prior to going on duty.
- Smoking is only allowed in the designated areas, otherwise there is a strict ban on smoking!





- All accidents, cases of damage and property damage must be reported <u>immediately</u> to the <u>Safety Control Center (SLS)</u>. The accident site or damage site must be secured.
- Those involved in the accident and injured parties, as well as witnesses must remain on site until the arrival of airport security.

#### **Important phone numbers:**

- Safety Control Center: Phone: (069/) -690 -22222
- Airport fire department, emergency services: (069/) -690 -112
- Security Emergency Call: (069/) -690 -114

# - Speed rules



- In general, the maximum speed on the flight operation areas of Frankfurt Airport is 30km/h or 25km/h with a trailer. However, the speed may also be slower marked by traffic signs.
- In the position area, walking speed (4 to 7 km/h) always applies as the maximum speed.
- Please note that speeding will be penalized.
- Driving too fast can lead to receiving penalty points. In the worst case, this can lead to the withdrawal of the driving authorization "F".
- For more information, see the "Points catalog" section.

# - *Right of way (1/2)*



The following right of way sequence must be observed on airport property:

- Emergency vehicles with rotating lights on, together with emergency horn, rushing to the aid of an aircraft in distress.
- Taxiing or towed aircraft, including their towing and guidance vehicles.
- Emergency vehicles with rotating lights on together with emergency horn.
- Vehicles of the local air surveillance of the state of Hessen in operation with rotating lights switched on.

# 2. Speed rules and right of wayRight of way (2/2)



- Traffic control vehicles with their rotating lights on, as well as guiding vehicles with their rotating lights on, including the vehicles they are guiding. Columns of vehicles must not be interrupted.
- Winter maintenance vehicles with rotating lights on (winter maintenance convoy) and de-icing vehicles during aircraft de-icing operations).
- Vehicles on roadways, taxiways, or traffic corridors versus traffic from adjacent areas.
- At intersections and junctions of roads, the principle "right before left" applies, unless the right of way is otherwise regulated by traffic signs

# - Right of way



The following road users are authorized to use taxiways during operations and are exempt from the specified speed limits:

- Airport Fire Department
- Airport Emergency Service
- Traffic management
- ADM (Airside Duty Management)
- Guiding vehicles (MASU/Follow-Me) including guided vehicles or aircraft
- Airport Security
- Winter services
- Local air supervision of the State of Hessen and authorities and organizations mentioned in § 35 of the German Road Traffic Regulations (StVO)

Special caution is required in the area of these vehicles. Driving on taxiways, also in the apron, is only permitted for these vehicles after prior approval by FRA Vorfeldkontrolle (apron control) GmbH.



# - Right of way



#### **Difference right of way and priority:**

- At Frankfurt Airport, there are many vehicles that have the right of way or priority.
- The difference here is that the "priority" is above the "right of way" and thus has a higher priority.
- The MASU (Follow-Me) or fire department have the right of way with their rotating lights and emergency horn on.
- Taxiing or towed aircraft have priority.
- Therefore, if a situation arises where aircraft and MASU cross each other, the aircraft, due to their priority, are allowed to taxi first.



At Frankfurt Airport most road signs are located on the ground.

Pay particular attention to the ground in dark and wet conditions, as the signs are difficult to see in these conditions.







- In addition to the normal road signs, there are also special signs that only exist at the airport, such as: "Stop for taxiing aircraft" and the "CAT III" sign.
- When the CAT-III sign is switched on, driving on the apron is only permitted for maintenance or handling purposes. All other driving activities must be stopped or refrained from.





- The sign "Stop for taxiing aircraft" means that aircraft can cross. This applies to taxiway crossings, position areas or hangar entrances.
- If an aircraft is approaching, you must stop at this sign. If no aircraft is approaching, you may continue without stopping.

Note, this sign can be both as a marker on the ground as well as a sign next to the

roadway.





There are several types of roads at Frankfurt Airport.

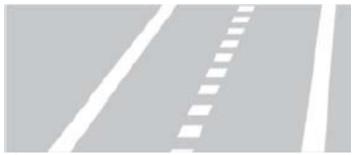
- Roadway
- Taxi area roads
- Traffic corridor
- Taxiway

Depending on the type of road, there are special rules and regulations that you must pay attention to.

#### - *Roadway (1/2)*



- The Roadway is marked by a white solid line on both sides of the road and by a broken center line.
- You cannot encounter taxiing traffic.
- Please pay attention to your speed (max. 30 km/h, with a trailer 25 km/h, sectionally less than 30 Km/h).
- If you leave the roadway and drive on another type of road, this will be made clear to you at the end of the roadway by a "Stop for taxiing aircraft" sign.







#### Safety strip

- Parking ban
- Safety area for extra wide vehicles

#### Maximum speed

30 km/h vehicles without a trailer



25 km/h vehicles with a trailer





#### - Taxi Area Road



- The Taxi Area Road is marked by a white offset broken line on both sides and by a broken center line (zig zag pattern).
- On this type of road you may encounter taxiing traffic.
- The Taxi Area Road can cross a taxiway or be in the taxiway area of aircraft, e.g. in front of or behind aircraft positions.
- Please pay attention to the aircraft. These always have priority.





- Traffic Corridor (1/2)



- The Traffic Corridor is marked by a red broken line on both sides, on the side facing the taxiway a red solid line is also marked.
- Traffic Corridors are Taxi Area Roads located directly at an aircraft position.
- If the position is occupied, the Traffic Corridor belongs to the position area.
- The Traffic Corridor is a special type of road at Frankfurt Airport where certain rules must be observed.



# - Traffic Corridor (2/2)



- The Traffic Corridor belongs to the aircraft position if it is occupied. This means that ground personnel can work here or equipment can be located here.
- Here it is permitted to pass under the tail/wing of an aircraft if the tail or wing hangs over the Traffic Corridor. However, the height restriction of 4.30 m must be observed here.
- The maximum speed is 30 km/h, provided that the adjacent position is empty.
- If the adjacent position is occupied, the Traffic Corridor must be driven through with increased attention and at a significantly reduced speed compared to the initial speed (30 km/h). The speed must be adapted to the situation.

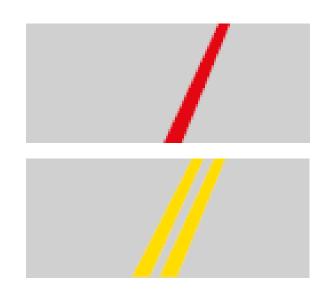
#### - Taxiways



Taxiways are used for taxiing traffic. Entering and driving on taxiways is prohibited.

There are two types of taxiway boundary lines.

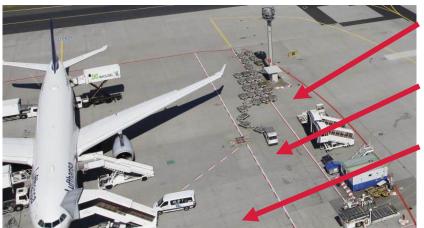
- 1. Red continuous line
  - Indicates that there is a taxiway behind it.
  - Important for vehicle drivers!
- 2. Double yellow continuous line
  - Serves primarily the pilots for orientation



# - Staging areas (1/4)



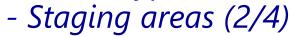
- Staging areas are part of an aircraft position and may therefore only be used or driven over on official business.
- All equipment/vehicles located in the staging area must not overhang the red line.
- It is not allowed to park vehicles without a ground handling reason.



Without restriction

Height restriction 2.40 m

Restricted use/time restriction





There are three different staging areas in the apron area.

#### 1. Staging area without restriction

 In principle, anything may be parked on this staging area, provided it is for an official reason.





- Staging areas (3/4)



#### 2. Staging area with height restriction

- No vehicles or equipment higher than 2.40 m
- Special area: Staging areas with height restriction 1.70 m (position range A26-A40)









#### 3. Staging area with restricted use/time restriction

- Usage depending on the planned use of the position
- While taxiing in and out of an aircraft, the staging area must be kept clear.





# 4. Street types and airport specific markings Restricted areas: parking ban



These areas may be traversed with increased attention as long as the passenger boarding bridge is not in operation or the tank pit is not being used for refueling.



Passenger boarding bridge movement area



Tank pit/maintenance shaft (marked green/shaded red)

5. Recognizing taxiways and safety distances

#### 5. Recognizing taxiways and safety distances



When crossing taxiways, it is necessary to check whether an aircraft is approaching and you have to stop. Therefore, it is important to know in time if you are approaching a taxiway as a driver.

#### Features that indicate a taxiway:

- 1. Aircraft on a taxiway
- 2. Taxiway information sign
- 3. Street marking (Taxi area road)
- 4. Stop for taxiing aircraft sign
- 5. Blue wind fence

Caution, not all five characteristics have to be present. One characteristic is already sufficient.

# 5. Recognizing taxiways and safety distances









- Aircraft on a taxiway
- Street marking (Taxi area road)
- Stop for taxiing aircraft sign

- Aircraft on a taxiway
- Street marking (Taxi area road)
- Taxiway information sign

- Aircraft on a taxiway
- Blue wind fence

### 5. Recognizing taxiways and safety distances



- Safety distances (1/2)
- A safe distance of about 200 m should be kept in front of an aircraft.

 A distance of 125 m must be maintained behind a taxiing aircraft with running engines and 75 m behind a stationary aircraft with running engines.

Unfortunately, very often the distance is not observed and damage occurs.

### 5. Recognizing taxiways and safety distances





#### Important notice:

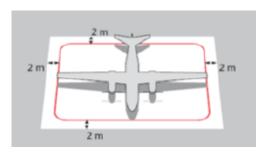
- If in doubt, you'd better stop and wait.
- Do not take your cue from others.
- Make your own decisions.

No safe distance is required behind a towed aircraft with its engines shut down. However, do not drive under the tail of the aircraft and wait until the aircraft has completely moved away from the road.

### 5. Recognizing taxiways and safety distances

## Frapo

- Safety zone around an aircraft
- The safety zone around a parked aircraft is delimited by an imaginary line.
- The line runs at a distance of at least 2 m from the wingtips, nose and tail of the aircraft.
- Within this area (red area on the picture) special caution applies.



6. Aircraft positions

# 6. Aircraft positions- Push-back positions



Most positions at Frankfurt Airport are push-back positions. Here, aircraft cannot roll away to the front and must therefore be pushed backwards from the position.

Usually only one aircraft can be parked on a position. However, there are also positions where 2 aircrafts can be parked at the same time.

These are the so-called A/B positions, e.g. A56a/A56b.

The guidance line of the main axis is solid yellow, that of the secondary axes is interrupted in yellow.





# 6. Aircraft positions- Taxi in/Taxi out positions



With this type of position, aircrafts can taxi in and out of the position under their own power. No aircraft tow truck is required here. The taxiing out of an aircraft from a position always takes place forward in the direction towards the runway. Roads run south of the positions, i.e. in front of the aircraft. However, this does not apply to the positions at the General Aviation Terminal (GAT).



# 6. Aircraft positions- Turn positions (1/3)



There are three Turn positions at Frankfurt Airport, A1/B10/C2. Here too, aircrafts taxi in and out from the position under their own power. In contrast to the taxi in/taxi out positions, only the MASU (Follow-Me) is allowed to guide an aircraft onto the position here. During the taxi out process, the walk-out assistant must also be observed.





# 6. Aircraft positions- Turn positions (2/3)



#### **Stopping points A1 und B10**

The stopping points for the A1 and B10 Turn positions are marked on the floor with a "Stop for taxiing aircraft" sign. A stop must always be made at this marking in the event of taxiing in or taxiing out for both positions.



# 6. Aircraft positions - Turn position (3/3)



#### **Stop point C2**

The stop point for the Turn position C2 is also marked by a "Stop for taxiing aircraft" sign. Please note that you must not stop here if a push back operation is taking place on C4. The stop point for position C4 is marked by a position dividing line.



1: Stop point C2

2: Stop point C4





- In general, walking speed always applies on an aircraft position. Entering or driving onto a position is only permitted with an official order.
- During refueling, a distance of at least 3 m must be kept clear around all areas relevant to refueling (tank pit, tank truck, hoses, vent valves, etc.).
- Driving under the wings is only permitted for handling or maintenance tasks, at the slowest possible speed.
- There is a safety zone of 2 m around the entire aircraft. This may only be entered with a direct work order on or in the aircraft.

7. F.O.D.

### 7. F.O.D.



- F.O.D. = Foreign Object Debris/Damage = Contamination and foreign objects on flight operation areas.
- Examples of F.O.D. are tarpaulins, eyelets, boards, gloves or lashing material







F.O.D. can cause massive damage to aircraft engines and other parts.

# 7. F.O.D and dangers on the apron - F.O.D.



Use of special F.O.D. waste garbage cans for disposal:





These garbage cans are specifically **not** intended for the following items/wastes:

- Items that may belong to an aircraft → Information to ADM required
- Waste from cabin cleaning → Disposal in the press container provided
- Loading aids, e.g. wooden pallets, ropes, packing boards  $\rightarrow$  Return by handlers to central locations

#### 7. F.O.D.



#### **Important:**

# All employees are required to dispose F.O.D. found on the apron areas, if possible!

If F.O.D. cannot be eliminated independently (e.g. F.O.D. on taxiways), a message must be sent to Airport Duty Management (ADM) or the Movement Area Supervision Unit (MASU).

- Airside Duty Management (ADM): 069 690-77777
- Movement Area Supervision Unit (MASU): 069 690-70580

8. Refueling

### 8. Refueling



#### What to consider during a refueling operation:

- Increased attention
- Do not run over hoses
- Keep hazardous areas clear (3 m around tank vents, tank pits, hoses, etc.)
- Escape routes must be kept clear





### 8. Refueling



- At each aircraft position there is the "Fuel hydrant emergency stop" switch.
- This is to be operated in an emergency!
- This closes the kerosene supply for this position and the surrounding area.







Finally, the following chapter deals with current problems and new features.

- Taxi-light
- Cell phone usage while driving
- New (test) traffic corridor marking
- Point catalog

# 9. Problems in daily life and new features - Taxi-light (1/2)



#### <u>Taxi-light on aircraft</u>:

The "taxi-light" on aircraft is located on the nose gear below the cockpit. This "taxi light" (analogous to the car headlight) is usually (but not always) switched on whenever the aircraft is taxiing "independently".

#### Please note!

"Taxi-light off" on a standing aircraft = crossing the taxiway in front of the aircraft is **NOT** a valid procedure!





- Aircraft can taxi even without the taxi light switched on.
- Only if you can see a clear wave from the cockpit crew indicating you may proceed, you may drive.
- So eye contact must be made with the cockpit crew and a clear hand signal must be given.
- If you are not sure, stop!
- If your driving results in an aircraft hindering, you will be penalized and may lose your driving authorization.









 Talking on the phone while driving is not allowed. Only when using a hands free device it is allowed to talk on the phone.

 Making a phone call while driving without a hands free device is punishable under the points system and can lead to loss of driving authorization.

Therefore, "Keep your hands off the phone."

# Fraport

- New traffic corridor marking

As you might have noticed, there is an adjusted traffic corridor marking in the position range C11-C4 as well as at position B26.

The marking "red broken line on both sides and red continuous line on the side facing the taxiway" remains the same. However, this marking is supplemented by a white background marking.





## 3

### - Point catalog

At Frankfurt Airport, violations of traffic regulations can be punished with points. When 8 points are reached, the driving permit "F" loses its validity.

Here is an overview of the measures:

Number of	
Points	Measures
4.5.0-1-1-	Voluntary participation in the seminar "Safe conduct in the airport areas refresher course". Reduction of the point score by 2
1-5 Points	points.
6-7 Points	Mandatory participation in the seminar "Safe conduct in the airport areas refresher course". Reduction of the score by 1 point. Addition of one additional point in case of non participation in the registered seminar.
8 Points	Loss of the driving authorization "F"

The points expire automatically after a certain period of time. The period always starts when the last point is received. It is 12 months for a score of 1-5 points and 24 months for a score of 6-7 points.



#### Conclusion



For more information on the apron driver's license, please visit the Fraport AG Driver Training website. There you will also find the latest version of the traffic regulations with the points catalog.

Link of the **Driver training** 

Of course you can also contact us at any time with questions by mail (<u>fahrerausbildung@fraport.de</u>).

Your Fraport AG Driver Training





# Gute Reise! Wir sorgen dafür

Fahrerausbildung